

**CURRENT ENVIRONMENT DESCRIPTION
ON
DATA MANAGEMENT SYSTEM
FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR
ENERGY EFFICIENCY OFFICE
OF
ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



Version: 0.1

November 2021

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ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**



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2	Automated Systems (HK) Limited (ASL)

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1. DEFINITION OF TERMS

Term	Definition
WBRS	Web-based Registration Services for online application submission.
ETO	Electronic Transmission Ordinance which is governing the requirement on electronic transmission.



2. CURRENT ENVIRONMENT DESCRIPTION

2.1 Overview

2.1.1 Purpose of this Document

This Current Environment Description has been produced to describe the services provided by the existing environment. It helps readers to understand the current situation, and hence the user requirements as well as the required system.

2.1.2 Objectives

The objectives of conducting this stage are listed as follow:

- 1) To understand the current environment and deliver a description of current services
- 2) To identify the problems associated with the current environment that are to be resolved by the enhanced system
- 3) To identify the additional services to be provided by the enhanced system
- 4) To provide a logical view of the current services
- 5) To establish roles, especially for the users in the project.



2.2 Current System Description

2.2.1 Current System Overview

The Buildings Energy Efficiency Ordinance (Cap. 610) (BEOO) had been enacted in November 2010. To facilitate the application submission from public, EMSD has developed a web-based registration system (WBRS) for regulatory services divisions to receive on-line submissions under various EMSD legislations. It is planned that the WBRS for BEOO will be incorporated into the overall WBRS of EMSD with enhanced functions.

The proposed solution is a web-based system to provide a centralized database for buildings, processing of submissions and information dissemination under the Ordinance.

2.2.2 System Objective of DMS

The objectives of implementing the DMS are:

- (a) To facilitate automation of the process of checking, vetting and approval of submissions, and generation of reports, certificates, registers and database of buildings under Buildings Efficiency Ordinance
- (b) To streamline the enforcement functions under the Ordinance
- (c) To provide internet platform for public or any relevant parties to search for status of application, registers of Certificate of Compliance Registration (COCR) and Registered Energy Assessor (REA), records of Form of Compliance (FOC) and Improvement Notice (IN), and acts as an interactive platform for disseminating energy efficiency and conservation messages to the general public
- (d) To integrate with Web-Based Registration Services (WBRS) to provide means for
- (e) electronic application submissions to the public

2.2.3 Business Areas Served

The following divisions, sub-divisions and units of EMSD are the major parties involved:

- (a) Energy Efficiency Office (EEO)
 - i) Buildings Energy Efficiency Ordinance (Cap. 610)



2.2.4 Hardware and Software Usage

This section mainly describes the current computer hardware configuration, if any.

(a) BEEO

The hardware configuration of the system is as follows:

Description			Qty
Web and Application Server			1
Environment	DEV/UAT	Production	
	<ul style="list-style-type: none"> • 2 Core CPU • 16GB RAM • 100GB Hard-disk 	<ul style="list-style-type: none"> • 4 Core CPU • 16GB RAM • 300GB Hard-disk 	
Database Server			1
Environment	DEV/UAT	Production	
	<ul style="list-style-type: none"> • 2 Core CPU • 16GB RAM • 100GB Hard-disk 	<ul style="list-style-type: none"> • 4 Core CPU • 32GB RAM • 300GB Hard-disk 	

The software used on the workstation is as follows:

Software Name	Window Server
Version	Window Server 2019 Standard
Description	Operation System for Web and Application Server, and Database Server

Software Name	Internet Information Services
Version	Internet Information Services 10
Description	Web and Application Server

Software Name	Microsoft SQL Server
Version	Microsoft SQL Server 2017
Description	Database Server

(b) WBRS – Web-based Registration System

The hardware configuration of the system is as follows:

Description			Qty
Web and Application Server			1
Environment	DEV/UAT	Production	
	<ul style="list-style-type: none"> • 2 Core CPU • 16GB RAM • 100GB Hard-disk 	<ul style="list-style-type: none"> • 4 Core CPU • 16GB RAM • 300GB Hard-disk 	
Database Server			1
Environment	DEV/UAT	Production	
	<ul style="list-style-type: none"> • 2 Core CPU • 16GB RAM • 100GB Hard-disk 	<ul style="list-style-type: none"> • 4 Core CPU • 32GB RAM • 300GB Hard-disk 	

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The software used on the workstation is as follows:

Software Name	Window Server
Version	Window Server 2019 Standard
Description	Operation System for Web and Application Server, and Database Server

Software Name	Apache
Version	2.4.48
Description	Web Server

Software Name	WildFly 16
Version	16
Description	Application Server

Software Name	AdoptOpenJDK
Version	8u292-b10
Description	Application Server

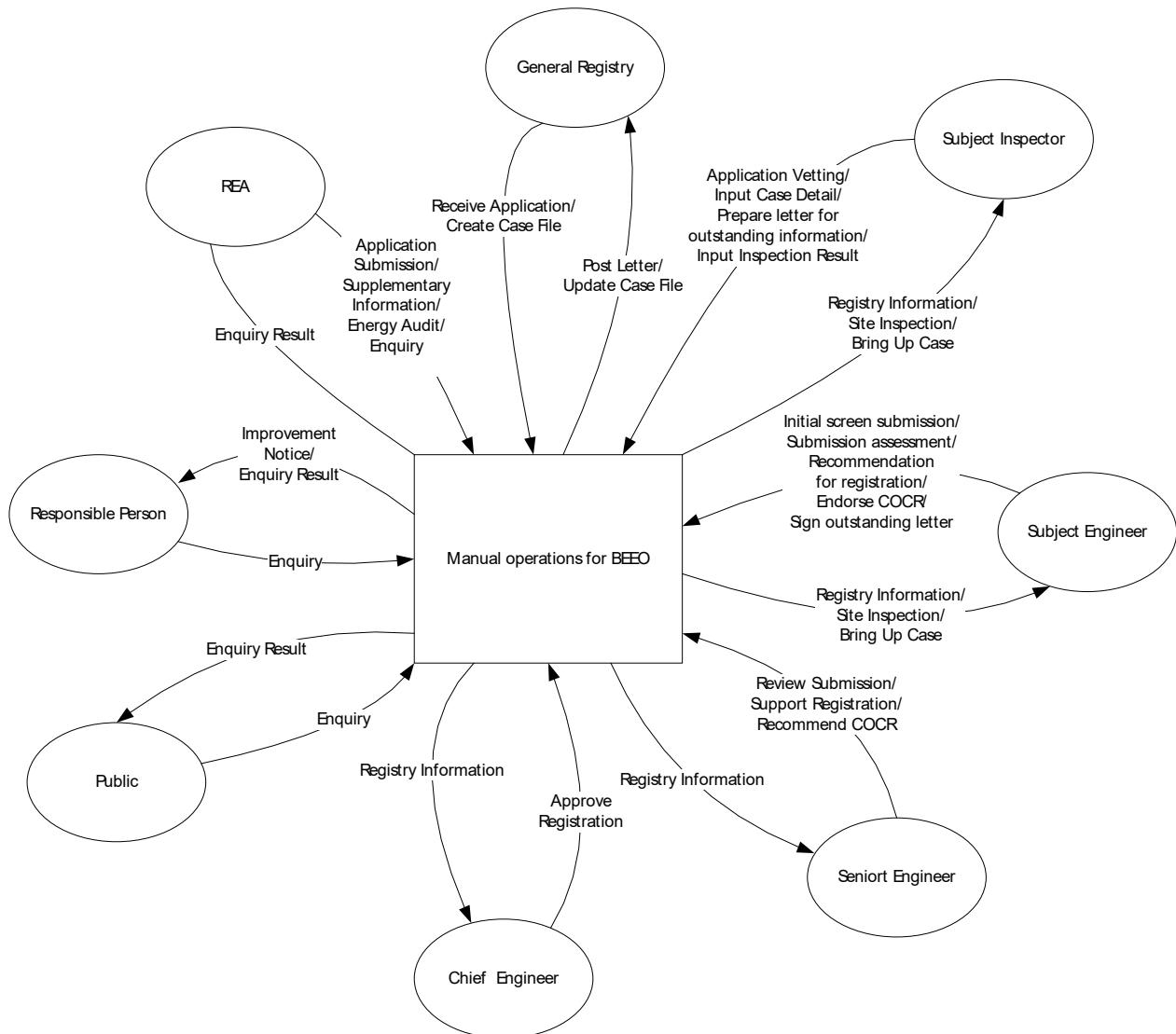
Software Name	Microsoft SQL Server
Version	Microsoft SQL Server 2014 SP3
Description	Database Server



2.3 Current Process Description

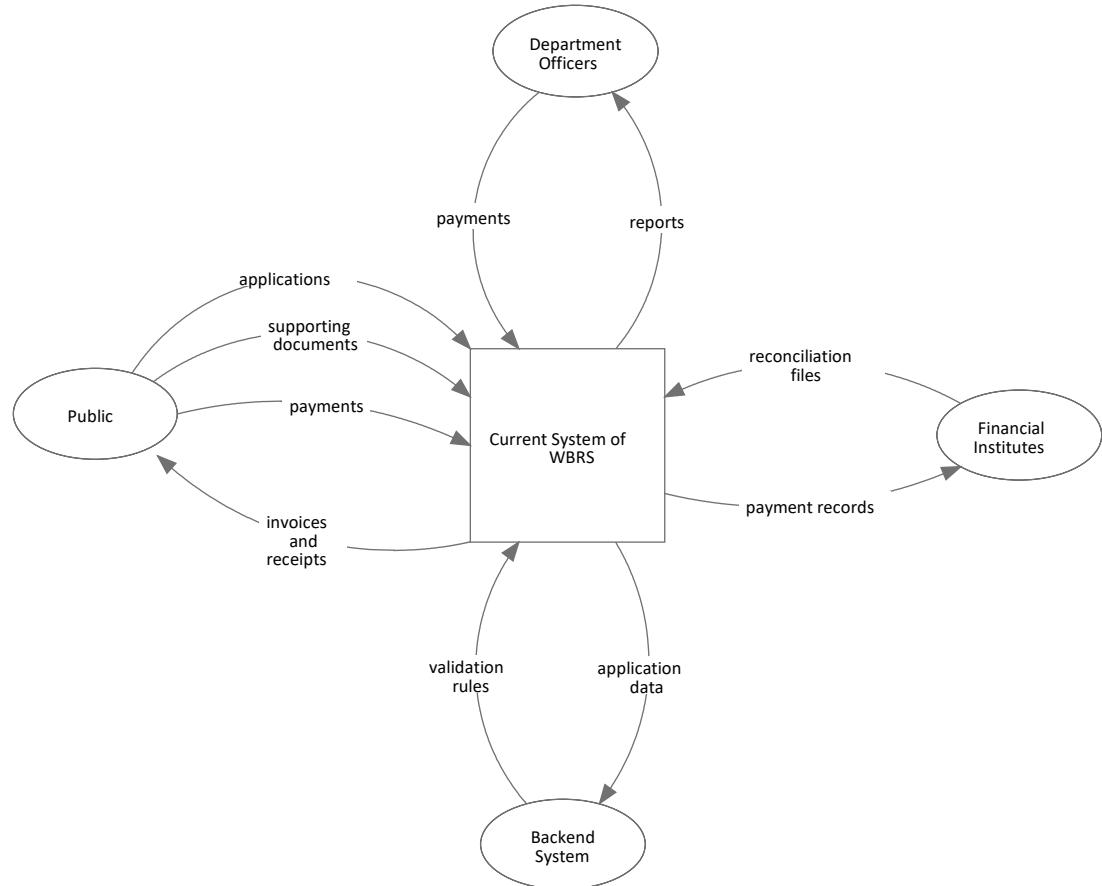
2.3.1 Current Context Diagram

2.3.1.1 BEEO





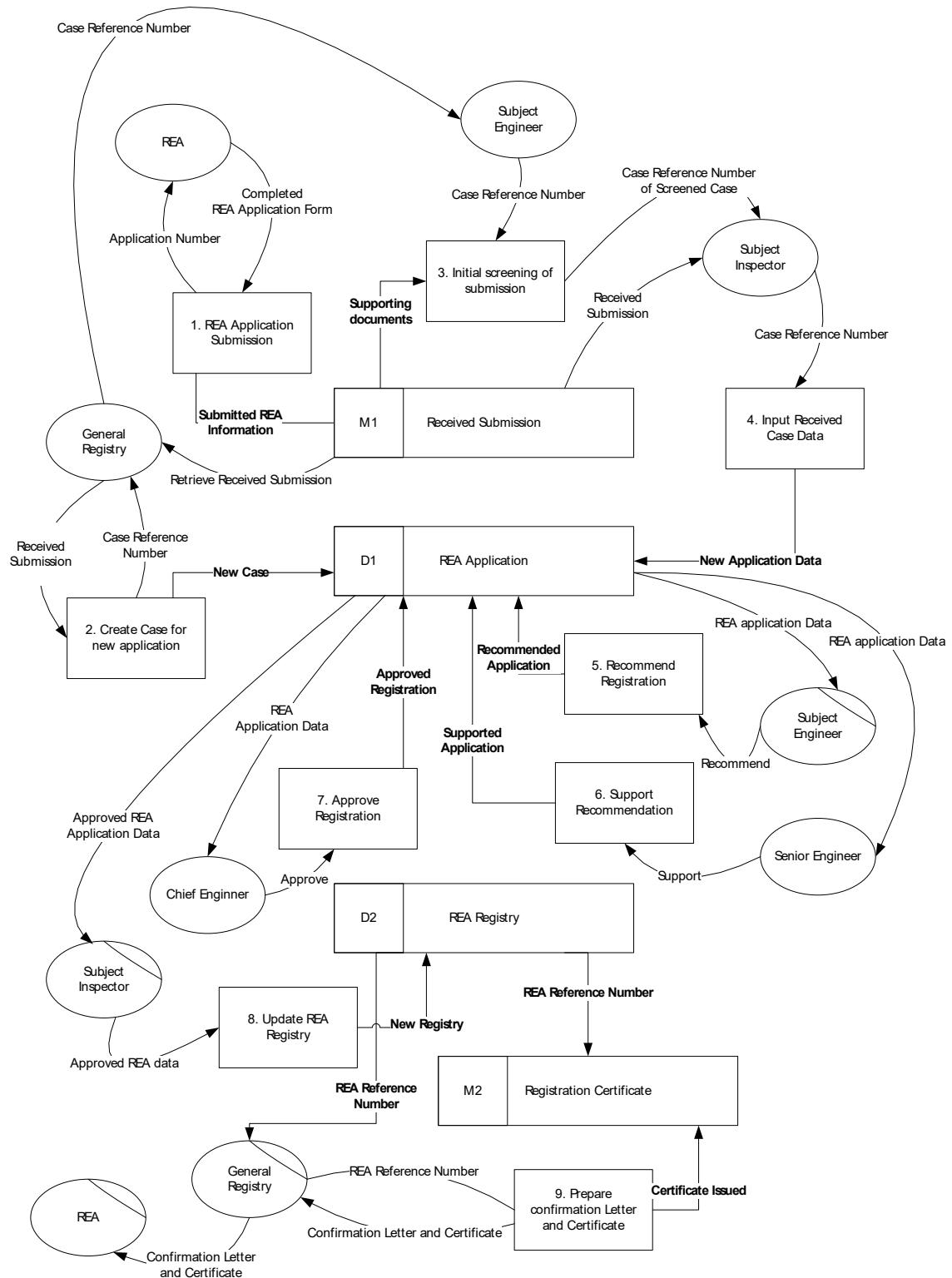
2.3.1.2 WBRS





2.3.2 Current Physical Data Flow Diagram

2.3.2.1 Registered Energy Assessor Submission



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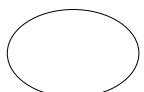
Legend



Process



Data Flow

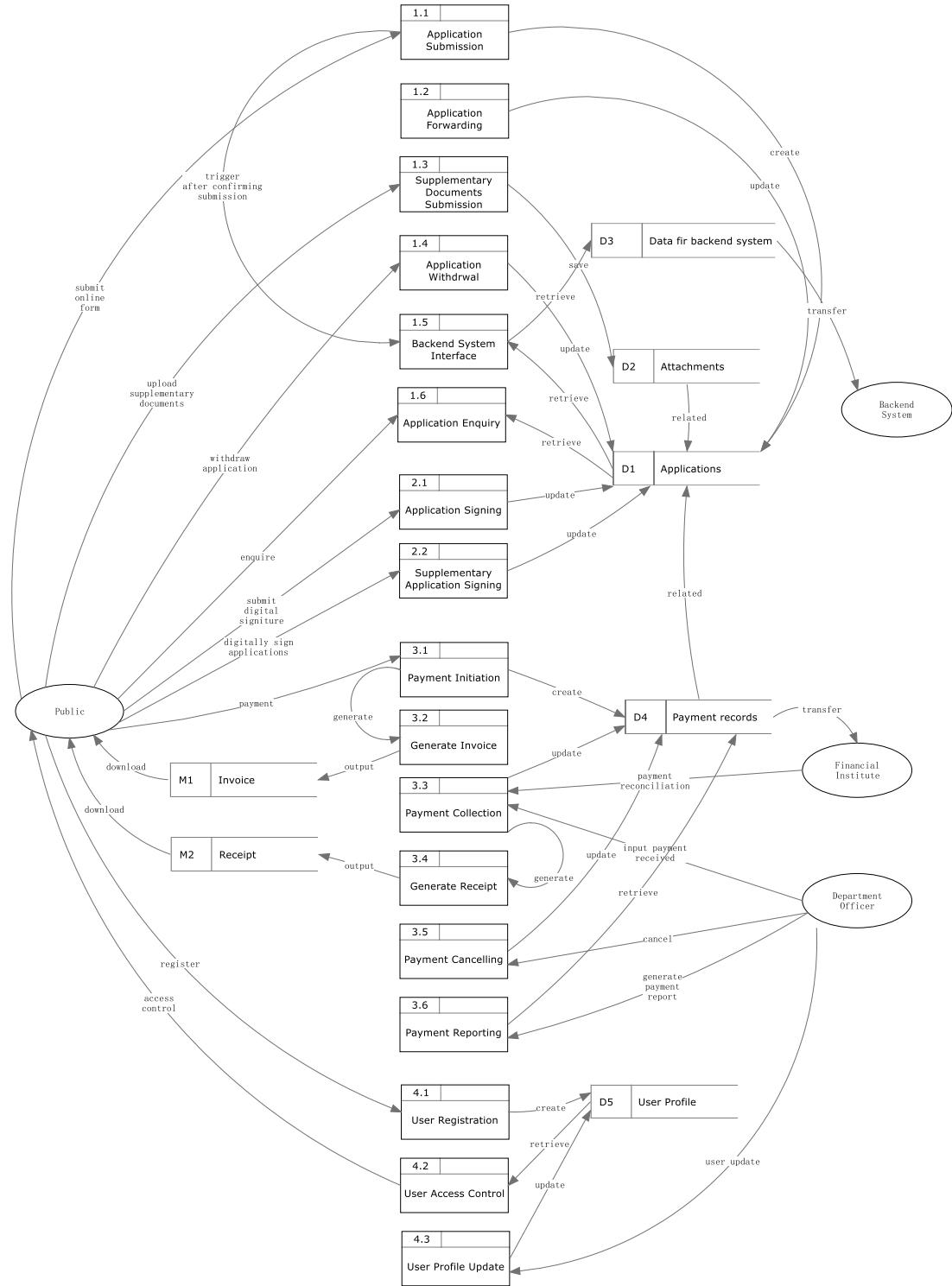


Entity

CURRENT ENVIRONMENT DESCRIPTION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)



2.3.2.2 WBRS





2.3.3 Process Description

2.3.3.1 BEEO

The processes in BEEO are generally described below:

Process ID	Process Name	Description
1	Application Form Submission	This process involves recording the application receive date which indicate the start of the performance pledge for processing the application
2	Create Case	This process involves issuing the case reference number of the received application which become the key information in the following processes
3	Initial screening	The process involves checking of the received application and also assigning the subject inspector to follow up the submission
4	Input Received Case Data	The process involves verifying any outstanding or invalid information in the submitted application and inputting the information of the received application to the data store
5	Recommend Registration	The process involves specifying the recommendation to approve the application or not
6	Support Recommendation	The process involves specifying whether the recommendation from Subject Engineer is supported
7	Approve Registration	The process involves approving the application according to the recommendation from Subject Engineer and support of Senior Engineer
8	Update Registry	The process involves updating the registry according to the approval
9	Prepare confirmation letter and Certificate	The process involves preparation of confirmation letter according to the approved results of the application and issuing the certificate if the application results in any registry update



2.3.3.2 WBRS

The processes in WBRS are generally described below:

Process ID	Process Name	Description
1. Application Submission		
1.1	Application Submission	This process provides the interfaces for the applicant to input data and upload required supporting document of application, handles application validation, updates application history, allows saving local copy of application data and resuming the application submission by uploading the saved application data
1.2	Application Forwarding	This process handles the workflow of the application according to the requirement of the application, such as supplementary signature or application fee
1.3	Supplementary Documents Submission	This process provides the interfaces for the applicant to upload supplementary documents to submitted application
1.4	Application Withdrawal	This process provides the interfaces for the applicant to withdrawal his/her outstanding application
1.5	Backend System Interface	This process handles the retrieval of registered information from and submitting the received application to the relevant backend systems
1.6	Application Enquiry	This process provides the interface for the authorized operator to enquire the application information
2. Application Signing		
2.1	Application Signing	This process provides the interfaces for the applicant to digitally sign the application submitted by him/herself
2.2	Supplementary Application Signing	This process provides the interfaces for the applicant to digitally signed the application which was submitted by other applicants but designated to the applicant to sign
3. Payment		
3.1	Payment Initiation	This process provides the interfaces for the applicant to select the application of outstanding payment and the payment method to settle the required application fee
3.2	Generate Invoice	This process handles the generation of invoice if the applicant selected to pay the application fee by cash or cheque
3.3	Payment Collection	This process provides the interfaces for the authorized operator to update the system when the required application fee(s) of the application(s) had been collected
3.4	Generate Receipt	This process handles the generation of receipt at the end of the payment collection process
3.5	Payment Cancelling	This process provides the interfaces for the authorized operator to cancel the outstanding payment
3.6	Payment Reporting	This process provides the interfaces for the authorized operator to generate payment reports
4. Users Maintenance		
4.1	User Registration	This process provides the online interfaces to the public or the authorized operator to register the user account
4.2	User Access Control	This process handles the user permission in access the features provided in the system
4.3	User Profile Update	This process provides the interface for the authorized operator to update the information of user



2.4 Current Entity Description

2.4.1 Major Entity Description

2.4.1.1 BEEO

Entity Name	Description / Remark
REA Case	Information of Received REA Application
REA Registry	Information of Approved REA
COCR Case	Information of Received COCR Application
COCR Registry	Information of Approved COCR Application
FOC	Information of Received FOC submission
Energy Audit	Information of Received Energy Audit submission
Inspection	Site Inspection Record
Building Information	Model entity for storing technical information of Refrigerator

2.4.1.2 WBRS

Entity Name	Description / Remark
Application Form	Application entity
Application Payment	Mapping entity for application and payment
Payment Summary	Payment entity
Application Payment Status	Payment status entity for storing change of payment status
Application Attachments	Attachment entity for application
Division Form	Multiple entities for representing input forms for different division
User Information	User Profile entity

REQUIREMENT SPECIFICATION (RS)

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

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By



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November 2021

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1. DEFINITION OF TERMS

Term	Definition
WBRS	Web-based Registration Services for online application submission.
ETO	Electronic Transmission Ordinance which is governing the requirement on electronic transmission.

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2. USER REQUIREMENTS

2.1 Proposed System Overview

The Buildings Energy Efficiency Ordinance (Cap. 610) (BEOO) had been enacted in November 2010. To facilitate the application submission from public, EMSD has developed a web-based registration system (WBRS) for regulatory services divisions to receive online submissions under various EMSD legislations. It is planned that the WBRS for BEOO will be incorporated into the overall WBRS of EMSD with enhanced functions.

The proposed solution is a web-based system to provide a centralized database for buildings, processing of submissions and information dissemination under the Ordinance.

2.2 Requirement Catalogue

This requirement specification documents the user requirements for the proposed system.

2.2.1 General Characteristics

- (1) Be user-friendly;
- (2) Be reliable;
- (3) Supports multi-users and concurrent access;
- (4) Supports multi-tasking;
- (5) Enables multi-lingual input, display and output, including English and Traditional Chinese (ISO10646);
- (6) Provides high system availability and allows user to carry out system maintenance without breaking the services subject to cost justification;
- (7) For Internet platform and e-submission module in WBRS, they shall provide 24 hours a day and 7 days a week round the clock electronic service delivery channel to the public;
- (8) Provide access control on functions, limiting functions that each user groups can access according to their privileges. Administrator should be administrative right to access all functions;
- (9) E-Submissions should follow the format and manner required by ETO;
- (10) Sufficient security measures/facilities should be put in place. The submission of forms and any other information/data via electronic means should be in secured manner in order to ensure privacy, authenticity, integrity and non-repudiation of data; data encryption technology will be needed such that documents received through Internet can be decrypted before storing on server; time stamp should be provided for transactions;

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- (11) E-Submission module in WBRS should allow e-certificate authentication in WBRS forms submission and supporting document submission. The verified and signed document and data can be retrieved as legal evidence as stipulated under Electronic Ordinance (ETO);
- (12) Unless specified, all existing features in the frontend and backend (namely RS Functions) of WBRS should be made applicable for handling the corresponding aspects of BEEO submission;
- (13) Subject to system access level, all documents and any other information/data submitted through electronic means should be allowed to be retrieved for further processing including viewing, printing, retrieval for fax and email by the system via all user terminals;
- (14) Support input and output, including screen, export excel and printer output;
- (15) Provide a selection list whenever applicable to display common choices as well as common codes for a data field to enhance the efficiency of data entry and ensure the correctness of data entry;
- (16) Confirmation will be prompted for user responses before any maintenance actions are carried out;
- (17) The system shall be web-based for operation using MS Internet Explorer (IE 7 or above) and provide data protection during data transmission in departmental network (i.e. use of SSL);
- (18) The system shall support export of data and exports/statistics for data manipulation/graphic presentation in standard OA format, e.g. readable by MS Excel. Output to XML format for conforming to the Interoperability Framework of e-Government should be provided for data exchange with other systems;
- (19) Basic data validation, e.g. check digit of HKID, numeric and data format etc, should be performed during online data entry and to eliminate disagreement among entry fields and ensure integrity of the database, safeguard against missing mandatory fields and ensure the correctness and completeness of data being entered;
- (20) The system should adopt the structured address format used by the Government. The system should also provide alternative facilities to accept self-input supporting information (secondary address) in free text format;
- (21) The system should aim at providing most up-to-date data for use by public. It is preferred that when data update from DMS backend system to the Internet platform/e-submission module in WBRS is required, it should be performed at least twice a day for each working day or initiated by request;
- (22) The system should be designed with flexibility and expandability that allow future enhancements, subsequent expansion and interfacing;
- (23) The system shall provide workflow and inbox functions for DMS records (i.e. energy label application records, listed model information update application records, complaint records and prosecution case records) so that authorized users

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can assign a particular case to different officers to follow and users can check their inbox (“in-tray”) for incoming cases (outstanding and completed cases) to follow;

- (24) The system should aim at providing most up-to-date data to EMSD staff for e-submissions received from the public in internet platform and WBRS. System should transfer such data to update the backend system at least twice a day for each working day or initiated by request; and
- (25) Support wild-card searching to major fields during enquiry functions.

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2.2.2 Functional Requirements

2.2.2.1 General Functional Requirements

All functions provided by the existing BEEO system will be present and available in the proposed BEEO unless EMSD users explicitly advise to discard them during the SA&D stage.

2.2.2.2 List of Functional Requirements

There are 20 requirements to be implemented in DMS-BEEO system. Each requirement is assigned with a priority to indicate its importance, e.g. High (H), Medium (M) and Low (L). The following is a list of functional requirements:

Summary of 20 Requirements:

Requirement ID	Description	Target Users	Priority
Facilitating E-Submission via WBRS			
REQ-1001	Return Profile (Role List) to WBRS	User	H
REQ-1002	Facilitate the Form Filling Process	User	H
REQ-1003	Validate the Application Data Transmitting from WBRS	User	H
REQ-1004	Online Submitting the Received Application to DMS	User	H
REQ-1005	Facilitate Payment Workflow	User	H
Processing of Certificate of REA Submission			
REQ-2001	REA Case Maintenance	User	H
REQ-2002	REA Certificate Generation	User	H
REQ-2003	REA e-licence Generation	User	H
REQ-2004	Download REA Submission	User	H
Processing of Certificate of COCR Submission			
REQ-3001	COCR Case Maintenance	User	H
REQ-3002	Certificate of Compliance Registration Generation	User	H
REQ-3003	COCR e-licence Generation	User	H
REQ-3004	Download COCR Submission	User	H
Processing of FOC Submission			
REQ-4001	FOC Case Maintenance	User	H
REQ-4002	Download FOC Submission	User	H
Additional User Requirements			
REQ-5001	“Create Work” Page Handling	User	M
REQ-5002	Show the Ratio and Number of Hardcopy Cases versus e-Submission Cases in “Statistics” Page	User	M
REQ-5003	“Work (Details) Page Fine Tune	User	M
REQ-5004	Add Payment Status	User	M
REQ-5005	Add a “Grounded Date for Extension” in Application	User	M

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2.2.2.2.1 REQ-1001 – Return Profile (Role List) to WBRS

Priority: High

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facility to retrieve eligible roles of login user for user to select the required role in WBRS

- Online application interface for validating and fetching the data of the user identity from DMS to WBRS

Proposed Solution:

- Provide APIs for validating and fetching the information of the user identity to retrieve eligible roles of login user. The information in the registered identity of the user and the role list should be returned from DMS to WBRS for the user to select the required role in WBRS

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2.2.2.2.2 REQ-1002 – Facilitate the Form Filling Process

Priority: High

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facilities to facilitate the user in form filling

- Online application interface for retrieving the data from DMS to WBRS to facilitate the user in form filling

Proposed Solution:

- Provide API(s) to retrieve the data from DMS backend system to WBRS to facilitate the user in form filling. The retrieved data included the user particulars (e.g. REA particulars), building particulars, etc.

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2.2.2.3 REQ-1003 – Validate the Application Data Transmitting from WBRS

Priority: High

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facility to validate the application data transmitting from WBRS

- Provide data interface to check the validity of the data input transmitting from WBRS to DMS
- Return the validation result to WBRS after validating the data

Proposed Solution:

- Provide API(s) to check the validity of the data input transmitting from WBRS to DMS
 - Provide checking to ensure that value in mandatory fields is provided
 - Provide checking to ensure that the value provided is valid and in correct format
- Return the validation result to WBRS after validating the data

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2.2.2.2.4 REQ-1004 – Online Submitting the Received Application to DMS

Priority: High

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facilities to transmit the information of the applications received by WBRS to DMS

- Online application interface for transmitting the application form data from WBRS to DMS automatically
- Online application interface for transmitting the soft-copies of the supporting documents from WBRS to DMS automatically
- In case the automatic transmission process failed, means to manually trigger the transmission process for those failed application data and files should be provided
- Provide notification to the subject officer about new submission received in DMS

Proposed Solution:

- WBRS will trigger the process to transmit the information and supporting documents of the received applications to the DMS automatically
- Function will be provided to the system administrator of WBRS to manually trigger the transmission process to transmit the application data and files to DMS
- Validation will be performed in the DMS to verify the information transmitted from WBRS
- Lotus Notes Email will be sent to the subject officer to notify the following events:
 - Received application successfully transmitted from WBRS to DMS
 - Received application successfully transmitted from WBRS to DMS but failed in the validation
 - Application received in WBRS but failed to be transmitted to DMS due to server or network issue

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2.2.2.5 REQ-1005 – Facilitate Payment Workflow

Priority: High

Frequency of use: Daily

Forms to be covered: 1 REA form (i.e. EA1) & 2 COCR forms (i.e. EE2 & EE3)

Functional requirement:

This function provides the following facilities to facilitate the payment process of applications

- The EEO user will arrange an interview with the applicant to verify the true copy of the submitted documents for verification of the professional qualification. WBRS payment process would be triggered only after the applicant has passed the interview
- Online application interface for notifying WBRS on approved application
- Notify user if the application is disapproved after payment

Proposed Solution:

- WBRS will initiate the payment gateway API implemented by EMSD after the status of application in DMS has been updated to a status indicating the applicant has passed the interview
- Provide API for notifying WBRS after the application is approved
- Notify user if the application is disapproved after payment

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2.2.2.6 REQ-2001 – REA Case Maintenance

Priority: High

Frequency of use: Daily

Forms to be covered: 2 REA forms (i.e. EA1 & EA3)

Functional requirement:

A REA Case in DMS represents a received REA application either submitted via WBRS or by hard-copy form. This function provides the following facilities for authorized user to maintain the data of REA Cases in DMS

- Online interface for authorized user to view REA Case submitted via WBRS
- Online interface for authorized user to create REA Case submitted by hard-copy form
- Online interface for authorized user to update the data of REA Cases
- Online interface for authorized user to upload soft-copy of supporting document of the REA Case
- Online interface for authorized user to view the REA Case and uploaded supporting document
- Online interface for the authorized user to mark the REA Cases as deleted and prohibit the REA Cases for any further changes
- Keep audit trial of the create-, update- and delete-action of the REA Cases in the DMS database

Proposed Solution:

- User authentication will be provided in the DMS to allow the authorized user to access the DMS. The role and user rights will be determined in the user authentication. Authenticated user could view, create, update and delete the REA Cases if he/she has the proper user right.
- Searching function will be provided to the authorized user to look for the required REA case from the system
- Read only interface will be provided to the authorized user with “view case” permission
- Blank form for creating case will be provided to the authorized user with “create case” permission
- Editable fields for updating the case information will be available to the authorized user with “update case” permission
- Delete action will be available to the authorized user with “delete case” permission to update the case status as “deleted”
- Confirmation for create, update or delete action will be provided to the authorized user to

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- double-confirm before saving the changes to record in the database
- Additional records will be saved to the database to record the action of record creation, record updating and record deletion

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2.2.2.7 REQ-2002 – REA Certificate Generation

Priority: High

Frequency of use: Daily

Forms to be covered: 2 REA forms (i.e. EA1 & EA3)

Functional requirement:

This function provides the following facilities to generate REA Certificate under different situations

- Generate draft version of the REA Certificate for preview
- Generate final version of the REA Certificate for printing and issuance after the REA Case had been approved by Chief Engineer
- Generate a duplicated copy of the final version of the REA Certificate after the application for duplicate of certificate of REA had been approved

Proposed Solution:

- Provide function to manually generate draft version of the REA Certificate which would have the required particulars of applicant merged in the document without REA reference number assigned. “Draft Copy” would also be printed on the draft version. This generation of draft version would be disabled if the REA case had been approved or rejected.
- Provide function to generate final version of the REA Certificate which would have the required particulars of applicant and assigned REA reference number merged in the document. A serial number of the generated document will be recorded in the database.
- Provide function to generate duplicated copy of the REA Certificate which would have the required particulars of applicant and assigned REA reference number merged in the document. The same serial number as the first release version with suffix to indicate the count of the duplicated copy generated will be recorded in the database.

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2.2.2.2.8 REQ-2003 – REA e-liscence Generation

Priority: High

Frequency of use: Daily

Forms to be covered: 2 REA forms (i.e. EA1 & EA3)

Functional requirement:

This function provides the following facilities to generate REA e-liscence under different situations:

- Reserve the key from core licence service when new licence is ready for issue
- Map the key to the licence and store it after the core licence service has returned the key
- Generate a QR Code for appending to the PDF licence file
- Append digital signing and protection to digital signed PDF with long term validation (LTV)
- Distribute email with e-liscence
- Provide “Re-issue” function for authorized user to re-issue the e-liscence with an updated QR Code to the applicant

Proposed Solution:

- Provide function to reserve the key from core licence service when new licence is ready for issue
- Provide function to map the key to the licence and store it after the core licence service has returned the key
- Provide function to generate a QR Code via core licence service by key, and then generate the e-liscence with QR Code for appending to the PDF licence file
- Provide function to append digital signing and protection to digital signed PDF with long term validation via core licence service
- Provide function to prepare the email with licence attachment and distribute the email, via core licence service, to the applicant. The time lead for sending the certificate should be configurable
- Provide “Re-issue” function for authorized user to re-issue the e-liscence with an updated QR code to the applicant. A new button named “Re-issue” is to be added for authorized user to trigger the “Re-issue” function

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2.2.2.9 REQ-2004 – Download REA Submission

Priority: High

Frequency of use: Daily

Form to be covered: EA3 only

Functional requirement:

This function provides the following facility for the authorized user to download the required REA Case:

- Provide a download function for the authorized user to download and/or print the detail of REA submission

Proposed Solution:

- Provide a download function for the authorized user to download and/or print the EA3 submission details. A new button named “Download” will be shown on the EA3 record list for the authorized user to download and/or print the details of EA3 submission

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2.2.2.2.10 REQ-3001 – COCR Case Maintenance

Priority: High

Frequency of use: Daily

Forms to be covered: 3 COCR forms (i.e. EE1 & EE2 & EE3)

Functional requirement:

A COCR Case in DMS represents a received COCR application either submitted via WBRS or by hard-copy form. This function provides the following facilities for authorized user to maintain the data of COCR Cases in DMS

- Online interface for authorized user to view COCR Case submitted via WBRS
- Online interface for authorized user to create COCR Case submitted by hard-copy form
- Online interface for authorized user to update the data of COCR Cases
- Online interface for authorized user to upload soft-copy of supporting document of the COCR Case
- Online interface for authorized user to view the COCR Case and uploaded supporting document
- Online interface for the authorized user to mark the COCR Cases as deleted and prohibit the COCR Cases for any further changes
- Keep audit trial of the create-, update- and delete-action of the COCR Cases in the DMS database

Proposed Solution:

- User authentication will be provided in the DMS to allow the authorized user to access the DMS. The role and user rights will be determined in the user authentication. Authenticated user could view, create, update and delete the COCR Cases if he/she has the proper user right.
- Searching function will be provided to the authorized user to look for the required COCR case from the system
- Read only interface will be provided to the authorized user with “view case” permission
- Blank form for creating case will be provided to the authorized user with “create case” permission
- Editable fields for updating the case information will be available to the authorized user with “update case” permission
- Delete action will be available to the authorized user with “delete case” permission to update the case status as “deleted”

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- Confirmation for create, update or delete action will be provided to the authorized user to double-confirm before saving the changes to record in the database
- Additional records will be saved to the database to record the action of record creation, record updating and record deletion

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2.2.2.2.11 REQ-3002 – COCR Certificate Generation

Priority: High

Frequency of use: Daily

Form to be covered: EE2 Only

Functional requirement:

This function provides the following facilities to generate COCR Certificate under different situations

- Generate draft version of the COCR Certificate for preview
- Generate final version of the COCR Certificate for printing and issuance after the COCR Case had been approved by Chief Engineer
- Generate a duplicated copy of the final version of the REA Certificate after the application for duplicate of certificate of REA had been approved

Proposed Solution:

- Provide function to manually generate draft version of the COCR Certificate which would have the required particulars from the COCR case merged in the document without COCR reference number assigned. “Draft Copy” would also be printed on the draft version. This generation of draft version would be disabled if the COCR case had been approved or rejected
- Provide function to generate final version of the COCR Certificate which would have the required particulars of applicant and assigned REA reference number merged in the document. A serial number of the generated document will be recorded in the database
- Provide function to generate duplicated copy of the COCR Certificate which would have the required particulars of applicant and assigned COCR reference number merged in the document. The same serial number as the first release version with suffix to indicate the count of the duplicated copy generated will be recorded in the database

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2.2.2.2.12 REQ-3003 – COCR e-liscence Generation

Priority: High

Frequency of use: Daily

Form to be covered: EE2 Only

Functional requirement:

This function provides the following facilities to generate COCR e-liscence under different situations

- Reserve the key from core licence service when new licence is ready for issue
- Map the key to the licence and store it after the core licence service has returned the key
- Generate a QR Code for appending to the PDF licence file
- Append digital signing and protection to digital signed PDF with long term validation (LTV)
- Distribute email with e-liscence
- Provide “Re-issue” function for authorized user to re-issue the e-liscence with an updated QR Code to the applicant

Proposed Solution:

- Provide function to reserve the key from core licence service when new licence is ready for issue
- Provide function to map the key to the licence and store it after the core licence service has returned the key
- Provide function to generate a QR Code via core licence service by key, and then generate the e-liscence with QR Code for appending to the PDF licence file
- Provide function to append digital signing and protection to digital signed PDF with long term validation via core licence service
- Provide function to prepare the email with licence attachment and distribute the email, via core licence service, to the applicant. The time lead for sending the certificate should be configurable
- Provide “Re-issue” function for authorized user to re-issue the e-liscence with an updated QR code to the applicant. A new button named “Re-issue” is to be added for authorized user to trigger the “Re-issue” function

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2.2.2.13 REQ-3004 – Download COCR Submission

Priority: High

Frequency of use: Daily

Forms to be covered: 3 COCR forms (i.e. EE1 & EE2 & EE3)

Functional requirement:

This function provides the following facility for the authorized user to download the required COCR Case

- Provide a download function for the authorized user to download and/or print the detail of COCR submission

Proposed Solution:

- Provide a download function for the authorized user to down the COCR submission details. A new button named “Download” will be shown on the COCR record list for the authorized user to download and/or print the details of COCR submission

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2.2.2.2.14 REQ-4001 – FOC Case Maintenance

Priority: High

Frequency of use: Daily

Form to be covered: EE4 only

Functional requirement:

An FOC Case in DMS represents a received FOC application either submitted via WBRS or by hard-copy form. This function provides the following facilities for authorized user to maintain the data of FOC Cases in DMS

- Online interface for authorized user to view FOC Case submitted via WBRS
- Online interface for authorized user to create FOC Case submitted by hard-copy form
- Online interface for authorized user to update the data of FOC Cases
- Online interface for authorized user to upload soft-copy of supporting document of the FOC Case
- Online interface for authorized user to view the FOC Case and uploaded supporting document
- Online interface for the authorized user to mark the FOC Cases as deleted and prohibit the FOC Case for any further changes
- Keep audit trial of the create-, update- and delete-action of the FOC Cases in the DMS database

Proposed Solution:

- User authentication will be provided in the DMS to allow the authorized user to access the DMS. The role and user rights will be determined in the user authentication. Authenticated user could view, create, update and delete the FOC Cases if he/she has the proper user right.
- Searching function will be provided to the authorized user to look for the required FOC case from the system
- Read only interface will be provided to the authorized user with “view case” permission
- Blank form for creating case will be provided to the authorized user with “create case” permission
- Editable fields for updating the case information will be available to the authorized user with “update case” permission
- Delete action will be available to the authorized user with “delete case” permission to update the case status as “deleted”

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- Confirmation for create, update or delete action will be provided to the user to double-confirm before saving the changes to record in the database
- Additional records will be saved to the database to record the action of record creation, record updating and record deletion

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2.2.2.15 REQ-4002 – Download FOC Submission

Priority: High

Frequency of use: Daily

Form to be covered: EE4 Only

Functional requirement:

This function provides the following facility for the authorized user to download the required FOC Case

- Provide a download function for the authorized user to download and/or print the detail of EE4 submission

Proposed Solution:

- Provide a download function for the authorized user to down the EE4 submission details. A new button named “Download” will be shown on the EE4 record list for the authorized user to download and/or print the details of EE4 submission

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2.2.2.2.16 REQ-5001 – “Create Work” Page Handling

Priority: Medium

Frequency of use: Daily

Forms to be covered: 3 FOC forms (i.e. EE4, EE-SU & EE-CH)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facilities to facilitate authorized user to process the required FOC Case

- Skip “Create Work” Page in e-submission flow to eliminate the unnecessary steps within the process
- Create a hyperlink linking the submission details in hardcopy flow for the authorized user to preview the application details

Proposed Solution:

- Under the e-Submission flow, the “Create Work” page will be skipped, the submission data will be passed directly to “Work (Details)” page and can be searched in “Work In Progress” section
- Under the hard-copy flow, create a hyperlink linking the submission details for the authorized user to preview the application details

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2.2.2.17 REQ-5002 – Show the Ratio and Number of Hardcopy Cases versus e-Submission Cases in “Statistics” Page

Priority: Medium

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facility for authorized user to gain insight of data

- Show a ratio of hardcopy cases versus e-submission cases in “Statistics” page
- Show the number of hardcopy cases versus e-submission cases in “Statistics” page

Proposed Solution:

- Show a ratio of hardcopy cases versus e-submission cases in “Statistics” page
- Show the number of hardcopy cases versus e-submission cases in “Statistics” page

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2.2.2.2.18 REQ-5003 – “Work (Details)” Page Fine Tune

Priority: Medium

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function fine tunes the “Work (Details)” Page to increase the user-friendliness.

- Increase the field length of “Floor” and “Block”
- Provide a copy function for user to copy the inputted location information into “Work Location” field in hardcopy flow
- Change the field type of “Chiller Type” & “Major Space Type (Lighting Installation)” to a field type which allows multiple selection (e.g. checkbox)
- Send out a reminder to EEO users regarding “Anticipated Occupation Approval Date” to avoid the delay case (acknowledge letter)

Proposed Solution:

- Increase the field length of “Floor” and “Block” to a length same as “Other Description”
- Provide a copy function for user to copy the inputted location information into “Work Location” field in hardcopy flow
- Change the field type of “Chiller Type” & “Major Space Type (Lighting Installation)” to a field type which allows multiple selection (e.g. checkbox)
- Check “Anticipated Occupation Approval Date” with 3 months, and send out a reminder to EEO users a month before the expiry date to avoid the delay case (acknowledge letter)

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2.2.2.2.19 REQ-5004 – Add Payment Status

Priority: Medium

Frequency of use: Daily

Forms to be covered:

8 application forms are to be handled, 2 forms (i.e. EA1 & EA3) for Registered Energy Assessor (REA), 3 forms (i.e. EE1 & EE2 & EE3) for Certificate of Compliance Registration (COCR), and 3 forms (i.e. EE4 & EE-CH & EE-SU) for Form of Compliance (FOC)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facilities to facilitate the payment process

- The EEO user will arrange an interview with the applicant to verify the true copy of the submitted documents for verification of the professional qualification. Add a status “Interview” to indicate the applicant is under the interview process
- Add a status “Payment Completed” to indicate the application fee is settled
- Add a status “Payment Overdue” to indicate overdue payment

Proposed Solution:

- Add a status “Interview” to indicate the applicant is under the interview process and thus the payment process has not yet been started
- Add a status “Payment Completed” to indicate the application fee is settled
- Add a status “Payment Overdue” to indicate overdue payment for EEO user to follow up manually. EEO user would contact the applicant for the overdue cases and re-initiate the payment process if needed

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2.2.2.2.20 REQ-5005 – Add a “Grounded Date for Extension” in Application

Priority: Medium

Frequency of use: Daily

Forms to be covered:

2 COCR forms (i.e. EE1 & EE2) & 3 FOC forms (EE4, EE-SU & EE-CH)

- EE-SU will be merged into EE1, EE2, EE3, and EE4
- EE-CH should be submitted as an attachment instead of a standalone form by 2021 Q4

Functional requirement:

This function provides the following facilities for authorized user to process the COCR Stage One & Stage Two and FOC Cases

- Add a “Grounded Date for Extension” in applications to indicate the grounded date of extension

Proposed Solution:

- Add a “Grounded Date for Extension” in COCR Stage One, COCR Stage 2, and FOC applications to indicate the grounded date of extension correspondingly

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2.2.3 Non-Functional Requirements

- The system should provide facilities for users on form input in DMS for improving accessibility, such as date-picker, drop down list for known selection, pop-up selection.
- The system should provide copy function for form input (case maintenance, inspection maintenance, etc.) to simplify users' actions.
- The system should provide printer friendly version of each generation reports and letters.
- The system should be able to provide reasonable response time under normal situations. To meet this requirement, an online response time of 5 seconds should be assumed when sizing the system configuration required.
- For printing functions, the response time for compiling simple reports shall be within 5 minutes, while that for complex reports shall be within 10 minutes. The response time is defined as the elapsed time between the user pressing a key to submit the printing job and the report starts printing.

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2.3 Audit, Control and Security related Requirements

The following is a list of audit, control and security related requirements:

Requirement ID	Description	Target Users	Priority
System Audit Requirement			
ACS-0001	System Log Audit	User	H
System Access Control Requirements			
ACS-0002	Physical Access and Security	User	H
ACS-0003	System Access	User	H
ACS-0004	System Performance and Usage Reporting	User	H
System Backup and Recovery Requirements			
ACS-0005	System Backup Requirement	User	H
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ACS-0007	Off-site Backup Arrangement	User	H
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Reporting			
ACS-0009	Management Reports	User	H
ACS-0010	Operational Reports	User	H
ACS-0011	Ad Hoc Reports	User	H

2.3.1 System Audit Requirement

2.3.1.1 ACS-0001 System Log Audit

Priority: High

Frequency of use: Daily

Functional requirement:

The system should provide audit trails on system access and usage. All the audit log records are proposed to be retained for 12 months. The system should also provide reporting on audit log records based on specified criteria. Only the system administrators with appropriate authority should be allowed to access, retrieve and print the audit log records.

Proposed solution:

- Activity log of all system login and transaction input, rejected and accepted will be kept for audit trail. Reporting functions will also be provided to retrieve audit log records in accordance with specified criteria.
- The audit logs required for different functions related to system are summarized as follows:
 - Data Creation / Update / Deletion
 - User Actions
 - User Login
 - User Logout
 - Change on User Information

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2.3.2 System Access Control Requirements

There are three system access control requirements, namely:

ACS-0002 Physical Access and Security

ACS-0003 System Access

ACS-0004 System Performance and Usage Reporting

2.3.2.1 ACS-0002 Physical Access and Security

Priority: High

Frequency of use: Daily

Functional requirement:

The computer system should be installed with high physical security where access is restricted to authorized personnel only. All the storage media should also be kept in secure locations to prevent loss and sabotage.

Proposed Solution:

- The system would reside servers and storage media in controlled and secure location, such as EMSD data center, for ensuring the security level
- Only system administrators are provided with full access to the physical server
- Read-only system accounts could be created for regular operations or troubleshooting purpose
- The system should conform to the following established OGCIO guidelines and standards on physical access and security:
 - Security Regulations
 - Baseline IT Security Policy
 - Internet Gateway Security Guidelines
 - Security Risk Assessment & Audit Guidelines

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2.3.2.2 ACS-0003 System Access

Priority: High

Frequency of use: Daily

Functional requirement:

The system should provide facilities to restrict system users with different authority levels to access different functions in the system on a need basis. Password control for each individual is required.

Adequate security measures should be provided to ensure the security of the system and guard against intrusion and attack from external parties. The system should be able to detect and log any intrusion and attack on the system and generate alerts.

Proposed solution:

- Each system users will be assigned a unique user account name for accessing the system. A password, which associated with each user account, is used for authentication purpose.
- Authority levels will be assigned to the user accounts to govern access rights on the system functions.
- Security features will be implemented to guard against intrusion and attack from external parties. Reports on attempted intrusion will be provided.

2.3.2.3 ACS-0004 System Performance and Usage Reporting

Priority: High

Frequency of use: Daily

Functional requirement:

The system should provide statistics on CPU, memory, disk I/O and disk space utilization. The system should also provide reporting on the usage of database resources and network traffic. This information will be used to analyze and project the growth and usage of the system.

Proposed Solution:

General system performance and usage monitoring of the proposed system would be provided using standard packages supplied with the operating systems.

2.3.3 System Backup and Recovery Requirements

There are two system backup and recovery requirements, namely:

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ACS-0005 System Backup Requirement

ACS-0006 System Recovery Requirement

2.3.3.1 ACS-0005 System Backup Requirement

Priority: High

Frequency of use: Daily

Functional requirement:

System backup facilities should be provided to enable both data backup to be performed daily and full system back up to be performed weekly and also before and after any change and upgrade of system files.

Proposed Solution:

- A database management system with standard database management functions, including database backup and recovery, should be chosen.
- System backup and recovery utilities can be installed to support full-system backup and recovery.

2.3.3.2 ACS-0006 System Recovery Requirement

Priority: High

Frequency of use: Daily

Functional requirement:

In case of database problems that database restoration is needed, database backup produced on previous working day by close of business could be available. Depending on the actual situation, either local or off-site backup tape should be applied to complete the recovery. Manual input for those lost data records would be performed afterwards in order to complete the recovery of the entire database. The data loss is further minimized by the use of local resilience database servers with RAID disks.

Proposed Solution:

- Tools provided in ACS-0005 System Backup Requirements above should support such system and database recovery requirements
- The database backup/recovery utilities should be configured to log transactions and archive the transactions on a regular basis

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- COTS system backup and recovery utilities can be installed to support full-system recovery.

2.3.4 Disaster Recovery Requirements

There are two disaster recovery requirements, namely:

ACS-0007 Off-site Backup Arrangement
ACS-0008 Disaster Recovery

2.3.4.1 ACS-0007 Off-site Backup Arrangement

Priority: High

Frequency of use: Daily

Functional requirement:

For each daily, weekly, monthly database backup or weekly system backup, two sets of backup tapes will be produced. One set of the backup tapes will be kept locally while another set will be sent to and stored at an off-site location, probably the DR location for secure storage.

Proposed Solution:

The system should provide the backup tools to perform the system and data backup.

2.3.4.2 ACS-0008 Disaster Recovery

Priority: High

Frequency of use: Daily

Functional requirement:

A disaster recovery plan with detailed steps showing the procedures to handle a disaster should be formulated. In general, an EMSD staff will be in-charge for the declaration of the disaster and formation of the disaster recovery working team. Facilities should be provided to cater disastrous situation causing prolonged system failure and shutdown.

Proposed Solution:

- The system would provide disaster recovery plan for the system
- The disaster recovery location should be remote from the primary site
- The disaster recovery site would contain compatible server(s) to restore the system from daily / weekly backup

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- The details to re-setup the production server will be described in the disaster recovery plan.

2.3.5 Reporting

DMS-BEO should provide functionalities for users to produce reports of the following types:

- Management reports
- Operational reports
- Ad hoc reports

2.3.5.1 ACS-0009 Management Reports

Priority: High

Frequency of use: Daily

Functional requirement:

DMS-BEO should provide functionality with user-friendly interfaces for EEO to generate and print the standard management reports regularly or whenever required by management. The management report contents should include the followings:

- Statistical Summary of Received COCR Stage One Declaration per Reporting Period
- Statistical Summary of Received COCR Stage Two Declaration per Reporting Period
- Statistical Summary of Received COCR Renewal per Reporting Period
- Statistical Summary of Issued / Renewed COCR per Reporting Period
- Statistical Summary of COCR to be expired per month in next 12 months
- Statistical Summary of Received FOC per Reporting Period
- Statistical Summary of Received Energy Audit Form per Reporting Period
- Statistical Summary of Buildings with the next Energy Audit to be carried out in next 12 months
- Statistical Summary of Issued Improvement Notices per Reporting Period
- Statistical Summary of Buildings being inspected per month in past 12 months
- Statistical Summary of Buildings to be inspected per month in next 12 months
- Statistical Summary of Received REA Applications, Issued & Renewed REA Certificate (including those from Public Officer) per Reporting Period

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- Statistical Summary of REA to be expired per month in next 12 months

Proposed Solution:

Report functionality would be provided for the users to generate the required management reports regularly or on need basis. Individual reports would be in pre-defined format and generated through the report functions provided by DMS-BEEO. It offers a variety of report formats including PDF, CSV, Image (TIFF) as well as Microsoft Office Word and Excel for distribution. Report viewer and printing functions would be provided for the users to view on desktop or to print in hard-copy format for further reading.

2.3.5.2 ACS-0010 Operational Reports

Priority: High

Frequency of use: Daily

Functional requirement:

DMS-BEEO should provide functionality with user-friendly interfaces for EEO to generate and print the standard operational reports regularly or whenever required during operation. The operational report contents should include the followings:

- List of Received COCR Stage One Declaration per Reporting Period
- List of Received COCR Stage Two Declaration per Reporting Period
- List of Buildings under COCR Stage One Declaration
- List of Received COCR Renewal per Reporting Period
- List of Issued / Renewed COCR per Reporting Period
- List of COCR Register
- List of COCR to be expired within 12 months / 6 months / 3 months
- List of Received FOC per Reporting Period
- List of Received Energy Audit Form per Reporting Period
- List of Buildings with the next Energy Audit to be carried out in 12 months / 6 months / 3 months
- List of Appeals Received per Reporting Period
- List of Issued Improvement Notices per Reporting Period

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- List of Buildings being inspected in past 12 months / 6 months / 3 months
- List of Buildings to be inspected in next 12 months / 6 months / 3 months
- List of Received Applications for Period Extension per Reporting Period
- List of Received Applications for Exemptions per Reporting Period
- List of Received REA Applications per Reporting Period
- List of Received REA Applications from Public Officer per Reporting Period
- List of REA Register
- List of Issued / Renewed REA Certificate per Reporting Period
- List of REA to be expired within 12 months / 6 months / 3 months

Proposed Solution:

Report functionality would be provided for the users to generate the required operational reports regularly or on need basis. Individual reports would be in pre-defined format and generated through the report functions provided by DMS-BEEO. It offers a variety of report formats including PDF, CSV, Image (TIFF) as well as Microsoft Office Word and Excel for distribution. Report viewer and printing functions would be provided for the users to view on desktop or to print in hard-copy format for further reading.

2.3.5.3 ACS-0011 Ad Hoc Reports

Priority: High

Frequency of use: Daily

Functional requirement:

DMS-BEEO should provide functionality with user-friendly interfaces for EEO to create reports on their own in ad hoc basis upon management request.

Proposed Solution:

Report builder functions with user-friendly interfaces would be provided for the users to create any ad-hoc reports on need basis. Ad-hoc reports being created could be run in any pre-configured workstation. It offers a variety of report formats including PDF, CSV, Microsoft Office Word and Excel for distribution. Report viewer and printing functions would be provided for the users to view on desktop or to print in hard-copy format for further reading.

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2.4 Constraints List

The constraints list identifies any possible constraints and impacts to system design and/or implementation of the proposed system.

2.4.1 Use of Equipment

Existing hardware equipment of EEO will be utilized as part of the proposed system if applicable.

2.4.2 Interface with Other Systems

The proposed system will interface with other systems of EMSD like MEELS, LEOS, EORS, EMSD website as well as Government Central Internet Gateway for website information update. The exact interface implementation would be subject to the interfacing capability of those systems.

2.4.3 Manual and Clerical Procedures

Appropriate manual procedures should be in place in order to be in line with the implementation of the proposed system. However, changes to the overall operation should be kept to minimal to avoid unnecessary complications.

2.4.4 Input and Output

Each electronic submission via Internet or e-mail must not be too large for performance and reliability. Moreover, the format of submission should adhere to the guidelines stipulated in “Manner & Format of Electronic Records” published by the HKSAR Government.

2.4.5 Operational Constraints

When a digital signature is required, only a digital signature supported by a recognised certificate issued by a certification authority recognised by the Government Chief Information Officer under the Electronic Transactions Ordinance is acceptable. In other words, overseas companies and parties who do not have a recognised digital certificate under ETO cannot fulfil the prerequisite of the application/information submission.

2.4.6 Business Organization and Policy

The business rules and operations are governed by the following ordinances and regulations:

- Building Energy Efficiency Ordinance (Cap. 610)
- Building Energy Code (BEC) for the Buildings Energy Efficiency Ordinance
- Energy Audit Code (EAC) for the Buildings Energy Efficiency Ordinance

The implementation of the system should follow the regulations as provided in the Electronic Transactions Ordinance (ETO) with the provision of exemptions allowed in the ordinance

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ON
DATA MANAGEMENT SYSTEM
FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR
ENERGY EFFICIENCY OFFICE
OF
ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)



By



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November 2021

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ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT
(EMSD)

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Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	Draft Version	All	0.1	09/11/2021
2	Second Draft (added Forms EE1-EE4)	All	0.2	11/11/2021
3	Third Draft (added Get All Profile(s) and updated EE1-EE4)	All	0.3	19/11/2021
4	Fourth Draft (added Get All Profile(s) sample response and signature creation and verification)	All	0.4	01/12/2021
5	Fifth Draft (added Get District, Get REA Registry, Get COCR Submission, Get Rec and Payment Completed)	All	0.5	15/12/2021
6	Sixth Draft (updated field length of district related fields)	All	0.6	19/01/2022
7	Remove parentForm	EE3, EE4	0.7	28/02/2022

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1. ENCRYPTION AND DECRYPTION

According to the “Backend API Specification”, AES encryption should be used between WBRS and backend system. Following are the encryption/decryption algorithm details:

Name	Value	Description
Algorithm Name	AES	The encryption algorithm name
Algorithm Mode	CBC	The mode of algorithm
Algorithm Paddings	PKCS5Padding	The padding of algorithm
Encryption Key	256-bit Encryption Key	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system
Client ID	UUID Version-4	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system
Client Secret	128-bit Encryption Key	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system. The client secret is specifically chosen 128-bit length to use as a random initialization vector (IV) for AES CBC mode.

The encrypted content should be encoded to BASE64 format before submitting through the API. Vice versa, the encrypted text should be decoded from BASE64 format before decryption.

2. SIGNATURE CREATION AND VERIFICATION

Name	Value	Description
Algorithm Name	HMAC SHA-256	The encryption algorithm name
Client ID	UUID Version-4	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system
Client Secret	128-bit Encryption Key	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system. The client secret is specifically chosen 128-bit length to use as a secret key for HMACSHA256 encryption to Create Signature and Verify Signature.
nonce	UUID Version-4	A nonce is a random string, uniquely generated for each response by backend system API, and shared between WBRS and backend system. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met. For verifying signature, nonce is passed from request header of API and used to create a new signature to be compared.

Sample Code for Signature Creation

```
public string CreateSignature(String nonce, String encryptedContent)
{
    String key = WebConfigurationManager.AppSettings["aesIv"];

    using (var hmacsha256 = new HMACSHA256(Encoding.UTF8.GetBytes(key)))
    {
        var hash = hmacsha256.ComputeHash(Encoding.UTF8.GetBytes(nonce +
            encryptedContent));
        var signature = Convert.ToBase64String(hash);
        return signature;
    }
}
```

3. GET ALL PROFILE(S)

API Description

Name	Description
Service Full Name	Get profiles from the given account
URL	<Backend Service Domain>/Version}/GetAllProfiles
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
hkid	String	Required	HKID Number

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

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Response - Content

Parameter	Type	Condition	Description
Profile	Profile Array	Required	Details please refer to below section “Content - Profile”.

Content - Profile

Parameter	Type	Condition	Description
Type	String	Required	Pre-defined role type.
Identifier	String	Required	For create user account. (REA1, REA3)
ExpiryDate	long	Optional	It will be expressed in the number of milliseconds since January 1, 1970 00:00:00 GMT.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “hkid” is null.
D20002	Parameter is wrong.	The value of “hkid” is not found.
D30001	Header is null	The header “clientID” is null. The header “signature” is null. The header “nonce” is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature” is incorrect. (MITM Attack) The header “nonce” is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "hkid": "A123456(7)"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHKmRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514925f",  
  "Profile": [  
    {  
      "Type": "REA1",  
      "Identifier": "REA1",  
      "ExpiryDate": "163837577825"  
    }  
  ]  
}
```

4. GET DISTRICT

API Description

Name	Description
Service Full Name	Get district from the given account
URL	<Backend Service Domain>/ {Version} / GetDistrict
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

Parameter	Type	Condition	Description
District	District Array	Required	Details please refer to below section “Content - District”.

Content - District

Parameter	Type	Condition	Description
id	Int		ID
districtCd	String(3)		District Code

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ename	String(255)	English Name
cname	String(255)	Chinese Name
scname	String(255)	Second Chinese Name
areaCd	Int	Area Code
remark	String(255)	Remark
modifyDt	String(8)	Modify Date

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVH+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{
  "District": [
    {
      "id": 1,
      "districtCd": "001",
      "ename": "Aberdeen",
      "cname": "香港仔",
      "scname": "香港仔",
      "areaCd": 1,
      "remark": "",
      "modifyDt": "20211213"
    }
  ]
}
```

5. GET REA REGISTRY

API Description

Name	Description
Service Full Name	GetReaRegistry from the given account
URL	<Backend Service Domain>/ {Version} / GetReaRegistry
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
hkid	String	Required	HKID Number

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

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Parameter	Type	Condition	Description
rearegno	String(25)	Required	REA Registered No
engname	String(256)		English Name
chiname	String(256)		Chinese Name
regdate	String		Registered Date
expirydate	String		Expiry Date
contacttel	String(50)		Contact Telephone
emailaddr	String(256)		Email Address
engremarks	String(256)		English Remarks
chiremarks	String(256)		Chinese Remarks
status	Int		Status
displayemail	String(1)		Display Email Address
displaycontact	String(1)		Display Contact Telephone
emailaddrnotify	String(256)		Email Address for Notification
createdate	String		Create Date
createby	String(50)		Create By
updatedate	String		Update Date
updateby	String(50)		Update By
caseno	String(20)		Case No
regdatefirst	String		Registered Date First
expirydatefirst	String		Expiry Date First
titleId	Int		Title ID
dateOfBirth	String		Date Of Birth
addrSt	String(300)		Address Street
compName	String(300)		Company Name
compAddrSt	String(300)		Company Address Street
compPost	String(300)		Company Post
officeTelNo	String(50)		Office Telephone No
faxNo	String(50)		Fax No
hkid	String		Hong Kong ID

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “hkid” is null.
D20002	Parameter is wrong.	The value of “hkid” is not found.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
```

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```
{"encryptedContent":"sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y= "  
}
```

Sample Request (without encryption)

```
{  
    "hkid": "J1111111"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514925f",  
    "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK  
mRvXIC8qwdVwRi5I92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE  
1ZubRWlq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="  
}
```

Sample Response (without encryption)

```
{  
    "rearegno": "EA01070G",  
    "engname": "EA01070G_E",  
    "chiname": "EA01070G_C",  
    "regdate": "20211213",  
    "expirydate": "20211213",  
    "contacttel": "0011 3271",  
    "emailaddr": "a@a.com",  
    "engremarks": "001",  
    "chiremarks": "001",  
    "status": 1,  
    "displayemail": "",  
    "displaycontact": "",  
    "emailaddrnotify": "",  
    "createdate": "20211213",  
    "createby": "ASL99",  
    "updatedate": "20211213",  
    "updateby": "ASL99",  
    "caseno": "01070",  
    "regdatefirst": "20211213",  
    "expriydatefirst": "20211213",  
    "titleId": 1,  
    "dateOfBirth": "20211213",  
    "addrSt": "Flat B, 8/F, Block 13, Sceneway Garden, 8 Sceneway Road, Lam Tin,  
Kowloon",  
    "compName": "DFS Group Limited",  
    "compAddrSt": "8/F., Chinachem Golden Plaza, 77 Mody Road, Tsim Sha Tsui, Kowloon",  
    "compPost": "Senior Manager, Facilities Management",  
    "officeTelNo": "0011 3271",  
    "faxNo": "2571 9662",  
    "hkid": ""  
}
```

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}

6. GET COCR SUBMISSION

API Description

Name	Description
Service Full Name	GetCocrSubmission from the given account
URL	<Backend Service Domain>/ {Version} / GetCocrSubmission
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
caseNo	String	Required	Case Number

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

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Parameter	Type	Condition	Description
submissiontype	Int	Required	Submission Type
recevieddate	String(8)		Received Date
buildingid	Int		Building ID
becdition	String(30)		BEC Edition
developerid	Int		Developer ID
devdeclaredate	String(8)		Dev Declare Date
ownerid	Int		Owner ID
ownerdeclaredate	String(8)		Owner Declare Date
rearegno	String(25)		REA Reg. No.
readeclaredate	String(8)		REA Declare Date
categorycode	String(10)		Category Code
consentdate	String(8)		Consent Date
consentref	String(50)		Consent Ref
commencedate	String(8)		Commence Date
opdate	String(8)		Op Date
opref	String(10)		Op Ref
cocrregno	String(25)		Cocr Register No
caseno	String(20)		Case No
esubmissionref	String(50)		E Submission Ref
esubmissiondate	String(8)		E Submission Date
statuscode	String(10)		Status Code
createdate	String(8)	Required	Create Date
createby	String(50)		Create By
updatedate	String(8)		Update Date
updateby	String(50)		Update By
subjectengineer	String(50)		Subject Engineer
subjectinspector	String(50)		Subject Inspector
ackdate	String(8)		Ack Date
screenby	String(50)		Screen By
screendate	String(8)		Screen Date
reviewby	String(50)		Review By
reviewdate	String(8)		Review Date
dtClosefile	String(8)		File Closure Date
cocrregdate	String(8)		Cocr register Date
lastclarifydate	String(8)		Last Clarify Date
opyear	Int		Op Year
opmonth	Int		Op Month
opday	Int		Op Day
dateexempreceived	String(8)		Exempt Received Date
datereject	String(8)		Reject Date
dateapproval	String(8)		Approval Date
reminderletterissuedatecocr1	String(8)		Reminder letter IssueDate COCR1
reminderletterissuedatecocr2	String(8)		Reminder letter IssueDate COCR2
inIssuedate	String(8)		IN Issue Date
inExpirydate	String(8)		IN Expiry Date

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inReferenceno	String		IN Reference No
inRemarks	String		IN Remarks
cocrIssuedate	String(8)		COCR Issue Date
cocrExpirydate	String(8)		COCR Expiry Date
cocrCertno	String		COCR Cert Number
areainternfloor	double		Intern Floor Area
gfaNondomestic	double		GFA Non Domestic
gfaDomestic	double		GFA Domestic
carparkno	Int		Carpark No
Party	Array of Objects		Party Refer to: <u>Response – Content– Party</u>

Response – Content– Party

Parameter	Type	Condition	Description
partyid	Int	Required	Party ID
partype	String(1)	Required	Party Type
engname	String(256)		English Name
chiname	String(256)		Chinese Name
salutation	String(10)		Salutation
representid	Int		Represent ID
reposition	String(256)		Rep Position
corraddr	String(1024)		Corr Address
phoneno	String(50)		Phone No
faxno	String(50)		Fax No
emailaddress	String(50)		Email Address
createdate	String(8)		Create Date
createby	String(50)		Create By
updatedate	String(8)		Update Date
updateby	String(50)		Update By
corresAddrFlat	String(50)		Corres Address Flat
corresAddrFloor	String(50)		Corres Address Floor
corresAddrBlock	String(50)		Corres Address Block
corresAddrBldg	String(255)		Corres Address Bldg
corresAddrStartNo	Int		Corres Address StartNo
corresAddrStartNoAlpha	String(10)		Corres Address StartNo Alpha
corresAddrEndNo	Int		Corres Address EndNo
corresAddrEndNoAlpha	String(10)		Corres Address EndNo Alpha
corresAddrSt	String		Corres Address Street
corresAddrDistrictCd	String(3)		Corres Address District Code
corresAddrAreaCd	Int		Corres Address Area Code
roleid	Int		Rold ID

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Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “caseNo” is null.
D20002	Parameter is wrong.	The value of “caseNo” is not found.
D30001	Header is null	The header “clientID” is null. The header “signature” is null. The header “nonce” is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature” is incorrect. (MITM Attack) The header “nonce” is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "caseNo": "J1111111"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVH+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{
  "submissionid": 1,
  "submissiontype": 10,
  "recevieddate": "20211213",
  "buildingid": 204,
  "beedition": "2012",
  "developerid": 1,
  "devdeclaredate": "20211213",
  "ownerid": 1,
  "ownerdeclaredate": "20211213",
  "rearegno": "EA00578G",
  "readeclaredate": "20211213",
}
```

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```
"categorycode":"IN",
"consentdate":"20211213",
"consentref":"BD 2/2055/07",
"commencedate":"20211213",
"update":"20211213",
"opref":"NT 53/2013",
"ocorrengno":"",
"caseno":"EMSD/EEO/BC/34-06091",
"esubmissionref":"",
"esubmissiondate":"20211213",
"statuscode":"2500",
"createdate":"20211213",
"createby":"SYS",
"updatedate":"20211213",
"updateby":"SYS",
"subjectengineer":"E/EEB15/1",
"subjectinspector":"TO/EEB3",
"ackdate":"20211213",
"screenby":"BSI/EEB7/2",
"screendate":"20211213",
"reviewby":"E/EEB5/1",
"reviewdate":"20211213",
"dtClosefile":"20211213",
"cocregdate":"20211213",
"lastclarifydate":"20211213",
"opyear":2021,
"opmonth":12,
"opday":13,
"dateexempreceived":"20211213",
"datereject":"20211213",
"dateapproval":"20211213",
"reminderletterissuedatecocr1":"20211213",
"reminderletterissuedatecocr2":"20211213",
"inIssuedate":"20211213",
"inExpirydate":"20211213",
"inReferenceno":"",
"inRemarks":"",
"cocrIssuedate":"20211213",
"cocrExpirydate":"20211213",
"cocrCertno":"",
"areainternfloor":1,
"gfaNondomestic":1,
"gfaDomestic":1,
"carparkno":1
"Party":[{
    "partyid":1,
    "partytype":"C",
    "engname":"MTR Corporation Limited",
    "chiname":"香港鐵路有限公司",
```

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```
"salutation":"",
"representid":1,
"reposition":"",
"corraddr":"7/f, Centre Point, 181-185 Gloucester Road , Wan Chai, Hong Kong",
"phoneno":"3462 6218",
"faxno":"3464 0911",
"emailaddress":"tclam3@mtr.com.hk",
"createdate":"20211213",
"createby":"SYS",
"updatedate":"20211213",
"updateby":"SYS",
"corresAddrFlat":"",
"corresAddrFloor":"7",
"corresAddrBlock":"",
"corresAddrBldg":"Centre Point",
"corresAddrStartNo":1,
"corresAddrStartNoAlpha":"",
"corresAddrEndNo":1,
"corresAddrEndNoAlpha":"",
"corresAddrSt":"",
"corresAddrDistrictCd":"",
"corresAddrAreaCd":1,
"roleid":1
}]}
```

7. GET BEC

API Description

Name	Description
Service Full Name	Get Bec from the given account
URL	<Backend Service Domain>/ {Version} / GetBec
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

Parameter	Type	Condition	Description
Bec	District Array	Required	Details please refer to below section “Content - Bec”.

Content - Bec

Parameter	Type	Condition	Description
becedition	String(30)		BECEdition

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514925f",  
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK  
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE  
1ZubRWIq6ls1urXBR7oLIVHAt+aqjhtqmtnwRIdZdMQROH2mx1TrEec="}
```

Sample Response (without encryption)

```
{  
  "BEC": [  
    {  
      "BECEdition": "2012"  
    }, {  
      "BECEdition": "2012 (Rev.1)"  
    }  
  ]}
```

8. EA1

8.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend Service Domain>/{{Version}}/EA1/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
  "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

8.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/{{Version}}/EA1/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Renew / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
expiryDate	String(8)	Optional	REA Expiry Date(yyyyMMdd)
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
dateOfBirth	String(8)		Applicant Date of Birth(yyyyMMdd)
hkid	String(30)		Applicant HKID Number
travelDocNo	String(30)		Applicant Travel Document Number

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addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence Address Flat
addrFloor	String(50)		Applicant Correspondence Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
compName	String(300)		Current Company Name
compAddrLang	String(1)		Current Company Address Language
compAddrFlat	String(50)		Current Company Address Flat
compAddrFloor	String(50)		Current Company Address Floor
compAddrBlock	String(50)		Current Company Address Block
compAddrBlg	String(300)		Current Company Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)		Current Company Address Street
compAddrDistrict	String(3)		Current Company Address District Code
compAddrAreaId	Int		Current Company Address Area ID

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compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
qualRe	String(1)		Professional Qualifications - Registered Professional Engineer
qualReDate	String(8)		Qualified Date of Registered Engineer Qualifications(yyyyMMdd)
qualReNo	String(50)		Membership Number of Registered Engineer Qualifications
qualReBss	String(1)		Building Services Discipline of Registered Engineer Qualifications
qualReEll	String(1)		Electrical Discipline of Registered Engineer Qualifications
qualReEnv	String(1)		Environmental Discipline of Registered Engineer Qualifications
qualReMcl	String(1)		Mechanical Discipline of Registered Engineer Qualifications
qualHkie	String(1)		Professional Qualifications - Corporate member of HKIE
qualHkieDate	String(8)		Qualified Date of HKIE membership(yyyyMMdd)
qualHkieNo	String(50)		Membership Number of HKIE
qualHkieBss	String(1)		Building Services Discipline of HKIE Qualifications
qualHkieEll	String(1)		Electrical Discipline of HKIE Qualifications
qualHkieEnv	String(1)		Environmental Discipline of HKIE Qualifications
qualHkieMcl	String(1)		Mechanical Discipline of HKIE Qualifications
qualEqv	String(1)		Professional Qualifications - Equivalent qualification recognized by HKIE
qualEqvDate	String(8)		Qualified Date of Equivalent qualification(yyyyMMdd)
qualEqvNo	String(50)		Membership Number of

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			Equivalent qualification
qualEqvBss	String(1)		Building Services Discipline of Equivalent qualification
qualEqvEll	String(1)		Electrical Discipline of Equivalent qualification
qualEqvEnv	String(1)		Environmental Discipline of Equivalent qualification
qualEqvMcl	String(1)		Mechanical Discipline of Equivalent qualification
qualEqvMembership	String(300)		Professional Membership of Equivalent qualification
declareKnowledge	String(1)	Required	Declaration of having the knowledge required
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information stated are true and correct
qualOther	String(1)		Professional Qualifications - Other
qualOtherText	String(300)		Professional Qualifications – Other Details
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
chgQual	String(1)		Change of particulars - Professional Qualification
chklistExp	String(1)		Checklist of Supporting Documents - relevant practical experience
chklistQual	String(1)		Checklist of Supporting Documents - professional qualifications
chklistSubst	String(1)		Checklist of Supporting Documents - substantiate documents
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status
exp	exp Array		Relevant Practical Experience Refer to: <u>Resquest – Content– Exp</u>
substantiate	Substantiate Array		Photocopy of the documents that substantiate

			the application Refer to: <u>Request – Content– Substantiate</u>
--	--	--	--

Request – Content– Exp

Parameter	Type	Condition	Description
expFrom	String(8)		Exp From Date (yyyyMMdd)
expTo	String(8)		Exp To Date (yyyyMMdd)
post	String(100)		Post
compName	String(300)		Comp Name
description	String(1000)		Description of exp
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Request – Content– Substantiate

Parameter	Type	Condition	Description
description	String(300)		Description of Substantiate
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)

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D90000	Unknown Exception	Runtime Exception.
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Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001",  
    "applicationType": "NEW",  
    "regNo": "",  
    "expiryDate": "20100101",  
    "engName": "Chan Tai Man",  
    "chiName": "陳大文",  
    "titleId": 1,  
    "dateOfBirth": "20100101",  
    "hkid": "J1111111",  
    "travelDocNo": "",  
    "addrLang": "e",  
    "addrFlat": "",  
    "addrFloor": "",  
    "addrBlock": "",  
    "addrBlg": "",  
    "addrSt": "",  
    "addrDistrict": "",  
    "addrAreaId": 2,  
    "compName": "TESTING COMPANY",  
    "compAddrLang": "e",  
    "compAddrFlat": "",  
    "compAddrFloor": "",  
    "compAddrBlock": "",  
    "compAddrBlg": "",  
    "compAddrSt": "",  
    "compAddrDistrict": "",  
    "compAddrAreaId": 3,  
    "compPost": "Post",  
    "emailAddr": "testing@email.com",  
    "telNo": "22345678",  
    "faxNo": "22345678",  
    "officeTelNo": "23345678",  
    "qualRe": 1,  
    "qualReDate": "20100101",  
    "qualReNo": "",  
    "qualReBss": 1,  
    "qualReEll": 0,  
    "qualReEnv": 0,  
    "qualReMcI": 0,  
    "qualHkie": 1,  
}
```

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```
“qualHkieDate”: “20100101”,
“qualHkieNo”: “”,
“qualHkieBss”: 0,
“qualHkieEll”: 1,
“qualHkieEnv”: 0,
“qualHkieMcl”: 0,
“qualEqv”: 1,
“qualEqvDate”: “20100101”,
“qualEqvNo”: “”,
“qualEqvBss”: 0,
“qualEqvEll”: 0,
“qualEqvEnv”: 1,
“qualEqvMcl”: 0,
“qualEqvMembership”: “Testing”,
“declareKnowledge”: 1,
“declareConvictedStatus”: 1,
“declareHavebeenConvicted”: 0,
“declareInfoCorrect”: 1,
“qualOther”: 0,
“qualOtherText”: “”,
“chgName”: 0,
“chgAddr”: 0,
“chgQual”: 0,
“chklistExp”: 1,
“chklistQual”: 1,
“chklistSubst”: 1,
“receiveDate”: “20100101”,
“wbrsStatus”: 0,
“exp”: [
  {
    “expFrom”: “20100101”,
    “expTo”: “20100101”,
    “post”: “”,
    “compName”: “”,
    “description”: “”,
    “seq”: 1,
    “originalName”: “”
  }
],
“substantiate”: [
  {
    “description”: “”,
    “seq”: “”,
    “originalName”: “”
  }
]
```

Sample Response

```
{
```

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```
"code":"D00000",
"message":"D00000",
"txID":"0514125f"
}
```

8.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/{{Version}}/EA1/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission and to check if the applicant already exists or not.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Renew / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
expiryDate	String(8)	Optional	REA Expiry Date(yyyyMMdd)
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
dateOfBirth	String(8)		Applicant Date of Birth(yyyyMMdd)
hkid	String(30)		Applicant HKID Number
travelDocNo	String(30)		Applicant Travel Document Number
addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence

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addrFloor	String(50)		Address Flat Applicant Correspondence Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
compName	String(300)		Current Company Name
compAddrLang	String(1)		Current Company Address Language
compAddrFlat	String(50)		Current Company Address Flat
compAddrFloor	String(50)		Current Company Address Floor
compAddrBlock	String(50)		Current Company Address Block
compAddrBlg	String(300)		Current Company Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)		Current Company Address Street
compAddrDistrict	String(3)		Current Company Address District Code
compAddrAreaId	Int		Current Company Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number

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qualRe	String(1)		Professional Qualifications - Registered Professional Engineer
qualReDate	String(8)		Qualified Date of Registered Engineer Qualifications(yyyyMMdd)
qualReNo	String(50)		Membership Number of Registered Engineer Qualifications
qualReBss	String(1)		Building Services Discipline of Registered Engineer Qualifications
qualReEll	String(1)		Electrical Discipline of Registered Engineer Qualifications
qualReEnv	String(1)		Environmental Discipline of Registered Engineer Qualifications
qualReMcl	String(1)		Mechanical Discipline of Registered Engineer Qualifications
qualHkie	String(1)		Professional Qualifications - Corporate member of HKIE
qualHkieDate	String(8)		Qualified Date of HKIE membership(yyyyMMdd)
qualHkieNo	String(50)		Membership Number of HKIE
qualHkieBss	String(1)		Building Services Discipline of HKIE Qualifications
qualHkieEll	String(1)		Electrical Discipline of HKIE Qualifications
qualHkieEnv	String(1)		Environmental Discipline of HKIE Qualifications
qualHkieMcl	String(1)		Mechanical Discipline of HKIE Qualifications
qualEqv	String(1)		Professional Qualifications - Equivalent qualification recognized by HKIE
qualEqvDate	String(8)		Qualified Date of Equivalent qualification(yyyyMMdd)
qualEqvNo	String(50)		Membership Number of Equivalent qualification
qualEqvBss	String(1)		Building Services Discipline of Equivalent qualification
qualEqvEll	String(1)		Electrical Discipline of Equivalent qualification
qualEqvEnv	String(1)		Environmental Discipline of Equivalent qualification
qualEqvMcl	String(1)		Mechanical Discipline of Equivalent qualification

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qualEqvMembership	String(300)		Professional Membership of Equivalent qualification
declareKnowledge	String(1)	Required	Declaration of having the knowledge required
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information stated are true and correct
qualOther	String(1)		Professional Qualifications - Other
qualOtherText	String(300)		Professional Qualifications – Other Details
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
chgQual	String(1)		Change of particulars - Professional Qualification
chklistExp	String(1)		Checklist of Supporting Documents - relevant practical experience
chklistQual	String(1)		Checklist of Supporting Documents - professional qualifications
chklistSubst	String(1)		Checklist of Supporting Documents - substantiate documents
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status
exp	exp Array		Relevant Practical Experience <ul style="list-style-type: none"> • Refer to: <u>Resquest – Content– Exp</u>
substantiate	Substantiate Array		Photocopy of the documents that substantiate the application <p style="margin-top: 10px;">Refer to: <u>Resquest – Content– Substantiate</u></p>

Request – Content– Exp

Parameter	Type	Condition	Description
expFrom	String(8)		Exp From Date (yyyyMMdd)
expTo	String(8)		Exp To Date (yyyyMMdd)
post	String(100)		Post
compName	String(300)		Comp Name

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description	String(1000)		Description of exp
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Request – Content– Substantiate

Parameter	Type	Condition	Description
description	String(300)		Description of Substantiate
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Applicant already exists
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
```

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```
"applicationType": "NEW",
"registrationNo": "",
"expiryDate": "20100101",
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"dateOfBirth": "20100101",
"hkid": "J1111111",
"travelDocNo": "",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "",
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 2,
"compName": "TESTING COMPANY",
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 3,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678",
"officeTelNo": "23345678",
"quaRe": 1,
"quaReDate": "20100101",
"quaReNo": "",
"quaReBss": 1,
"quaReEll": 0,
"quaReEnv": 0,
"quaReMcl": 0,
"quaHkie": 1,
"quaHkieDate": "20100101",
"quaHkieNo": "",
"quaHkieBss": 0,
"quaHkieEll": 1,
"quaHkieEnv": 0,
"quaHkieMcl": 0,
"quaEqv": 1,
"quaEqvDate": "20100101",
"quaEqvNo": "",
"quaEqvBss": 0,
"quaEqvEll": 0,
```

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```
“qualEqvEnv”: 1,  
“qualEqvMcl”: 0,  
“qualEqvMembership”: “Testing”,  
“declareKnowledge”: 1,  
“declareConvictedStatus”: 1,  
“declareHavebeenConvicted”: 0,  
“declareInfoCorrect”: 1,  
“qualOther”: 0,  
“qualOtherText”: “”,  
“chgName”: 0,  
“chgAddr”: 0,  
“chgQual”: 0,  
“chklistExp”: 1,  
“chklistQual”: 1,  
“chklistSubst”: 1,  
“receiveDate”: “20100101”,  
“wbrsStatus”: 0,  
“exp”: [  
    {  
        “expFrom”: “20100101”,  
        “expTo”: “20100101”,  
        “post”: “”,  
        “compName”: “”,  
        “description”: “”,  
        “seq”: 1,  
        “originalName”: “”  
    }  
,  
    “substantiate”: [  
        {  
            “description”: “”,  
            “seq”: “”,  
            “originalName”: “”  
        }  
    ]  
}
```

Sample Response

```
{  
    “code”:“D00000”,  
    “message”:“D00000”,  
    “txID”:“0514125f”  
}
```

8.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EA1/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaforn</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocert	COCR certificate	13	eaforn	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocert	COCR certificate																																											
13	eaforn	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
```

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}

8.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EA1/Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

9. EA3

9.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend Service Domain>/{{Version}}/EA3/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
  "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

9.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/{{Version}}/EA3/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
hkid	String(30)		Applicant HKID Number
addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence Address Flat
addrFloor	String(50)		Applicant Correspondence

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			Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
deptName	String(300)		Department Name
compAddrSame	String(1)	Required	Office Address is same as the Correspondence Address or not
compAddrLang	String(1)	Optional	Office Address Language
compAddrFlat	String(50)	Optional	Office Address Flat
compAddrFloor	String(50)	Optional	Office Address Floor
compAddrBlock	String(50)	Optional	Office Address Block
compAddrBlg	String(300)	Optional	Office Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)	Optional	Office Address Street
compAddrDistrict	String(3)	Optional	Office Address District Code
compAddrAreaId	Int	Optional	Office Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone Number
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information

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nomiName	String(100)		stated are true and correct
nomiRank	String(100)		Full Name of Nominator
nomiPost	String(300)		Rank (D1 or above) of Nominator
nomiDept	String(300)		Post of Nominator
nomiTel	String(20)		Name of Department of Nominator
receiveDate	String(8)	Required	Contact Number of Nominator
wbrsStatus	String(20)	Required	Application Receive Date(yyyyMMdd)

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L16000000",
  "applicationType": "NEW",
  "regNo": "",
```

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```
"chgName": 0,  
"chgAddr": 0,  
"engName": "Chan Tai Man",  
"chiName": "陳大文",  
"titleId": 1,  
"hkid": "J1111111",  
"addrLang": "e",  
"addrFlat": "",  
"addrFloor": "",  
"addrBlock": "",  
"addrBlg": "",  
"addrSt": "",  
"addrDistrict": "",  
"addrAreaId": 1,  
"deptName": "TESTING DEPT",  
"compAddrSame": 0,  
"compAddrLang": "e",  
"compAddrFlat": "",  
"compAddrFloor": "",  
"compAddrBlock": "",  
"compAddrBlg": "",  
"compAddrSt": "",  
"compAddrDistrict": "",  
"compAddrAreaId": 2,  
"compPost": "Post",  
"emailAddr": "testing@email.com",  
"telNo": "22345678",  
"faxNo": "22345678",  
"officeTelNo": "23345678",  
"declareConvictedStatus": 1,  
"declareHavebeenConvicted": 0,  
"declareInfoCorrect": 1,  
"nomiName": "",  
"nomiRank": "",  
"nomiPost": "",  
"nomiDept": "",  
"nomiTel": "",  
"receiveDate": "20100101",  
"wbrsStatus": 0  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

9.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/{{Version}}/EA3/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission and to check if the applicant already exists or not.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
hkid	String(30)		Applicant HKID Number
addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence Address Flat
addrFloor	String(50)		Applicant Correspondence

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			Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
deptName	String(300)		Department Name
compAddrSame	String(1)	Required	Office Address is same as the Correspondence Address or not
compAddrLang	String(1)	Optional	Office Address Language
compAddrFlat	String(50)	Optional	Office Address Flat
compAddrFloor	String(50)	Optional	Office Address Floor
compAddrBlock	String(50)	Optional	Office Address Block
compAddrBlg	String(300)	Optional	Office Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)	Optional	Office Address Street
compAddrDistrict	String(3)	Optional	Office Address District Code
compAddrAreaId	Int	Optional	Office Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone Number
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information

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			stated are true and correct
nomiName	String(100)		Full Name of Nominator
nomiRank	String(100)		Rank (D1 or above) of Nominator
nomiPost	String(300)		Post of Nominator
nomiDept	String(300)		Name of Department of Nominator
nomiTel	String(20)		Contact Number of Nominator
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Applicant already exists
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L16000000",
}
```

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```
"applicationType": "NEW",
"regNo": "",
"chgName": 0,
"chgAddr": 0,
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"hkid": "J1111111",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "",
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 1,
"deptName": "TESTING DEPT",
"compAddrSame": 0,
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 2,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678",
"officeTelNo": "23345678",
"declareConvictedStatus": 1,
"declareHavebeenConvicted": 0,
"declareInfoCorrect": 1,
"nomiName": "",
"nomiRank": "",
"nomiPost": "",
"nomiDept": "",
"nomiTel": "",
"receiveDate": "20100101",
"wbrsStatus": 0
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

9.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EA3/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaforn</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocert	COCR certificate	13	eaforn	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocert	COCR certificate																																											
13	eaforn	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
```

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```
"txID":"0514125f"  
}
```

9.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EA3/Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

10. EE1

10.1. Request Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend Service Domain>/{{Version}}/EE1/GetForm
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

Response - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New Territories]
lotNo	String(200)		Lot No.

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compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	Char(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(3)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence

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			Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	Char(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date

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receiveDate	String(8)		Receipt Date
eesu	Object		eesu Refer to: <u>Response – Content– eesu</u>

[Response – Content– eesu](#)

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of “consent to the commencement of building works” (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 的值分别是什么< 1 = Permit No. 2 ==Reference No. 3 = Contract No.
consentDocNo	String(20)		Section B(a) Permit No. / Reference No. / Contract No.* of

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			“consent to the commencement of building works”:
commenceDateType	String(1)		1=Anticipated 2=Actual
commenceDate	String(10)		Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)		Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal		Total internal floor area of building EE1
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
chklistConsent	String(1)		ee1, section c checkbox 1
chklistLocMap	String(1)		ee1, section c checkbox 2
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Sample Response

{

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```
“applicationNo”: “EE10000001”,  
“bldgEname”: “”,  
“bldgCname”: “”,  
“startNo”: 1  
“startNoAlpha”: “”,  
“endNo”: 1,  
“endNoAlpha”：“”,  
“stEname”: “”,  
“stCname”: “”,  
“districtCd”: “”,  
“areaCd”: 1,  
“lotNo”: “”,  
“compBecEdition”: “”,  
“compEname”: “”,  
“compCname”: “”,  
“represenTitleId”: 1,  
“represenEname”: “”,  
“represenCname”: “”,  
“represenPost”: “”,  
“corresAddrLang”: “”,  
“corresAddrFlat”: “”,  
“corresAddrFloor”: “”,  
“corresAddrBlock”: “”,  
“corresAddrBldg”: “”,  
“corresAddrStartNo”: 1,  
“corresAddrStartNoAlpha”: “”,  
“corresAddrEndNo”: 1,  
“corresAddrEndNoAlpha”: “”,  
“corresAddrSt”: “”,  
“corresAddrDistrictCd”: “”,  
“corresAddrAreaCd”:1,  
“corresTelNo”: “”,  
“corresFaxNo”: “”,  
“corresEmailAddr”: “”,  
“becEdition”: “”,  
“reaTitleId”: 1,  
“reaEname”: “”,  
“reaCname”: “”,  
“reaAddrLang”: “”,  
“reaAddrFlat”: “”,  
“reaAddrFloor”: “”,  
“reaAddrBlock”: “”,  
“reaAddrBldg”: “”,  
“reaAddrStartNo”: 1,  
“reaAddrStartNoAlpha”: “”,  
“reaAddrEndNo”: 0,  
“reaAddrEndNoAlpha”: “”,  
“reaAddrSt”: “”,  
“reaAddrDistrictCd”: “”,  
“reaAddrAreaCd”: 1,
```

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```
“reaTelNo”: “”,  
“reaFaxNo”: “”,  
“reaEmailAddr”: “”,  
“reaRegNo”: “”,  
“reaExpiryDate”: “20100101”,  
“receiveDate” : “20100101”,  
“eesu”:  
{  
    “applicationNo”: “111”,  
    “bldgType”: 1,  
    “bldgTypeOther”: “”,  
    “dateOfDeclarationByRea”: “20100101”,  
    “prevSubNo”: “”,  
    “supersedePreviousForm”: “1”,  
    “dateOfDeclarationByReaInPreviousForm” : “20100101”,  
    “consentBldgWorkMapType”: “”,  
    “consentIssueDate”：“20100101”,  
    “consentDocumentNoType”：“1”,  
    “consentDocNo”: “”,  
    “commenceDateType”: “”,  
    “commenceDate”: “”,  
    “occupationDate”：“”,  
    “consetBldgArea”:100.00,  
    “exemptGrant”: “”,  
    “exemptRefNo”: “”,  
    “exemptDate”: “20100101”,  
    “exemptInstallations”: “”,  
    “chklistConsent”: “”,  
    “chklistLocMap”: “”,  
    “organizationEname”：“”,  
    “organizationCname”：“”,  
    “organizationResEname”：“”,  
    “organizationResCname”：“”  
}  
}
```

10.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend Service Domain>/ {Version}/EE1/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 =

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			Kowloon 3 = New Territories]
lotNo	String(200)		Lot No.
compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(20)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence

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			Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(20)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence

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			E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	eesu Array	Required	eesu Refer to: Request – Content– eesu

Request – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of “consent to the commencement of building works” (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 1 = Permit No. 2 ==Reference No. 3 = Contract No.

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consentDocNo	String(20)		Section B(a) Permit No. / Reference No. / Contract No.* of “consent to the commencement of building works”:
commenceDateType	String(1)		1=Anticipated 2=Actual
commenceDate	String(10)		Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)		Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal		Total internal floor area of building EE1
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
chklistConsent	String(1)		ee1, section c checkbox 1
chklistLocMap	String(1)		ee1, section c checkbox 2
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person'

Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "ee107021458",
  "bldgEname": "string",
  "bldgCname": "string",
  "startNo": 0,
  "startNoAlpha": "string",
  "endNo": 0,
  "endNoAlpha": "string",
  "stEname": "string",
  "stCname": "string",
  "districtCd": "string",
  "areaCd": 0,
  "lotNo": "string",
  "compBecEdition": "2012",
  "compEname": "string",
  "compCname": "string",
```

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```
"represenTitleId": 0,  
"represenEname": "string",  
"represenCname": "string",  
"represenPost": "string",  
"corresAddrLang": "1",  
"corresAddrFlat": "string",  
"corresAddrFloor": "string",  
"corresAddrBlock": "string",  
"corresAddrBldg": "string",  
"corresAddrStartNo": 0,  
"corresAddrStartNoAlpha": "string",  
"corresAddrEndNo": 0,  
"corresAddrEndNoAlpha": "string",  
"corresAddrSt": "string",  
"corresAddrDistrictCd": "string",  
"corresAddrAreaCd": 0,  
"corresTelNo": "string",  
"corresFaxNo": "string",  
"corresEmailAddr": "string",  
"becEdition": "2012",  
"reaTitleId": 0,  
"reaEname": "string",  
"reaCname": "string",  
"reaAddrLang": "1",  
"reaAddrFlat": "string",  
"reaAddrFloor": "string",  
"reaAddrBlock": "string",  
"reaAddrBldg": "string",  
"reaAddrStartNo": 0,  
"reaAddrStartNoAlpha": "string",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "string",  
"reaAddrSt": "string",  
"reaAddrDistrictCd": "string",  
"reaAddrAreaCd": 0,  
"reaTelNo": "string",  
"reaFaxNo": "string",  
"reaEmailAddr": "string",  
"reaRegNo": "string",  
"reaExpiryDate": "20211124",  
"receiveDate": "20211124",  
"eesu": {  
    "applicationNo": "ee107021458",  
    "bldgType": 0,  
    "bldgTypeOther": "string",  
    "dateOfDeclarationByRea": "20211124",  
    "prevSubNo": "string",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByReaInPreviousForm": "20211124",  
    "consentBldgWorkMaptpe": "1",
```

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```
"consentIssueDate": "20211124",
"consentDocumentNoType": "1",
"consentDocNo": "string",
"commenceDateType": "1",
"commenceDate": "string",
"occupationDate": "string",
"consetBldgArea": 0,
"exemptGrant": "1",
"exemptRefNo": "string",
"exemptDate": "20211124",
"exemptInstallations": "string",
"chklistConsent": "1",
"chklistLocMap": "1",
"organizationEname": "string",
"organizationCname": "string",
"organizationResEname": "string",
"organizationResCname": "string"
}
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

10.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version}/EE1/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(20)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New

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			Territories]
lotNo	String(200)		Lot No.
compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(20)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English

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			Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(20)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address

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reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu Refer to: <u>Request – Content– eesu</u>

[Request – Content– eesu](#)

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 * (yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of “consent to the commencement of building works” (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 1 = Permit No. 2 = Reference No.

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consentDocNo	String(20)		3 = Contract No. Section B(a) Permit No. / Reference No. / Contract No.* of “consent to the commencement of building works”:
commenceDateType	String(1)		1=Anticipated 2=Actual
commenceDate	String(10)		Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)		Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal		Total internal floor area of building EE1
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
chklistConsent	String(1)		ee1, section c checkbox 1
chklistLocMap	String(1)		ee1, section c checkbox 2
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of

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			Responsible Person' Representative# CHI
--	--	--	--

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

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```
{  
    "applicationNo": "EE10000001",  
    "bldgEname": "",  
    "bldgCname": "",  
    "startNo": 1  
    "startNoAlpha": "",  
    "endNo": 1,  
    "endNoAlpha": "",  
    "stEname": "",  
    "stCname": "",  
    "districtCd": "",  
    "areaCd": 1,  
    "lotNo": "",  
    "compBecEdition": "",  
    "compEname": "",  
    "compCname": "",  
    "represenTitleId": 1,  
    "represenEname": "",  
    "represenCname": "",  
    "represenPost": "",  
    "corresAddrLang": "",  
    "corresAddrFlat": "",  
    "corresAddrFloor": "",  
    "corresAddrBlock": "",  
    "corresAddrBldg": "",  
    "corresAddrStartNo": 1,  
    "corresAddrStartNoAlpha": "",  
    "corresAddrEndNo": 1,  
    "corresAddrEndNoAlpha": "",  
    "corresAddrSt": "",  
    "corresAddrDistrictCd": "",  
    "corresAddrAreaCd": 1,  
    "corresTelNo": "",  
    "corresFaxNo": "",  
    "corresEmailAddr": "",  
    "becEdition": "",  
    "reaTitleId": 1,  
    "reaEname": "",  
    "reaCname": "",  
    "reaAddrLang": "",  
    "reaAddrFlat": "",  
    "reaAddrFloor": "",  
    "reaAddrBlock": "",  
    "reaAddrBldg": "",  
    "reaAddrStartNo": 1,  
    "reaAddrStartNoAlpha": "",  
    "reaAddrEndNo": 0,  
    "reaAddrEndNoAlpha": "",  
    "reaAddrSt": "",  
    "reaAddrDistrictCd": "",
```

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```
"reaAddrAreaCd": 1,  
"reaTelNo": "",  
"reaFaxNo": "",  
"reaEmailAddr": "",  
"reaRegNo": "",  
"reaExpiryDate": "20100101",  
"receiveDate": "20100101",  
"eesu":  
{  
    "applicationNo": "111",  
    "bldgType": 1,  
    "bldgTypeOther": "",  
    "dateOfDeclarationByRea": "20100101",  
    "prevSubNo": "",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByReaInPreviousForm": "20100101",  
    "consentBldgWorkMaptype": "",  
    "consentIssueDate": "20100101",  
    "consentDocumentNoType": "1",  
    "consentDocNo": "",  
    "commenceDateType": "",  
    "commenceDate": "",  
    "occupationDate": "",  
    "consetBldgArea": 100.00,  
    "exemptGrant": "",  
    "exemptRefNo": "",  
    "exemptDate": "20100101",  
    "exemptInstallations": "",  
    "chklistConsent": "",  
    "chklistLocMap": "",  
    "organizationEname": "",  
    "organizationCname": "",  
    "organizationResEname": "",  
    "organizationResCname": ""  
}  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

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10.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EE1/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
```

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}

10.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EE1/Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

11. EE2

11.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend Service Domain>/{{Version}}/EE2/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

Response - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(20)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New Territories]

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lotNo	String(200)		Lot No.
compBecEdition	String(10)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	String		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(20)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
inspectDate	String(8)		Inspection Date(yyyyMMdd)
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of

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		Registered Engineer Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	String(1)	Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)	REA Correspondence Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence Address Floor
reaAddrBlock	String(50)	REA Correspondence Address Block
reaAddrBldg	String(255)	REA Correspondence Address Building
reaAddrStartNo	Int	REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrEndNo	Int	REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrSt	String(255)	REA Correspondence Address Street
reaAddrDistrictCd	String(20)	REA Correspondence District
reaAddrAreaCd	Int	REA Correspondence Area English Chinese
reaTelNo	String(20)	REA Correspondence Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence E-mail Address
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry Date(yyyyMMdd)
receiveDate	String(8)	Receipt Date(yyyyMMdd)
eesu	Object	eesu Refer to: <u>Response – Content – eesu</u>

[Response – Content - eesu](#)

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Others

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dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousFor m	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)
encloseEel	String(1)		Form EE-EL
encloseElg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEle	String(1)		Form EE-LE
encloseEpb	String(1)		Form EE-PB
stageOneNo	String(20)		Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)		Section B (b) Issue date (m/yyyy) of “occupation approval” (see note 6):
occuApprovalNo	String(20)		Section B(b) Permit No. / Reference No. / Contract No.* of “occupation approval”
consetBldgArea	decimal		Total internal

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			floor area of building EE2
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(1)		section b(e) Installation(s) exempted
chklistOccpApproval	String(1)		ee2,section c checkbox 3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Sample Response

```
{
  "applicationNo": "EE10000001",
  "bldgEname": "",
  "bldgCname": "",
  "startNo": 1
  "startNoAlpha": "",
  "endNo": 1,
  "endNoAlpha": "",
  "stEname": ""}
```

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```
"stCname": "",  
"districtCd": "",  
"areaCd": 1,  
"lotNo": "",  
"compBecEdition": "",  
"compEname": "",  
"compCname": "",  
"represenTitleId": 1,  
"represenEname": "",  
"represenCname": "",  
"represenPost": "",  
"corresAddrLang": "",  
"corresAddrFlat": "",  
"corresAddrFloor": "",  
"corresAddrBlock": "",  
"corresAddrBldg": "",  
"corresAddrStartNo": 1,  
"corresAddrStartNoAlpha": "",  
"corresAddrEndNo": 1,  
"corresAddrEndNoAlpha": "",  
"corresAddrSt": "",  
"corresAddrDistrictCd": "",  
"corresAddrAreaCd": 1,  
"corresTelNo": "",  
"corresFaxNo": "",  
"corresEmailAddr": "",  
"inspectDate": "20100101",  
"reaTitleId": 1,  
"reaEname": "",  
"reaCname": "",  
"reaAddrLang": "",  
"reaAddrFlat": "",  
"reaAddrFloor": "",  
"reaAddrBlock": "",  
"reaAddrBldg": "",  
"reaAddrStartNo": 1,  
"reaAddrStartNoAlpha": "",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "",  
"reaAddrSt": "",  
"reaAddrDistrictCd": "",  
"reaAddrAreaCd": 1,  
"reaTelNo": "",  
"reaFaxNo": "",  
"reaEmailAddr": "",  
"reaRegNo": "",  
"reaExpiryDate": "20100101",  
"receiveDate": "20100101",  
"eesu":  
{
```

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```
“applicationNo”: “111”,  
“bldgType”: 1,  
“bldgTypeOther”: “”,  
“dateOfDeclarationByRea”: “20100101”,  
“prevSubNo”: “”,  
“supersedePreviousForm”: “1”,  
“dateOfDeclarationByRealInPreviousForm” : “20100101”,  
“encloseEeel”: “”,  
“encloseEelg”: “”,  
“encloseEeac”: “”,  
“encloseEele”: “”,  
“encloseEepb”: “”,  
“stageOneNo”：“”,  
“occuApprovalDate”: “”,  
“occuApprovalNo”: “”,  
“consetBldgArea”:100.00,  
“exemptGrant”: “”,  
“exemptRefNo”: “”,  
“exemptDate”: “20100101”,  
“exemptInstallations”: “”,  
“chklistOccpApproval”: “”,  
“organizationEname”：“”,  
“organizationCname”：“”,  
“organizationResEname”：“”,  
“organizationResCname”：“”  
}  
}
```

11.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/ {Version}/EE2/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New

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		Territories]
lotNo	String(200)	Lot No.
compBecEdition	String(10)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	String	Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person English Name
represenCname	String(256)	Representative Person Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address Room/Flat
corresAddrFloor	String(50)	Correspondence Address Floor
corresAddrBlock	String(50)	Correspondence Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address Street
corresAddrSt	String(255)	Correspondence Address Street
corresAddrDistrictCd	String(3)	Options of Correspondence Address District
corresAddrAreaCd	Int	Options of Correspondence Address Area English Chinese
corresTelNo	String(20)	Correspondence Telephone No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail Address
inspectDate	String(8)	Inspection Date(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]

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reaName	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu Refer to: <u>Request – Content– eesu</u>

Request – Content - eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building

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)		Others
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
encloseEel	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
stageOneNo	String(20)		Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)		Section B (b) Issue date (m/yyyy) of “occupation approval” (see note 6):
occuApprovalNo	String(20)		Section B(b) Permit No. / Reference No. / Contract No.* of “occupation approval”
consetBldgArea	decimal		Total internal

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			floor area of building EE2
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(1)		section b(e) Installation(s) exempted
chklistOccpApproval	String(1)		ee2,section c checkbox 3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header "clientID" is null. The header "signature" is null. The header "nonce" is null.
D30002	Header is wrong	The header "clientID" is not found in the list. The header "signature" is incorrect. (MITM Attack) The header "nonce" is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "ee207021447",  
    "bldgEname": "bldgEname",  
    "bldgCname": "中文名",  
    "startNo": 0,  
    "startNoAlpha": "string",  
    "endNo": 0,  
    "endNoAlpha": "string",  
    "stEname": "string",  
    "stCname": "string",  
    "districtCd": "string",  
    "areaCd": 0,  
    "lotNo": "string",  
    "compBecEdition": "2012",  
    "compEname": "compEname",  
    "compCname": "compCname 中文名",  
    "represenTitleId": 0,  
    "represenEname": "string",  
    "represenCname": "string",  
    "represenPost": "string",  
    "corresAddrLang": "1",  
    "corresAddrFlat": "string",  
    "corresAddrFloor": "string",  
    "corresAddrBlock": "string",  
    "corresAddrBldg": "string",  
    "corresAddrStartNo": 0,  
    "corresAddrStartNoAlpha": "string",  
}
```

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```
"corresAddrEndNo": 0,  
"corresAddrEndNoAlpha": "string",  
"corresAddrSt": "string",  
"corresAddrDistrictCd": "string",  
"corresAddrAreaCd": 0,  
"corresTelNo": "string",  
"corresFaxNo": "string",  
"corresEmailAddr": "string",  
"inspectDate": "20211124",  
"reaTitleId": 0,  
"reaEname": "reaEname",  
"reaCname": "rea 中文名",  
"reaAddrLang": "1",  
"reaAddrFlat": "string",  
"reaAddrFloor": "string",  
"reaAddrBlock": "string",  
"reaAddrBldg": "string",  
"reaAddrStartNo": 0,  
"reaAddrStartNoAlpha": "string",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "string",  
"reaAddrSt": "string",  
"reaAddrDistrictCd": "string",  
"reaAddrAreaCd": 0,  
"reaTelNo": "string",  
"reaFaxNo": "string",  
"reaEmailAddr": "string",  
"reaRegNo": "string",  
"reaExpiryDate": "20211124",  
"receiveDate": "20211124",  
"eesu": {  
    "applicationNo": "ee203012221413",  
    "bldgType": 0,  
    "bldgTypeOther": "string",  
    "dateOfDeclarationByRea": "20211124",  
    "prevSubNo": "string",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByReaInPreviousForm": "20211124",  
    "encloseEeel": "1",  
    "encloseEelg": "1",  
    "encloseEeac": "1",  
    "encloseEele": "1",  
    "encloseEepb": "1",  
    "stageOneNo": "EMSD/EEO/BC/34-00002",  
    "occuApprovalDate": "string",  
    "occuApprovalNo": "string",  
    "consetBldgArea": 0,  
    "exemptGrant": "1",  
    "exemptRefNo": "string",  
    "exemptDate": "20211124",
```

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```
"exemptInstallations": "1",
"chklistOccpApproval": "1",
"organizationEname": "string",
"organizationCname": "string",
"organizationResEname": "string",
"organizationResCname": "string"
}
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

11.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version}/EE2/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 =

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		Kowloon 3 = New Territories]
lotNo	String(200)	Lot No.
compBecEdition	String(10)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	String	Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person English Name
represenCname	String(256)	Representative Person Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address Room/Flat
corresAddrFloor	String(50)	Correspondence Address Floor
corresAddrBlock	String(50)	Correspondence Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address Street
corresAddrSt	String(255)	Correspondence Address Street
corresAddrDistrictCd	String(3)	Options of Correspondence Address District
corresAddrAreaCd	Int	Options of Correspondence Address Area English Chinese
corresTelNo	String(20)	Correspondence Telephone No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail Address
inspectDate	String(8)	Inspection Date (yyyyMMdd)
reaTitleId	Int	Options of REA Salutation,

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reaEname	String(256)		[1=Mr.,2=Miss,3=Ms.] Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu Refer to: <u>Request – Content – eesu</u>

Request – Content - eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building

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bldgTypeOther	String(255)	Type of Building Others
dateOfDeclarationByRea	String(8)	Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)	If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)	this submission to supersede a form submitted before? (Please give a “√” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)	Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
encloseEel	String(1)	Form EE-EL
encloseEelg	String(1)	Form EE-LG
encloseEeac	String(1)	Form EE-AC
encloseEle	String(1)	Form EE-LE
encloseEepb	String(1)	Form EE-PB
stageOneNo	String(20)	Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)	Section B (b) Issue date (m/yyyy) of “occupation approval” (see note 6):
occuApprovalNo	String(20)	Section B(b) Permit No. / Reference No. / Contract No.* of “occupation approval”

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consetBldgArea	decimal		Total internal floor area of building EE2
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(1)		section b(e) Installation(s) exempted
chklistOccpApproval	String(1)		ee2,section c checkbox 3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code &

Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "EE10000001",
  "bldgEname": "",
  "bldgCname": "",
  "startNo": 1
  "startNoAlpha": "",
  "endNo": 1,
  "endNoAlpha": "",
  "stEname": "",
  "stCname": "",
  "districtCd": "",
  "areaCd": 1,
  "lotNo": "",
  "compBecEdition": "",
  "compEname": "",
  "compCname": "",
  "represenTitleId": 1,
  "represenEname": "",
  "represenCname": "",
  "represenPost": "",
  "corresAddrLang": "",
  "corresAddrFlat": "",
  "corresAddrFloor": "",
```

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```
"corresAddrBlock": "",  
"corresAddrBldg": "",  
"corresAddrStartNo": 1,  
"corresAddrStartNoAlpha": "",  
"corresAddrEndNo": 1,  
"corresAddrEndNoAlpha": "",  
"corresAddrSt": "",  
"corresAddrDistrictCd": "",  
"corresAddrAreaCd": 1,  
"corresTelNo": "",  
"corresFaxNo": "",  
"corresEmailAddr": "",  
"inspectDate": "20100101",  
"reaTitleId": 1,  
"reaEname": "",  
"reaCname": "",  
"reaAddrLang": "",  
"reaAddrFlat": "",  
"reaAddrFloor": "",  
"reaAddrBlock": "",  
"reaAddrBldg": "",  
"reaAddrStartNo": 1,  
"reaAddrStartNoAlpha": "",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "",  
"reaAddrSt": "",  
"reaAddrDistrictCd": "",  
"reaAddrAreaCd": 1,  
"reaTelNo": "",  
"reaFaxNo": "",  
"reaEmailAddr": "",  
"reaRegNo": "",  
"reaExpiryDate": "20100101",  
"receiveDate": "20100101",  
"eesu":  
{  
    "applicationNo": "111",  
    "bldgType": 1,  
    "bldgTypeOther": "",  
    "dateOfDeclarationByRea": "20100101",  
    "prevSubNo": "",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByReaInPreviousForm": "20100101",  
    "encloseEeel": "",  
    "encloseEelg": "",  
    "encloseEeac": "",  
    "encloseEele": "",  
    "encloseEepb": "",  
    "stageOneNo": ""},
```

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```
    "occuApprovalDate": "",  
    "occuApprovalNo": "",  
    "consetBldgArea": 100.00,  
    "exemptGrant": "",  
    "exemptRefNo": "",  
    "exemptDate": "20100101",  
    "exemptInstallations": "",  
    "chklistOccpApproval": "",  
    "organizationEname": "",  
    "organizationCname": "",  
    "organizationResEname": "",  
    "organizationResCname": ""  
}  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

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11.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/ {Version}/EE2/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
```

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```
"txID":"0514125f"  
}
```

11.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EE2/Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

12. EE3

12.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend Service Domain>/{{Version}}/EE3/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
  "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

12.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend Service Domain>/ {Version}/EE3/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New

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		Territories]
compBecEdition	String(30)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	Int	Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person English Name
represenCname	String(256)	Representative Person Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address Room/Flat
corresAddrFloor	String(50)	Correspondence Address Floor
corresAddrBlock	String(50)	Correspondence Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address Street
corresAddrSt	String(255)	Correspondence Address Street
corresAddrDistrictCd	String(3)	Options of Correspondence Address District
corresAddrAreaCd	Int	Options of Correspondence Address Area English Chinese
corresTelNo	String(20)	Correspondence Telephone No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail Address
becEdition	String(10)	REA BEC Edition
becDate	String(8)	REA BEC building services installations covered Date *(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation,

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reaEname	String(256)		[1=Mr,2=Miss,3=Ms.]
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
cocr	Array of Objects		Refer to: <u>Response-Content-COCR</u>
foc	Array of Objects		Refer to: <u>Response-Content-foc</u>
eesu	Object		Refer to: <u>Response-Content-eesu</u>

Request – Content–COCR

Parameter	Type	Condition	Description
submissionId	Int		Application

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			Submission ID
applicationNo	String(20)		WBRS Application Number
expiryDate	String(8)		Expiry Date(yyyyMMdd)
regNo	String(20)		Registration No.

Request – Content–FOC

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
issueDate	String(8)		Date of Issue(yyyyMMdd)
becEdition	String(20)		Edition of Code of Practice applied

Request – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)

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encloseEel	String(1)		Form EE-EL
encloseElg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEle	String(1)		Form EE-LE
encloseEpb	String(1)		Form EE-PB
encloseEepb	String(1)		Form EE-PB
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.

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details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
----------------	--------	----------	--

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "category": "1",
  "seq": 1,
  "applicationNo": "ee307021510",
  "bldgEname": "bldgEname",
  "bldgCname": "bldgCname 中文",
  "startNo": "01",
  "startNoAlpha": "string",
  "endNo": "22",
  "endNoAlpha": "string",
  "stEname": "stEname",
  "stCname": "stCname 中文",
  "districtCd": "001",
  "areaCd": "1",
  "coorRegNo": "string",
  "compBecEdition": "2012",
  "compEname": "compEname",
  "compCname": "compCname 中文",
  "represenTitleId": 0,
  "represenEname": "represenEname",
  "represenCname": "represenCname 中文",
  "represenPost": "string",
  "corresAddrLang": "E",
  "corresAddrFlat": "string",
}
```

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```
"corresAddrFloor": "string",
"corresAddrBlock": "string",
"corresAddrBldg": "string",
"corresAddrStartNo": 0,
"corresAddrStartNoAlpha": "string",
"corresAddrEndNo": 0,
"corresAddrEndNoAlpha": "stirng",
"corresAddrSt": "string",
"corresAddrDistrictCd": "001",
"corresAddrAreaCd": 1,
"corresTelNo": "stirng",
"corresFaxNo": "string",
"corresEmailAddr": "a@a.a",
"becdate": "20211119",
"corresSigndate": "20211119",
"recedeate": "20211119",
"becEdition": "2012",
"inspectdate": "20211119",
"reaTitleId": 0,
"reaEname": "reaEname",
"reaCname": "reaCname 名字",
"reaAddrLang": "E",
"reaAddrFlat": "string",
"reaAddrFloor": "string",
"reaAddrBlock": "stirng",
"reaAddrBldg": "stirng",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "string",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "string",
"reaAddrSt": "string",
"reaAddrDistrictCd": "001",
"reaAddrAreaCd": 1,
"reaTelNo": "string",
"reaFaxNo": "string",
"reaEmailAddr": "string",
"reaRegNo": "string",
"reaExpirydate": "20211119",
"reaSigndate": "20211119",
"formstatus": 0,
"forwarduserid": "string",
"statusCode": "1",
"wbrsStatus": "0",
"eesu": {
  "applicationNo": "ee307021510",
  "category": "1",
  "seq": 1,
  "bldgType": 0,
  "submissionId": 0,
  "bldgTypeOther": "string",
```

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```
"dateOfDeclarationByRea": "20211119",
"supersedePerviousForm": "1",
"dateOfDeclarationByReaInPreviousForm": "20211119",
"prevSubNo": "string",
"parentForm": "1",
"stageOneNo": "1",
"encloseEeel": "1",
"encloseEelg": "1",
"encloseEeac": "1",
"encloseEele": "1",
"encloseEepb": "1",
"exemptGrant": "1",
"exemptRefNo": "1",
"ownerSingdate": "20211119",
"reaSingdate": "20211119",
"exemptdate": "20211119",
"exemptInstallations": "exemptInstallations",
"organizationEname": "organizationEname",
"organizationCname": "organizationCname",
"organizationResEname": "organizationResEname",
"organizationResCname": "organizationResCname 名字",
"statusCode": "1"
},
"foc": [
{
"category": "1",
"seq": 1,
"applicationNo": "ee307021510",
"subSeq": 1,
"refNo": "string",
"issuedate": "20211119",
"becEdition": "2012",
"isTypeLg": "1",
"isTypeAc": "1",
"isTypeEl": "1",
"isTypeLe": "1",
"statusCode": "1"
},
],
"cocr": [
{
"category": "1",
"seq": 1,
"applicationNo": "ee307021510",
"subSeq": 1,
"regNo": "string",
"expirydate": "20211119",
"statusCode": "1"
}
]
```

```
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": " D00000 "  
}
```

12.3. Validate Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version}/EE3/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese

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		[1=Hong Kong 2 = Kowloon 3 = New Territories]
compBecEdition	String(30)	Company BEC Edition
compEname	String(256)	-Company Name of Developer Name English
compCname	String(256)	Company Name of Developer Name Chinese
represenTitleId	Int	Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)	Representative Person English Name
represenCname	String(256)	Representative Person Chinese Name
represenPost	String(256)	Representative Position
corresAddrLang	String(1)	Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)	Correspondence Address Room/Flat
corresAddrFloor	String(50)	Correspondence Address Floor
corresAddrBlock	String(50)	Correspondence Address Block
corresAddrBldg	String(255)	Correspondence Address Building
corresAddrStartNo	Int	Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)	Correspondence Address Street No.
corresAddrEndNo	Int	Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)	Correspondence Address Street
corresAddrSt	String(255)	Correspondence Address Street
corresAddrDistrictCd	String(3)	Options of Correspondence Address District
corresAddrAreaCd	Int	Options of Correspondence Address Area English Chinese
corresTelNo	String(20)	Correspondence Telephone No.
corresFaxNo	String(20)	Correspondence Fax No.
corresEmailAddr	String(100)	Correspondence E-mail Address
becEdition	String(10)	REA BEC Edition
becDATE	String(8)	REA BEC building services installations covered

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		Date(yyyyMMdd)
reaTitleId	Int	Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)	Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)	REA Chinese Name
reaAddrLang	String(1)	Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)	REA Correspondence Address Room/Flat
reaAddrFloor	String(50)	REA Correspondence Address Floor
reaAddrBlock	String(50)	REA Correspondence Address Block
reaAddrBldg	String(255)	REA Correspondence Address Building
reaAddrStartNo	Int	REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrEndNo	Int	REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)	REA Correspondence Address Street No.
reaAddrSt	String(255)	REA Correspondence Address Street
reaAddrDistrictCd	String(3)	REA Correspondence District
reaAddrAreaCd	Int	REA Correspondence Area English Chinese
reaTelNo	String(20)	REA Correspondence Telephone No.
reaFaxNo	String(20)	REA Correspondence Fax
reaEmailAddr	String(100)	REA Correspondence E-mail Address
reaRegNo	String(20)	REA Registration No.
reaExpiryDate	String(8)	REA Expiry Date(yyyyMMdd)
receiveDate	String(8)	Receipt Date(yyyyMMdd)
cocr	Array of Objects	Refer to: <u>Request – Content–COCR</u>
foc	Array of Objects	Refer to: <u>Request – Content–FOC</u>
eesu	Object	Refer to: <u>Request – Content–eesu</u>

Request – Content–COCR

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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submissionId	Int		Application Submission ID
applicationNo	String(20)		WBRS Application Number
expiryDate	String(8)		Expiry Date(yyyyMMdd)
regNo	String(20)		Registration No.

Request – Content–FOC

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
issueDate	String(8)		Date of Issue(yyyyMMdd)
becEdition	String(20)		Edition of Code of Practice applied

Request – Content–eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)

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encloseEel	String(1)		Form EE-EL
encloseElg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEle	String(1)		Form EE-LE
encloseEpb	String(1)		Form EE-PB
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyymmdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	D00000 Success Result.
D20001	Parameter is null.	CE2001 The parameter “Key” is null.
		CE2002 The parameter “WBRSApplicationNo” is null.

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		CE2003	The parameter “Submission Time” is null.
D20002	Already exists.	CE2011	The value of “WBRSAplicationNo” already exists.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “is already used. (Replay Attack)
D40001	Form Validation	CE4001	Lift location not found. Other Validations
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "bldgEname": "4",
  "bldgCname": "4",
  "startNo": 1,
  "startNoAlpha": "4",
  "endNo": 1,
  "endNoAlpha": "4",
  "stEname": "4",
  "stCname": "4",
  "districtCd": "4",
  "areaCd": 1,
  "coorRegNo": "4",
  "compBecEdition": "4",
  "compEname": "4",
  "compCname": "4",
  "represenTitleId": 1,
  "represenEname": "4",
  "represenCname": "4",
  "represenPost": "4",
  "corresAddrLang": "4",
  "corresAddrFlat": "4",
  "corresAddrFloor": "4",
  "corresAddrBlock": "4",
  "corresAddrBldg": "4",
```

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```
"corresAddrStartNo": 1,  
"corresAddrStartNoAlpha": "4",  
"corresAddrEndNo": 1,  
"corresAddrEndNoAlpha": "4",  
"corresAddrSt": "4",  
"corresAddrDistrictCd": "4",  
"corresAddrAreaCd": 1,  
"corresTelNo": "4",  
"corresFaxNo": "4",  
"corresEmailAddr": "4",  
"becDate": "20211119",  
"becEdition": "4",  
"reaTitleId": 1,  
"reaEname": "4",  
"reaCname": "11",  
"reaAddrLang": "4",  
"reaAddrFlat": "4",  
"reaAddrFloor": "4",  
"reaAddrBlock": "4",  
"reaAddrBldg": "4",  
"reaAddrStartNo": 1,  
"reaAddrStartNoAlpha": "4",  
"reaAddrEndNo": 1,  
"reaAddrEndNoAlpha": "4",  
"reaAddrSt": "4",  
"reaAddrDistrictCd": "4",  
"reaAddrAreaCd": 1,  
"reaTelNo": "4",  
"reaFaxNo": "4",  
"reaEmailAddr": "4",  
"reaRegNo": "4",  
"reaExpiryDate": "20211119",  
"formstatus": 1,  
"forwarduserid": "4",  
"statusCode": "1",  
"submissionId": 1,  
"receiveDate": "20211119",  
"wbrsStatus": "4",  
"eesu": {  
    "applicationNo": "4",  
    "category": "4",  
    "seq": 1,  
    "bldgType": 0,  
    "submissionId": 1,  
    "bldgTypeOther": "4",  
    "dateOfDeclarationByRea": "20211122",  
    "supersedePerviousForm": "4",  
    "dateOfDeclarationByRealnPreviousForm": "20211122",  
    "prevSubNo": "4",  
    "parentForm": "4",
```

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```
"encloseEecl": "4",
"encloseEelg": "4",
"encloseEeac": "4",
"encloseEele": "4",
"encloseEepb": "4",
"exemptGrant": "4",
"exemptRefNo": "4",
"ownerSingDate": "20211122",
"reaSingDate": "20211122",
"exemptDate": "20211122",
"exemptInstallations": "4",
"organizationEname": "4",
"organizationCname": "4",
"organizationResEname": "4",
"organizationResCname": "4",
"statusCode": "1      ",
},
"foc": [
{
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "subSeq": 1,
  "refNo": "4",
  "issueDate": "20211122",
  "becEdition": "4",
  "isTypeLg": "4",
  "isTypeAc": "4",
  "isTypeEl": "4",
  "isTypeLe": "4",
  "statusCode": "1      ",
  "submissionId": 1,
},
{
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "subSeq": 1,
  "refNo": "4",
  "issueDate": "20211122",
  "becEdition": "4",
  "isTypeLg": "4",
  "isTypeAc": "4",
  "isTypeEl": "4",
  "isTypeLe": "4",
  "statusCode": "1      ",
  "submissionId": 1,
}
],
}
```

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```
"cocr": [  
  {  
    "category": "4",  
    "seq": 1,  
    "applicationNo": "4",  
    "subSeq": 1,  
    "regNo": "4",  
    "expiryDate": "20211119",  
    "statusCode": "1",  
    "submissionId": 1,  
  
  },  
],  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

12.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EE3/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.
fileName	String	Required	File name with extension of the attachment
shaFileChecksum	String	Required	The SHA file checksum of the attachment
type	String	Required	The type of the attachment
fileContent	String	Required	Base64 encoded content of the attachment

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID

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			during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message	
D00000	Success Result.	D00000	Success Result.
D20001	Parameter is null.	CE2001	The parameter “Key” is null.
		CE2002	The parameter “WBRSApplicationNo” is null.
		CE2003	The parameter “Submission Time” is null.
		CE2004	The parameter “FileName” is null.
		CE2005	The parameter “File” is null.
D20002	Application is invalid	CE2011	The application is not found.
		CE2012	Application status is invalid.
D20003	File is invalid	CE2021	File extension is invalid.
		CE2022	File name is too long.
		CE2023	File Name is invalid.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="}
```

Sample Request (without encryption)

```
{
  "appno": "L160000001",
  "attpath": "",
  "type": "",
  "remark": ""}
```

Sample Response

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```
{  
  "code":"D00000",  
  "message":"D00000",  
  "txID":"0514125f"  
}
```

12.5. Acknowledge Submission Completed

PI Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{Version}/EE3/Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

13. EE4

13.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend Service Domain>/{{Version}}/EE4/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
  "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

13.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/ {Version}/EE4/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		WBRS Application Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
stEname	String(255)		Street English Name
stCname	String(255)		Street Chinese Name
streetNo	int		Street no
EndNo	int		END NO
endNoAlpha	string(10)		END NO ALPHA
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
AreaCd	Int		Options of Area English Chinese
compEname	String(255)		Company Name of Developer Name English
compCname	String(255)		Company Name of

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			Developer Name Chinese
conpFlat	String(50)		Company Flat
conpFloor	String(50)		Company Floor
conpBlock	String(50)		Company Block
otherDescription	String(255)		Other Description
represenEname	String(255)		Name of Responsible Person English
represenCname	String(255)		Name of Responsible Person Chinese
reaTitleId	Int		Options of Representative Person Salutation
responEname	String(255)		Representative Person English name
represenCname	String(255)		Representative Person Chinese name
represenPost	String(256)		Position
corresAddrFlat	String(1)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(256)		Correspondence Address Building
corresAddrStartNo	int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrDistrictCd	String(3)		Options of Correspondence Address District,
corresTelNo	String(100)		Correspondence Telephone No
corresFaxNo	String(100)		Correspondence Fax No
corresEmailAddr	String(100)		Correspondence E-mail Address
compBecEdition	String(100)		Company BEC Edition
becEdition	String(10)		EDITION
inspectDate	String(8)		Personally check the time of building equipment installation covered by this form(yyyyMMdd)
reaEname	String(255)		English name of registered energy appraiser
reaCname	String(255)		Chinese name of registered energy appraiser
reaTitleId	int		Salutation of registered energy appraiser
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat

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reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(50)		REA Correspondence Address Building
reaAddrStartNo	String(255)		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(20)		REA Correspondence Address Street No.
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
submissionId	Int		Application Submission ID

Response – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “√” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:

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			(yyyyMMdd)
encloseEel	String(1)		Form EE-EL
encloseElg	String(1)		Form EE-LG
encloseEac	String(1)		Form EE-AC
encloseEle	String(1)		Form EE-LE
encloseEpb	String(1)		Form EE-PB
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date
exemptInstallations	String(300)		section b(e) Installation(s) exempted
declareInfOcorrect1	String(1)		ee4,section c checkbox 4
declareInfOcorrect2	String(1)		ee4,section c checkbox 5
declareInfOcorrect3	String(1)		ee4,section c checkbox 5-1
declareInfOcorrect4	String(1)		ee4,section c checkbox 5-2
declareInfOcorrect5	String(1)		ee4,section c checkbox 5-3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResEname	String(255)		section c Name of Responsible Person' Representative# CHI

Response – Content– WORK

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
seq	Int		
subseq	Int		
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
completeDate	String(8)		Work Completion Date(yyyyMMdd)

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature” is null. The header “nonce” is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature” is incorrect. (MITM Attack)

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D90000	Unknown Exception	The header “nonce “ is already used. (Replay Attack) Runtime Exception.
---------------	-------------------	--

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "LE08021526",
  "bldgEname": "1",
  "bldgCname": "1",
  "startNo": 0,
  "startNoAlpha": "1",
  "endNo": 0,
  "endNoAlpha": "1",
  "stEname": "1",
  "stCname": "1",
  "districtCd": "1",
  "areaCd": 0,
  "locEname": "1",
  "locCname": "1",
  "locFlat": "1",
  "locFloor": "1",
  "locBlock": "1",
  "locDesc": "1",
  "isOwnerCommonArea": "1",
  "isOwnerCentralBs": "1",
  "isTenantUnit": "1",
  "isOccupierUnit": "1",
  "isOwnerUnit": "1",
  "responTitleId": 0,
  "responEname": "1",
  "responCname": "1",
  "represenTitleId": 0,
  "represenEname": "1",
  "represenCname": "1",
  "represenPost": "1",
  "corresAddrLang": "1",
  "corresAddrFlat": "1",
  "corresAddrFloor": "1",
  "corresAddrBlock": "1",
  "corresAddrBldg": "1",
  "corresAddrStartNo": 0,
  "corresAddrStartNoAlpha": "1",
  "corresAddrEndNo": 0,
  "corresAddrEndNoAlpha": "1",
  "corresAddrSt": "1",
```

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```
"corresAddrDistrictCd": "1",
"corresAddrAreaCd": 0,
"corresTelNo": "1",
"corresFaxNo": "1",
"corresEmailAddr": "1",
"becEdition": "1",
"inspectDate": "20211119",
"reaTitleId": 0,
"reaEname": "1",
"reaCname": "1",
"reaAddrLang": "1",
"reaAddrFlat": "1",
"reaAddrFloor": "1",
"reaAddrBlock": "1",
"reaAddrBldg": "1",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "1",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "1",
"reaAddrSt": "1",
"reaAddrDistrictCd": "1",
"reaAddrAreaCd": 0,
"reaTelNo": "1",
"reaFaxNo": "1",
"reaEmailAddr": "1",
"reaRegNo": "1",
"reaExpiryDate": "20211119",
"formstatus": 0,
"seq": 0,
"forwarduserid": "1",
"receiveDate": "20211119",
"wbrsStatus": "1",
"eesu": {
    "applicationNo": "1",
    "seq": 10,
    "parentForm": "1",
    "bldgType": 0,
    "bldgTypeOther": "1",
    "dateOfDdeclarationByRea": "20211214",
    "supersedePerviusForm": "1",
    "dateOfDdeclarationByReaInPreviousForm": "20211214",
    "prevSubNo": "1",
    "encloseEeel": "1",
    "encloseEelg": "1",
    "encloseEeac": "1",
    "encloseEele": "1",
    "encloseEepb": "1",
    "exemptGrant": "1",
    "exemptRefNo": "1",
    "exemptdate": "20211214",
```

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```
"exemptInstallations": "1",
"declareInfoCorrect1": "1",
"declareInfoCorrect2": "1",
"declareInfoCorrect3": "1",
"declareInfoCorrect4": "1",
"declareInfoCorrect5": "1",
"organizationEname": "1",
"organizationCname": "1",
"organizationResEname": "1",
"organizationResCname": "1"
},
"work": [
{
"applicationNo": "LE08021526",
"seq": 1,
"subSeq": 1,
"worKoc": "1",
"commonArea": "1",
"unit": "1",
"workArea": 0,
"isTypeLg": "1",
"isTypeAc": "1",
"isTypeEl": "1",
"isTypeLe": "1",
"completedate": "20211214"
}
]
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

13.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version}/EE4/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		WBRS Application Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
stEname	String(255)		Street English Name
stCname	String(255)		Street Chinese Name
streetNo	int		Street no
endNo	int		END NO
endNoAlpha	string(10)		END NO ALPHA
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
areaCd	Int		Options of Area English Chinese
compEname	String(255)		Company Name of Developer Name English

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compCname	String(255)		Company Name of Developer Name Chinese
conpFlat	String(50)		Company Flat
conpFloor	String(50)		Company Floor
conpBlock	String(50)		Company Block
otherDescription	String(255)		Other Description
represenEname	String(255)		Name of Responsible Person English
represenCname	String(255)		Name of Responsible Person Chinese
reaTitleId	Int		Options of Representative Person Salutation
responEname	String(255)		Representative Person English name
represenCname	String(255)		Representative Person Chinese name
represenPost	String(256)		Position
corresAddrFlat	String(1)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(256)		Correspondence Address Building
corresAddrStartNo	int		Correspondence Address Street No.
corresAddrStartNoAlpha	String (10)		Correspondence Address Street No.
corresAddrDistrictCd	String (3)		Options of Correspondence Address District,
corresTelNo	String (100)		Correspondence Telephone No
corresFaxNo	String (100)		Correspondence Fax No
corresEmailAddr	String (100)		Correspondence E-mail Address
compBecEdition	String (100)		Company BEC Edition
becEdition	String (10)		EDITION
inspectDate	String(8)		Personally check the time of building equipment installation covered by this form(yyyyMMdd)
reaEname	String(255)		English name of registered energy appraiser
reaCname	String(255)		Chinese name of registered energy appraiser
reaTitleId	int		Salutation of registered energy appraiser
reaAddrFlat	String(50)		REA Correspondence

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reaAddrFloor	String(50)		Address Room/Flat REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(50)		REA Correspondence Address Building
reaAddrStartNo	String(255)		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(20)		REA Correspondence Address Street No.
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)

Response – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “√” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:

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			(yyyyMMdd)
encloseEeel	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
exemptGrant	String (1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date (yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
declareInfOcorrect1	String(1)		ee4,section c checkbox 4
declareInfOcorrect2	String(1)		ee4,section c checkbox 5
declareInfOcorrect3	String(1)		ee4,section c checkbox 5-1
declareInfOcorrect4	String(1)		ee4,section c checkbox 5-2
declareInfOcorrect5	String(1)		ee4,section c checkbox 5-3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResEname	String(255)		section c Name of Responsible Person' Representative# CHI

Response – Content– WORK

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
seq	Int		
subseq	Int		
workloc	String(1024)		Location of Works
commonArea	String (1)		Common Area
unit	String (1)		Unit
isTypElg	String (1)		Lighting
isTypeAc	String (1)		Air Conditioning
isTypeEl	String (1)		Electrical
isTypEle	String (1)		Lift & Escalator
completeDate	String(8)		Work Completion Date(yyyyMMdd)

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message	
D00000	Success Result.	D00000	Success Result.
D20001	Parameter is null.	CE2001	The parameter “Key” is null.
		CE2002	The parameter “WBRSApplicationNo” is null.
		CE2003	The parameter “Submission Time” is null.
D20002	Already exists.	CE2011	The value of “WBRSApplicationNo” already exists.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	CE4001	Lift location not found. Other Validations
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request

```
{  
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
  "applicationNo": "12",  
  "bldgEname": "12",  
  "bldgCname": "12",  
  "startNo": 12,  
  "startNoAlpha": "12",  
  "endNo": 12,  
  "endNoAlpha": "12",  
  "stEname": "12",  
  "stCname": "12",  
  "districtCd": "12",  
  "areaCd": 12,  
  "locEname": "12",  
  "locCname": "12",  
  "locFlat": "1",  
  "locFloor": "1",  
  "locBlock": "1",  
  "locDesc": "1",  
  "isOwnerCommonArea": "1",  
  "isOwnerCentralBs": "1",  
  "isTenantUnit": "1",  
  "isOccupierUnit": "1",  
  "isOwnerUnit": "1",  
  "responTitleId": 1,  
  "responEname": "1",  
  "responCname": "1",  
  "represenTitleId": 1,  
  "represenEname": "1",  
  "represenCname": "1",  
  "represenPost": "1",  
  "corresAddrLang": "1",  
  "corresAddrFlat": "1",  
  "corresAddrFloor": "1",  
  "corresAddrBlock": "1",  
  "corresAddrBldg": "1",  
  "corresAddrStartNo": 1,  
  "corresAddrStartNoAlpha": "11",  
  "corresAddrEndNo": 1,  
  "corresAddrEndNoAlpha": "1",  
  "corresAddrSt": "1",  
  "corresAddrDistrictCd": "1",  
  "corresAddrAreaCd": 1,  
  "corresTelNo": "1",  
}
```

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```
"corresFaxNo": "1",
"corresEmailAddr": "1",
"becEdition": "1",
"inspectDate": "20211117",
"reaTitleId": 1,
"reaEname": "1",
"reaCname": "1",
"reaAddrLang": "1",
"reaAddrFlat": "1",
"reaAddrFloor": "1",
"reaAddrBlock": "1",
"reaAddrBldg": "1",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "1",
"reaAddrEndNo": 1,
"reaAddrEndNoAlpha": "1",
"reaAddrSt": "1",
"reaAddrDistrictCd": "1",
"reaAddrAreaCd": 1,
"reaTelNo": "1",
"reaFaxNo": "1",
"reaEmailAddr": "1",
"reaRegNo": "1",
"reaExpiryDate": "20211117",
"formstatus": 1,
"seq": 1,
"forwarduserid": "1",
"receiveDate": "20211117",
"eesu": {
  "applicationNo": "12",
  "seq": 1,
  "parentForm": "1",
  "bldgType": 1,
  "bldgTypeOther": "1",
  "dateOfDeclarationByRea": "20211119",
  "supersedePerviousForm": "1",
  "dateOfDeclarationByReaInPreviousForm": "20211119",
  "prevSubNo": "1",
  "encloseEecl": "1",
  "encloseEelg": "1",
  "encloseEeac": "1",
  "encloseEele": "1",
  "encloseEepb": "1",
  "exemptGrant": "1",
  "exemptRefNo": "1",
  "exemptDate": "20211119",
  "exemptInstallations": "1",
  "declareInfoCorrect1": "1",
  "declareInfoCorrect2": "1",
  "declareInfoCorrect3": "1",
```

INTERFACE SPECIFICATION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
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```
"declareInfoCorrect4": "1",
"declareInfoCorrect5": "1",
"organizationEname": "1",
"organizationCname": "1",
"organizationResEname": "1",
"organizationResCname": "1",

},
"work": [
{
"applicationNo": "12",
"seq": 1,
"subSeq": 1,
"worKoc": "1",
"commonArea": "1",
"unit": "1",
"isTypeLg": "1",
"isTypeAc": "1",
"isTypeEl": "1",
"isTypeLe": "1",
"completeDate": "20211119",

}
],
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

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13.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EE4/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message	
D00000	Success Result.	D00000	Success Result.
D20001	Parameter is null.	CE2001	The parameter “Key” is null.
		CE2002	The parameter “WBRSApplicationNo” is null.
		CE2003	The parameter “Submission Time” is null.
		CE2004	The parameter “FileName” is null.
		CE2005	The parameter “File” is null.
D20002	Application is invalid	CE2011	The application is not found.
		CE2012	Application status is invalid.
D20003	File is invalid	CE2021	File extension is invalid.
		CE2022	File name is too long.
		CE2023	File Name is invalid.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

13.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/ {Version} /EE4 /Status /SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y=  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

14. PAYMENT COMPLETED

API Description

Name	Description
Service Full Name	Payment Completed
URL	<Backend_Service_Domain>/ {Version}/payment/submitData
Request Type	POST
Service Version	1
Description of Service	To change the status of record after payment has been completed and save payment record to E-payment table.

Request Headers

Parameter	Type	Condition	Description
clientID	String	Required	Client identifier for finding out the client secret in the backend.

Request Parameters

Parameter	Type	Condition	Description
action	String	Required	Action to be done
state	String	Required	State
data	Data object	Required	Refer to: Request – Content – Date

Request – Content – Data

Parameter	Type	Condition	Description
division_code	String(20)	Required	Division Code of the form
form_code	String(60)	Required	Form Code
app_no	String(10)	Required	WBRS Application Number
name	String(200)	Optional	Applicant Name
address	String(400)	Optional	Applicant Address
tel	String(17)	Optional	Applicant Telephone Number
email	String(150)	Optional	Applicant Email
lang	String(2)	Required	Language
expiry_date	String(8)	Optional	Expiry Date(yyyyMMdd)
result_return_url	String(400)	Required	Result Return URL
receipt_return_url	String(400)	Optional	Receipt Return URL
remark	String(4000)	Optional	Remarks
sender	String(150)	Optional	Sender

Response Parameters

Parameter	Type	Condition	Description
state	String	Required	State of result
status	String	Required	Status of result, “0” for Success Case and “1” for Error Case
expiry_date	String	Required	Expiry Date, returned when Success
error_code	String	Required	Error Code, returned when have Error
error_message	String	Required	Error Message, returned when have Error

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Response – Code & Message

Code	Description	Message
003	Incorrect Parameter	Request parameter not correct

Sample Request

```
{  
    "action": "submitRequestByWBRSApplication",  
    "state": "e893647dc4204eb9b7b8eddd527b687c",  
    "data": {  
        "division_code": "EA",  
        "form_code": "FORM1",  
        "app_no": "L160000001",  
        "name": "Chan Tai Man",  
        "address": "address",  
        "tel": "21234567",  
        "email": "test@email.com.hk",  
        "lang": "en",  
        "expiry_date": "20211122",  
        "result_return_url": "https://{end_point}/1/payment/result",  
        "receipt_return_url": "https://{end_point}/1/form/receipt",  
        "remark": "remarks",  
        "sender": "testsender@email.com.hk"  
    }  
}
```

Sample Response (Success Case)

```
{  
    "state": "e893647dc4204eb9b7b8eddd527b687c",  
    "status": 0,  
    "expiry_date": "20211122"  
}
```

Sample Response (Error Case)

```
{  
    "state": "e893647dc4204eb9b7b8eddd527b687c",  
    "status": 1,  
    "error_code": "003",  
    "error_message": "Request parameter not correct"  
}
```

SYSTEM SPECIFICATION
ON
DATA MANAGEMENT SYSTEM
FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR
ENERGY EFFICIENCY OFFICE
OF
ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)



By



| Version: 0.24

January 2022

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SYSTEM SPECIFICATION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT
(EMSD)

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Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	Draft Version	All	0.1	14/01/2022
2	<u>Add E-Tracking & E-Notification</u>	<u>3.4.5</u>	<u>0.2</u>	<u>28/01/2022</u>
3	<u>Update Related Requirement and Function ID</u>	<u>2</u>	<u>0.3</u>	<u>11/02/2022</u>

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<u>2.2.1.7</u>	<u>ASS-007 View WBRS Records of REA1</u>	28	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
<u>2.2.1.8</u>	<u>ASS-008 View WBRS Records of REA3</u>	32	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
<u>2.2.2</u>	<u>Registered Energy Assessor</u>	35	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Not Bold, Check spelling and grammar
<u>2.2.2.1</u>	<u>Maintain REA Case</u>	35	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
<u>2.2.2.2</u>	<u>Genereate REA E-Licence</u>	38	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Not Bold, Check spelling and grammar
<u>2.2.2.3</u>	<u>Maintain REA Registration</u>	40	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
<u>2.2.3</u>	<u>Certificate of Compliance Registration</u>	42	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
<u>2.2.3.1</u>	<u>Maintain COCR Case</u>	42	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
<u>2.2.3.2</u>	<u>Genereate COCR E-Licence</u>	43	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Not Bold, Check spelling and grammar
<u>2.2.3.3</u>	<u>Maintain COCR Registration</u>	45	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
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<u>4.</u>	<u>REPORTS</u>	47	Formatted: Default Paragraph Font, Font: (Default) + Body (Calibri), Check spelling and grammar
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1. DEFINITION AND CONVENTION

1.1 Definition

In this document, unless the context otherwise requires, the following expressions have the following meanings:

Term	Definition
BEEO	Buildings Energy Efficiency Ordinance
WBRS	Web-based Registration Services for online application submission.
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance

2. FUNCTIONAL SPECIFICATION

2.1 Function Summary

The following naming convention is used for naming the functions:

This function list defines the functions to be provided by the required system.

Function ID = [Category] + [3-digit Sequence Number]

Category	Function
ASS	Assignment of WBRS Records
SDM	Submission & Case Document Management
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance

Category	Function ID	Function Name
ASS	ASS-001	Search WBRS Records of COCR/FOC
	ASS-002	View WBRS Records of EE1
	ASS-003	View WBRS Records of EE2
	ASS-004	View WBRS Records of EE3
	ASS-005	View WBRS Records of EE4
	ASS-006	Search WBRS Records of REA
	ASS-007	View WBRS Records of REA1
	ASS-008	View WBRS Records of REA3
REA	REA-001	Maintain REA Case
	REA-002	Generate REA E-Licence
	REA-003	Maintain REA Registration
COCR	COCR-001	Maintain COCR Case
	COCR -002	Generate COCR E-Licence
	COCR -003	Maintain COCR Registration

2.2 Function Definition

2.2.1 Assignment of WBRS Records

2.2.1.1 ASS-001 Search WBRS Records of COCR/FOC

Function ID	:	ASS-001	Mode	:	Online/Update
Name	:	Search WBRS Records of COCR/FOC			
Frequency	:	(Min: 0 Avg: 1000 Max: 2000)	Period	:	Yearly
Description:					

This function allows user to search all WBRS records of EE1, EE2, EE3, EE4.

Related Path: [Assignment]>[Assign WBRS Record]

- User can use the [Status] dropdown to filter WBRS records.
- User can see a list of WBRS record summary with below infomations.

Column	Description
Select to Assign	Checkbox to assign/cancel
Submission Type	Options: <ul style="list-style-type: none">- EE1- EE2- EE3- EE4
Application No.	Application Number generated from WBRS Link to WBRS Record details page
Building Name	Building Name
Building Address	Building Address
Receive Date	Receive Date
Status	Options: <ul style="list-style-type: none">- PENDING- NEW- CONVERTED- CANCELLED
Inspector	Inspector of the assignment
Engineer	Engineer of the assignment

- User can click on the specified row to view the WBRS record details.
- User can filter records where [Status] = NEW, check the [Select to Assign] checkbox, select [Inspector] dropdown and [Engineer] dropdown and then click [Assign] button to complete the assignment, the [Status] of the record(s) will be updated from “NEW” to “CONVERTED”.
- User can filter records where [Status] = “NEW”/“PENDING”, check the [Select to

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Assign] checkbox, input [Cancel Reason] and then click [Cancel] button to cancel the application, the [Status] of the record(s) will be updated from “NEW”/“PENDING” to “CANCELLED”.

Related Requirements:

REQ-3001 – COCR Case Maintenance

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2.2.1.2 ASS-002 View WBRS Records of EE1

Function ID	:	ASS-002	Mode	:	Online/Update
Name	:	View WBRS Records of EE1			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly
Description:					
This function allows user to view the details of WBRS records of EE1.					
Related Path: [Assignment]>[Assign WBRS Record]					
User can click on the specified row to view the details of WBRS record with below informations					
WBRS - EE1 Record Details					
Field	Type	Details			
Application No.	Textbox	WBRS Application Number			
Building Name (English)	Textbox				
Building Name (Chinese)	Textbox				
Cancel Reason	Textarea				
Address of Proposed Building	Label				
Street No.	Label				
Start No.	Textbox	Street Start No.			
Alpha	Textbox	Street Start No. Alpha			
End No.	Textbox	Street End No.			
Alpha	Textbox	Street End No. Alpha			
Street	Label				
English	Textbox	Street English Name			
Chinese	Textbox	Street Chinese Name			
District	Textbox				
Area	Textbox				
Lot No.	Textbox				
Developer					
BEC Edition	Textbox				
Company Name (English)	Textbox				
Company Name (Chinese)	Textbox				
Salutation	Radio Button	Options: - Mr. - Miss - Ms.			
Position	Textbox				
Name (English)	Textbox	Developer Name (English)			

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Name (Chinese)	Textbox	Developer Name (Chinese)
Correspondence Address	Label	Developer Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	REA Correspondence Addresss
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	

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Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	Date format = dd/MM/yyyy
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commercial & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	Date format = dd/MM/yyyy
Supersede Previous Form	Radio Button	Options: - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Consent Building Work MapType	Radio Button	Options: - plan - map
Consent Issue Date	Textbox	
Consent Document No. Type	Radio Button	Options: - Permit No. - Reference No. - Contract No.
Consent Document No.	Textbox	
Commence Date Type	Radio Button	Options: - Anticipated - Actual
Commence Date	Textbox	
Occupation Date	Textbox	

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Internal Floor Area(m ²)	Textbox		
Exemption Grant	Radio Button	Options: <input type="radio"/> Yes <input type="radio"/> No	
Exemption Reference No.	Textbox		
Exemption Date	Textbox		
Exemption Installations	Textbox		
Checklist of Document Proof that must be submitted	Label		
Copy of consent to the commencement of building works	Checkbox		
Site location plan/ map * in A3 size	Checkbox		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: <input type="radio"/> Submission Form <input type="radio"/> Acknowledgement Letter / Memo <input type="radio"/> Request for Supplementary Information Letter / Memo <input type="radio"/> Checklist for general Checking <input type="radio"/> Inspection Notice <input type="radio"/> Detailed Compliance Checklist <input type="radio"/> Inspection Report <input type="radio"/> Improvement Notice <input type="radio"/> Others <input type="radio"/> S29 Letter <input type="radio"/> Reminder letters <input type="radio"/> COCR certificate <input type="radio"/> EA form
		Remark	

Related Requirements:

REQ-3001 – COCR Case Maintenance

2.2.1.3 ASS-003 View WBRS Records of EE2

Function ID	:	ASS-003	Mode	:	Online/Update
Name	:	View WBRS Records of EE2			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of EE2.

Related Path: [Assignment]>[Assign WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS - EE2 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	
Cancel Reason	Textarea	
Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Lot No.	Textbox	
Developer		
BEC Edition	Textbox	
Company Name	Textbox	

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(English)		
Company Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Position	Textbox	
Name (English)	Textbox	Developer Name (English)
Name (Chinese)	Textbox	Developer Name (Chinese)
Correspondence Address	Label	Developer Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	REA Correspondence Addresss
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.

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Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: <ul style="list-style-type: none"> - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commercial & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	
Supersede Previous Form	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Technical Forms Enclosed	Label	
Form EE-EL	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA

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Form EE-LG	Radio Button	Options: - Yes - NA						
Form EE-AC	Radio Button	Options: - Yes - NA						
Form EE-LE	Radio Button	Options: - Yes - NA						
Form EE-PB	Radio Button	Options: - Yes - NA						
Reference Number of Stage One Declaration	Textbox							
Issue Date of "occupation approval"	Textbox							
Reference No. of "occupation approval"	Textbox							
Total internal floor area of the building (m^2)	Textbox							
Exemption Grant	Radio Button	Options: - Yes - No						
Exemption Reference No.	Textbox							
Exemption Date	Textbox							
Exemption Installations	Textarea							
Checklist of Document Proof that must be submitted	Label							
Copy of occupation approval	Checkbox							
Responsible Person	Label							
Organization Name (English)	Textbox							
Organization Name (Chinese)	Textbox							
Name (English)	Textbox							
Name (Chinese)	Textbox							
Attachment								
Attachment	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>File Name</td> <td>File full name</td> </tr> <tr> <td>Type</td> <td>Options: - Submission Form</td> </tr> </tbody> </table>	Name	Details	File Name	File full name	Type	Options: - Submission Form
Name	Details							
File Name	File full name							
Type	Options: - Submission Form							

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			<ul style="list-style-type: none"> - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form 	
Remark				

Related Requirements:

REQ-3001 – COCR Case Maintenance

2.2.1.4 ASS-004 View WBRS Records of EE3

Function ID	:	ASS-004	Mode	:	Online/Update
Name	:	View WBRS Records of EE3			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of EE3.

Related Path: [Assignment]>[Assign WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – EE3 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Cancel Reason	Textarea	
Information of Building		
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	

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Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
COCR Registration No.	Textbox	
Owner		
Name (English)	Textbox	
Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Representative Person	Label	
Position	Textbox	
Name (English)	Textbox	Representative Person Name (English)
Name (Chinese)	Textbox	Representative Person Name (Chinese)
Correspondence Address	Label	Representative Person Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	

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Registered Energy Assessor		
BEC Edition	Textbox	
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addressss	Label	
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of

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		airport - Educational - Other composite use														
Other composite use	Textbox	Description of Other composite use														
Date of Declaration by REA	Textbox															
Supersede Previous Form	Radio Button	Options: - Yes - No														
Previous Submission No.	Textbox															
Date of Declaration by REA in Previous Form	Textbox															
Technical Forms Enclosed	Label															
Form EE-EL	Radio Button	Options: - Yes - NA														
Form EE-LG	Radio Button	Options: - Yes - NA														
Form EE-AC	Radio Button	Options: - Yes - NA														
Form EE-LE	Radio Button	Options: - Yes - NA														
Form EE-PB	Radio Button	Options: - Yes - NA														
Registration	Grid	<table border="1"> <thead> <tr> <th>Name</th><th>Details</th></tr> </thead> <tbody> <tr> <td>Registration No.</td><td></td></tr> <tr> <td>Expiry Date</td><td></td></tr> </tbody> </table>	Name	Details	Registration No.		Expiry Date									
Name	Details															
Registration No.																
Expiry Date																
Form of Compliance	Grid	<table border="1"> <thead> <tr> <th>Name</th><th>Details</th></tr> </thead> <tbody> <tr> <td>Location of Works</td><td></td></tr> <tr> <td>Date of Issue</td><td></td></tr> <tr> <td>Edition of Code of Practice applied (Year)</td><td></td></tr> <tr> <td>Lighting</td><td>Display Y if Type = LG</td></tr> <tr> <td>Air Conditioning</td><td>Display Y if Type = AC</td></tr> <tr> <td>Electrical</td><td>Display Y if Type = EL</td></tr> </tbody> </table>	Name	Details	Location of Works		Date of Issue		Edition of Code of Practice applied (Year)		Lighting	Display Y if Type = LG	Air Conditioning	Display Y if Type = AC	Electrical	Display Y if Type = EL
Name	Details															
Location of Works																
Date of Issue																
Edition of Code of Practice applied (Year)																
Lighting	Display Y if Type = LG															
Air Conditioning	Display Y if Type = AC															
Electrical	Display Y if Type = EL															

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		Lift & Escalator	Display Y if Type = LE
Exemption Grant	Radio Button	Options: - Yes - No	
Exemption Reference No.	Textbox		
Exemption Date	Textbox		
Exemption Installations	Textarea		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment	Textbox		
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form
		Remark	
Related Requirements:			
REQ-3001 – COCR Case Maintenance			

2.2.1.5 ASS-005 View WBRS Records of EE4

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Function ID	:	ASS-005	Mode	:	Online/Update
Name	:	View WBRS Records of EE4			
Frequency	:	(Min: 0 Avg: 700 Max: 1400)	Period	:	Yearly
Description:					
This function allows user to view the details of WBRS records of EE4.					
Related Path: [Assignment]>[Assign WBRS Record]					
User can click on the specified row to view the details of WBRS record with below informations					
WBRS – EE4 Record Details					
Field	Type	Details			
Application No.	Textbox	WBRS Application Number			
Cancel Reason	Textarea				
Information of Building					
Building Name (English)	Textbox				
Building Name (Chinese)	Textbox				
Address of Building	Label				
Street No.	Label				
Start No.	Textbox	Street Start No.			
Alpha	Textbox	Street Start No. Alpha			
End No.	Textbox	Street End No.			
Alpha	Textbox	Street End No. Alpha			
Street	Label				
English	Textbox	Street English Name			
Chinese	Textbox	Street Chinese Name			
District	Textbox				
Area	Textbox				
Information of Relevant Unit / Common Area					
Name (English)	Textbox				
Name (Chinese)	Textbox				
Location	Label				
Room/Flat	Textbox				
Floor	Textbox				
Block	Textbox				
Other Description	Textbox				
Information of Responsible Person					
Type of Responsible Person	Checkbox	Options: - Owner of the relevant common area			

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		<ul style="list-style-type: none"> - Owner of the relevant central building services installation - Tenant of the relevant unit - Occupier of the relevant unit - Owner of the relevant unit
Name (English)	Textbox	Name of Responsible Person
Name (Chinese)	Textbox	Name of Responsible Person
Representative	Label	
Salutation	Radio Button	Options: <ul style="list-style-type: none"> - Mr. - Miss Ms.
Name (English)	Textbox	Name of Representative Person
Name (Chinese)	Textbox	Name of Representative Person
Position	Textbox	
Correspondence Address	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Inspect Date	Textbox	
Salutation	Radio Button	Options: <ul style="list-style-type: none"> - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	
Room/Flat	Textbox	
Floor	Textbox	

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Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commercial & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	
Supersede Previous Form	Radio Button	Options: - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Technical Forms Enclosed	Label	

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Form EE-EL	Radio Button	Options: - Yes - NA																				
Form EE-LG	Radio Button	Options: - Yes - NA																				
Form EE-AC	Radio Button	Options: - Yes - NA																				
Form EE-LE	Radio Button	Options: - Yes - NA																				
Form EE-PB	Radio Button	Options: - Yes - NA																				
Details of major retrofitting works	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>Location of Works</td> <td></td> </tr> <tr> <td>Common Area</td> <td>Display Y if is selected</td> </tr> <tr> <td>Unit</td> <td>Display Y if is selected</td> </tr> <tr> <td>Area of Works (m²)</td> <td></td> </tr> <tr> <td>Lighting</td> <td>Display Y if Type = LG</td> </tr> <tr> <td>Air Conditioning</td> <td>Display Y if Type = AC</td> </tr> <tr> <td>Electrical</td> <td>Display Y if Type = EL</td> </tr> <tr> <td>Lift & Escalator</td> <td>Display Y if Type = LE</td> </tr> <tr> <td>Work Completion Date</td> <td></td> </tr> </tbody> </table>	Name	Details	Location of Works		Common Area	Display Y if is selected	Unit	Display Y if is selected	Area of Works (m ²)		Lighting	Display Y if Type = LG	Air Conditioning	Display Y if Type = AC	Electrical	Display Y if Type = EL	Lift & Escalator	Display Y if Type = LE	Work Completion Date	
Name	Details																					
Location of Works																						
Common Area	Display Y if is selected																					
Unit	Display Y if is selected																					
Area of Works (m ²)																						
Lighting	Display Y if Type = LG																					
Air Conditioning	Display Y if Type = AC																					
Electrical	Display Y if Type = EL																					
Lift & Escalator	Display Y if Type = LE																					
Work Completion Date																						
Total Area of Works (m ²)	Textbox																					
Exemption Grant	Radio Button	Options: - Yes - No																				
Exemption Reference No.	Textbox																					
Exemption Date	Textbox																					
Exemption Installations	Textarea																					
Checklist of Document Proof that must be submitted	Label																					
Copy of letter, e-mail or	Checkbox																					

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delivery note/receipt etc. to certify that the Form of Compliance has been sent to responsible person of the relevant building / units									
Copy of letter, e-mail or delivery note/receipt etc. to certify that the copy of Form of Compliance has been sent to the following administrator of the building concerned	Label								
Property Management Company	Checkbox								
Building Owner	Checkbox								
N/A	Checkbox								
Responsible Person	Label								
Organization Name (English)	Textbox								
Organization Name (Chinese)	Textbox								
Name (English)	Textbox								
Name (Chinese)	Textbox								
Attachment			Textbox						
Attachment	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>File Name</td> <td>File full name</td> </tr> <tr> <td>Type</td> <td> Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form </td> </tr> </tbody> </table>	Name	Details	File Name	File full name	Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form	
Name	Details								
File Name	File full name								
Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form								

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		Remark	
Related Requirements:			
REQ-3001 – COCR Case Maintenance			

2.2.1.6 ASS-006 Search WBRS Records of REA

Function ID	:	ASS-006	Mode	:	Online/Update																				
Name	:	Search WBRS Records of REA																							
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly																				
Description:																									
This function allows user to search all WBRS records of EA1, EA3.																									
Related Path: [Assignment]>[Assign REA WBRS Record]																									
<ul style="list-style-type: none"> - User can use the [Status] dropdown to filter WBRS records. - User can see a list of WBRS record summary with below infomations. 																									
<table border="1"> <thead> <tr> <th>Column</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Select to Assign</td> <td>Checkbox to assign/cancel</td> </tr> <tr> <td>Submission Type</td> <td>Options: - REA1 - REA3</td> </tr> <tr> <td>Application No.</td> <td>Application Number generated from WBRS Link to WBRS Record details page</td> </tr> <tr> <td>Name</td> <td>Applicant Name</td> </tr> <tr> <td>Registration No.</td> <td>Registration No.</td> </tr> <tr> <td>Receive Date</td> <td>Receive Date</td> </tr> <tr> <td>Status</td> <td>Options: - PENDING - NEW - CONVERTED - CANCELLED</td> </tr> <tr> <td>STO</td> <td>STO of the assignment</td> </tr> <tr> <td>Engineer</td> <td>Engineer of the assignment</td> </tr> </tbody> </table>						Column	Description	Select to Assign	Checkbox to assign/cancel	Submission Type	Options: - REA1 - REA3	Application No.	Application Number generated from WBRS Link to WBRS Record details page	Name	Applicant Name	Registration No.	Registration No.	Receive Date	Receive Date	Status	Options: - PENDING - NEW - CONVERTED - CANCELLED	STO	STO of the assignment	Engineer	Engineer of the assignment
Column	Description																								
Select to Assign	Checkbox to assign/cancel																								
Submission Type	Options: - REA1 - REA3																								
Application No.	Application Number generated from WBRS Link to WBRS Record details page																								
Name	Applicant Name																								
Registration No.	Registration No.																								
Receive Date	Receive Date																								
Status	Options: - PENDING - NEW - CONVERTED - CANCELLED																								
STO	STO of the assignment																								
Engineer	Engineer of the assignment																								

- User can click on the specified row to view the WBRS record details.
- User can filter records where [Status] = NEW, check the [Select to Assign] checkbox, select [STO] dropdown and [Engineer] dropdown and then click [Assign] button to complete the assignment, the [Status] of the record(s) will be updated from “NEW” to “CONVERTED”.
- User can filter records where [Status] = “NEW”/”PENDING”, check the [Select to Assign] checkbox, input [Cancel Reason] and then click [Cancel] button to cancel

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the application, the [Status] of the record(s) will be updated from “NEW”/“PENDING” to “CANCELLED”.

Related Requirements:

REQ-2001 – REA Case Maintenance

2.2.1.7 ASS-007 View WBRS Records of REA1

Function ID	:	ASS-007	Mode	:	Online/Update
Name	:	View WBRS Records of REA1			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of REA1.

Related Path: [Assignment]>[Assign REA WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – REA1 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Receive Date	Textbox	
Application Type	Textbox	
Change of Particulars	Checkbox	Options: - Name - Correspondence Address - Professional Qualification
Registration No.	Textbox	
Expiry Date	Textbox	
Cancel Reason	Textarea	
Personal Details		
Name (English)	Textbox	Salutation + English Name
Name (Chinese)	Textbox	Salutation + Chinese Name
Date of Birth	Textbox	
HKID / Travel Document Number		
Correspondence Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	

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District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Current Company Name	Textbox	
Current Company Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Current Company Name	Textbox	
Current Company Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Current Position	Textbox	
Email Address	Textbox	
Telephonse No. (Office)	Textbox	
Fax No.	Textbox	
Professional Qualifications		
Name	Details	
Date of Qualified / Membership No.		
Professional Qualifications	Checkbox Options: - Registered professional engineer within the meaning of	

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(Please tick in the appropriate box(s))	section 2(1) of the Engineers Registration Ordinance (Cap.409) <ul style="list-style-type: none"> - Corporate member of the Hong Kong Institution of Engineers (HKIE) - Equivalent qualification recognized by HKIE as being of a standard not lower than that of a corporate member of the Institution in any of these disciplines (please read the attached "Notes to Applicants" Item 2.1) - (Please state your professional membership of the relevant professional body based upon the reciprocal recognition agreements between the HKIE and the professional body) - Other : (please read the attached "Notes to Applicant" Item 2.2) 		
Discipline	Checkbox: <ul style="list-style-type: none"> - BSS - ELL - ENV - MCL 		
Relevant Practical Experience	Label		
	Grid	Name	Details
		From (DD/MM/YY)	
		To (DD/MM/YY)	
		Position	
		Company Name	
		Description	
Checklist of Supporting Documents			
(i) I attach documentary proof of relevant practical experience.	Checkbox		
(ii) I attach a photocopy of document to substantiate my professional qualifications and the qualified discipline.	Checkbox		
(iii) I attach a photocopy of the following documents to substantiate my application made under section 5(2) of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B)	Checkbox	With description Textbox	
Declaration			
Applicable to new application /renewal application only	Label		

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(i) I declare that I have the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance.	Checkbox								
(ii) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	Checkbox								
Applicable to all application	Label								
(iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.	Checkbox								
Attachment			Textbox						
Attachment	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>File Name</td> <td>File full name</td> </tr> <tr> <td>Type</td> <td> Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice </td> </tr> </tbody> </table>	Name	Details	File Name	File full name	Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice	
Name	Details								
File Name	File full name								
Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice								

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			<ul style="list-style-type: none"> - Others - S29 Letter - Reminder letters - COCR certificate - EA form
Remark			

Related Requirements:

[REQ-2001 – REA Case Maintenance](#)[REQ-3001 – COCR Case Maintenance](#)

2.2.1.8 ASS-008 View WBRS Records of REA3

Function ID	:	ASS-008	Mode	:	Online/Update
Name	:	View WBRS Records of REA3			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of REA3.

Related Path: [Assignment]>[Assign REA WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – REA3 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Receive Date	Textbox	
Application Type	Textbox	
Change of Particulars	Checkbox	Options: <ul style="list-style-type: none"> - Name - Correspondence Address
Registration No.	Textbox	
Cancel Reason	Textarea	
Personal Details		
Name (English)	Textbox	Salutation + English Name
Name (Chinese)	Textbox	Salutation + Chinese Name
Date of Birth	Textbox	
HKID	Textbox	
Correspondence Address	Label	
Flat	Textbox	
Floor	Textbox	

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Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Department Name	Textbox	
Office Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Current Position	Textbox	
Email Address	Textbox	
Telephone No. (Office)	Textbox	
Fax No.	Textbox	
Declaration		
Applicable to new application only	Label	
(i) I declare that I have have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional	Checkbox	

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respect.								
(ii) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	Checkbox							
Applicable to all application	Label							
(iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.	Checkbox							
Nomination								
I, the undersigned, on behalf of the Department described in this Section, nominate and support the public officer described in Section A of this form to apply for registration as a Registered Energy Assessor according to the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B).	Label							
Full Name of Nominator	Textbox							
Rank (D1 or above)	Textbox							
Post	Textbox							
Name of Department	Textbox							
Contact No.	Textbox							
Attachment			Textbox					
Attachment	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>File Name</td> <td>File full name</td> </tr> <tr> <td>Type</td> <td>Options: - Submission Form - Acknowledgement</td> </tr> </tbody> </table>	Name	Details	File Name	File full name	Type	Options: - Submission Form - Acknowledgement
Name	Details							
File Name	File full name							
Type	Options: - Submission Form - Acknowledgement							

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			<ul style="list-style-type: none"> - Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form 	
Remark				

Related Requirements:

[REQ-2001 – REA Case Maintenance](#)[REQ-3001 – COCR Case Maintenance](#)

2.2.2 Registered Energy Assessor

2.2.2.1 [REA-001](#) Maintain REA Case

Function ID	:	REA-001	Mode	:	Online/Update
Name	:	Maintain REA Case			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

Related Path: [Search]>[Search Case (REA)]

Modify existing REA Case Detail page to facilitate e-licence generation, details as below

Field	Action	Details
REA Reg. No.	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory - Add validation: When [Save] button click, if “Application Type” = “New” and “REA Reg. No.” already exist then show error message “REA Reg No. is Duplicated” - If “Application Type” = “Renew” / “Change of Particulars” then prefill value

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		with Current Registered Energy Assessor Registration No.
REA Name	Update	<ul style="list-style-type: none"> - Disabled
Issue Date (dd/mm/yyyy)	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory - Add validation: When [Save] button click, if "Registered Date First (dd/mm/yyyy)" >= Issue Date then alert error message "Issue Date must be later than Registered Date First"
Status	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Save] button click, check mandatory
Registered Date First (dd/mm/yyyy)	Add	<ul style="list-style-type: none"> - Type: Datepicker - When create/update rea register, update corresponding value in rea register - Add validation: When [Save] button click, if is renew and "Registered Date First (dd/mm/yyyy)" is empty then show alert message
Expiry Date (dd/mm/yyyy)	Add	<ul style="list-style-type: none"> - Type: Datepicker - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory -
Application No	Update	<ul style="list-style-type: none"> - Set value as WBRS application when create case from WBRS record
<u>Application Type</u>	<u>Update</u>	<u>- Disabled</u>
Name (surname first) English	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory
Name (surname first) Chinese	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory
Genereate Certificate	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = "Issue Certificate" / "Pending for CE Confirmation" - Details refer to 2.2.2.2 Genereate REA Elicence
Draft Version	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = "Issue Certificate" / "Pending for CE Confirmation" - Details refer to 2.2.2.2 Genereate REA Elicence
Create/Update	Add	<ul style="list-style-type: none"> - Type: Button

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Register		<ul style="list-style-type: none">- Display: when status = “Issue Certificate” / “Pending for CE Confirmation”- Details refer to 2.2.2.3 Maintain REA Register
Related Requirements:		
REQ-2001 – REA Case Maintenance		
REQ-2002 – REA Certificate Maintenance		
REQ-2003 – REA e-licence Generation		

2.2.2.2 [REA-002](#) Genereate REA E-Licence

Function ID	:	REA-002	Mode	:	Online/Update
Name	:	Genereate REA E-Licence			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly
Description:					

Related Path: [Search]>[Search Case (REA)]

Modify existing REA Case Detail page to provide e-liscence generation function, details of [Genereate Certificate] and [Draft Version] button as below

Function	Details
Genereate Certificate	<ul style="list-style-type: none"> If any available LEK in database, then assign the “REA Reg. No.” to one LEK, else retrieve LEK and corresponding QR code by E-Licence Core API Call E-Licence Core API to create/update E-Licence data, details refer to E-Licence Core API Request Form (REA)  <p>e-liscence core API Request Form (REA).xl</p> <ul style="list-style-type: none"> Generate a full version of REA Certificate in PDF format by a WORD template Append Signature to the PDF file and save a copy to DMS share drive User can download the PDF file when Click [Generate Certificate] button
Draft Version	<ul style="list-style-type: none"> Generate a draft version of REA Certificate in PDF format by a WORD template save a copy to DMS share drive User can download the PDF file when Click [Draft Version] button
E-Payment	<ul style="list-style-type: none"> Add “Pending for Payment”, “Payment Received” to REA1 case status Call Payment API to start Payment process in WBRS When user change status of REA1 case to “Pending for Payment”, system will trigger this function automatically

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Related Requirements:

- REQ-1004 – Online Submitting the Received Application
- REQ-1005 – Facilitate Payment Workflow
- REQ-2002 – REA Certificate Maintenance
- REQ-2003 – REA e-licence Generation
- REQ-5004 – Add Payment Status

2.2.2.3 REA-003 Maintain REA Registration

Function ID	:	REA-0034	Mode	:	Online/Update
Name	:	Maintain REA Registration			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

Related Path: [Search]>[Search REA Register]

Modify existing REA Register page to facilitate e-liscence generation function, details of [Create/Update Register] button as below

Function	Details
Create/Update Register	<ul style="list-style-type: none"> - Convert REA Case data to New/Existing REA Register - When user change status to "REA-Closed (Accepted)", system will trigger this function automatically

Details of REA Register page as below

Field	Action	Details
Case Number	Add	<ul style="list-style-type: none"> - Type: Textbox
Registered Date First	Add	<ul style="list-style-type: none"> - Type: Datepicker
Expiry Date First	Add	<ul style="list-style-type: none"> - Type: Datepicker
Expired	Add	<ul style="list-style-type: none"> - Type: Checkbox - Disabled - Checked: If Today > "Expiry Date"
Renewal	Add	<ul style="list-style-type: none"> - Type: Checkbox - Disabled - Checked: If "Registered Date First" has value
Salutation	Add	<ul style="list-style-type: none"> - Type: Radio Button Options: <ul style="list-style-type: none"> - Mr. - Miss - Ms.
Date of Birth	Add	<ul style="list-style-type: none"> - Type: Datepicker
HKID	Add	<ul style="list-style-type: none"> - Type: Textbox
Address	Add	<ul style="list-style-type: none"> - Type: Textbox
Fax	Add	<ul style="list-style-type: none"> - Type: Textbox
Company Name	Add	<ul style="list-style-type: none"> - Type: Textbox

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Company Post	Add	- Type: Textbox
CompanyAddress	Add	- Type: Textbox
Office Tel	Add	- Type: Textbox
REA Certificate	Update	- Retrive full and draft version of REA Certificate from share drive
Related Requirements:		
REQ-2002 – REA Certificate Maintenance		
REQ-2003 – REA e-licence Generation		

2.2.3 Certificate of Compliance Registration

2.2.3.1 COCR-001 Maintain COCR Case

Function ID	:	COCR-001	Mode	:	Online/Update
Name	:	Maintain COCR Case			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly
Description:					
Related Path: [Search]>[Search Case (EA/FOC/COCR/INSP)]					
Modify existing COCR Case Detail page to facilitate e-liscence generation, details as below					
Field	Action	Details			
BEC Edition	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
COCR Issue Date(dd/mm/yyyy)	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
COCR Expiry Date(dd/mm/yyyy)	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
COCR Cert Number	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
Genereate Certificate	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “COCR Registry Issued” / “Pending for CE Confirmation” - Details refer to 2.2.3.2 Generete COCR Elicence 			
Create/Update Register	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “COCR Registry Issued” / “Pending for CE Confirmation” - Details refer to 2.2.3.3 Maintain COCR Register 			
Related Requirements:					
REQ-3001 – COCR Case Maintenance					
REQ-3002 – COCR Certificate Maintenance					
REQ-3003 – COCR e-liscence Generation					

2.2.3.2 COCR-002 Genereate COCR E-Licence

Function ID	:	COCR-002+	Mode	:	Online/Update
Name	:	Genereate COCR E-Licence			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly

Description:

Related Path: [Search]>[Search Case (EA/FOC/COCR/INSP)]

Modify existing REA Case Detail page to provide e-liscence generation function, details of [Genereate Certificate] and [Draft Version] button as below

Function	Details
Genereate Certificate	<ul style="list-style-type: none"> - If any available LEK in database, then assign the "REA Reg. No." to one LEK, else retrieve LEK and corresponding QR code by E-Liscence Core API - Call E-Liscence Core API to create/update E-Liscence data, details refer to E-Liscence Core API Request Form (COCR)  <p>e-liscence core API Request Form (COCR)</p> <ul style="list-style-type: none"> - Generate a full version of COCR Certificate in PDF format by a WORD template - Append Signature to the PDF file and save a copy to DMS share drive - User can download the PDF file when Click [Generate Certificate] button
E-Payment	<ul style="list-style-type: none"> - Add "Pending for Payment", "Payment Received" to COCR Stage Two case status - Call Payment API to start Payment process in WBRS - When user change status to "Pending for Payment", system will trigger this function automatically

Related Requirements:

REQ-1004 – Online Submitting the Reived Application

REQ-1005 – Facilitate Payment Workflow

REQ-3002 – COCR Certificate Maintenance

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REQ-3003 – COCR e-liscence Generation
REQ-5004 – Add Payment Status

2.2.3.3 COCR-003 Maintain COCR Registration

Function ID	:	COCR-003	Mode	:	Online/Update
Name	:	Maintain COCR Registration			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly

Description:

Related Path: [Search]>[Search COCR Registry]

Add new COCR Registry page to facilitate e-licence generation function, this page store issued COCR Stage Two data

Details of [Create/Update Register] button as below

Function	Details
Create/Update Register	<ul style="list-style-type: none"> - Convert COCR Stage Two Case data to New/Existing REA Register - When user change COCR Stage Two Case status to "COCR-Closed (Accepted)", system will trigger this function automatically

Details of COCR Registry page as below

Field	Type	Value	Details
File No.	Textbox	Case Number	- Disabled
Record ID	Textbox	Submission ID	- Disabled
Cert Number	Textbox	COCR Cert Number	- Disabled
BEC Edition	Textbox	BEC Edition	-
Issue Date	Datepicker	COCR Issue Date	-
Renewal	Checkbox	Checked: if submission type = EE3	- Disabled
Expiry Date	Datepicker	COCR Expiry Date	-
Expired	Checkbox	Checked: if Today > COCR Expiry Date	- Disabled
Subject Engineer	Textbox	Subject Engineer	
<u>Status</u>	<u>Dropdown</u>	<u>Options:</u> - Enable - Disable	
English Building Address	Textbox	English Building Name + "," + Start No. + Start No.	<ul style="list-style-type: none"> - Disabled - Retreive data from Building Master

Formatted: (Asian) Chinese (Traditional, Hong Kong SAR), (Other) English (United States)

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+ Aligned at: 0.63 cm + Indent at: 1.27 cm

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		Alpha + “-“ + End No. + End No. Alpha + English Street Name + Lot. No. + “,” + District + “,” + Area	
Chinese Building Address	Textbox	Chinese Street Name + Start No. + Start No. Alpha + “-“ + End No. + End No. Alpha + “號” + Lot. No. + Chinese Building Name	<ul style="list-style-type: none"> - Disabled - Retreive data from Building Master
REA Reg. No.	Textbox	REA Reg. No.	<ul style="list-style-type: none"> - Disabled
REA Name	Textbox	REA English Name	<ul style="list-style-type: none"> - Disabled - Retreive data from REA Register
COCR Cert	Link	COCR Cert File	
Related Requirements:			
REQ-3002 – COCR Certificate Maintenance			
REQ-3003 – COCR e-licence Generation			

3. BATCH JOBS-NOTIFICATION

3.1 Batch Jobs

Job Name	Description	Schedule	Related Requirements
SendElicenceEmail	After "Payment Received Date" + N days(Configurable), send email with E-Licence as attachment to applicant and inform related parties	TBC	REQ-2003 – REA e-licence Generation REQ-3003 – COCR e-licence Generation REQ-5004 – Add Payment Status

4. E-TRACKING

The following status is used for E-Tracking

Status	Description
<u>Submitted</u>	<u>Application submitted to the system</u>
<u>Acknowledged / In progress</u>	<u>EMSD received the application and start processing</u>
<u>Approved</u>	<u>Application approved</u>
<u>Rejected</u>	<u>Application rejected</u>
<u>Withdrawn</u>	<u>Application withdraws by applicant</u>
<u>Under Clarification</u>	<u>Clarification issued by EMSD and awaiting applicant response</u>

When REA and COCR case status changed in DMS, update corresponding application in WBRS as below

Case Changed in DMS	Actions
<u>WBRS record status changes to “Cancelled”</u>	<u>Update WBRS Application Status = “Rejected”</u>
<u>WBRS record status changes to “Converted”</u>	<u>Update WBRS Application Status = “Acknowledged / In progress”</u>
<u>TBC</u>	

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4.5. REPORTS

SYSTEM SPECIFICATION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)

INTERFACE SPECIFICATION

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



Version: 0.1

July 2022

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INTERFACE SPECIFICATION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL
SERVICES DEPARTMENT (EMSD)

Distribution	
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EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL
SERVICES DEPARTMENT (EMSD)

Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	Draft Version	All	0.1	06/07/2022

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1. ENCRYPTION AND DECRYPTION

According to the “Backend API Specification”, AES encryption should be used between WBRS and backend system. Following are the encryption/decryption algorithm details:

Name	Value	Description
Algorithm Name	AES	The encryption algorithm name
Algorithm Mode	CBC	The mode of algorithm
Algorithm Paddings	PKCS5Padding	The padding of algorithm
Encryption Key	256-bit Encryption Key	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system
Client ID	UUID Version-4	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system
Client Secret	128-bit Encryption Key	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system. The client secret is specifically chosen 128-bit length to use as a random initialization vector (IV) for AES CBC mode.

The encrypted content should be encoded to BASE64 format before submitting through the API. Vice versa, the encrypted text should be decoded from BASE64 format before decryption.

2. SIGNATURE CREATION AND VERIFICATION

Name	Value	Description
Algorithm Name	HMAC SHA-256	The encryption algorithm name
Client ID	UUID Version-4	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system
Client Secret	128-bit Encryption Key	Generate according to “Backend API Specification – Appendix A”, and shared between WBRS and backend system. The client secret is specifically chosen 128-bit length to use as a secret key for HMACSHA256 encryption to Create Signature and Verify Signature.
nonce	UUID Version-4	A nonce is a random string, uniquely generated for each response by backend system API, and shared between WBRS and backend system. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met. For verifying signature, nonce is passed from request header of API and used to create a new signature to be compared.

Sample Code for Signature Creation

```
public string CreateSignature(String nonce, String encryptedContent)
{
    String key = WebConfigurationManager.AppSettings["aesIV"];

    using (var hmacsha256 = new HMACSHA256(Encoding.UTF8.GetBytes(key)))
    {
        var hash = hmacsha256.ComputeHash(Encoding.UTF8.GetBytes(nonce +
            encryptedContent));
        var signature = Convert.ToString(hash);
        return signature;
    }
}
```

3. GET ALL PROFILE(S)

API Description

Name	Description
Service Full Name	Get profiles from the given account
URL	<Backend_Service_Domain>/ {Version}/ GetAllProfiles
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
hkid	String	Required	HKID Number

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

Parameter	Type	Condition	Description
Profile	Profile Array	Required	Details please refer to below section “Content - Profile”.

Content - Profile

Parameter	Type	Condition	Description
Type	String	Required	Pre-defined role type.
Identifier	String	Required	For create user account. (REA1, REA3)
ExpiryDate	long	Optional	It will be expressed in the number of milliseconds since January 1, 1970 00:00:00 GMT.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “hkid” is null.
D20002	Parameter is wrong.	The value of “hkid” is not found.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "hkid": "A123456(7)"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5192VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHgHE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514925f",  
  "Profile": [  
    {  
      "Type": "REA1",  
      "Identifier": "REA1",  
      "ExpiryDate": "1638375778825"  
    }  
  ]  
}
```

4. GET DISTRICT

API Description

Name	Description
Service Full Name	Get district from the given account
URL	<Backend_Service_Domain>/ {Version} / GetDistrict
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

Parameter	Type	Condition	Description
District	District Array	Required	Details please refer to below section “Content - District”.

Content - District

Parameter	Type	Condition	Description
id	Int		ID
districtCd	String(3)		District Code

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ename	String(255)		English Name
cname	String(255)		Chinese Name
scname	String(255)		Second Chinese Name
areaCd	Int		Area Code
remark	String(255)		Remark
modifyDt	String(8)		Modify Date

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5192VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{
  "District": [
    {
      "id": 1,
      "districtCd": "001",
      "ename": "Aberdeen",
      "cname": "香港仔",
      "scname": "香港仔",
      "areaCd": 1,
      "remark": "",
      "modifyDt": "20211213"
    }
  ]
}
```

5. GET REA REGISTRY

API Description

Name	Description
Service Full Name	GetReaRegistry from the given account
URL	<Backend_Service_Domain>/ {Version} / GetReaRegistry
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
hkid	String	Required	HKID Number

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

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Parameter	Type	Condition	Description
rearegno	String(25)	Required	REA Registered No
engname	String(256)		English Name
chiname	String(256)		Chinese Name
regdate	String		Registered Date
expirydate	String		Expiry Date
contacttel	String(50)		Contact Telephone
emailaddr	String(256)		Email Address
engremarks	String(256)		English Remarks
chiremarks	String(256)		Chinese Remarks
status	Int		Status
displayemail	String(1)		Display Email Address
displaycontact	String(1)		Display Contact Telephone
emailaddrnotify	String(256)		Email Address for Notification
createdate	String		Create Date
createby	String(50)		Create By
updatedate	String		Update Date
updateby	String(50)		Update By
caseno	String(20)		Case No
regdatefirst	String		Registered Date First
expriydatefirst	String		Expriy Date First
titleId	Int		Title ID
dateOfBirth	String		Date Of Birth
addrSt	String(300)		Address Street
compName	String(300)		Company Name
compAddrSt	String(300)		Company Address Street
compPost	String(300)		Company Post
officeTelNo	String(50)		Office Telephone No
faxNo	String(50)		Fax No
hkid	String		Hong Kong ID

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “hkid” is null.
D20002	Parameter is wrong.	The value of “hkid” is not found.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

{

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```
"encryptedContent":"sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
```

```
}
```

Sample Request (without encryption)

```
{  
    "hkid": "J1111111"
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514925f",  
    "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK  
mRvXIC8qwdVwRi5192VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE  
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
```

Sample Response (without encryption)

```
{  
    "rearegno": "EA01070G",  
    "engname": "EA01070G_E",  
    "chiname": "EA01070G_C",  
    "regdate": "20211213",  
    "expirydate": "20211213",  
    "contacttel": "0011 3271",  
    "emailaddr": "a@a.com",  
    "engremarks": "001",  
    "chiremarks": "001",  
    "status": 1,  
    "displayemail": "",  
    "displaycontact": "",  
    "emailaddrnotify": "",  
    "createdate": "20211213",  
    "createby": "ASL99",  
    "updatedate": "20211213",  
    "updateby": "ASL99",  
    "caseno": "01070",  
    "regdatefirst": "20211213",  
    "expriydatefirst": "20211213",  
    "titleId": 1,  
    "dateOfBirth": "20211213",  
    "addrSt": "Flat B, 8/F., Block 13, Sceneway Garden, 8 Sceneway Road, Lam Tin,  
Kowloon",  
    "compName": "DFS Group Limited",  
    "compAddrSt": "8/F., Chinachem Golden Plaza, 77 Mody Road, Tsim Sha Tsui, Kowloon",  
    "compPost": "Senior Manager, Facilities Management",  
    "officeTelNo": "0011 3271",  
    "faxNo": "2571 9662",  
    "hkid": ""}
```

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}

6. GET COCR SUBMISSION

API Description

Name	Description
Service Full Name	GetCocrSubmission from the given account
URL	<Backend_Service_Domain>/ {Version} / GetCocrSubmission
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
caseNo	String	Required	Case Number

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

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Parameter	Type	Condition	Description
submissiontype	Int	Required	Submission Type
recevieddate	String(8)		Received Date
buildingid	Int		Building ID
bcedition	String(30)		BEC Edition
developerid	Int		Developer ID
devdeclaredate	String(8)		Dev Declare Date
ownerid	Int		Owner ID
ownerdeclaredate	String(8)		Owner Declare Date
rearegno	String(25)		REA Reg. No.
readeclaredate	String(8)		REA Declare Date
categorycode	String(10)		Category Code
consentdate	String(8)		Consent Date
consentref	String(50)		Consent Ref
commencedate	String(8)		Commence Date
opdate	String(8)		Op Date
opref	String(10)		Op Ref
cocrregno	String(25)		Cocr Register No
caseno	String(20)		Case No
esubmissionref	String(50)		E Submission Ref
esubmissiondate	String(8)		E Submission Date
statuscode	String(10)		Status Code
createdate	String(8)	Required	Create Date
createby	String(50)		Create By
updatedate	String(8)		Update Date
updateby	String(50)		Update By
subjectengineer	String(50)		Subject Engineer
subjectinspector	String(50)		Subject Inspector
ackdate	String(8)		Ack Date
screenby	String(50)		Screen By
screendate	String(8)		Screen Date
reviewby	String(50)		Review By
reviewdate	String(8)		Review Date
dtClosefile	String(8)		File Closure Date
cocrregdate	String(8)		Cocr register Date
lastclarifydate	String(8)		Last Clarify Date
opyear	Int		Op Year
opmonth	Int		Op Month
opday	Int		Op Day
dateexemptreceived	String(8)		Exempt Received Date
datereject	String(8)		Reject Date
dateapproval	String(8)		Approval Date
reminderletterissuedatecocr1	String(8)		Reminder letter IssueDate COCR1
reminderletterissuedatecocr2	String(8)		Reminder letter IssueDate COCR2
inIssuedate	String(8)		IN Issue Date
inExpirydate	String(8)		IN Expiry Date

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inReferenceno	String		IN Reference No
inRemarks	String		IN Remarks
cocrIssuedate	String(8)		COCR Issue Date
cocrExpirydate	String(8)		COCR Expiry Date
cocrCertno	String		COCR Cert Number
areainternfloor	double		Intern Floor Area
gfaNondomestic	double		GFA Non Domestic
gfaDomestic	double		GFA Domestic
carparkno	Int		Carpark No
Party	Array of Objects		Party Refer to: <u>Response – Content– Party</u>

Response – Content– Party

Parameter	Type	Condition	Description
partyid	Int	Required	Party ID
partytype	String(1)	Required	Party Type
engname	String(256)		English Name
chiname	String(256)		Chinese Name
salutation	String(10)		Salutation
representid	Int		Represent ID
reposition	String(256)		Rep Position
corraddr	String(1024)		Corr Address
phoneno	String(50)		Phone No
faxno	String(50)		Fax No
emailaddress	String(50)		Email Address
createdate	String(8)		Create Date
createby	String(50)		Create By
updatedate	String(8)		Update Date
updateby	String(50)		Update By
corresAddrFlat	String(50)		Corres Address Flat
corresAddrFloor	String(50)		Corres Address Floor
corresAddrBlock	String(50)		Corres Address Block
corresAddrBldg	String(255)		Corres Address Bldg
corresAddrStartNo	Int		Corres Address StartNo
corresAddrStartNoAlpha	String(10)		Corres Address StartNo Alpha
corresAddrEndNo	Int		Corres Address EndNo
corresAddrEndNoAlpha	String(10)		Corres Address EndNo Alpha
corresAddrSt	String		Corres Address Street
corresAddrDistrictCd	String(3)		Corres Address District Code
corresAddrAreaCd	Int		Corres Address Area Code
roleid	Int		Rold ID

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “caseNo” is null.
D20002	Parameter is wrong.	The value of “caseNo” is not found.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "caseNo": "J1111111"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuHGhE
1ZubRWIq6ls1urXBR7oLIVHat+ajhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{
  "submissionid": 1,
  "submissiontype": 10,
  "recevieddate": "20211213",
  "buildingid": 204,
  "becedition": "2012",
  "developerid": 1
  "devdeclaredate": "20211213",
  "ownerid": 1,
  "ownerdeclaredate": "20211213",
  "rearegno": "EA00578G",
  "readeclaredate": "20211213",
}
```

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```
"categorycode":"IN",
"consentdate":"20211213",
"consentref":"BD 2/2055/07",
"commencedate":"20211213",
"opdate":"20211213",
"opref":"NT 53/2013",
"cocrrgno":"",
"caseno":"EMSD/EEO/BC/34-06091",
"esubmissionref":"",
"esubmissiondate":"20211213",
"statuscode":"2500",
"createdate":"20211213",
"createby":"SYS",
"updatedate":"20211213",
"updateby":"SYS",
"subjectengineer":"E/EEB15/1",
"subjectinspector":"TO/EEB3",
"ackdate":"20211213",
"screenby":"BSI/EEB7/2",
"screendate":"20211213",
"reviewby":"E/EEB5/1",
"reviewdate":"20211213",
"dtClosefile":"20211213",
"cocrregdate":"20211213",
"lastclarifydate":"20211213",
"opyear":2021,
"opmonth":12,
"opday":13,
"dateexempreceived":"20211213",
"datereject":"20211213",
"dateapproval":"20211213",
"reminderletterissuedatecocr1":"20211213",
"reminderletterissuedatecocr2":"20211213",
"inIssuedate":"20211213",
"inExpirydate":"20211213",
"inReferenceno":"",
"inRemarks":"",
"cocrIssuedate":"20211213",
"cocrExpirydate":"20211213",
"cocrCertno":"",
"areainternfloor":1,
"gfaNondomestic":1,
"gfaDomestic":1,
"carparkno":1
"Party": [
    "partyid":1,
    "partytpe":"C",
    "engname":"MTR Corporation Limited",
    "chiname":"香港鐵路有限公司",
```

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```
"salutation":"",
"representid":1,
"reposition":"",
"corraddr":"7/f, Centre Point, 181-185 Gloucester Road , Wan Chai, Hong Kong",
"phoneno":"3462 6218",
"faxno":"3464 0911",
"emailaddress":"tclam3@mtr.com.hk",
"createdate":"20211213",
"createby":"SYS",
"updatedate":"20211213",
"updateby":"SYS",
"corresAddrFlat":"",
"corresAddrFloor":"7",
"corresAddrBlock":"",
"corresAddrBldg":"Centre Point",
"corresAddrStartNo":1,
"corresAddrStartNoAlpha":"",
"corresAddrEndNo":1,
"corresAddrEndNoAlpha":"",
"corresAddrSt":"",
"corresAddrDistrictCd":"",
"corresAddrAreaCd":1,
"roleid":1
}]}
```

7. GET BEC

API Description

Name	Description
Service Full Name	Get Bec from the given account
URL	<Backend_Service_Domain>/ {Version} / GetBec
Request Type	POST
Service Version	1
Description of Service	This API is to retrieve the role of the given account for WBRS verity or manage role. Both valid and invalid roles shall be returned to WBRS for account management.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
encryptedContent	String	Optional	Return NULL if the code is not “D00000”. Details please refer to below section “Response – Content”.

Response - Content

Parameter	Type	Condition	Description
Bec	District Array	Required	Details please refer to below section “Content - Bec”.

Content - Bec

Parameter	Type	Condition	Description
bcedition	String(30)		BECEdition

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514925f",
  "encryptedContent": "P8cyvYML+Ja+RJ7XUNN6sWjckHBjrQz/pM6rLerzFKbaVNoHK
mRvXIC8qwdVwRi5l92VO0cj4uUon5rekd41Q/uRh6VooY3Dun0ajuN9FAJY1+GuGhE
1ZubRWIq6ls1urXBR7oLIVHat+aqjhtqmtnwRIdZdMQROH2mx1TrEec="
}
```

Sample Response (without encryption)

```
{
  "BEC": [
    {
      "BECEdition": "2012"
    },
    {
      "BECEdition": "2012 (Rev.1)"
    }
  ]
}
```

8. EA1

8.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend_Service_Domain>/Version}/EA1/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

8.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/{{Version}}/EA1/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Renew / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
expiryDate	String(8)	Optional	REA Expiry Date(yyyyMMdd)
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
dateOfBirth	String(8)		Applicant Date of Birth(yyyyMMdd)
hkid	String(30)		Applicant HKID Number
travelDocNo	String(30)		Applicant Travel Document Number

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addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence Address Flat
addrFloor	String(50)		Applicant Correspondence Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
compName	String(300)		Current Company Name
compAddrLang	String(1)		Current Company Address Language
compAddrFlat	String(50)		Current Company Address Flat
compAddrFloor	String(50)		Current Company Address Floor
compAddrBlock	String(50)		Current Company Address Block
compAddrBlg	String(300)		Current Company Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)		Current Company Address Street
compAddrDistrict	String(3)		Current Company Address District Code
compAddrAreaId	Int		Current Company Address Area ID

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compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
qualRe	String(1)		Professional Qualifications - Registered Professional Engineer
qualReDate	String(8)		Qualified Date of Registered Engineer Qualifications(yyyyMMdd)
qualReNo	String(50)		Membership Number of Registered Engineer Qualifications
qualReBss	String(1)		Building Services Discipline of Registered Engineer Qualifications
qualReEll	String(1)		Electrical Discipline of Registered Engineer Qualifications
qualReEnv	String(1)		Environmental Discipline of Registered Engineer Qualifications
qualReMcl	String(1)		Mechanical Discipline of Registered Engineer Qualifications
qualHkie	String(1)		Professional Qualifications - Corporate member of HKIE
qualHkieDate	String(8)		Qualified Date of HKIE membership(yyyyMMdd)
qualHkieNo	String(50)		Membership Number of HKIE
qualHkieBss	String(1)		Building Services Discipline of HKIE Qualifications
qualHkieEll	String(1)		Electrical Discipline of HKIE Qualifications
qualHkieEnv	String(1)		Environmental Discipline of HKIE Qualifications
qualHkieMcl	String(1)		Mechanical Discipline of HKIE Qualifications
qualEqv	String(1)		Professional Qualifications - Equivalent qualification recognized by HKIE
qualEqvDate	String(8)		Qualified Date of Equivalent qualification(yyyyMMdd)
qualEqvNo	String(50)		Membership Number of

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			Equivalent qualification
qualEqvBss	String(1)		Building Services Discipline of Equivalent qualification
qualEqvEll	String(1)		Electrical Discipline of Equivalent qualification
qualEqvEnv	String(1)		Environmental Discipline of Equivalent qualification
qualEqvMcl	String(1)		Mechanical Discipline of Equivalent qualification
qualEqvMembership	String(300)		Professional Membership of Equivalent qualification
declareKnowledge	String(1)	Required	Declaration of having the knowledge required
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information stated are true and correct
qualOther	String(1)		Professional Qualifications - Other
qualOtherText	String(300)		Professional Qualifications – Other Details
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
chgQual	String(1)		Change of particulars - Professional Qualification
chklistExp	String(1)		Checklist of Supporting Documents - relevant practical experience
chklistQual	String(1)		Checklist of Supporting Documents - professional qualifications
chklistSubst	String(1)		Checklist of Supporting Documents - substantiate documents
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status
exp	exp Array		Relevant Practical Experience Refer to: Resquest – Content– Exp
substantiate	Substantiate Array		Photocopy of the documents that substantiate

			the application Refer to: <u>Request – Content– Substantiate</u>
--	--	--	---

Request – Content– Exp

Parameter	Type	Condition	Description
expFrom	String(8)		Exp From Date (yyyyMMdd)
expTo	String(8)		Exp To Date (yyyyMMdd)
post	String(100)		Post
compName	String(300)		Comp Name
description	String(1000)		Description of exp
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Request – Content– Substantiate

Parameter	Type	Condition	Description
description	String(300)		Description of Substantiate
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)

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D90000	Unknown Exception	Runtime Exception.
---------------	-------------------	--------------------

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001",  
    "applicationType": "NEW",  
    "regNo": "",  
    "expiryDate": "20100101",  
    "engName": "Chan Tai Man",  
    "chiName": "陳大文",  
    "titleId": 1,  
    "dateOfBirth": "20100101",  
    "hkid": "J1111111",  
    "travelDocNo": "",  
    "addrLang": "e",  
    "addrFlat": "",  
    "addrFloor": "",  
    "addrBlock": "",  
    "addrBlg": "",  
    "addrSt": "",  
    "addrDistrict": "",  
    "addrAreaId": 2,  
    "compName": "TESTING COMPANY",  
    "compAddrLang": "e",  
    "compAddrFlat": "",  
    "compAddrFloor": "",  
    "compAddrBlock": "",  
    "compAddrBlg": "",  
    "compAddrSt": "",  
    "compAddrDistrict": "",  
    "compAddrAreaId": 3,  
    "compPost": "Post",  
    "emailAddr": "testing@email.com",  
    "telNo": "22345678",  
    "faxNo": "22345678",  
    "officeTelNo": "23345678",  
    "qualRe": 1,  
    "qualReDate": "20100101",  
    "qualReNo": "",  
    "qualReBss": 1,  
    "qualReEll": 0,  
    "qualReEnv": 0,  
    "qualReMcl": 0,  
    "qualHkie": 1,
```

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```
“qualHkieDate”: “20100101”,
“qualHkieNo”: “”,
“qualHkieBss”: 0,
“qualHkieEll”: 1,
“qualHkieEnv”: 0,
“qualHkieMcl”: 0,
“qualEqv”: 1,
“qualEqvDate”: “20100101”,
“qualEqvNo”: “”,
“qualEqvBss”: 0,
“qualEqvEll”: 0,
“qualEqvEnv”: 1,
“qualEqvMcl”: 0,
“qualEqvMembership”: “Testing”,
“declareKnowledge”: 1,
“declareConvictedStatus”: 1,
“declareHavebeenConvicted”: 0,
“declareInfoCorrect”: 1,
“qualOther”: 0,
“qualOtherText”: “”,
“chgName”: 0,
“chgAddr”: 0,
“chgQual”: 0,
“chklistExp”: 1,
“chklistQual”: 1,
“chklistSubst”: 1,
“receiveDate”: “20100101”,
“wbrsStatus”: 0,
“exp”: [
  {
    “expFrom”: “20100101”,
    “expTo”: “20100101”,
    “post”: “”,
    “compName”: “”,
    “description”: “”,
    “seq”: 1,
    “originalName”: “”
  }
],
“substantiate”: [
  {
    “description”: “”,
    “seq”: “”,
    “originalName”: “”
  }
]
```

Sample Response

```
{
```

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```
"code":"D00000",
"message":"D00000",
"txID":"0514125f"
}
```

8.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version} /EA1/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission and to check if the applicant already exists or not.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Renew / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
expiryDate	String(8)	Optional	REA Expiry Date(yyyyMMdd)
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
dateOfBirth	String(8)		Applicant Date of Birth(yyyyMMdd)
hkid	String(30)		Applicant HKID Number
travelDocNo	String(30)		Applicant Travel Document Number
addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence

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			Address Flat
addrFloor	String(50)		Applicant Correspondence Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
compName	String(300)		Current Company Name
compAddrLang	String(1)		Current Company Address Language
compAddrFlat	String(50)		Current Company Address Flat
compAddrFloor	String(50)		Current Company Address Floor
compAddrBlock	String(50)		Current Company Address Block
compAddrBlg	String(300)		Current Company Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)		Current Company Address Street
compAddrDistrict	String(3)		Current Company Address District Code
compAddrAreaId	Int		Current Company Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number

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qualRe	String(1)		Professional Qualifications - Registered Professional Engineer
qualReDate	String(8)		Qualified Date of Registered Engineer Qualifications(yyyyMMdd)
qualReNo	String(50)		Membership Number of Registered Engineer Qualifications
qualReBss	String(1)		Building Services Discipline of Registered Engineer Qualifications
qualReEll	String(1)		Electrical Discipline of Registered Engineer Qualifications
qualReEnv	String(1)		Environmental Discipline of Registered Engineer Qualifications
qualReMcl	String(1)		Mechanical Discipline of Registered Engineer Qualifications
qualHkie	String(1)		Professional Qualifications - Corporate member of HKIE
qualHkieDate	String(8)		Qualified Date of HKIE membership(yyyyMMdd)
qualHkieNo	String(50)		Membership Number of HKIE
qualHkieBss	String(1)		Building Services Discipline of HKIE Qualifications
qualHkieEll	String(1)		Electrical Discipline of HKIE Qualifications
qualHkieEnv	String(1)		Environmental Discipline of HKIE Qualifications
qualHkieMcl	String(1)		Mechanical Discipline of HKIE Qualifications
qualEqv	String(1)		Professional Qualifications - Equivalent qualification recognized by HKIE
qualEqvDate	String(8)		Qualified Date of Equivalent qualification(yyyyMMdd)
qualEqvNo	String(50)		Membership Number of Equivalent qualification
qualEqvBss	String(1)		Building Services Discipline of Equivalent qualification
qualEqvEll	String(1)		Electrical Discipline of Equivalent qualification
qualEqvEnv	String(1)		Environmental Discipline of Equivalent qualification
qualEqvMcl	String(1)		Mechanical Discipline of Equivalent qualification

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qualEqvMembership	String(300)		Professional Membership of Equivalent qualification
declareKnowledge	String(1)	Required	Declaration of having the knowledge required
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information stated are true and correct
qualOther	String(1)		Professional Qualifications - Other
qualOtherText	String(300)		Professional Qualifications – Other Details
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
chgQual	String(1)		Change of particulars - Professional Qualification
chklistExp	String(1)		Checklist of Supporting Documents - relevant practical experience
chklistQual	String(1)		Checklist of Supporting Documents - professional qualifications
chklistSubst	String(1)		Checklist of Supporting Documents - substantiate documents
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status
exp	exp Array		Relevant Practical Experience <ul style="list-style-type: none"> • Refer to: <u>Resquest – Content– Exp</u>
substantiate	Substantiate Array		Photocopy of the documents that substantiate the application <p style="margin-top: 10px;">Refer to: <u>Resquest – Content– Substantiate</u></p>

Request – Content– Exp

Parameter	Type	Condition	Description
expFrom	String(8)		Exp From Date (yyyyMMdd)
expTo	String(8)		Exp To Date (yyyyMMdd)
post	String(100)		Post
compName	String(300)		Comp Name

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description	String(1000)		Description of exp
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Request – Content– Substantiate

Parameter	Type	Condition	Description
description	String(300)		Description of Substantiate
seq	Int		Sequence
originalName	String(300)		Original Name of Substantiate

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Applicant already exists
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
```

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```
{"applicationType": "NEW",
"registrationNo": "",
"expiryDate": "20100101",
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"dateOfBirth": "20100101",
"hkid": "J1111111",
"travelDocNo": "",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "",
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 2,
"compName": "TESTING COMPANY",
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 3,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678",
"officeTelNo": "23345678",
"qualRe": 1,
"qualReDate": "20100101",
"qualReNo": "",
"qualReBss": 1,
"qualReEll": 0,
"qualReEnv": 0,
"qualReMcl": 0,
"qualHkie": 1,
"qualHkieDate": "20100101",
"qualHkieNo": "",
"qualHkieBss": 0,
"qualHkieEll": 1,
"qualHkieEnv": 0,
"qualHkieMcl": 0,
"qualEqv": 1,
"qualEqvDate": "20100101",
"qualEqvNo": "",
"qualEqvBss": 0,
"qualEqvEll": 0,
```

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```
{"qualEqvEnv": 1,  
 "qualEqvMcl": 0,  
 "qualEqvMembership": "Testing",  
 "declareKnowledge": 1,  
 "declareConvictedStatus": 1,  
 "declareHavebeenConvicted": 0,  
 "declareInfoCorrect": 1,  
 "qualOther": 0,  
 "qualOtherText": "",  
 "chgName": 0,  
 "chgAddr": 0,  
 "chgQual": 0,  
 "chklistExp": 1,  
 "chklistQual": 1,  
 "chklistSubst": 1,  
 "receiveDate": "20100101",  
 "wbrsStatus": 0,  
 "exp": [  
   {  
     "expFrom": "20100101",  
     "expTo": "20100101",  
     "post": "",  
     "compName": "",  
     "description": "",  
     "seq": 1,  
     "originalName": ""  
   }  
 ],  
 "substantiate": [  
   {  
     "description": "",  
     "seq": "",  
     "originalName": ""  
   }  
 ]  
 }
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

8.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EA1/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocrcert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocrcert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocrcert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
```

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}

8.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EA1>Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

9. EA3

9.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend_Service_Domain>/ {Version} /EA3/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

9.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/ {Version}/EA3/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
hkid	String(30)		Applicant HKID Number
addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence Address Flat
addrFloor	String(50)		Applicant Correspondence

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			Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
deptName	String(300)		Department Name
compAddrSame	String(1)	Required	Office Address is same as the Correspondence Address or not
compAddrLang	String(1)	Optional	Office Address Language
compAddrFlat	String(50)	Optional	Office Address Flat
compAddrFloor	String(50)	Optional	Office Address Floor
compAddrBlock	String(50)	Optional	Office Address Block
compAddrBlg	String(300)	Optional	Office Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)	Optional	Office Address Street
compAddrDistrict	String(3)	Optional	Office Address District Code
compAddrAreaId	Int	Optional	Office Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone Number
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information

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			stated are true and correct
nomiName	String(100)		Full Name of Nominator
nomiRank	String(100)		Rank (D1 or above) of Nominator
nomiPost	String(300)		Post of Nominator
nomiDept	String(300)		Name of Department of Nominator
nomiTel	String(20)		Contact Number of Nominator
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y= "
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L16000000",
  "applicationType": "NEW",
  "regNo": "",
```

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```
"chgName": 0,  
"chgAddr": 0,  
"engName": "Chan Tai Man",  
"chiName": "陳大文",  
"titleId": 1,  
"hkid": "J1111111",  
"addrLang": "e",  
"addrFlat": "",  
"addrFloor": "",  
"addrBlock": "",  
"addrBlg": "",  
"addrSt": "",  
"addrDistrict": "",  
"addrAreaId": 1,  
"deptName": "TESTING DEPT",  
"compAddrSame": 0,  
"compAddrLang": "e",  
"compAddrFlat": "",  
"compAddrFloor": "",  
"compAddrBlock": "",  
"compAddrBlg": "",  
"compAddrSt": "",  
"compAddrDistrict": "",  
"compAddrAreaId": 2,  
"compPost": "Post",  
"emailAddr": "testing@email.com",  
"telNo": "22345678",  
"faxNo": "22345678",  
"officeTelNo": "23345678",  
"declareConvictedStatus": 1,  
"declareHavebeenConvicted": 0,  
"declareInfoCorrect": 1,  
"nomiName": "",  
"nomiRank": "",  
"nomiPost": "",  
"nomiDept": "",  
"nomiTel": "",  
"receiveDate": "20100101",  
"wbrsStatus": 0  
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

9.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version} /EA3/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission and to check if the applicant already exists or not.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)	Required	WBRS Application Number
applicationType	String(20)	Required	Application Type (New / Change of particulars)
regNo	String(20)	Optional	REA Registration Number
chgName	String(1)		Change of particulars - Name
chgAddr	String(1)		Change of particulars - Correspondence Address
engName	String(100)	Required	Applicant English Name
chiName	String(100)		Applicant Chinese Name
titleId	Int		Applicant Title (Mr. / Miss / Ms.)
hkid	String(30)		Applicant HKID Number
addrLang	String(1)		Applicant Correspondence Address Language
addrFlat	String(50)		Applicant Correspondence Address Flat
addrFloor	String(50)		Applicant Correspondence

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			Address Floor
addrBlock	String(50)		Applicant Correspondence Address Block
addrBlg	String(300)		Applicant Correspondence Address Building
addrStartNo	Int		Applicant Correspondence Address Start Street No
addrStartNoAlpha	String(10)		Applicant Correspondence Address Start Street Alpha
addrEndNo	Int		Applicant Correspondence Address End Street No
addrEndNoAlpha	String(10)		Applicant Correspondence Address End Street Alpha
addrSt	String(300)		Applicant Correspondence Address Street
addrDistrict	String(3)		Applicant Correspondence Address District Code
addrAreaId	Int		Applicant Correspondence Address Area ID
deptName	String(300)		Department Name
compAddrSame	String(1)	Required	Office Address is same as the Correspondence Address or not
compAddrLang	String(1)	Optional	Office Address Language
compAddrFlat	String(50)	Optional	Office Address Flat
compAddrFloor	String(50)	Optional	Office Address Floor
compAddrBlock	String(50)	Optional	Office Address Block
compAddrBlg	String(300)	Optional	Office Address Building
compAddrStartNo	Int		Current Company Address Start Street No
compAddrStartNoAlpha	String(10)		Current Company Address Start Street Alpha
compAddrEndNo	Int		Current Company Address End Street No
compAddrEndNoAlpha	String(10)		Current Company Address End Street Alpha
compAddrSt	String(300)	Optional	Office Address Street
compAddrDistrict	String(3)	Optional	Office Address District Code
compAddrAreaId	Int	Optional	Office Address Area ID
compPost	String(300)		Current Position
emailAddr	String(100)		Email address
telNo	String(20)		Applicant Contact Phone Number
faxNo	String(20)		Fax Number
officeTelNo	String(20)		Office Telephone Number
declareConvictedStatus	String(1)	Required	Declaration of convicted status in Hong Kong
declareHavebeenConvicted	String(1)	Required	Declaration of have been convicted or not
declareInfoCorrect	String(1)	Required	Declaration of information

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			stated are true and correct
nomiName	String(100)		Full Name of Nominator
nomiRank	String(100)		Rank (D1 or above) of Nominator
nomiPost	String(300)		Post of Nominator
nomiDept	String(300)		Name of Department of Nominator
nomiTel	String(20)		Contact Number of Nominator
receiveDate	String(8)	Required	Application Receive Date(yyyyMMdd)
wbrsStatus	String(20)	Required	WBRS Status

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Applicant already exists
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L16000000",
```

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```
"applicationType": "NEW",
"regNo": "",
"chgName": 0,
"chgAddr": 0,
"engName": "Chan Tai Man",
"chiName": "陳大文",
"titleId": 1,
"hkid": "J1111111",
"addrLang": "e",
"addrFlat": "",
"addrFloor": "",
"addrBlock": "",
"addrBlg": "",
"addrSt": "",
"addrDistrict": "",
"addrAreaId": 1,
"deptName": "TESTING DEPT",
"compAddrSame": 0,
"compAddrLang": "e",
"compAddrFlat": "",
"compAddrFloor": "",
"compAddrBlock": "",
"compAddrBlg": "",
"compAddrSt": "",
"compAddrDistrict": "",
"compAddrAreaId": 2,
"compPost": "Post",
"emailAddr": "testing@email.com",
"telNo": "22345678",
"faxNo": "22345678",
"officeTelNo": "23345678",
"declareConvictedStatus": 1,
"declareHavebeenConvicted": 0,
"declareInfoCorrect": 1,
"nomiName": "",
"nomiRank": "",
"nomiPost": "",
"nomiDept": "",
"nomiTel": "",
"receiveDate": "20100101",
"wbrsStatus": 0
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

9.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend Service Domain>/{{Version}}/EA3/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocrcert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocrcert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocrcert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
```

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"txID":"0514125f"

}

9.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EA3>Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

10. EE1

10.1. Request Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/ {Version} /EE1/ GetForm
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

Response - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese r
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New Territories]
lotNo	String(200)		Lot No.

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compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	Char(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(3)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence

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			Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	Char(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date

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receiveDate	String(8)		Receipt Date
eesu	Object		eesu Refer to: <u>Response – Content– eesu</u>

Response – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “√” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of “consent to the commencement of building works” (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 的值分别是 什么<- 1 = Permit No. 2 = Reference No. 3 = Contract No.
consentDocNo	String(20)		Section B(a) Permit No. / Reference No. / Contract No.* of

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			“consent to the commencement of building works”:
commenceDateType	String(1)		1=Anticipated 2=Actual
commenceDate	String(10)		Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)		Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal		Total internal floor area of building EE1
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
chklistConsent	String(1)		ee1, section c checkbox 1
chklistLocMap	String(1)		ee1, section c checkbox 2
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Sample Response

{

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```
“applicationNo”: “EE10000001”,  
“bldgEname”: “”,  
“bldgCname”: “”,  
“startNo”: 1  
“startNoAlpha”: “”,  
“endNo”: 1,  
“endNoAlpha”：“”,  
“stEname”: “”,  
“stCname”: “”,  
“districtCd”: “”,  
“areaCd”: 1,  
“lotNo”: “”,  
“compBecEdition”: “”,  
“compEname”: “”,  
“compCname”: “”,  
“represenTitleId”: 1,  
“represenEname”: “”,  
“represenCname”: “”,  
“represenPost”: “”,  
“corresAddrLang”: “”,  
“corresAddrFlat”: “”,  
“corresAddrFloor”: “”,  
“corresAddrBlock”: “”,  
“corresAddrBldg”: “”,  
“corresAddrStartNo”: 1,  
“corresAddrStartNoAlpha”: “”,  
“corresAddrEndNo”: 1,  
“corresAddrEndNoAlpha”: “”,  
“corresAddrSt”: “”,  
“corresAddrDistrictCd”: “”,  
“corresAddrAreaCd”: 1,  
“corresTelNo”: “”,  
“corresFaxNo”: “”,  
“corresEmailAddr”: “”,  
“becEdition”: “”,  
“reaTitleId”: 1,  
“reaEname”: “”,  
“reaCname”: “”,  
“reaAddrLang”: “”,  
“reaAddrFlat”: “”,  
“reaAddrFloor”: “”,  
“reaAddrBlock”: “”,  
“reaAddrBldg”: “”,  
“reaAddrStartNo”: 1,  
“reaAddrStartNoAlpha”: “”,  
“reaAddrEndNo”: 0,  
“reaAddrEndNoAlpha”: “”,  
“reaAddrSt”: “”,  
“reaAddrDistrictCd”: “”,  
“reaAddrAreaCd”: 1,
```

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```
“reaTelNo”: “”,  
“reaFaxNo”: “”,  
“reaEmailAddr”: “”,  
“reaRegNo”: “”,  
“reaExpiryDate”: “20100101”,  
“receiveDate” : “20100101”,  
“eesu”:  
{  
    “applicationNo”: “111”,  
    “bldgType”: 1,  
    “bldgTypeOther”: “”,  
    “dateOfDeclarationByRea”: “20100101”,  
    “prevSubNo”: “”,  
    “supersedePreviousForm”: “1”,  
    “dateOfDeclarationByReaInPreviousForm” : “20100101”,  
    “consentBldgWorkMaptype”: “”,  
    “consentIssueDate”：“20100101”,  
    “consentDocumentNoType”：“1”,  
    “consentDocNo”: “”,  
    “commenceDateType”: “”,  
    “commenceDate”: “”,  
    “occupationDate”：“”,  
    “consetBldgArea”:100.00,  
    “exemptGrant”: “”,  
    “exemptRefNo”: “”,  
    “exemptDate”: “20100101”,  
    “exemptInstallations”: “”,  
    “chklistConsent”: “”,  
    “chklistLocMap”: “”,  
    “organizationEname”：“”,  
    “organizationCname”：“”,  
    “organizationResEname”：“”,  
    “organizationResCname”：“”  
}  
}
```

10.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/{{Version}}/EE1/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese r
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 =

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			Kowloon 3 = New Territories]
lotNo	String(200)		Lot No.
compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(20)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence

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			Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(20)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence

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			E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	eesu Array	Required	eesu Refer to: Request – Content– eesu

Request – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of “consent to the commencement of building works” (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 1 = Permit No. 2 = Reference No. 3 = Contract No.

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consentDocNo	String(20)		Section B(a) Permit No. / Reference No. / Contract No.* of “consent to the commencement of building works”:
commenceDateType	String(1)		1=Anticipated 2=Actual
commenceDate	String(10)		Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)		Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal		Total internal floor area of building EE1
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
chklistConsent	String(1)		ee1, section c checkbox 1
chklistLocMap	String(1)		ee1, section c checkbox 2
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person'

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "ee107021458",
  "bldgEname": "string",
  "bldgCname": "string",
  "startNo": 0,
  "startNoAlpha": "string",
  "endNo": 0,
  "endNoAlpha": "string",
  "stEname": "string",
  "stCname": "string",
  "districtCd": "string",
  "areaCd": 0,
  "lotNo": "string",
  "compBecEdition": "2012",
  "compEname": "string",
  "compCname": "string",
```

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```
"represenTitleId": 0,  
"represenEname": "string",  
"represenCname": "string",  
"represenPost": "string",  
"corresAddrLang": "1",  
"corresAddrFlat": "string",  
"corresAddrFloor": "string",  
"corresAddrBlock": "string",  
"corresAddrBldg": "string",  
"corresAddrStartNo": 0,  
"corresAddrStartNoAlpha": "string",  
"corresAddrEndNo": 0,  
"corresAddrEndNoAlpha": "string",  
"corresAddrSt": "string",  
"corresAddrDistrictCd": "string",  
"corresAddrAreaCd": 0,  
"corresTelNo": "string",  
"corresFaxNo": "string",  
"corresEmailAddr": "string",  
"becEdition": "2012",  
"reaTitleId": 0,  
"reaEname": "string",  
"reaCname": "string",  
"reaAddrLang": "1",  
"reaAddrFlat": "string",  
"reaAddrFloor": "string",  
"reaAddrBlock": "string",  
"reaAddrBldg": "string",  
"reaAddrStartNo": 0,  
"reaAddrStartNoAlpha": "string",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "string",  
"reaAddrSt": "string",  
"reaAddrDistrictCd": "string",  
"reaAddrAreaCd": 0,  
"reaTelNo": "string",  
"reaFaxNo": "string",  
"reaEmailAddr": "string",  
"reaRegNo": "string",  
"reaExpiryDate": "20211124",  
"receiveDate": "20211124",  
"eesu": {  
    "applicationNo": "ee107021458",  
    "bldgType": 0,  
    "bldgTypeOther": "string",  
    "dateOfDeclarationByRea": "20211124",  
    "prevSubNo": "string",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByReaInPreviousForm": "20211124",  
    "consentBldgWorkMaptype": "1",
```

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```
"consentIssueDate": "20211124",
"consentDocumentNoType": "1",
"consentDocNo": "string",
"commenceDateType": "1",
"commenceDate": "string",
"occupationDate": "string",
"consetBldgArea": 0,
"exemptGrant": "1",
"exemptRefNo": "string",
"exemptDate": "20211124",
"exemptInstallations": "string",
"chklistConsent": "1",
"chklistLocMap": "1",
"organizationEname": "string",
"organizationCname": "string",
"organizationResEname": "string",
"organizationResCname": "string"
}
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

10.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version} /EE1/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(20)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New

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			Territories]
lotNo	String(200)		Lot No.
compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Mrs.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(20)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English

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			Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(20)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address

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reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu Refer to: <u>Request – Content– eesu</u>

Request – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 * (yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)
consentBldgWorkMaptype	String(1)		1 = plan 2 = map
consentIssueDate	String(8)		Section B(a) Issue date of “consent to the commencement of building works” (see note 5):
consentDocumentNoType	String(1)		Consent Document No. Type 1 = Permit No. 2 = Reference No.

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			3 = Contract No.
consentDocNo	String(20)		Section B(a) Permit No. / Reference No. / Contract No.* of “consent to the commencement of building works”:
commenceDateType	String(1)		1=Anticipated 2=Actual
commenceDate	String(10)		Section B(a) Anticipated/Actual* construction commencement date (m/yyyy):
occupationDate	String(10)		Section B(a) Anticipated occupation approval date (m/yyyy):
consetBldgArea	decimal		Total internal floor area of building EE1
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
chklistConsent	String(1)		ee1, section c checkbox 1
chklistLocMap	String(1)		ee1, section c checkbox 2
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of

			Responsible Person' Representative# CHI
--	--	--	--

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

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```
{  
    "applicationNo": "EE10000001",  
    "bldgEname": "",  
    "bldgCname": "",  
    "startNo": 1  
    "startNoAlpha": "",  
    "endNo": 1,  
    "endNoAlpha": "",  
    "stEname": "",  
    "stCname": "",  
    "districtCd": "",  
    "areaCd": 1,  
    "lotNo": "",  
    "compBecEdition": "",  
    "compEname": "",  
    "compCname": "",  
    "represenTitleId": 1,  
    "represenEname": "",  
    "represenCname": "",  
    "represenPost": "",  
    "corresAddrLang": "",  
    "corresAddrFlat": "",  
    "corresAddrFloor": "",  
    "corresAddrBlock": "",  
    "corresAddrBldg": "",  
    "corresAddrStartNo": 1,  
    "corresAddrStartNoAlpha": "",  
    "corresAddrEndNo": 1,  
    "corresAddrEndNoAlpha": "",  
    "corresAddrSt": "",  
    "corresAddrDistrictCd": "",  
    "corresAddrAreaCd": 1,  
    "corresTelNo": "",  
    "corresFaxNo": "",  
    "corresEmailAddr": "",  
    "becEdition": "",  
    "reaTitleId": 1,  
    "reaEname": "",  
    "reaCname": "",  
    "reaAddrLang": "",  
    "reaAddrFlat": "",  
    "reaAddrFloor": "",  
    "reaAddrBlock": "",  
    "reaAddrBldg": "",  
    "reaAddrStartNo": 1,  
    "reaAddrStartNoAlpha": "",  
    "reaAddrEndNo": 0,  
    "reaAddrEndNoAlpha": "",  
    "reaAddrSt": "",  
    "reaAddrDistrictCd": ""},
```

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```
“reaAddrAreaCd”: 1,  
“reaTelNo”: “”,  
“reaFaxNo”: “”,  
“reaEmailAddr”: “”,  
“reaRegNo”: “”,  
“reaExpiryDate”: “20100101”,  
“receiveDate” : “20100101”,  
“eesu”:  
{  
    “applicationNo”: “111”,  
    “bldgType”: 1,  
    “bldgTypeOther”: “”,  
    “dateOfDeclarationByRea”: “20100101”,  
    “prevSubNo”: “”,  
    “supersedePreviousForm”: “1”,  
    “dateOfDeclarationByReaInPreviousForm” : “20100101”,  
    “consentBldgWorkMapType”: “”,  
    “consentIssueDate”：“20100101”,  
    “consentDocumentNoType”：“1”,  
    “consentDocNo”: “”,  
    “commenceDateType”: “”,  
    “commenceDate”: “”,  
    “occupationDate”：“”,  
    “consetBldgArea”:100.00,  
    “exemptGrant”: “”,  
    “exemptRefNo”: “”,  
    “exemptDate”: “20100101”,  
    “exemptInstallations”: “”,  
    “chklistConsent”: “”,  
    “chklistLocMap”: “”,  
    “organizationEname”：“”,  
    “organizationCname”：“”,  
    “organizationResEname”：“”,  
    “organizationResCname”：“”  
}  
}
```

Sample Response

```
{  
    "code":"D00000",  
    "message":"D00000",  
    "txID":"0514125f"  
}
```

10.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend_Service_Domain>/ {Version} /EE1/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocrcert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocrcert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocrcert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
```

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}

10.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EE1>Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

11. EE2

11.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend_Service_Domain>/Version}/EE2/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

Response - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(20)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New Territories]

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lotNo	String(200)		Lot No.
compBecEdition	String(10)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	String		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(20)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
inspectDate	String(8)		Inspection Date(yyyyMMdd)
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of

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			Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(20)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object		eesu Refer to: <u>Response – Content – eesu</u>

[Response – Content - eesu](#)

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Others

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dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousFor m	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)
encloseEe1	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
stageOneNo	String(20)		Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)		Section B (b) Issue date (m/yyyy) of “occupation approval” (see note 6):
occuApprovalNo	String(20)		Section B(b) Permit No. / Reference No. / Contract No.* of “occupation approval”
consetBldgArea	decimal		Total internal

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			floor area of building EE2
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(1)		section b(e) Installation(s) exempted
chklistOccpApproval	String(1)		ee2,section c checkbox 3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Sample Response

```
{
  "applicationNo": "EE10000001",
  "bldgEname": "",
  "bldgCname": "",
  "startNo": 1
  "startNoAlpha": "",
  "endNo": 1,
  "endNoAlpha": "",
  "stEname": ""}
```

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```
“stCname”: “”,  
“districtCd”: “”,  
“areaCd”: 1,  
“lotNo”: “”,  
“compBecEdition”: “”,  
“compEname”: “”,  
“compCname”: “”,  
“represenTitleId”: 1,  
“represenEname”: “”,  
“represenCname”: “”,  
“represenPost”: “”,  
“corresAddrLang”: “”,  
“corresAddrFlat”: “”,  
“corresAddrFloor”: “”,  
“corresAddrBlock”: “”,  
“corresAddrBldg”: “”,  
“corresAddrStartNo”: 1,  
“corresAddrStartNoAlpha”: “”,  
“corresAddrEndNo”: 1,  
“corresAddrEndNoAlpha”: “”,  
“corresAddrSt”: “”,  
“corresAddrDistrictCd”: “”,  
“corresAddrAreaCd”: 1,  
“corresTelNo”: “”,  
“corresFaxNo”: “”,  
“corresEmailAddr”: “”,  
“inspectDate”: “20100101”,  
“reaTitleId”: 1,  
“reaEname”: “”,  
“reaCname”: “”,  
“reaAddrLang”: “”,  
“reaAddrFlat”: “”,  
“reaAddrFloor”: “”,  
“reaAddrBlock”: “”,  
“reaAddrBldg”: “”,  
“reaAddrStartNo”: 1,  
“reaAddrStartNoAlpha”: “”,  
“reaAddrEndNo”: 0,  
“reaAddrEndNoAlpha”: “”,  
“reaAddrSt”: “”,  
“reaAddrDistrictCd”: “”,  
“reaAddrAreaCd”: 1,  
“reaTelNo”: “”,  
“reaFaxNo”: “”,  
“reaEmailAddr”: “”,  
“reaRegNo”: “”,  
“reaExpiryDate”: “20100101”,  
“receiveDate” : “20100101”,  
“eesu”:  
{
```

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```
        "applicationNo": "111",
        "bldgType": 1,
        "bldgTypeOther": "",
        "dateOfDeclarationByRea": "20100101",
        "prevSubNo": "",
        "supersedePreviousForm": "1",
        "dateOfDeclarationByReaInPreviousForm": "20100101",
        "encloseEeel": "",
        "encloseEelg": "",
        "encloseEeac": "",
        "encloseEele": "",
        "encloseEepb": "",
        "stageOneNo": """",
        "occuApprovalDate": "",
        "occuApprovalNo": "",
        "consetBldgArea": 100.00,
        "exemptGrant": "",
        "exemptRefNo": "",
        "exemptDate": "20100101",
        "exemptInstallations": "",
        "chklistOccpApproval": "",
        "organizationEname": """",
        "organizationCname": """",
        "organizationResEname": """",
        "organizationResCname": """
    }
}
```

11.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/{{Version}}/EE2/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New

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			Territories]
lotNo	String(200)		Lot No.
compBecEdition	String(10)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	String		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(3)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
inspectDate	String(8)		Inspection Date(yyyyMMdd)
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]

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reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu Refer to: <u>Request – Content – eesu</u>

Request – Content - eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building

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)		Others
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousFor m	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
encloseEe1	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
stageOneNo	String(20)		Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)		Section B (b) Issue date (m/yyyy) of “occupation approval” (see note 6):
occuApprovalNo	String(20)		Section B(b) Permit No. / Reference No. / Contract No.* of “occupation approval”
consetBldgArea	decimal		Total internal

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			floor area of building EE2
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(1)		section b(e) Installation(s) exempted
chklistOccpApproval	String(1)		ee2,section c checkbox 3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header "clientID" is null. The header "signature" is null. The header "nonce" is null.
D30002	Header is wrong	The header "clientID" is not found in the list. The header "signature" is incorrect. (MITM Attack) The header "nonce" is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "ee207021447",
  "bldgEname": "bldgEname",
  "bldgCname": "中文名",
  "startNo": 0,
  "startNoAlpha": "string",
  "endNo": 0,
  "endNoAlpha": "string",
  "stEname": "string",
  "stCname": "string",
  "districtCd": "string",
  "areaCd": 0,
  "lotNo": "string",
  "compBecEdition": "2012",
  "compEname": "compEname",
  "compCname": "compCname 中文名",
  "represenTitleId": 0,
  "represenEname": "string",
  "represenCname": "string",
  "represenPost": "string",
  "corresAddrLang": "1",
  "corresAddrFlat": "string",
  "corresAddrFloor": "string",
  "corresAddrBlock": "string",
  "corresAddrBldg": "string",
  "corresAddrStartNo": 0,
  "corresAddrStartNoAlpha": "string",
```

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```
"corresAddrEndNo": 0,  
"corresAddrEndNoAlpha": "string",  
"corresAddrSt": "string",  
"corresAddrDistrictCd": "string",  
"corresAddrAreaCd": 0,  
"corresTelNo": "string",  
"corresFaxNo": "string",  
"corresEmailAddr": "string",  
"inspectDate": "20211124",  
"reaTitleId": 0,  
"reaEname": "reaEname",  
"reaCname": "rea 中文名",  
"reaAddrLang": "1",  
"reaAddrFlat": "string",  
"reaAddrFloor": "string",  
"reaAddrBlock": "string",  
"reaAddrBldg": "string",  
"reaAddrStartNo": 0,  
"reaAddrStartNoAlpha": "string",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "string",  
"reaAddrSt": "string",  
"reaAddrDistrictCd": "string",  
"reaAddrAreaCd": 0,  
"reaTelNo": "string",  
"reaFaxNo": "string",  
"reaEmailAddr": "string",  
"reaRegNo": "string",  
"reaExpiryDate": "20211124",  
"receiveDate": "20211124",  
"eesu": {  
    "applicationNo": "ee203012221413",  
    "bldgType": 0,  
    "bldgTypeOther": "string",  
    "dateOfDeclarationByRea": "20211124",  
    "prevSubNo": "string",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByRealInPreviousForm": "20211124",  
    "encloseEeel": "1",  
    "encloseEelg": "1",  
    "encloseEeac": "1",  
    "encloseEele": "1",  
    "encloseEepb": "1",  
    "stageOneNo": "EMSD/EEO/BC/34-00002",  
    "occuApprovalDate": "string",  
    "occuApprovalNo": "string",  
    "consetBldgArea": 0,  
    "exemptGrant": "1",  
    "exemptRefNo": "string",  
    "exemptDate": "20211124",
```

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```
"exemptInstallations": "1",
"chklistOcppApproval": "1",
"organizationEname": "string",
"organizationCname": "string",
"organizationResEname": "string",
"organizationResCname": "string"
}
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

11.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version} /EE2/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 =

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			Kowloon 3 = New Territories]
lotNo	String(200)		Lot No.
compBecEdition	String(10)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	String		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(3)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
inspectDate	String(8)		Inspection Date (yyyyMMdd)
reaTitleId	Int		Options of REA Salutation,

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			[1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
eesu	Object	Required	eesu Refer to: Request – Content – eesu

Request – Content - eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building

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bldgTypeOther	String(255)		Type of Building Others
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByRealPreviousFor m	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:
encloseEe1	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
stageOneNo	String(20)		Section B (b) Reference No. of Stage One Declaration
occuApprovalDate	String(10)		Section B (b) Issue date (m/yyyy) of “occupation approval” (see note 6):
occuApprovalNo	String(20)		Section B(b) Permit No. / Reference No. / Contract No.* of “occupation approval”

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consetBldgArea	decimal		Total internal floor area of building EE2
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(1)		section b(e) Installation(s) exempted
chklistOccepApproval	String(1)		ee2,section c checkbox 3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code &

		Message”.
--	--	-----------

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	Parameter not found - (parameter name)
D90000	Unknown Exception	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "EE10000001",
  "bldgEname": "",
  "bldgCname": "",
  "startNo": 1
  "startNoAlpha": "",
  "endNo": 1,
  "endNoAlpha": "",
  "stEname": "",
  "stCname": "",
  "districtCd": "",
  "areaCd": 1,
  "lotNo": "",
  "compBecEdition": "",
  "compEname": "",
  "compCname": "",
  "represenTitleId": 1,
  "represenEname": "",
  "represenCname": "",
  "represenPost": "",
  "corresAddrLang": "",
  "corresAddrFlat": "",
  "corresAddrFloor": "",
```

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```
"corresAddrBlock": "",  
"corresAddrBldg": "",  
"corresAddrStartNo": 1,  
"corresAddrStartNoAlpha": "",  
"corresAddrEndNo": 1,  
"corresAddrEndNoAlpha": "",  
"corresAddrSt": "",  
"corresAddrDistrictCd": "",  
"corresAddrAreaCd": 1,  
"corresTelNo": "",  
"corresFaxNo": "",  
"corresEmailAddr": "",  
"inspectDate": "20100101",  
"reaTitleId": 1,  
"reaEname": "",  
"reaCname": "",  
"reaAddrLang": "",  
"reaAddrFlat": "",  
"reaAddrFloor": "",  
"reaAddrBlock": "",  
"reaAddrBldg": "",  
"reaAddrStartNo": 1,  
"reaAddrStartNoAlpha": "",  
"reaAddrEndNo": 0,  
"reaAddrEndNoAlpha": "",  
"reaAddrSt": "",  
"reaAddrDistrictCd": "",  
"reaAddrAreaCd": 1,  
"reaTelNo": "",  
"reaFaxNo": "",  
"reaEmailAddr": "",  
"reaRegNo": "",  
"reaExpiryDate": "20100101",  
"receiveDate" : "20100101",  
"eesu":  
{  
    "applicationNo": "111",  
    "bldgType": 1,  
    "bldgTypeOther": "",  
    "dateOfDeclarationByRea": "20100101",  
    "prevSubNo": "",  
    "supersedePreviousForm": "1",  
    "dateOfDeclarationByReaInPreviousForm" : "20100101",  
    "encloseEeel": "",  
    "encloseEelg": "",  
    "encloseEeac": "",  
    "encloseEele": "",  
    "encloseEepb": "",  
    "stageOneNo": ""},
```

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```
        "occuApprovalDate": "",  
        "occuApprovalNo": "",  
        "consetBldgArea": 100.00,  
        "exemptGrant": "",  
        "exemptRefNo": "",  
        "exemptDate": "20100101",  
        "exemptInstallations": "",  
        "chklistOccpApproval": "",  
        "organizationEname": "",  
        "organizationCname": "",  
        "organizationResEname": "",  
        "organizationResCname": ""  
    }  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

11.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend_Service_Domain>/ {Version} /EE2/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocrcert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocrcert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocrcert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “Key” is null. The parameter “applicationNo” is null. The parameter “FileName” is null. The parameter “File” is null.
D20002	Application is invalid	The application is not found. Application status is invalid.
D20003	File is invalid	File extension is invalid. File name is too long. File Name is invalid.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
```

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"txID":"0514125f"

}

11.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EE2>Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

12. EE3

12.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend_Service_Domain>/Version}/EE3/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

12.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/ {Version}/EE3/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese [1=Hong Kong 2 = Kowloon 3 = New

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			Territories]
compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(3)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
becDate	String(8)		REA BEC building services installations covered Date *(yyyyMMdd)
reaTitleId	Int		Options of REA Salutation,

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			[1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
cocr	Array of Objects		Refer to: <u>Response_Content-COCR</u>
foc	Array of Objects		Refer to: <u>Response_Content-foc</u>
eesu	Object		Refer to: <u>Response_Content-eesu</u>

Request – Content-COCR

Parameter	Type	Condition	Description
submissionId	Int		Application

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			Submission ID
applicationNo	String(20)		WBRS Application Number
expiryDate	String(8)		Expiry Date(yyyyMMdd)
regNo	String(20)		Registration No.

Request – Content–FOC

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
issueDate	String(8)		Date of Issue(yyyyMMdd)
becEdition	String(20)		Edition of Code of Practice applied

Request – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)

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encloseEeel	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
encloseEebp	String(1)		Form EE-PB
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.

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details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.
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Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature” is null. The header “nonce” is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature” is incorrect. (MITM Attack) The header “nonce” is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "category": "1",
  "seq": 1,
  "applicationNo": "ee307021510",
  "bldgEname": "bldgEname",
  "bldgCname": "bldgCname 中文",
  "startNo": "01",
  "startNoAlpha": "string",
  "endNo": "22",
  "endNoAlpha": "string",
  "stEname": "stEname",
  "stCname": "stCname 中文",
  "districtCd": "001",
  "areaCd": "1",
  "cocrRegNo": "string",
  "compBecEdition": "2012",
  "compEname": "compEname",
  "compCname": "compCname 中文",
  "represenTitleId": 0,
  "represenEname": "represenEname",
  "represenCname": "represenCname 中文",
  "represenPost": "string",
  "corresAddrLang": "E",
  "corresAddrFlat": "string",
}
```

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```
"corresAddrFloor": "string",
"corresAddrBlock": "string",
"corresAddrBldg": "string",
"corresAddrStartNo": 0,
"corresAddrStartNoAlpha": "string",
"corresAddrEndNo": 0,
"corresAddrEndNoAlpha": "stirng",
"corresAddrSt": "string",
"corresAddrDistrictCd": "001",
"corresAddrAreaCd": 1,
"corresTelNo": "stirng",
"corresFaxNo": "string",
"corresEmailAddr": "a@a.a",
"becdate": "20211119",
"corresSigndate": "20211119",
"recedate": "20211119",
"becEdition": "2012",
"inspectdate": "20211119",
"reaTitleId": 0,
"reaEname": "reaEname",
"reaCname": "reaCname 名字",
"reaAddrLang": "E",
"reaAddrFlat": "string",
"reaAddrFloor": "string",
"reaAddrBlock": "stirng",
"reaAddrBldg": "stirng",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "string",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "string",
"reaAddrSt": "string",
"reaAddrDistrictCd": "001",
"reaAddrAreaCd": 1,
"reaTelNo": "string",
"reaFaxNo": "string",
"reaEmailAddr": "string",
"reaRegNo": "string",
"reaExpirydate": "20211119",
"reaSigndate": "20211119",
"formstatus": 0,
"forwarduserid": "string",
"statusCode": "1",
"wbrsStatus": "0",
"eesu": {
  "applicationNo": "ee307021510",
  "category": "1",
  "seq": 1,
  "bldgType": 0,
  "submissionId": 0,
  "bldgTypeOther": "string",
```

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```
"dateOfDeclarationByRea": "20211119",
"supersedePerviousForm": "1",
"dateOfDeclarationByReaInPreviousForm": "20211119",
"prevSubNo": "string",
"stageOneNo": "1",
"encloseEel": "1",
"encloseEelg": "1",
"encloseEeac": "1",
"encloseEele": "1",
"encloseEepb": "1",
"exemptGrant": "1",
"exemptRefNo": "1",
"ownerSingdate": "20211119",
"reaSingdate": "20211119",
"exemptdate": "20211119",
"exemptInstallations": "exemptInstallations",
"organizationEname": "organizationEname",
"organizationCname": "organizationCname",
"organizationResEname": "organizationResEname",
"organizationResCname": "organizationResCname 名字",
"statusCode": "1"
},
"foc": [
{
"category": "1",
"seq": 1,
"applicationNo": "ee307021510",
"subSeq": 1,
"refNo": "string",
"issuedate": "20211119",
"becEdition": "2012",
"isTypeLg": "1",
"isTypeAc": "1",
"isTypeEl": "1",
"isTypeLe": "1",
"statusCode": "1"
}
],
"cocr": [
{
"category": "1",
"seq": 1,
"applicationNo": "ee307021510",
"subSeq": 1,
"regNo": "string",
"expirydate": "20211119",
"statusCode": "1"
}
]
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "D00000"  
}
```

12.3. Validate Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version} /EE3/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
startNo	Int		Street No
startNoAlpha	String(10)		Street No Alpha
endNo	Int		End No
endNoAlpha	String(10)		End No Alpha
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
districtCd	String(3)		Options of District English Chinese
areaCd	Int		Options of Area English Chinese

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			[1=Hong Kong 2 = Kowloon 3 = New Territories]
compBecEdition	String(30)		Company BEC Edition
compEname	String(256)		-Company Name of Developer Name English
compCname	String(256)		Company Name of Developer Name Chinese
represenTitleId	Int		Options of Representative Person Salutation, [1=Mr.,2=Miss,3=Ms.]
represenEname	String(256)		Representative Person English Name
represenCname	String(256)		Representative Person Chinese Name
represenPost	String(256)		Representative Position
corresAddrLang	String(1)		Options of Correspondence Address Language, [E,C]
corresAddrFlat	String(50)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(255)		Correspondence Address Building
corresAddrStartNo	Int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrEndNo	Int		Correspondence Address Street No.
corresAddrEndNoAlpha	String(10)		Correspondence Address Street
corresAddrSt	String(255)		Correspondence Address Street
corresAddrDistrictCd	String(3)		Options of Correspondence Address District
corresAddrAreaCd	Int		Options of Correspondence Address Area English Chinese
corresTelNo	String(20)		Correspondence Telephone No.
corresFaxNo	String(20)		Correspondence Fax No.
corresEmailAddr	String(100)		Correspondence E-mail Address
becEdition	String(10)		REA BEC Edition
becDATE	String(8)		REA BEC building services installations covered

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			Date(yyyyMMdd)
reaTitleId	Int		Options of REA Salutation, [1=Mr.,2=Miss,3=Ms.]
reaEname	String(256)		Electrical Discipline of Registered Engineer Qualifications
reaCname	String(256)		REA Chinese Name
reaAddrLang	String(1)		Options of REA Correspondence Address Language, [E,C]
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(255)		REA Correspondence Address Building
reaAddrStartNo	Int		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrEndNo	Int		REA Correspondence Address Street No.
reaAddrEndNoAlpha	String(10)		REA Correspondence Address Street No.
reaAddrSt	String(255)		REA Correspondence Address Street
reaAddrDistrictCd	String(3)		REA Correspondence District
reaAddrAreaCd	Int		REA Correspondence Area English Chinese
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E- mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
receiveDate	String(8)		Receipt Date(yyyyMMdd)
cocr	Array of Objects		Refer to: <u>Request – Content–COCR</u>
foc	Array of Objects		Refer to: <u>Request – Content–FOC</u>
eesu	Object		Refer to: <u>Request – Content–eesu</u>

Request – Content–COCR

Parameter	Type	Condition	Description
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submissionId	Int		Application Submission ID
applicationNo	String(20)		WBRS Application Number
expiryDate	String(8)		Expiry Date(yyyyMMdd)
regNo	String(20)		Registration No.

Request – Content–FOC

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
issueDate	String(8)		Date of Issue(yyyyMMdd)
becEdition	String(20)		Edition of Code of Practice applied

Request – Content–eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “✓” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form: (yyyyMMdd)

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encloseEeel	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date(yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResCname	String(255)		section c Name of Responsible Person' Representative# CHI

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	D00000 Success Result.
D20001	Parameter is null.	CE2001 The parameter “Key” is null.
		CE2002 The parameter “WBRSAApplicationNo” is null.

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		CE2003	The parameter “Submission Time” is null.
D20002	Already exists.	CE2011	The value of “WBRSAplicationNo” already exists.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “is already used. (Replay Attack)
D40001	Form Validation	CE4001	Lift location not found. Other Validations
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "bldgEname": "4",
  "bldgCname": "4",
  "startNo": 1,
  "startNoAlpha": "4",
  "endNo": 1,
  "endNoAlpha": "4",
  "stEname": "4",
  "stCname": "4",
  "districtCd": "4",
  "areaCd": 1,
  "cocrRegNo": "4",
  "compBecEdition": "4",
  "compEname": "4",
  "compCname": "4",
  "represenTitleId": 1,
  "represenEname": "4",
  "represenCname": "4",
  "represenPost": "4",
  "corresAddrLang": "4",
  "corresAddrFlat": "4",
  "corresAddrFloor": "4",
  "corresAddrBlock": "4",
  "corresAddrBldg": "4",
```

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```
"corresAddrStartNo": 1,  
"corresAddrStartNoAlpha": "4",  
"corresAddrEndNo": 1,  
"corresAddrEndNoAlpha": "4",  
"corresAddrSt": "4",  
"corresAddrDistrictCd": "4",  
"corresAddrAreaCd": 1,  
"corresTelNo": "4",  
"corresFaxNo": "4",  
"corresEmailAddr": "4",  
"becDate": "20211119",  
"becEdition": "4",  
"reaTitleId": 1,  
"reaEname": "4",  
"reaCname": "11",  
"reaAddrLang": "4",  
"reaAddrFlat": "4",  
"reaAddrFloor": "4",  
"reaAddrBlock": "4",  
"reaAddrBldg": "4",  
"reaAddrStartNo": 1,  
"reaAddrStartNoAlpha": "4",  
"reaAddrEndNo": 1,  
"reaAddrEndNoAlpha": "4",  
"reaAddrSt": "4",  
"reaAddrDistrictCd": "4",  
"reaAddrAreaCd": 1,  
"reaTelNo": "4",  
"reaFaxNo": "4",  
"reaEmailAddr": "4",  
"reaRegNo": "4",  
"reaExpiryDate": "20211119",  
"formstatus": 1,  
"forwarduserid": "4",  
"statusCode": "1      ",  
"submissionId": 1,  
"receiveDate": "20211119",  
"wbrsStatus": "4",  
"eesu": {  
    "applicationNo": "4",  
    "category": "4",  
    "seq": 1,  
    "bldgType": 0,  
    "submissionId": 1,  
    "bldgTypeOther": "4",  
    "dateOfDdeclarationByRea": "20211122",  
    "supersedePerviousForm": "4",  
    "dateOfDdeclarationByReaInPreviousForm": "20211122",  
    "prevSubNo": "4",  
    "encloseEel": "4",
```

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```
"encloseEelg": "4",
"encloseEeac": "4",
"encloseEele": "4",
"encloseEepb": "4",
"exemptGrant": "4",
"exemptRefNo": "4",
"ownerSingDate": "20211122",
"reaSingDate": "20211122",
"exemptDate": "20211122",
"exemptInstallations": "4",
"organizationEname": "4",
"organizationCname": "4",
"organizationResEname": "4",
"organizationResCname": "4",
"statusCode": "1      ",
},
"foc": [
{
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "subSeq": 1,
  "refNo": "4",
  "issueDate": "20211122",
  "becEdition": "4",
  "isTypeLg": "4",
  "isTypeAc": "4",
  "isTypeEl": "4",
  "isTypeLe": "4",
  "statusCode": "1      ",
  "submissionId": 1,
},
{
  "category": "4",
  "seq": 1,
  "applicationNo": "4",
  "subSeq": 1,
  "refNo": "4",
  "issueDate": "20211122",
  "becEdition": "4",
  "isTypeLg": "4",
  "isTypeAc": "4",
  "isTypeEl": "4",
  "isTypeLe": "4",
  "statusCode": "1      ",
  "submissionId": 1,
}
],
"cocr": [
```

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```
{  
    "category": "4",  
    "seq": 1,  
    "applicationNo": "4",  
    "subSeq": 1,  
    "regNo": "4",  
    "expiryDate": "20211119",  
    "statusCode": "1",  
    "submissionId": 1,  
  
}  
],  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

12.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend_Service_Domain>/ {Version} /EE3/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.
fileName	String	Required	File name with extension of the attachment
shaFileChecksum	String	Required	The SHA file checksum of the attachment
type	String	Required	The type of the attachment
fileContent	String	Required	Base64 encoded content of the attachment

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID

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			during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message	
D00000	Success Result.	D00000	Success Result.
D20001	Parameter is null.	CE2001	The parameter “Key” is null.
		CE2002	The parameter “WBRSAplicationNo” is null.
		CE2003	The parameter “Submission Time” is null.
		CE2004	The parameter “FileName” is null.
		CE2005	The parameter “File” is null.
D20002	Application is invalid	CE2011	The application is not found.
		CE2012	Application status is invalid.
D20003	File is invalid	CE2021	File extension is invalid.
		CE2022	File name is too long.
		CE2023	File Name is invalid.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature” is null.
		CE3003	The header “nonce” is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature” is incorrect. (MITM Attack)
		CE3013	The header “nonce” is already used. (Replay Attack)
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "appno": "L160000001",
  "attpath": "",
  "type": "",
  "remark": ""
}
```

Sample Response

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```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

12.5. Acknowledge Submission Completed

PI Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EE3>Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{  
    "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "L160000001"  
}
```

Sample Response

```
{  
    "code": "D00000",  
    "message": "D00000",  
    "txID": "0514125f"  
}
```

13. EE4

13.1. Request Form Data

API Description

Name	Description
Service Full Name	To get the form data
URL	<Backend_Service_Domain>/Version}/EE4/GetForm
Request Type	POST
Service Version	1
Description of Service	To get the form data

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.

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D20001	Parameter is null.	The parameter “applicationNo” is null.
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

13.2. Create Form Data

API Description

Name	Description
Service Full Name	For submitting application form data.
URL	<Backend_Service_Domain>/ {Version}/EE4/SubmitApplication
Request Type	POST
Service Version	1
Description of Service	This API is to submit the application from WBRS to the backend. It should not return a custom form validation error.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		WBRS Application Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
stEname	String(255)		Street English Name
stCname	String(255)		Street Chinese Name
streetNo	int		Street no
EndNo	int		END NO
endNoAlpha	string(10)		END NO ALPHA
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
AreaCd	Int		Options of Area English Chinese
compEname	String(255)		Company Name of Developer Name English
compCname	String(255)		Company Name of

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			Developer Name Chinese
compFlat	String(50)		Company Flat
compFloor	String(50)		Company Floor
compBlock	String(50)		Company Block
otherDescription	String(255)		Other Description
represenEname	String(255)		Name of Responsible Person English
represenCname	String(255)		Name of Responsible Person Chinese
reaTitleId	Int		Options of Representative Person Salutation
responEname	String(255)		Representative Person English name
represenCname	String(255)		Representative Person Chinese name
represenPost	String(256)		Position
corresAddrFlat	String(1)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(256)		Correspondence Address Building
corresAddrStartNo	int		Correspondence Address Street No.
corresAddrStartNoAlpha	String(10)		Correspondence Address Street No.
corresAddrDistrictCd	String(3)		Options of Correspondence Address District,
corresTelNo	String(100)		Correspondence Telephone No
corresFaxNo	String(100)		Correspondence Fax No
corresEmailAddr	String(100)		Correspondence E-mail Address
compBecEdition	String(100)		Company BEC Edition
becEdition	String(10)		EDITION
inspectDate	String(8)		Personally check the time of building equipment installation covered by this form(yyyyMMdd)
reaEname	String(255)		English name of registered energy appraiser
reaCname	String(255)		Chinese name of registered energy appraiser
reaTitleId	int		Salutation of registered energy appraiser
reaAddrFlat	String(50)		REA Correspondence Address Room/Flat

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reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(50)		REA Correspondence Address Building
reaAddrStartNo	String(255)		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(20)		REA Correspondence Address Street No.
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)
submissionId	Int		Application Submission ID

Response – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “√” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:

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			(yyyyMMdd)
encloseEeel	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
exemptGrant	String(1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date
exemptInstallations	String(300)		section b(e) Installation(s) exempted
declareInfOcorrect1	String(1)		ee4,section c checkbox 4
declareInfOcorrect2	String(1)		ee4,section c checkbox 5
declareInfOcorrect3	String(1)		ee4,section c checkbox 5-1
declareInfOcorrect4	String(1)		ee4,section c checkbox 5-2
declareInfOcorrect5	String(1)		ee4,section c checkbox 5-3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResEname	String(255)		section c Name of Responsible Person' Representative# CHI

Response – Content– WORK

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
seq	Int		
subseq	Int		
workloc	String(1024)		Location of Works
commonArea	String(1)		Common Area
unit	String(1)		Unit
isTypeLg	String(1)		Lighting
isTypeAc	String(1)		Air Conditioning
isTypeEl	String(1)		Electrical
isTypeLe	String(1)		Lift & Escalator
completeDate	String(8)		Work Completion Date(yyyyMMdd)

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	Parameter is null - (parameter name)
D20002	Already exists.	Parameter already exists - (parameter name)
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack)

		The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "LE08021526",
  "bldgEname": "1",
  "bldgCname": "1",
  "startNo": 0,
  "startNoAlpha": "1",
  "endNo": 0,
  "endNoAlpha": "1",
  "stEname": "1",
  "stCname": "1",
  "districtCd": "1",
  "areaCd": 0,
  "locEname": "1",
  "locCname": "1",
  "locFlat": "1",
  "locFloor": "1",
  "locBlock": "1",
  "locDesc": "1",
  "isOwnerCommonArea": "1",
  "isOwnerCentralBs": "1",
  "isTenantUnit": "1",
  "isOccupierUnit": "1",
  "isOwnerUnit": "1",
  "responTitleId": 0,
  "responEname": "1",
  "responCname": "1",
  "represenTitleId": 0,
  "represenEname": "1",
  "represenCname": "1",
  "represenPost": "1",
  "corresAddrLang": "1",
  "corresAddrFlat": "1",
  "corresAddrFloor": "1",
  "corresAddrBlock": "1",
  "corresAddrBldg": "1",
  "corresAddrStartNo": 0,
  "corresAddrStartNoAlpha": "1",
  "corresAddrEndNo": 0,
  "corresAddrEndNoAlpha": "1",
  "corresAddrSt": "1",
```

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```
"corresAddrDistrictCd": "1",
"corresAddrAreaCd": 0,
"corresTelNo": "1",
"corresFaxNo": "1",
"corresEmailAddr": "1",
"becEdition": "1",
"inspectDate": "20211119",
"reaTitleId": 0,
"reaEname": "1",
"reaCname": "1",
"reaAddrLang": "1",
"reaAddrFlat": "1",
"reaAddrFloor": "1",
"reaAddrBlock": "1",
"reaAddrBldg": "1",
"reaAddrStartNo": 0,
"reaAddrStartNoAlpha": "1",
"reaAddrEndNo": 0,
"reaAddrEndNoAlpha": "1",
"reaAddrSt": "1",
"reaAddrDistrictCd": "1",
"reaAddrAreaCd": 0,
"reaTelNo": "1",
"reaFaxNo": "1",
"reaEmailAddr": "1",
"reaRegNo": "1",
"reaExpiryDate": "20211119",
"formstatus": 0,
"seq": 0,
"forwarduserid": "1",
"receiveDate": "20211119",
"wbrsStatus": "1",
"eesu": {
    "applicationNo": "1",
    "seq": 1,
    "bldgType": 0,
    "bldgTypeOther": "1",
    "dateOfDdeclarationByRea": "20211214",
    "supersedePerviusForm": "1",
    "dateOfDdeclarationByReaInPreviousForm": "20211214",
    "prevSubNo": "1",
    "encloseEeel": "1",
    "encloseEelg": "1",
    "encloseEeac": "1",
    "encloseEele": "1",
    "encloseEepb": "1",
    "exemptGrant": "1",
    "exemptRefNo": "1",
    "exemptdate": "20211214",
    "exemptInstallations": "1",
```

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```
"declareInfoCorrect1": "1",
"declareInfoCorrect2": "1",
"declareInfoCorrect3": "1",
"declareInfoCorrect4": "1",
"declareInfoCorrect5": "1",
"organizationEname": "1",
"organizationCname": "1",
"organizationResEname": "1",
"organizationResCname": "1"
},
"work": [
{
  "applicationNo": "LE08021526",
  "seq": 1,
  "subSeq": 1,
  "worKoc": "1",
  "commonArea": "1",
  "unit": "1",
  "workArea": 0,
  "isTypeLg": "1",
  "isTypeAc": "1",
  "isTypeEl": "1",
  "isTypeLe": "1",
  "completedate": "20211214"
}
]
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

13.3. Validation Form Data

API Description

Name	Description
Service Full Name	For validating the application data before submission.
URL	<Backend Service Domain>/ {Version} /EE4/ValidateFormData
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String(20)		WBRS Application Number
bldgEname	String(255)		Name of Proposed Building: English
bldgCname	String(255)		Name of Proposed Building: Chinese
stEname	String(255)		Street English Name
stCname	String(255)		Street Chinese Name
streetNo	int		Street no
endNo	int		END NO
endNoAlpha	string(10)		END NO ALPHA
stEname	String(255)		Street English
stCname	String(255)		Street Chinese
areaCd	Int		Options of Area English Chinese
compEname	String(255)		Company Name of Developer Name English

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compCname	String(255)		Company Name of Developer Name Chinese
compFlat	String(50)		Company Flat
compFloor	String(50)		Company Floor
compBlock	String(50)		Company Block
otherDescription	String(255)		Other Description
represenEname	String(255)		Name of Responsible Person English
represenCname	String(255)		Name of Responsible Person Chinese
reaTitleId	Int		Options of Representative Person Salutation
responEname	String(255)		Representative Person English name
represenCname	String(255)		Representative Person Chinese name
represenPost	String(256)		Position
corresAddrFlat	String(1)		Correspondence Address Room/Flat
corresAddrFloor	String(50)		Correspondence Address Floor
corresAddrBlock	String(50)		Correspondence Address Block
corresAddrBldg	String(256)		Correspondence Address Building
corresAddrStartNo	int		Correspondence Address Street No.
corresAddrStartNoAlpha	String (10)		Correspondence Address Street No.
corresAddrDistrictCd	String (3)		Options of Correspondence Address District,
corresTelNo	String (100)		Correspondence Telephone No
corresFaxNo	String (100)		Correspondence Fax No
corresEmailAddr	String (100)		Correspondence E-mail Address
compBecEdition	String (100)		Company BEC Edition
becEdition	String (10)		EDITION
inspectDate	String(8)		Personally check the time of building equipment installation covered by this form(yyyyMMdd)
reaEname	String(255)		English name of registered energy appraiser
reaCname	String(255)		Chinese name of registered energy appraiser
reaTitleId	int		Salutation of registered energy appraiser
reaAddrFlat	String(50)		REA Correspondence

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			Address Room/Flat
reaAddrFloor	String(50)		REA Correspondence Address Floor
reaAddrBlock	String(50)		REA Correspondence Address Block
reaAddrBldg	String(50)		REA Correspondence Address Building
reaAddrStartNo	String(255)		REA Correspondence Address Street No.
reaAddrStartNoAlpha	String(20)		REA Correspondence Address Street No.
reaTelNo	String(20)		REA Correspondence Telephone No.
reaFaxNo	String(20)		REA Correspondence Fax
reaEmailAddr	String(100)		REA Correspondence E-mail Address
reaRegNo	String(20)		REA Registration No.
reaExpiryDate	String(8)		REA Expiry Date(yyyyMMdd)

Response – Content– eesu

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
bldgType	Int		Type of Building
bldgTypeOther	String(255)		Type of Building Other
dateOfDeclarationByRea	String(8)		Date of Declaration by Registered Energy Assessor in Form EE1 / EE2 / EE3 / EE4 *(yyyyMMdd)
prevSubNo	String(100)		If EMSD's reference no. for the form submitted before is known, please provide
supersedePreviousForm	String(1)		this submission to supersede a form submitted before? (Please give a “√” in the appropriate box)
dateOfDeclarationByReaInPreviousForm	String(8)		Otherwise, please provide the date of declaration by Registered Energy Assessor in the previous form:

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			(yyyyMMdd)
encloseEeel	String(1)		Form EE-EL
encloseEelg	String(1)		Form EE-LG
encloseEeac	String(1)		Form EE-AC
encloseEele	String(1)		Form EE-LE
encloseEepb	String(1)		Form EE-PB
exemptGrant	String (1)		section b(e) Exemption previously granted by the Director of Electrical and Mechanic
exemptRefNo	String(20)		section b(e) Reference No.
exemptDate	String(8)		section b(e) Date (yyyyMMdd)
exemptInstallations	String(300)		section b(e) Installation(s) exempted
declareInfOcorrect1	String(1)		ee4,section c checkbox 4
declareInfOcorrect2	String(1)		ee4,section c checkbox 5
declareInfOcorrect3	String(1)		ee4,section c checkbox 5-1
declareInfOcorrect4	String(1)		ee4,section c checkbox 5-2
declareInfOcorrect5	String(1)		ee4,section c checkbox 5-3
organizationEname	String(255)		section c Organization Name of Responsible Person# ENG
organizationCname	String(255)		section c Organization Name of Responsible Person# CHI
organizationResEname	String(255)		section c Name of Responsible Person' Representative# ENG
organizationResEname	String(255)		section c Name of Responsible Person' Representative# CHI

Response – Content – WORK

Parameter	Type	Condition	Description
applicationNo	String(20)		Reference Number
seq	Int		
subseq	Int		
workloc	String(1024)		Location of Works
commonArea	String (1)		Common Area
unit	String (1)		Unit
isTypElg	String (1)		Lighting
isTypeAc	String (1)		Air Conditioning
isTypeEl	String (1)		Electrical
isTypEle	String (1)		Lift & Escalator
completeDate	String(8)		Work Completion Date(yyyyMMdd)

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message	
D00000	Success Result.	D00000	Success Result.
D20001	Parameter is null.	CE2001	The parameter “Key” is null.
		CE2002	The parameter “WBRSAplicationNo” is null.
		CE2003	The parameter “Submission Time” is null.
D20002	Already exists.	CE2011	The value of “WBRSAplicationNo” already exists.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “ is already used. (Replay Attack)
D40001	Form Validation	CE4001	Lift location not found.
		Other Validations	
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request

```
{  
    "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="  
}
```

Sample Request (without encryption)

```
{  
    "applicationNo": "12",  
    "bldgEname": "12",  
    "bldgCname": "12",  
    "startNo": 12,  
    "startNoAlpha": "12",  
    "endNo": 12,  
    "endNoAlpha": "12",  
    "stEname": "12",  
    "stCname": "12",  
    "districtCd": "12",  
    "areaCd": 12,  
    "locEname": "12",  
    "locCname": "12",  
    "locFlat": "1",  
    "locFloor": "1",  
    "locBlock": "1",  
    "locDesc": "1",  
    "isOwnerCommonArea": "1",  
    "isOwnerCentralBs": "1",  
    "isTenantUnit": "1",  
    "isOccupierUnit": "1",  
    "isOwnerUnit": "1",  
    "responTitleId": 1,  
    "responEname": "1",  
    "responCname": "1",  
    "represenTitleId": 1,  
    "represenEname": "1",  
    "represenCname": "1",  
    "represenPost": "1",  
    "corresAddrLang": "1",  
    "corresAddrFlat": "1",  
    "corresAddrFloor": "1",  
    "corresAddrBlock": "1",  
    "corresAddrBldg": "1",  
    "corresAddrStartNo": 1,  
    "corresAddrStartNoAlpha": "11",  
    "corresAddrEndNo": 1,  
    "corresAddrEndNoAlpha": "1",  
    "corresAddrSt": "1",  
    "corresAddrDistrictCd": "1",  
    "corresAddrAreaCd": 1,  
    "corresTelNo": "1",  
}
```

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```
"corresFaxNo": "1",
"corresEmailAddr": "1",
"becEdition": "1",
"inspectDate": "20211117",
"reaTitleId": 1,
"reaEname": "1",
"reaCname": "1",
"reaAddrLang": "1",
"reaAddrFlat": "1",
"reaAddrFloor": "1",
"reaAddrBlock": "1",
"reaAddrBldg": "1",
"reaAddrStartNo": 1,
"reaAddrStartNoAlpha": "1",
"reaAddrEndNo": 1,
"reaAddrEndNoAlpha": "1",
"reaAddrSt": "1",
"reaAddrDistrictCd": "1",
"reaAddrAreaCd": 1,
"reaTelNo": "1",
"reaFaxNo": "1",
"reaEmailAddr": "1",
"reaRegNo": "1",
"reaExpiryDate": "20211117",
"formstatus": 1,
"seq": 1,
"forwarduserid": "1",
"receiveDate": "20211117",
"eesu": {
  "applicationNo": "12",
  "seq": 1,
  "bldgType": 1,
  "bldgTypeOther": "1",
  "dateOfDdeclarationByRea": "20211119",
  "supersedePerviousForm": "1",
  "dateOfDdeclarationByReaInPreviousForm": "20211119",
  "prevSubNo": "1",
  "encloseEeel": "1",
  "encloseEelg": "1",
  "encloseEeac": "1",
  "encloseEele": "1",
  "encloseEepb": "1",
  "exemptGrant": "1",
  "exemptRefNo": "1",
  "exemptDate": "20211119",
  "exemptInstallations": "1",
  "declareInfoCorrect1": "1",
  "declareInfoCorrect2": "1",
  "declareInfoCorrect3": "1",
  "declareInfoCorrect4": "1",
```

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```
"declareInfoCorrect5": "1",
"organizationEname": "1",
"organizationCname": "1",
"organizationResEname": "1",
"organizationResCname": "1",

},
"work": [
{
"applicationNo": "12",
"seq": 1,
"subSeq": 1,
"worKoc": "1",
"commonArea": "1",
"unit": "1",
"isTypeLg": "1",
"isTypeAc": "1",
"isTypeEl": "1",
"isTypeLe": "1",
"completeDate": "20211119",

}
],
}
```

Sample Response

```
{
"code": "D00000",
"message": "D00000",
"txID": "0514125f"
}
```

13.4. Create Attachment

API Description

Name	Description
Service Full Name	For submitting the attachment to backend
URL	<Backend_Service_Domain>/ {Version} /EE4/CreateAttachment
Request Type	POST
Service Version	1
Description of Service	This API is to validate the application data before submission.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description																																										
applicationNo	String	Required	WBRS Application No.																																										
fileName	String	Required	File name with extension of the attachment																																										
shaFileChecksum	String	Required	The SHA file checksum of the attachment																																										
type	String	Required	The type of the attachment <table border="1"> <thead> <tr> <th>ID</th> <th>TypeCode</th> <th>TypeDesc</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>sub</td> <td>Submission Form</td> </tr> <tr> <td>2</td> <td>ack</td> <td>Acknowledgement Letter / Memo</td> </tr> <tr> <td>3</td> <td>sup</td> <td>Request for Supplementary Information Letter / Memo</td> </tr> <tr> <td>4</td> <td>chk</td> <td>Checklist for general Checking</td> </tr> <tr> <td>5</td> <td>ins</td> <td>Inspection Notice</td> </tr> <tr> <td>6</td> <td>com</td> <td>Detailed Compliance Checklist</td> </tr> <tr> <td>7</td> <td>inr</td> <td>Inspection Report</td> </tr> <tr> <td>8</td> <td>imp</td> <td>Improvement Notice</td> </tr> <tr> <td>9</td> <td>oth</td> <td>Others</td> </tr> <tr> <td>10</td> <td>s29</td> <td>S29 Letter</td> </tr> <tr> <td>11</td> <td>rem</td> <td>Reminder letters</td> </tr> <tr> <td>12</td> <td>cocrcert</td> <td>COCR certificate</td> </tr> <tr> <td>13</td> <td>eaform</td> <td>EA form</td> </tr> </tbody> </table>	ID	TypeCode	TypeDesc	1	sub	Submission Form	2	ack	Acknowledgement Letter / Memo	3	sup	Request for Supplementary Information Letter / Memo	4	chk	Checklist for general Checking	5	ins	Inspection Notice	6	com	Detailed Compliance Checklist	7	inr	Inspection Report	8	imp	Improvement Notice	9	oth	Others	10	s29	S29 Letter	11	rem	Reminder letters	12	cocrcert	COCR certificate	13	eaform	EA form
ID	TypeCode	TypeDesc																																											
1	sub	Submission Form																																											
2	ack	Acknowledgement Letter / Memo																																											
3	sup	Request for Supplementary Information Letter / Memo																																											
4	chk	Checklist for general Checking																																											
5	ins	Inspection Notice																																											
6	com	Detailed Compliance Checklist																																											
7	inr	Inspection Report																																											
8	imp	Improvement Notice																																											
9	oth	Others																																											
10	s29	S29 Letter																																											
11	rem	Reminder letters																																											
12	cocrcert	COCR certificate																																											
13	eaform	EA form																																											
fileContent	String	Required	Base64 encoded content of the attachment																																										
description	String	Required	Description of attachment																																										

Response Parameters

Parameter	Type	Condition	Description
-----------	------	-----------	-------------

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txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message	
D00000	Success Result.	D00000	Success Result.
D20001	Parameter is null.	CE2001	The parameter “Key” is null.
		CE2002	The parameter “WBRSAplicationNo” is null.
		CE2003	The parameter “Submission Time” is null.
		CE2004	The parameter “FileName” is null.
		CE2005	The parameter “File” is null.
D20002	Application is invalid	CE2011	The application is not found.
		CE2012	Application status is invalid.
D20003	File is invalid	CE2021	File extension is invalid.
		CE2022	File name is too long.
		CE2023	File Name is invalid.
D30001	Header is null	CE3001	The header “clientID” is null.
		CE3002	The header “signature“ is null.
		CE3003	The header “nonce “ is null.
D30002	Header is wrong	CE3011	The header “clientID” is not found in the list.
		CE3012	The header “signature“ is incorrect. (MITM Attack)
		CE3013	The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	E9999	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rz03U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001",
  "fileName": "",
  "shaFileChecksum": "",
  "type": "",
  "content": "",
  "description": ""
}
```

Sample Response

```
{  
  "code": "D00000",  
  "message": "D00000",  
  "txID": "0514125f"  
}
```

13.5. Acknowledge Submission Completed

API Description

Name	Description
Service Full Name	To acknowledge the backend submission has been completed.
URL	<Backend_Service_Domain>/{{Version}}/EE4/Status/SubmissionCompleted
Request Type	POST
Service Version	1
Description of Service	To acknowledge the backend after all attachments are submitted successfully.

Request Headers

Parameter	Type	Condition	Description
signature	String	Required	It is a signature of the submitted data. WBRS uses clientSecret to sign the concatenated string of nonce and encrypted content to get the signature.
clientID	String	Required	Client identifier for finding out the client secret in the backend.
nonce	String	Required	A nonce is a random string, uniquely generated for each request by WBRS. It is used to prevent replay attack. A nonce can be an ASCII string of any length less than or equal to 36 (UUID string length) as long as the uniqueness requirement is met.

Request Parameters

Parameter	Type	Condition	Description
encryptedContent	String	Required	Encrypted content

Request - Content

Parameter	Type	Condition	Description
applicationNo	String	Required	WBRS Application No.

Response Parameters

Parameter	Type	Condition	Description
txID	String	Required	Unique ID for logging. Please provide this ID during system support.
code	Option	Required	Code to indicate the result. Details please refer to below section “Response – Code & Message”.
details	String	Required	Details code (For example: CE2001). Details please refer to below section “Response – Code & Message”.

Response – Code & Message

Code	Description	Message
D00000	Success Result.	Success Result.
D20001	Parameter is null.	The parameter “applicationNo” is null.

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	null.	
D30001	Header is null	The header “clientID” is null. The header “signature“ is null. The header “nonce “ is null.
D30002	Header is wrong	The header “clientID” is not found in the list. The header “signature“ is incorrect. (MITM Attack) The header “nonce “ is already used. (Replay Attack)
D90000	Unknown Exception	Runtime Exception.

Sample Request (with encryption)

```
{
  "encryptedContent": "sqS0rzo3U5r8G9rc7nvNQnd973fpD3v1k3Qp4u/F8Y="
}
```

Sample Request (without encryption)

```
{
  "applicationNo": "L160000001"
}
```

Sample Response

```
{
  "code": "D00000",
  "message": "D00000",
  "txID": "0514125f"
}
```

14. PAYMENT COMPLETED

API Description

Name	Description
Service Full Name	Payment Completed
URL	<Backend_Service_Domain>/ {Version} /payment/submitData
Request Type	POST
Service Version	1
Description of Service	To change the status of record after payment has been completed and save payment record to E-payment table.

Request Headers

Parameter	Type	Condition	Description
clientID	String	Required	Client identifier for finding out the client secret in the backend.

Request Parameters

Parameter	Type	Condition	Description
action	String	Required	Action to be done
state	String	Required	State
data	Data object	Required	Refer to: Request – Content – Date

Request – Content – Data

Parameter	Type	Condition	Description
division_code	String(20)	Required	Division Code of the form
form_code	String(60)	Required	Form Code
app_no	String(10)	Required	WBRS Application Number
name	String(200)	Optional	Applicant Name
address	String(400)	Optional	Applicant Address
tel	String(17)	Optional	Applicant Telephone Number
email	String(150)	Optional	Applicant Email
lang	String(2)	Required	Language
expiry_date	String(8)	Optional	Expiry Date(yyyyMMdd)
result_return_url	String(400)	Required	Result Return URL
receipt_return_url	String(400)	Optional	Receipt Return URL
remark	String(4000)	Optional	Remarks
sender	String(150)	Optional	Sender

Response Parameters

Parameter	Type	Condition	Description
state	String	Required	State of result
status	String	Required	Status of result, “0” for Success Case and “1” for Error Case
expiry_date	String	Required	Expiry Date, returned when Success
error_code	String	Required	Error Code, returned when have Error
error_message	String	Required	Error Message, returned when have Error

Response – Code & Message

Code	Description	Message
003	Incorrect Parameter	Request parameter not correct

Sample Request

```
{  
    "action": "submitRequestByWBRSAApplication",  
    "state": "e893647dc4204eb9b7b8eddd527b687c",  
    "data": {  
        "division_code": "EA",  
        "form_code": "FORM1",  
        "app_no": "L160000001",  
        "name": "Chan Tai Man",  
        "address": "address",  
        "tel": "21234567",  
        "email": "test@email.com.hk",  
        "lang": "en",  
        "expiry_date": "20211122",  
        "result_return_url": "https://end_point/1/payment/result",  
        "receipt_return_url": "https://end_point/1/form/receipt",  
        "remark": "remarks",  
        "sender": "testsender@email.com.hk"  
    }  
}
```

Sample Response (Success Case)

```
{  
    "state": "e893647dc4204eb9b7b8eddd527b687c",  
    "status": 0,  
    "expiry_date": "20211122"  
}
```

Sample Response (Error Case)

```
{  
    "state": "e893647dc4204eb9b7b8eddd527b687c",  
    "status": 1,  
    "error_code": "003",  
    "error_message": "Request parameter not correct"  
}
```

- End of Document -

**SYSTEM SPECIFICATION
ON
DATA MANAGEMENT SYSTEM
FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR
ENERGY EFFICIENCY OFFICE
OF
ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



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SYSTEM SPECIFICATION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)

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SYSTEM SPECIFICATION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL
SERVICES DEPARTMENT (EMSD)

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1. DEFINITION AND CONVENTION

1.1 Definition

In this document, unless the context otherwise requires, the following expressions have the following meanings:

Term	Definition
BEEO	Buildings Energy Efficiency Ordinance
WBRS	Web-based Registration Services for online application submission.
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance

2. FUNCTIONAL SPECIFICATION

2.1 Function Summary

The following naming convention is used for naming the functions:

This function list defines the functions to be provided by the required system.

Function ID = [Category] + [3-digit Sequence Number]

Category	Function
ASS	Assignment of WBRS Records
SDM	Submission & Case Document Management
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance

Category	Function ID	Function Name
ASS	ASS-001	Search WBRS Records of COCR/FOC
	ASS-002	View WBRS Records of EE1
	ASS-003	View WBRS Records of EE2
	ASS-004	View WBRS Records of EE3
	ASS-005	View WBRS Records of EE4
	ASS-006	Search WBRS Records of REA
	ASS-007	View WBRS Records of REA1
	ASS-008	View WBRS Records of REA3
REA	REA-001	Maintain REA Case
	REA-002	Generate REA E-Licence
	REA-003	Maintain REA Registration
COCR	COCR-001	Maintain COCR Case
	COCR -002	Generate COCR E-Licence
	COCR -003	Maintain COCR Registration

2.2 Function Definition

2.2.1 Assignment of WBRS Records

2.2.1.1 ASS-001 Search WBRS Records of COCR/FOC

Function ID	:	ASS-001	Mode	:	Online/Update
Name	:	Search WBRS Records of COCR/FOC			
Frequency	:	(Min: 0 Avg: 1000 Max: 2000)	Period	:	Yearly
Description:					

This function allows user to search all WBRS records of EE1, EE2, EE3, EE4.

Related Path: [Assignment]>[Assign WBRS Record]

- User can use the [Status] dropdown to filter WBRS records.
- User can see a list of WBRS record summary with below infomations.

Column	Description
Select to Assign	Checkbox to assign/cancel
Submission Type	Options: - EE1 - EE2 - EE3 - EE4
Application No.	Application Number generated from WBRS Link to WBRS Record details page
Building Name	Building Name
Building Address	Building Address
Receive Date	Receive Date
Status	Options: - PENDING - NEW - CONVERTED - CANCELLED
Inspector	Inspector of the assignment
Engineer	Engineer of the assignment

- User can click on the specified row to view the WBRS record details.
- User can filter records where [Status] = NEW, check the [Select to Assign] checkbox, select [Inspector] dropdown and [Engineer] dropdown and then click [Assign] button to complete the assignment, the [Status] of the record(s) will be updated from “NEW” to “CONVERTED”.
- User can filter records where [Status] = “NEW”/“PENDING”, check the [Select to

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Assign] checkbox, input [Cancel Reason] and then click [Cancel] button to cancel the application, the [Status] of the record(s) will be updated from “NEW”/”PENDING” to “CANCELLED”.

Related Requirements:

REQ-3001 – COCR Case Maintenance

2.2.1.2 ASS-002 View WBRS Records of EE1

Function ID	:	ASS-002	Mode	:	Online/Update
Name	:	View WBRS Records of EE1			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly
Description:					
This function allows user to view the details of WBRS records of EE1.					
Related Path: [Assignment]>[Assign WBRS Record]					
User can click on the specified row to view the details of WBRS record with below informations					
WBRS - EE1 Record Details					
Field	Type	Details			
Application No.	Textbox	WBRS Application Number			
Building Name (English)	Textbox				
Building Name (Chinese)	Textbox				
Cancel Reason	Textarea				
Address of Proposed Building	Label				
Street No.	Label				
Start No.	Textbox	Street Start No.			
Alpha	Textbox	Street Start No. Alpha			
End No.	Textbox	Street End No.			
Alpha	Textbox	Street End No. Alpha			
Street	Label				
English	Textbox	Street English Name			
Chinese	Textbox	Street Chinese Name			
District	Textbox				
Area	Textbox				
Lot No.	Textbox				
Developer					
BEC Edition	Textbox				
Company Name (English)	Textbox				
Company Name (Chinese)	Textbox				
Salutation	Radio Button	Options: - Mr. - Miss - Ms.			
Position	Textbox				
Name (English)	Textbox	Developer Name (English)			

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Name (Chinese)	Textbox	Developer Name (Chinese)
Correspondence Address	Label	Developer Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addressss	Label	REA Correspondence Addressss
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	

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Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	Date format = dd/MM/yyyy
Supplementary Information		
Type of Building	Checkbox List	Options: <ul style="list-style-type: none"> - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commercial & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	Date format = dd/MM/yyyy
Supersede Previous Form	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Consent Building Work MapType	Radio Button	Options: <ul style="list-style-type: none"> - plan - map
Consent Issue Date	Textbox	
Consent Document No. Type	Radio Button	Options: <ul style="list-style-type: none"> - Permit No. - Reference No. - Contract No.
Consent Document No.	Textbox	
Commence Date Type	Radio Button	Options: <ul style="list-style-type: none"> - Anticipated - Actual
Commence Date	Textbox	
Occupation Date	Textbox	

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Internal Floor Area(m ²)	Textbox		
Exemption Grant	Radio Button	Options: - Yes - No	
Exemption Reference No.	Textbox		
Exemption Date	Textbox		
Exemption Installations	Textbox		
Checklist of Document Proof that must be submitted	Label		
Copy of consent to the commencement of building works	Checkbox		
Site location plan/ map * in A3 size	Checkbox		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form
		Remark	

Related Requirements:
REQ-3001 – COCR Case Maintenance

2.2.1.3 ASS-003 View WBRS Records of EE2

Function ID	:	ASS-003	Mode	:	Online/Update		
Name	:	View WBRS Records of EE2					
Frequency	:	(Min: 0 Avg: 300 Max: 600)		Period	:	Yearly	
Description:							
This function allows user to view the details of WBRS records of EE2.							
Related Path: [Assignment]>[Assign WBRS Record]							
User can click on the specified row to view the details of WBRS record with below informations							
WBRS - EE2 Record Details							
Field	Type	Details					
Application No.	Textbox	WBRS Application Number					
Building Name (English)	Textbox						
Building Name (Chinese)	Textbox						
Cancel Reason	Textarea						
Address of Building	Label						
Street No.	Label						
Start No.	Textbox	Street Start No.					
Alpha	Textbox	Street Start No. Alpha					
End No.	Textbox	Street End No.					
Alpha	Textbox	Street End No. Alpha					
Street	Label						
English	Textbox	Street English Name					
Chinese	Textbox	Street Chinese Name					
District	Textbox						
Area	Textbox						
Lot No.	Textbox						
Developer							
BEC Edition	Textbox						
Company Name	Textbox						

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(English)		
Company Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Position	Textbox	
Name (English)	Textbox	Developer Name (English)
Name (Chinese)	Textbox	Developer Name (Chinese)
Correspondence Address	Label	Developer Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	REA Correspondence Addresss
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.

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Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: <ul style="list-style-type: none"> - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	
Supersede Previous Form	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Technical Forms Enclosed	Label	
Form EE-EL	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA

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Form EE-LG	Radio Button	Options: - Yes - NA
Form EE-AC	Radio Button	Options: - Yes - NA
Form EE-LE	Radio Button	Options: - Yes - NA
Form EE-PB	Radio Button	Options: - Yes - NA
Reference Number of Stage One Declaration	Textbox	
Issue Date of "occupation approval"	Textbox	
Reference No. of "occupation approval"	Textbox	
Total internal floor area of the building (m^2)	Textbox	
Exemption Grant	Radio Button	Options: - Yes - No
Exemption Reference No.	Textbox	
Exemption Date	Textbox	
Exemption Installations	Textarea	
Checklist of Document Proof that must be submitted	Label	
Copy of occupation approval	Checkbox	
Responsible Person	Label	
Organization Name (English)	Textbox	
Organization Name (Chinese)	Textbox	
Name (English)	Textbox	
Name (Chinese)	Textbox	
Attachment		
Attachment	Grid	Name
		File Name
		Type Options: - Submission Form

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			<ul style="list-style-type: none"> - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form 	
Remark				

Related Requirements:

REQ-3001 – COCR Case Maintenance

2.2.1.4 ASS-004 View WBRS Records of EE3

Function ID	:	ASS-004	Mode	:	Online/Update
Name	:	View WBRS Records of EE3			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of EE3.

Related Path: [Assignment]>[Assign WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – EE3 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Cancel Reason	Textarea	
Information of Building		
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	

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Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
COCR Registration No.	Textbox	
Owner		
Name (English)	Textbox	
Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Representative Person	Label	
Position	Textbox	
Name (English)	Textbox	Representative Person Name (English)
Name (Chinese)	Textbox	Representative Person Name (Chinese)
Correspondence Address	Label	Representative Person Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	

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Registered Energy Assessor		
BEC Edition	Textbox	
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of

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		airport - Educational - Other composite use														
Other composite use	Textbox	Description of Other composite use														
Date of Declaration by REA	Textbox															
Supersede Previous Form	Radio Button	Options: - Yes - No														
Previous Submission No.	Textbox															
Date of Declaration by REA in Previous Form	Textbox															
Technical Forms Enclosed	Label															
Form EE-EL	Radio Button	Options: - Yes - NA														
Form EE-LG	Radio Button	Options: - Yes - NA														
Form EE-AC	Radio Button	Options: - Yes - NA														
Form EE-LE	Radio Button	Options: - Yes - NA														
Form EE-PB	Radio Button	Options: - Yes - NA														
Registration	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>Registration No.</td> <td></td> </tr> <tr> <td>Expiry Date</td> <td></td> </tr> </tbody> </table>	Name	Details	Registration No.		Expiry Date									
Name	Details															
Registration No.																
Expiry Date																
Form of Compliance	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>Location of Works</td> <td></td> </tr> <tr> <td>Date of Issue</td> <td></td> </tr> <tr> <td>Edition of Code of Practice applied (Year)</td> <td></td> </tr> <tr> <td>Lighting</td> <td>Display Y if Type = LG</td> </tr> <tr> <td>Air Conditioning</td> <td>Display Y if Type = AC</td> </tr> <tr> <td>Electrical</td> <td>Display Y if Type = EL</td> </tr> </tbody> </table>	Name	Details	Location of Works		Date of Issue		Edition of Code of Practice applied (Year)		Lighting	Display Y if Type = LG	Air Conditioning	Display Y if Type = AC	Electrical	Display Y if Type = EL
Name	Details															
Location of Works																
Date of Issue																
Edition of Code of Practice applied (Year)																
Lighting	Display Y if Type = LG															
Air Conditioning	Display Y if Type = AC															
Electrical	Display Y if Type = EL															

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		Lift & Escalator	Display Y if Type = LE			
Exemption Grant	Radio Button	Options: - Yes - No				
Exemption Reference No.	Textbox					
Exemption Date	Textbox					
Exemption Installations	Textarea					
Responsible Person	Label					
Organization Name (English)	Textbox					
Organization Name (Chinese)	Textbox					
Name (English)	Textbox					
Name (Chinese)	Textbox					
Attachment				Textbox		
Attachment	Grid	Name	Details			
		File Name	File full name			
		Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form			
		Remark				
Related Requirements:						
REQ-3001 – COCR Case Maintenance						

2.2.1.5 ASS-005 View WBRS Records of EE4

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Function ID	:	ASS-005	Mode	:	Online/Update
Name	:	View WBRS Records of EE4			
Frequency	:	(Min: 0 Avg: 700 Max: 1400)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of EE4.

Related Path: [Assignment]>[Assign WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – EE4 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Cancel Reason	Textarea	
Information of Building		
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	
Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Information of Relevant Unit / Common Area		
Name (English)	Textbox	
Name (Chinese)	Textbox	
Location	Label	
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Other Description	Textbox	
Information of Responsible Person		
Type of Responsible Person	Checkbox	Options: - Owner of the relevant common area

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		<ul style="list-style-type: none"> - Owner of the relevant central building services installation - Tenant of the relevant unit - Occupier of the relevant unit - Owner of the relevant unit
Name (English)	Textbox	Name of Responsible Person
Name (Chinese)	Textbox	Name of Responsible Person
Representative	Label	
Salutation	Radio Button	Options: <ul style="list-style-type: none"> - Mr. - Miss Ms.
Name (English)	Textbox	Name of Representative Person
Name (Chinese)	Textbox	Name of Representative Person
Position	Textbox	
Correspondence Address	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Inspect Date	Textbox	
Salutation	Radio Button	Options: <ul style="list-style-type: none"> - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	
Room/Flat	Textbox	
Floor	Textbox	

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Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: <ul style="list-style-type: none"> - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	
Supersede Previous Form	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Technical Forms Enclosed	Label	

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Form EE-EL	Radio Button	Options: - Yes - NA																				
Form EE-LG	Radio Button	Options: - Yes - NA																				
Form EE-AC	Radio Button	Options: - Yes - NA																				
Form EE-LE	Radio Button	Options: - Yes - NA																				
Form EE-PB	Radio Button	Options: - Yes - NA																				
Details of major retrofitting works	Grid	<table border="1"> <thead> <tr> <th>Name</th><th>Details</th></tr> </thead> <tbody> <tr> <td>Location of Works</td><td></td></tr> <tr> <td>Common Area</td><td>Display Y if is selected</td></tr> <tr> <td>Unit</td><td>Display Y if is selected</td></tr> <tr> <td>Area of Works (m^2)</td><td></td></tr> <tr> <td>Lighting</td><td>Display Y if Type = LG</td></tr> <tr> <td>Air Conditioning</td><td>Display Y if Type = AC</td></tr> <tr> <td>Electrical</td><td>Display Y if Type = EL</td></tr> <tr> <td>Lift & Escalator</td><td>Display Y if Type = LE</td></tr> <tr> <td>Work Completion Date</td><td></td></tr> </tbody> </table>	Name	Details	Location of Works		Common Area	Display Y if is selected	Unit	Display Y if is selected	Area of Works (m^2)		Lighting	Display Y if Type = LG	Air Conditioning	Display Y if Type = AC	Electrical	Display Y if Type = EL	Lift & Escalator	Display Y if Type = LE	Work Completion Date	
Name	Details																					
Location of Works																						
Common Area	Display Y if is selected																					
Unit	Display Y if is selected																					
Area of Works (m^2)																						
Lighting	Display Y if Type = LG																					
Air Conditioning	Display Y if Type = AC																					
Electrical	Display Y if Type = EL																					
Lift & Escalator	Display Y if Type = LE																					
Work Completion Date																						
Total Area of Works (m^2)	Textbox																					
Exemption Grant	Radio Button	Options: - Yes - No																				
Exemption Reference No.	Textbox																					
Exemption Date	Textbox																					
Exemption Installations	Textarea																					
Checklist of Document Proof that must be submitted	Label																					
Copy of letter, e-mail or	Checkbox																					

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delivery note/receipt etc. to certify that the Form of Compliance has been sent to responsible person of the relevant building / units			
Copy of letter, e-mail or delivery note/receipt etc. to certify that the copy of Form of Compliance has been sent to the following administrator of the building concerned	Label		
Property Management Company	Checkbox		
Building Owner	Checkbox		
N/A	Checkbox		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			Textbox
Attachment	Grid	Name	Details
		File Name	File full name
	Type	Options: <ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form 	

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		Remark	
Related Requirements:			
REQ-3001 – COCR Case Maintenance			

2.2.1.6 ASS-006 Search WBRS Records of REA

Function ID	:	ASS-006	Mode	:	Online/Update
Name	:	Search WBRS Records of REA			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly
Description:					
This function allows user to search all WBRS records of EA1, EA3.					
Related Path: [Assignment]>[Assign REA WBRS Record]					
<ul style="list-style-type: none"> - User can use the [Status] dropdown to filter WBRS records. - User can see a list of WBRS record summary with below infomations. 					
Column	Description				
Select to Assign	Checkbox to assign/cancel				
Submission Type	Options: - REA1 - REA3				
Application No.	Application Number generated from WBRS Link to WBRS Record details page				
Name	Applicant Name				
Registration No.	Registration No.				
Receive Date	Receive Date				
Status	Options: - PENDING - NEW - CONVERTED - CANCELLED				
STO	STO of the assignment				
Engineer	Engineer of the assignment				
<ul style="list-style-type: none"> - User can click on the specified row to view the WBRS record details. - User can filter records where [Status] = NEW, check the [Select to Assign] checkbox, select [STO] dropdown and [Engineer] dropdown and then click [Assign] button to complete the assignment, the [Status] of the record(s) will be updated from “NEW” to “CONVERTED”. - User can filter records where [Status] = “NEW”/”PENDING”, check the [Select to Assign] checkbox, input [Cancel Reason] and then click [Cancel] button to cancel 					

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the application, the [Status] of the record(s) will be updated from
“NEW”/“PENDING” to “CANCELLED”.

Related Requirements:

REQ-2001 – REA Case Maintenance

2.2.1.7 ASS-007 View WBRS Records of REA1

Function ID	:	ASS-007	Mode	:	Online/Update
Name	:	View WBRS Records of REA1			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of REA1.

Related Path: [Assignment]>[Assign REA WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – REA1 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Receive Date	Textbox	
Application Type	Textbox	
Change of Particulars	Checkbox	Options: - Name - Correspondence Address - Professional Qualification
Registration No.	Textbox	
Expiry Date	Textbox	
Cancel Reason	Textarea	
Personal Details		
Name (English)	Textbox	Salutation + English Name
Name (Chinese)	Textbox	Salutation + Chinese Name
Date of Birth	Textbox	
HKID / Travel Document Number		
Correspondence Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	

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District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Current Company Name	Textbox	
Current Company Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Current Company Name	Textbox	
Current Company Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Current Position	Textbox	
Email Address	Textbox	
Telephonse No. (Office)	Textbox	
Fax No.	Textbox	
Professional Qualifications		
Name	Details	
Date of Qualified / Membership No.		
Professional Qualifications	Checkbox Options: - Registered professional engineer within the meaning of	

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(Please tick in the appropriate box(s))	<p>section 2(1) of the Engineers Registration Ordinance (Cap.409)</p> <ul style="list-style-type: none"> - Corporate member of the Hong Kong Institution of Engineers (HKIE) - Equivalent qualification recognized by HKIE as being of a standard not lower than that of a corporate member of the Institution in any of these disciplines (please read the attached "Notes to Applicants" Item 2.1) - (Please state your professional membership of the relevant professional body based upon the reciprocal recognition agreements between the HKIE and the professional body) - Other : (please read the attached "Notes to Applicant" Item 2.2) 		
Discipline	<p>Checkbox:</p> <ul style="list-style-type: none"> - BSS - ELL - ENV - MCL 		
Relevant Practical Experience	Label		
	Grid	Name	Details
		From (DD/MM/YY)	
		To (DD/MM/YY)	
		Position	
		Company Name	
		Description	
Checklist of Supporting Documents			
(i) I attach documentary proof of relevant practical experience.	Checkbox		
(ii) I attach a photocopy of document to substantiate my professional qualifications and the qualified discipline.	Checkbox		
(iii) I attach a photocopy of the following documents to substantiate my application made under section 5(2) of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B)	Checkbox	With description Textbox	
Declaration			
Applicable to new application /renewal application only	Label		

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(i) I declare that I have the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance.	Checkbox		
(ii) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	Checkbox		
Applicable to all application	Label		
(iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.	Checkbox		
Attachment	Textbox		
Attachment	Grid	Name	Details
		File Name	File full name
	Type	Options: <ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice 	

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			- Others - S29 Letter - Reminder letters - COCR certificate - EA form	
Remark				
Related Requirements:				
REQ-2001 – REA Case Maintenance				

2.2.1.8 ASS-008 View WBRS Records of REA3

Function ID	:	ASS-008	Mode	:	Online/Update
Name	:	View WBRS Records of REA3			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

This function allows user to view the details of WBRS records of REA3.

Related Path: [Assignment]>[Assign REA WBRS Record]

User can click on the specified row to view the details of WBRS record with below informations

WBRS – REA3 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Receive Date	Textbox	
Application Type	Textbox	
Change of Particulars	Checkbox	Options: - Name - Correspondence Address
Registration No.	Textbox	
Cancel Reason	Textarea	
Personal Details		
Name (English)	Textbox	Salutation + English Name
Name (Chinese)	Textbox	Salutation + Chinese Name
Date of Birth	Textbox	
HKID	Textbox	
Correspondence Address	Label	
Flat	Textbox	
Floor	Textbox	

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Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Department Name	Textbox	
Office Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Current Position	Textbox	
Email Address	Textbox	
Telephone No. (Office)	Textbox	
Fax No.	Textbox	
Declaration		
Applicable to new application only	Label	
(i) I declare that I have have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional	Checkbox	

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respect.			
(ii) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	Checkbox		
Applicable to all application	Label		
(iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.	Checkbox		
Nomination			
I, the undersigned, on behalf of the Department described in this Section, nominate and support the public officer described in Section A of this form to apply for registration as a Registered Energy Assessor according to the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B).	Label		
Full Name of Nominator	Textbox		
Rank (D1 or above)	Textbox		
Post	Textbox		
Name of Department	Textbox		
Contact No.	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: - Submission Form - Acknowledgement

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			<ul style="list-style-type: none"> - Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form 	
Remark				
Related Requirements:				
REQ-2001 – REA Case Maintenance				

2.2.2 Registered Energy Assessor

2.2.2.1 REA-001 Maintain REA Case

Function ID	:	REA-001	Mode	:	Online/Update
Name	:	Maintain REA Case			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly
Description:					

Related Path: [Search]>[Search Case (REA)]

Modify existing REA Case Detail page to facilitate e-licence generation, details as below

Field	Action	Details
REA Reg. No.	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory - Add validation: When [Save] button click, if “Application Type” = “New” and “REA Reg. No.” already exist then show error message “REA Reg No. is Duplicated” - If “Application Type” = “Renew” / “Change of Particulars” then prefill value

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		with Current Registered Energy Assessor Registration No.	
REA Name	Update	- Disabled	
Issue Date (dd/mm/yyyy)	Update	- Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory - Add validation: When [Save] button click, if "Registered Date First (dd/mm/yyyy)" >= Issue Date then alert error message "Issue Date must be later than Registered Date First"	
Status	Update	- Label Color: Red - Add validation: When [Save] button click, check mandatory	
Registered Date First (dd/mm/yyyy)	Add	- Type: Datepicker - When create/update rea register, update corresponding value in rea register - Add validation: When [Save] button click, if is renew and "Registered Date First (dd/mm/yyyy)" is empty then show alert message	
Expiry Date (dd/mm/yyyy)	Add	- Type: Datepicker - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory -	
Application No	Update	- Set value as WBRS application when create case from WBRS record	
Application Type	Update	- Disabled	
Name (surname first) English	Update	- Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory	
Name (surname first) Chinese	Update	- Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory	
Genereate Certificate	Add	- Type: Button - Display: when status = "Pending for CE Confirmation" / "Pending for Payment" / "Payment Received" / "CE Approved" And login = "HandlingOfficer" - Details refer to 2.2.2.2 Generete REA Elicence	
Draft Version	Add	- Type: Button - Display: when status = "Pending for CE Confirmation" / "Pending for Payment" / "Payment Received" / "CE Approved" And login = "HandlingOfficer"	

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		<ul style="list-style-type: none"> - Details refer to 2.2.2.2 Generete REA Elicence
Create/Update Register	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” / “CE Approved” And login = “HandlingOfficer” - Details refer to 2.2.2.3 Maintain REA Register
Genereate Letter	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” / “CE Approved” And login = “HandlingOfficer” And (SubmissionType = “Registration as General Officer” or SubmissionType = “Registration of Public Officer”) - Details refer to 2.2.2.4 Generete Approval Letter
Upload Letter	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” / “CE Approved” And login = “HandlingOfficer” And (SubmissionType = “Registration as General Officer” or SubmissionType = “Registration of Public Officer”) - Details refer to 2.2.2.4 Generete Approval Letter
Related Requirements:		
REQ-2001 – REA Case Maintenance		
REQ-2002 – REA Certificate Maintenance		
REQ-2003 – REA e-liscence Generation		

2.2.2.2 REA-002 Genereate REA E-Licence

Function ID	:	REA-002	Mode	:	Online/Update
Name	:	Genereate REA E-Licence			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly
Description:					
Related Path: [Search]>[Search Case (REA)]					
Modify existing REA Case Detail page to provide e-liscence generation function, details of [Genereate Certificate] and [Draft Version] button as below					
Function	Details				
Genereate Certificate	<ul style="list-style-type: none"> - If any available LEK in database, then assign the “REA Reg. No.” to one LEK, else retrieve LEK and corresponding QR code by E-Licence Core API - Call E-Licence Core API to create/update E-Licence data, details refer to E-Licence Core API Request Form (REA) <div style="text-align: center;">  e-liscence core API Request Form (REA).xl </div> <ul style="list-style-type: none"> - Generate a full version of REA Certificate in PDF format by a WORD template - Append Signature to the PDF file and save a copy to DMS share drive - User can download the PDF file when Click [Generate Certificate] button 				
Draft Version	<ul style="list-style-type: none"> - Generate a draft version of REA Certificate in PDF format by a WORD template - save a copy to DMS share drive - User can download the PDF file when Click [Draft Version] button 				
E-Payment	<ul style="list-style-type: none"> - Add “Pending for Payment”, “Payment Received” to REA1 case status - Call Payment API to start Payment process in WBRS - When user change status of REA1 case to "Pending for Payment", system will trigger this function automatically 				

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Related Requirements:

- REQ-1004 – Online Submitting the Received Application
- REQ-1005 – Facilitate Payment Workflow
- REQ-2002 – REA Certificate Maintenance
- REQ-2003 – REA e-licence Generation
- REQ-5004 – Add Payment Status

2.2.2.3 REA-003 Maintain REA Registration

Function ID	:	REA-003	Mode	:	Online/Update
Name	:	Maintain REA Registration			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

Related Path: [Search]>[Search REA Register]

Modify existing REA Register page to facilitate e-liscence generation function, details of [Create/Update Register] button as below

Function	Details
Create/Update Register	<ul style="list-style-type: none"> - Convert REA Case data to New/Existing REA Register - When user change status to "REA-Closed (Accepted)", system will trigger this function automatically

Details of REA Register page as below

Field	Action	Details
Case Number	Add	<ul style="list-style-type: none"> - Type: Textbox
Registered Date First	Add	<ul style="list-style-type: none"> - Type: Datepicker
Expiry Date First	Add	<ul style="list-style-type: none"> - Type: Datepicker
Expired	Add	<ul style="list-style-type: none"> - Type: Checkbox - Disabled - Checked: If Today > “Expiry Date”
Renewal	Add	<ul style="list-style-type: none"> - Type: Checkbox - Disabled - Checked: If “Registered Date First” has value
Salutation	Add	<ul style="list-style-type: none"> - Type: Radio Button <p>Options:</p> <ul style="list-style-type: none"> - Mr. - Miss - Ms.
Date of Birth	Add	<ul style="list-style-type: none"> - Type: Datepicker
HKID	Add	<ul style="list-style-type: none"> - Type: Textbox
Address	Add	<ul style="list-style-type: none"> - Type: Textbox
Fax	Add	<ul style="list-style-type: none"> - Type: Textbox
Company Name	Add	<ul style="list-style-type: none"> - Type: Textbox

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Company Post	Add	- Type: Textbox
CompanyAddress	Add	- Type: Textbox
Office Tel	Add	- Type: Textbox
REA Certificate	Link	- Retrive full and draft version of REA Certificate from share drive
Letter	Link	- Retrive REA Certificate Letter from share drive
WBRS Application:	Link	- download WBRS PDF - View WBRS Record

Related Requirements:

REQ-2002 – REA Certificate Maintenance

REQ-2003 – REA e-liscence Generation

2.2.2.4 REA-004 Generate Approval Letter

Function ID	:	REA-004	Mode	:	Online/Update
Name	:	Generate Approval Letter			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly

Description:

Related Path: [Search]>[Search Case (REA)]

Modify existing REA Register page to facilitate Approval Letter generation function, details of [Create/Update Letter] button as below

Function	Details
Genereate Letter	<ul style="list-style-type: none"> - If APPLICATION_TYPE = "NEW" Or APPLICATION_TYPE = "RENEW" Generate the following template letter DOCx file  Annex M - Notification letter - If APPLICATION_TYPE = "CHANGE" And Name Selected Generate the following template letter DOCx file  Annex Z - Notification Letter - If APPLICATION_TYPE = "CHANGE" And Correspondence Address Selected Generate the following template letter DOCx file

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	<p> Annex Z - Notification Letter</p> <ul style="list-style-type: none">- If APPLICATION_TYPE = "CHANGE" And Professional Qualification Selected Generate the following template letter DOCx file <p> Annex Z - Notification Letter</p> <ul style="list-style-type: none">- If APPLICATION_TYPE = "CHANGE" and Name/Correspondence Address/Professional Qualification, If the selected number is greater than one, zip will be downloaded	
Upload Letter	<ul style="list-style-type: none">- Overwrite the PDF generated by generate letter	
Related Requirements:		
REA-001 Maintain REA Case		

2.2.3 Certificate of Compliance Registration

2.2.3.1 COCR-001 Maintain COCR Case

Function ID	:	COCR-001	Mode	:	Online/Update
Name	:	Maintain COCR Case			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly
Description:					
Related Path: [Search]>[Search Case (EA/FOC/COCR/INSP)]					
Modify existing COCR Case Detail page to facilitate e-liscence generation, details as below					
Field	Action	Details			
BEC Edition	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
COCR Issue Date(dd/mm/yyyy)	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
COCR Expiry Date(dd/mm/yyyy)	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
COCR Cert Number	Update	<ul style="list-style-type: none"> - Label Color: Red - Add validation: When [Generate Certificate] button click, check mandatory 			
Genereate Certificate	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “COCR Registry Issued” / “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” - Details refer to 2.2.3.2 Generete COCR Elicence 			
Create/Update Register	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “COCR Registry Issued” / “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” - Details refer to 2.2.3.3 Maintain COCR Register 			
Genereate Letter	Add	<ul style="list-style-type: none"> - Type: Button - Display: when status = “COCR Registry Issued” / “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” and SubmissionType = “Stage Two Declaration”/” COCR Renew” - Details refer to 2.2.3.4 Generete Approval 			

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		Letter
Upload Letter	Add	<ul style="list-style-type: none">- Type: Button- Display: when status = “COCR Registry Issued” / “Pending for CE Confirmation” / “Pending for Payment” / “Payment Received” and SubmissionType = “Stage Two Declaration”/” COCR Renew”- Details refer to 2.2.3.4 Generete Approval Letter
Related Requirements:		
REQ-3001 – COCR Case Maintenance		
REQ-3002 – COCR Certificate Maintenance		
REQ-3003 – COCR e-licence Generation		

2.2.3.2 COCR-002 Genereate COCR E-Licence

Function ID	:	COCR-002	Mode	:	Online/Update				
Name	:	Genereate COCR E-Licence							
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly				
Description:									
Related Path: [Search]>[Search Case (EA/FOC/COCR/INSP)]									
Modify existing REA Case Detail page to provide e-liscence generation function, details of [Genereate Certificate] and [Draft Version] button as below									
Function	Details								
Genereate Certificate	<ul style="list-style-type: none"> - If any available LEK in database, then assign the "REA Reg. No." to one LEK, else retrieve LEK and corresponding QR code by E-Licence Core API - Call E-Licence Core API to create/update E-Licence data, details refer to E-Licence Core API Request Form (COCR) <div style="text-align: center;">  e-liscence core API Request Form (COCR) </div> <ul style="list-style-type: none"> - Generate a full version of COCR Certificate in PDF format by a WORD template - Append Signature to the PDF file and save a copy to DMS share drive - User can download the PDF file when Click [Generate Certificate] button 								
E-Payment	<ul style="list-style-type: none"> - Add "Pending for Payment", "Payment Received" to COCR Stage Two case status - Call Payment API to start Payment process in WBRS - When user change status to "Pending for Payment", system will trigger this function automatically 								
Related Requirements:									
REQ-1004 – Online Submitting the Reived Application									
REQ-1005 – Facilitate Payment Workflow									
REQ-3002 – COCR Certificate Maintenance									

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REQ-3003 – COCR e-licence Generation

REQ-5004 – Add Payment Status

2.2.3.3 COCR-003 Maintain COCR Registration

Function ID	:	COCR-003	Mode	:	Online/Update
Name	:	Maintain COCR Registration			
Frequency	:	(Min: 0 Avg: 300 Max: 600)	Period	:	Yearly
Description:					
Related Path: [Search]>[Search COCR Registry]					
Add new COCR Registry page to facilitate e-licence generation function, this page store issued COCR Stage Two data					
Details of [Create/Update Register] button as below					
Function	Details				
Create/Update Register	<ul style="list-style-type: none"> - Convert COCR Stage Two Case data to New/Existing REA Register - When user change COCR Stage Two Case status to "COCR-Closed (Accepted)", system will trigger this function automatically 				
Details of COCR Registry page as below					
Field	Type	Value	Details		
File No.	Textbox	Case Number	- Disabled		
Record ID	Textbox	Submission ID	- Disabled		
Cert Number	Textbox	COCR Cert Number	- Disabled		
BEC Edition	Textbox	BEC Edition	-		
Issue Date	Datepicker	COCR Issue Date	-		
Renewal	Checkbox	Checked: if submission type = EE3	- Disabled		
Expiry Date	Datepicker	COCR Expiry Date	-		
Expired	Checkbox	Checked: if Today > COCR Expiry Date	- Disabled		
Subject Engineer	Textbox	Subject Engineer			
Status	Dropdown	Options: <ul style="list-style-type: none"> - Enable - Disable 			
English Building Address	Textbox	English Building Name + "," + Start No. + Start No.	<ul style="list-style-type: none"> - Disabled - Retreive data from Building Master 		

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		Alpha + “-“ + End No. + End No. Alpha + English Street Name + Lot. No. + “,” + District + “,” + Area	
Chinese Building Address	Textbox	Chinese Street Name + Start No. + Start No. Alpha + “-“ + End No. + End No. Alpha + “號” + Lot. No. + Chinese Building Name	- Disabled - Retreive data from Building Master
REA Reg. No.	Textbox	REA Reg. No.	- Disabled
REA Name	Textbox	REA English Name	- Disabled - Retreive data from REA Register
COCR Cert	Link	COCR Cert File	
Letter	Link	Retrive COCR Certificate Letter from share drive	
WBRS Application:	Link	View WBRS Record	
Related Requirements:			
REQ-3002 – COCR Certificate Maintenance			
REQ-3003 – COCR e-liscence Generation			

2.2.3.4 COCR-004 Generate Approval Letter

Function ID	:	COCR-004	Mode	:	Online/Update
Name	:	Generate Approval Letter			
Frequency	:	(Min: 0 Avg: 200 Max: 400)	Period	:	Yearly
Description:					

Related Path: [Search]>[Search Case (EA/FOC/COCR/INSP)]

Modify existing Cocr Register page to facilitate Approval Letter generation function, details of [Create/Update Letter] button as below

Function	Details
Genereate Letter	- If SubmissionType = “Stage Two Declaration”/” COCR Renew” Generate the following template letter DOCx file

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	 COCR Approval Letter_template_e:	
Upload Letter	- Overwrite the PDF generated by generate letter	
Related Requirements:		
<i>COCR-001 Maintain COCR Case</i>		

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3. E-NOTIFICATION

3.1 Batch Jobs

Job Name	Description	Schedule	Related Requirements
SendElicenceEmail	After “Payment Received Date” + N days(Configurable), send email with E-Licence as attachment to applicant and inform related parties	TBC	REQ-2003 – REA e-licence Generation REQ-3003 – COCR e-licence Generation REQ-5004 – Add Payment Status

4. E-TRACKING

The following status is used for E-Tracking

Status	Description
Submitted	Application submitted to the system
Acknowledged / In progress	EMSD received the application and start processing
Approved	Application approved
Rejected	Application rejected
Withdrawn	Application withdraws by applicant
Under Clarification	Clarification issued by EMSD and awaiting applicant response

When REA and COCR case status changed in DMS, update corresponding application in WBRS as below

Case Changed in DMS	Actions
WBRS record status changes to “Cancelled”	Update WBRS Application Status = “Rejected”
WBRS record status changes to “Converted”	Update WBRS Application Status = “Acknowledged / In progress”
TBC	

- End of Document -

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2.5 Selected Technical System Option

The Selected Technical System Option (TSO) described in this Section consists of – Sizing Model and Technical System Architecture, Data Retention & Archive, Impact analysis, Implementation Plan, Conversion plan, Cost/Benefit Analysis and Reasons for Selection.

2.5.1 Sizing Model

2.5.1.1 Overview

This section documents the various systems sizing results of DMS. The data specification and projected transaction volumes of the future system has been examined to arrive at the sizing results.

Sizing calculations have been carried out for the following topics and are presented in the following sections:

- Data Storage Volume and Growth
- Server Disk Storage Requirement
- Workstation Requirement

2.5.1.1.1 General Assumptions

The calculations of the sizing of DMS were based on the following assumptions:

- The system is assumed to be in operation starting from the mid of year 2012. The period from the mid of year 2012 to the end of 2013 is regarded as Production Year 0.
- The sizing results will cater for a projected growth of the system in the subsequent 7 calendar years after Y0. Peak loading is taken into consideration for sizing on CPU computing power, server memory, disk size, and network bandwidth.
- For date and time calculation, the following conversion factors will be used:
 - 1 day = 7.5 working hours;
 - 1 month = 22.5 working days;
 - 1 year = 12 months = 270 working days.
- The regular operating hours of the system for EMSD users will be 8:30-17:30 for Monday to Friday. Batch jobs will be run after prime office hours within a window of 8 hours.

2.5.1.1.2 Registrations & Submissions Related Assumptions

- It is anticipated that there will be around 500 REA registrations, 600 COCR submissions and 1,400 FOC submissions per year.
- Based on the schedule 5 of the Ordinance, the first energy audit for buildings without COCR shall be carried out as below:

Date of issue of occupation approval in respect of the building	Period within which the first energy audit must be carried out
On or after 1 January 1988	12 months from the commencement of Part 4 of the Ordinance
After 31 December 1977 but before 1 January 1988	24 months from the commencement of Part 4 of the Ordinance
After 31 December 1969 but before 1 January 1978	36 months from the commencement of Part 4 of the Ordinance
On or before 31 December 1969	48 months from the commencement of Part 4 of the Ordinance

- Each processing case for REA will have an average of 4 documents that may include:
 - Completed specified form EA1 (for New Application for Registration as a Registered Energy Assessor, Renewal application or Change of particulars), EA2 (for Application for Duplicate of Certificate of Registration - Registered Energy Assessor) or EA3 (for New Application for Registration as a Registered Energy Assessor or Change of particulars by public officer);
 - Documentary proofs of relevant practical experience;
 - Documentary proofs to substantiate professional qualifications and the qualified discipline of the applicant;
 - Documentary proof of updated information related to the change of particulars;
 - Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc)
- Each processing case for COCR will have an average of 13 documents that may include:
 - Completed specified form EE1 (for Stage One Declaration)
 - Completed specified form EE2 (for Stage Two Declaration) or EE3 (for Renewal of Certificate of Compliance Registration);
 - Completed form EE-SU (Supplementary Information Form);
 - Completed forms for technical information sheet;
 - Developer's HKID / company business registration certificate;
 - Relevant documentary proof issued by the Land Registry to indicate the ownership and control of the land on which the relevant building is build or will be built;
 - Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;
 - Letter of authorization issued by the developer for the representative person;

- “Consent to the commencement of building works for superstructure construction of the building” issued by Building Authority or other Authorities;
- Site location plan / map in A3 size;
- Schematic drawing;
- Layout drawing;
- Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);
- Letter of authorization issued by the owner for the representative person;
- Occupation approval issued by Building Authority or other Authorities;
- Each processing case for FOC will have an average of 9 documents that may include:
 - Completed specified form EE4 (Form of Compliance);
 - Completed form EE-SU (Supplementary Information Form);
 - Completed forms for technical information sheet;
 - Schematic drawing;
 - Layout drawing;
 - Owner’s HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;
 - Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);
 - Letter of authorization issued by the owner for the representative person;
 - Responsible person’s HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;
 - Documentary proof of the responsible person who occupies or is in possession or control of the relevant building or unit (e.g. Tenant agreement);
 - Letter of authorization issued by the owner for the representative person;
- Each processing case for Energy Audit will have an average of 3 documents that may include:
 - Completed specified form EE5 (Energy Audit Form);
 - Completed form EE-EA (Energy Audit Checklist);
 - Schematic drawing;
 - Layout drawing;
 - Energy Audit Report issued by Registered Energy Assessor;
- No photos will be kept in the system during case processing.
- Each document will be kept in the system with only one latest version.
- Documents are A4 size (except site location plan that is in A3 size; schematic drawing and layout drawing that could be in A3 size).
- Each document is assumed to have multiple pages in PDF format for storage in the system.

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- Each page of document is assumed to have an average size of 400KB in PDF format for storage.

2.5.1.1.3 Other Assumptions

Assumptions specific to each of the sizing topics are listed at the beginning of the corresponding sections.

2.5.1.2 Data Storage Volume and Growth

The data volume for the first year of full production as at the end of year 2013 is estimated based on the data volume of corresponding entity respectively as shown below:

Entity	Estimated occurrence as at the end of year			Estimated Average Data Length (MB)
	2011	2012	2013	
REA	375	875	1375	0.3
COCR	0	150	750	4.5
FOC	0	350	1750	4.5
Energy Audit	0	12,350	24,700	4.5
Inspection	0	250	1,250	0.4
Buildings	48,800	49,400	50,000	2.0

The estimated annual growth rate for each major entity is shown below:

Entity	Estimated annual growth							
	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
REA	n/a	36.36%	26.67%	21.05%	17.39%	14.81%	12.90%	11.43%
COCR	n/a	80.00%	44.44%	30.77%	23.53%	19.05%	16.00%	13.79%
FOC	n/a	80.00%	44.44%	30.77%	23.53%	19.05%	16.00%	13.79%
Energy Audit	n/a	50.00%	33.33%	6.07%	5.73%	5.42%	5.14%	4.89%
Inspection	n/a	80.00%	44.44%	30.77%	23.53%	19.05%	16.00%	13.79%
Buildings	n/a	1.20%	1.19%	1.17%	1.16%	1.15%	1.13%	1.12%

The following table summarized the results of the projection:

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Entity	Estimated Number of applications per year	Number of occurrences as at the end of year						
		Y0	Y1	Y2	Y3	Y4	Y5	Y6
REA	500	1,375	1,875	2,375	2,875	3,375	3,875	4,375
COCR	600	750	1,350	1,950	2,550	3,150	3,750	4,350
FOC	1,400	1,750	3,150	4,550	5,950	7,350	8,750	10,150
Energy Audit	3,000	24,700	37,050	49,400	52,400	55,400	58,400	61,400
Inspection	1,000	1,250	2,250	3,250	4,250	5,250	6,250	7,250
Buildings	600	50,000	50,600	51,200	51,800	52,400	53,000	53,600
								54,200

Entity	Occurrence as at 2013 end	Average Data Length (MB)	Y0 (GB)	Y1 (GB)	Y2 (GB)	Y3 (GB)	Y4 (GB)	Y5 (GB)	Y6 (GB)	Y7 (GB)
REA	1,375	0.3	0.40	0.55	0.70	0.84	0.99	1.14	1.28	1.43
COCR	750	4.5	3.30	5.93	8.57	11.21	13.84	16.48	19.12	21.75
FOC	1,750	4.5	7.69	13.84	20.00	26.15	32.30	38.45	44.60	50.76
Energy Audit	24,700	4.5	108.54	162.82	217.09	230.27	243.46	256.64	269.82	283.01
Inspection	1,250	0.4	0.49	0.88	1.27	1.66	2.05	2.44	2.83	3.22
Buildings	50,000	2.0	97.66	98.83	100.00	101.17	102.34	103.52	104.69	105.86
Sub-Total:			218.08	282.85	347.62	371.30	394.98	418.66	442.35	466.03

The following 2 factors are included in the calculation of the total data storage volume:

- Database overhead of 70%
- Contingency of 40%

The data storage volume is projected as below:

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	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Sub-Total (GB)	218.08	282.85	347.62	371.30	394.98	418.66	442.35	466.03
Sub-Total + overhead (70%) (GB)	370.74	480.85	590.96	631.22	671.48	711.73	751.99	792.25
Total Data Storage Volume (GB) =Sub-Total + overhead (70%) + contingency (40%)	519.04	673.19	827.35	883.71	940.08	996.43	1052.79	1109.15

Total Estimated Data Storage Volume (GB) = 1110 GB (or 1.11TB)

2.5.1.3 Document storage and growth

File Storages for Case

Server disk storage for documents is projected using the same approach for calculating the data storage for the next 7 years.

The following assumptions are made for cases to be submitted in hardcopy form or in electronic form through WBRS:

- Supporting documents would be submitted or scanned in PDF format with the following settings
 - 600 dpi A4 scanned in black and white mode is about 150KB per page
 - 600 dpi A3 scanned in black and white mode is about 360KB per page
- 70% of received supporting documents would have additional copy provided from the applicant for amendment, clarification or supplementary purpose
- 40% contingency is considered

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
REA	1) Completed specified form EA1 (for New Application for Registration as a Registered Energy Assessor, Renewal application or Change of particulars); or 2) EA2 (for Application for Duplicate of Certificate of Registration - Registered Energy Assessor); or 3) EA3 (for New Application for Registration as a Registered Energy Assessor or Change of particulars by public officer)	1	9	9	9	150	1.32
	Documentary proofs of relevant practical experience;	1	N/A	50	50	150	7.32
	Documentary proofs to substantiate professional qualifications and the qualified discipline of the applicant;	1	N/A	50	50	150	7.32
	Documentary proof of updated information related to the change of particulars;	1	N/A	50	50	150	7.32
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc)	10	N/A	2	20	150	2.93

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		Total :	14		179		26.22
Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
COCR	Completed specified form EE1 (for Stage One Declaration)	1	5	8	8	150	1.17
	1) Completed specified form EE2 (for Stage Two Declaration); or 2) Completed specified form EE3 (for Renewal of Certificate of Compliance Registration);	1	5	8	8	150	1.17
	Completed form EE-SU (Supplementary Information Form);	1	7	8	8	150	1.17
	Completed forms for technical information sheet;	1	31	31	31	150	4.54
	Developer's HKID / company business registration certificate;	1	N/A	4	4	150	0.59
	Relevant documentary proof issued by the Land Registry to indicate the ownership and control of the land on which the relevant building is build or will be built;	1	N/A	8	8	150	1.17
	Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;	1	N/A	8	8	150	1.17
	Letter of authorization issued by the developer for the representative person;	1	N/A	8	8	150	1.17
	"Consent to the commencement of building works for superstructure construction of the building" issued by Building Authority or other Authorities;	1	N/A	8	8	150	1.17
	Site location plan / map in A3 size	1	N/A	3	3	360	1.05
	Schematic drawing	4	N/A	10	40	360	14.06
	Layout drawing	4	N/A	50	200	360	70.31
	Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);	1	N/A	8	8	150	1.17
	Letter of authorization issued by the owner for the representative person;	1	N/A	8	8	150	1.17
	Occupation approval issued by Building Authority or other Authorities;	1	N/A	8	8	150	1.17

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	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc)	10	N/A	2	20	150	2.93
		Total:	31		378		105.21

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
FOC	Completed specified form EE4 (Form of Compliance);	1	6	8	8	150	1.17
	Completed form EE-SU (Supplementary Information Form);	1	7	8	8	150	1.17
	Completed forms for technical information sheet;	1	31	31	31	150	4.54
	Schematic drawing	4	N/A	4	16	360	5.63
	Layout drawing	4	N/A	4	16	360	5.63
	Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;	1	N/A	8	8	150	1.17
	Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);	1	N/A	8	8	150	1.17
	Letter of authorization issued by the owner for the representative person;	1	N/A	8	8	150	1.17
	Responsible person's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;	1	N/A	8	8	150	1.17
	Documentary proof of the responsible person who occupies or is in possession or control of the relevant building or unit (e.g. Tenant agreement);	1	N/A	8	8	150	1.17
	Letter of authorization issued by the owner for the representative person;	1	N/A	8	8	150	1.17
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc)	10	N/A	2	20	150	2.93
		Total:	27		147		28.10

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Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
Energy Audit	Completed specified form EE5 (Energy Audit Form);	1	3	8	8	150	1.17
	Completed form EE-EA (Energy Audit Checklist);	1	6	8	8	150	1.17
	Schematic drawing	1	N/A	10	10	360	3.52
	Layout drawing	1	N/A	10	10	360	3.52
	Energy Audit Report issued by Registered Energy Assessor;	1	N/A	100	100	150	14.65
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc)	10	N/A	2	20	150	2.93
Total:		15			156		26.95

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
Inspection ¹	Supporting documents for inspection results	15	N/A	8	120	150	17.58
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc)	10	N/A	2	20	150	2.93
Total:		25			120		20.51

The projection of sub-total number of records for all cases is shown in the table below:

Entity	Estimated size of documents per case (MB)	Y0 (GB)	Y1 (GB)	Y2 (GB)	Y3 (GB)	Y4 (GB)	Y5 (GB)	Y6 (GB)	Y7 (GB)
REA	27	36.25	49.44	62.62	75.81	88.99	102.17	115.36	128.54
COCR	106	77.64	139.75	201.86	263.96	326.07	388.18	450.29	512.40

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Entity	Estimated size of documents per case (MB)	Y0 (GB)	Y1 (GB)	Y2 (GB)	Y3 (GB)	Y4 (GB)	Y5 (GB)	Y6 (GB)	Y7 (GB)
FOC	29	49.56	89.21	128.86	168.51	208.15	247.80	287.45	327.10
Energy Audit	27	651.27	976.90	1,302.54	1,381.64	1,460.74	1,539.84	1,618.95	1,698.05
Inspection	21	25.63	46.14	66.65	87.16	107.67	128.17	148.68	169.19
Sub-Total (GB):		840.36	1,301.44	1,762.52	1,977.08	2,191.63	2,406.18	2,620.73	2,835.28
Sub-Total (GB) + 80% for 1 revision :		1,428.61	2,212.45	2,996.30	3,361.03	3,725.77	4,090.51	4,455.24	4,819.98
Total Estimated File Storage = Sub-Total (GB) + 80% for 1 revision + 50% contingency:		2,000.06	3,097.43	4,194.82	4,705.45	5,216.08	5,726.72	6,237.34	6,747.98

Total Estimated File Storage for cases (GB) = 6,748GB (or 6.75TB)

Storage for AutoCAD files

To support CAD file formats (such as AutoCAD) that have a larger file size than PDF files, the demand for additional file storage would be much higher. It is estimated that a total of around 22TB file storage (i.e. about 2.8 times that for PDF file format) would be required to support the cases with AutoCAD file submissions. The average size for each page of AutoCAD is around 2MB to 3MB and a comparable PDF file would usually be less than 500KB in size. In addition to the consideration in DMS storage sizing, the following issues are also considered:

Network bandwidth

According to the sizing estimate for COCR submissions, the total size of attachments with drawings in AutoCAD format is about 6 times of that with drawings in PDF format. Under the same networking infrastructure, it is estimated that the applicant/user would spent 6 times longer to upload/download the supporting documents when AutoCAD files are included. For e-submission through WBRS, the much longer

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upload/download time would discourage applicants from using the WBRS. This would also lower the efficiency for the DMS user to complete the processing of the cases.

WBRS storage

According to the latest estimation, a case of COCR may require 660MB of storage on average for the supporting documents and CAD files. As at today, available storage in WBRS would NOT be enough for handling 600 COCR cases even for the first year.

Client workstation configuration

Client workstation could be configured with additional software for users to view the CAD files in dwg format. However, different applicants may use different types of CAD software and different versions of viewer or regularly upgrade the software would be required to view the submitted files. This would increase the operation and maintenance efforts of the DMS.

CAD files should be converted into PDF file format for BEEO case submissions. In case the demand for supporting document submission in CAD file format have been increased in the future, it is recommended that the necessary study, evaluation and implementation would be conducted in another project to address the needs.

2.5.2 Technical Architecture

This section described the detailed technical design of the system. Technical recommendations on the following areas will be covered:

- Infrastructure
- Database Management Service
- System Interface
- Chinese Character Support
- Hardware and Software Requirement
- Data Backup and Recovery
- Disaster Recovery
- Development Facilities
- Location of Equipments
- Maintenance and Upgrade

2.5.2.1 System Environment Overview

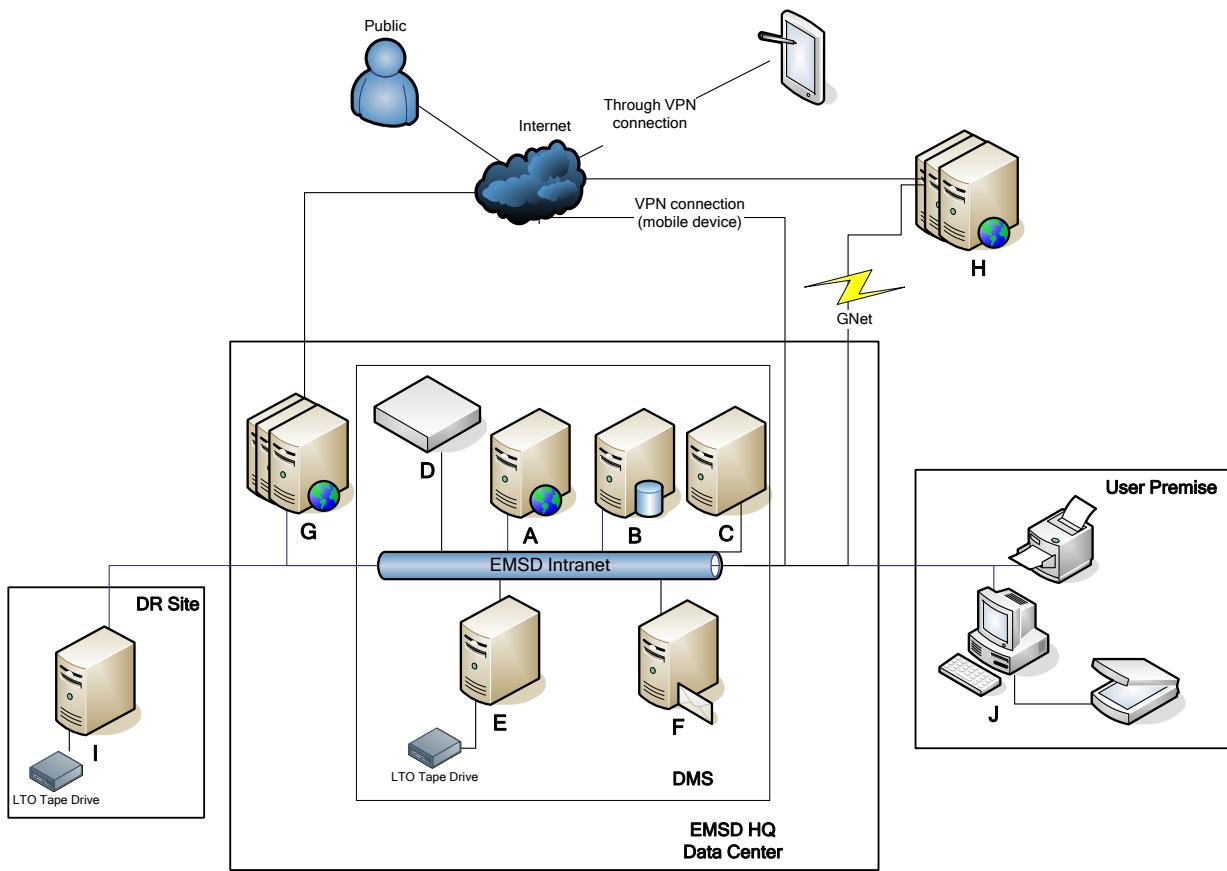
In this section, the recommended technical solution for DMS is described. The technical solution is devised after studying the user requirements. A modular and structured design has been adopted for the technical architecture of the system to ensure that the proposed system not only meets the current requirements but is also expandable to fit future expansion. Current and emerging technologies have been studied and the proper solutions have been identified.

2.5.2.2 Technical System Architecture

2.5.2.2.1 Logical Model

The DMS is designed to be a web-based system supporting the registration and required operations for Buildings Energy Efficiency Ordinance (BEO) of EEO. Logical system architecture is shown below:

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The DMS system will be a web-based system and make use of various web technologies.

Logically, it contains following hardware components:

Machine	Hardware	Description
A	1) Web Server	<ul style="list-style-type: none"> - A web page container - Accept and response web requests from users and generate web pages - Communicate with application server and database server
A	2) Application Server	<ul style="list-style-type: none"> - Process main business logic for requests from web server - Help to construction of web pages - Manage data stored in database server
B	3) Database Server	<ul style="list-style-type: none"> - Provide database services and data storage of DMS
B	4) Report Server	<ul style="list-style-type: none"> - Generation of certificate/reports/letters in various formats (e.g. pdf, word) for DMS as required
C	5) Development Server	<ul style="list-style-type: none"> - Serve as a development and testing machine for DMS
D	6) External File Storage	<ul style="list-style-type: none"> - Storage for Main DMS file repository
E	7) Backup Server	<ul style="list-style-type: none"> - Execute the scheduled backup jobs for production and development servers
F	8) Lotus Domino Server	<ul style="list-style-type: none"> - Process Lotus Notes e-mail from DMS for

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		automatic reminders or notifications
G	9) WBRS Servers	- Accept and process e-submission requests of DMS
H	10) CIG Web Server	- Handle web requests from public and render web pages in DMS web site.
I	11) DR Server	- Provide DMS services when the required services could be provided by the DMS main servers
J	12) User Premise	- Includes user's client PC, printers, scanners, mobile devices and other peripherals - It acts as a "front-end" of DMS.

DMS will also interface with WBRS in the following areas:

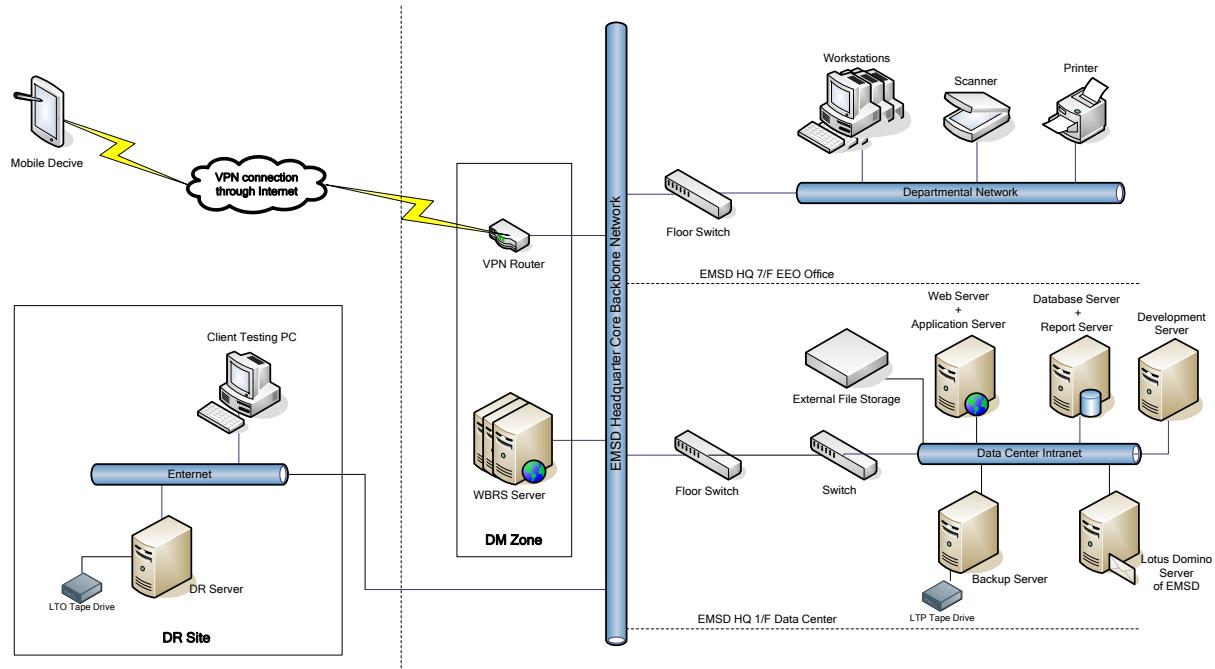
- Acceptance of application data collected from the WBRS for subsequent processing;
- Provision of application processing status for public inquiry;
- Inbox for the applicants to receive event messages and reminders;
- Download area for the applicants to retrieve formatted application form and approval letters.

Electronic submission of application data through WBRS will be validated. WBRS will pass the validated application data to DMS in offline mode. A DMS background daemon will be triggered at scheduled time to grasp and read the exported XML files from WBRS. Those XML files will be copied to the Application Server and the corresponding process will be created for DMS processing. DMS information, namely application status, event messages and reminder notice alerts, will also be extracted and pass to WBRS in offline mode according to pre-defined schedule.

An Internet web site will also be hosted at CIG Web Server for showing latest register information of REA, COCR and FOC for public access. Data will be transferred from DMS to database provided by OGCIO via CCCNS SSL-VPN Service on GNET.

2.5.2.2.2 Physical Model

Physical system architecture is shown below:



The DMS system will be resided at Data Center of EMSD Headquarter. Users can access DMS using their own PC through Departmental Network. For remote users using mobile device, they can access departmental network through Virtual Private Network (VPN) and then access DMS.

2.5.2.2.3 Infrastructure

2.5.2.2.3.1. Network and Servers

Network Backbone

The network backbone of the EMSD Headquarter is based on Gigabit (1000Mbps) Ethernet on core network. This arrangement will be sufficient for DMS usage.

Server Farm

All servers will be centrally placed and managed in the EMSD Data Centre. By centrally accommodating these servers, a ‘server farm’ is formed. The primary benefit of such arrangement is for easier central management and better network performance.

Web/Application Server

This Web/Application Server contains a web server and application server of DMS. It will be a mid-range server. Web and Application servers based on Java technology will be installed and

configured on this server. DMS users will access this server for most of the DMS functions. Application components or services will also be installed on this server, which will call upon other application components for the required data and business logics (please refer to Section 2.5.2.3 Technical Application Architecture for the application architectural design of DMS).

Database Server

This server provides the database services of DMS. Users will be able to access/update the data via the web pages generated by the Web/Application Server and all the manipulations of data will be performed by this Database Server. Thus all data access is centrally controlled, resulting in a secure and easy to maintain database environment.

All the DMS application data is physically stored in data storage of the Database Server. When data is required upon the user actions performed in the provided DMS frontends, the access to the data and the required data manipulation will be executed by the Database Server. The updated data will be persisted in the data store of the Database Server.

Moreover, a report server will also be installed in this server. The report sever will generate the required soft-copies of certificates, reports and letters as scheduled or on demand.

External File Storage

The external file storage will store the soft-copies of certificates, reports and letters generated by the Report Server and the files of unstructured data (images, scanned documents, etc.).

The centralized file storage environment facilitates data backup as only single source to be catered.

Lotus Domino Server

The DMS will make use of the Lotus Domino Server of EMSD to send reminders or notifications as Lotus Notes Mails to the responsible officer and external users (e.g. Developers, Registered Energy Assessors, Owners, Responsible Persons, etc) who can read the reminders or notifications using the Lotus Notes clients.

Development Server

The development server will be used for system development and testing. In order to simulate DMS operation in production, the configuration of this server will be similar to the production environment to stimulate. Instances of web server, application server, database server and report server will be installed in this server.

DR Server

In case of significant damage occurred on the servers or interruption of services in Data Center of EMSD headquarter influencing the required operations of BEEO, the DR Server in the DR site will be activated for the continuation of the services until the damage had been recovered.

Backup Server

The backup server will be used for executing the backup job according to the backup policy for DMS. In addition, application for monitoring the Web/Application Server, Database Server and Development Server will be installed.

Network Services

There are several network related services related to the implementation of DMS that will be provided by CSSD of EMSTF. These services are described below.

DHCP Server

All PC workstations and servers will need to be assigned with IP addresses. All DMS servers will need to be assigned with fixed IP addresses. All PC workstations can have IP addresses dynamically assigned at startup by the EMSD Dynamic Host Configuration Protocol (DHCP) services. All fixed IP addresses have to be applied from CSSD.

The following is the list of servers that required the use of fixed IP addresses:

- Web / Application Server
- Database Server
- Backup Server

Domain Name System (DNS) Server

To facilitate users to use easy-to-remember and meaningful names for referring to internal Intranet servers instead of having to memorize and refer to their numeric IP addresses, the EMSD Domain Name System (DNS) will be applied. All DMS domain names have to be applied from CSSD.

The following is the domain name required by the DMS:

- beeodms.emsd.hksarg

Office Equipments

Office users can access DMS through the office LAN connection that is already set up in the EMSD headquarters.

The following table summarizes the list and location of the office equipments:

Equipment Description	Location
Desktop Workstations	EMSD HQ 7/F
Mobile Workstations	EMSD HQ 7/F / Outside office
Scanning Workstation	EMSD HQ 7/F
Printers	EMSD HQ 7/F

Remote Connections

Remote users can gain access to DMS by connecting through the EMSD VPN.

When connecting through the EMSD VPN, users can use either broadband connections or wireless connections. Users need to install and configure a VPN client onto mobile devices or remote PCs that are intended to be used to connect to the system. A user ID and password pair will be given to each VPN client user for VPN connection authentication. Currently, the existing EMSD VPN service restricts to port 25 (SMTP), port 80 (HTTP), and port 110 (POP3). DMS will also need Port 443 (HTTPS) for carrying out secured transactions.

GNET to connect CIG Server

For updating the content of the internet website hosting in CIG Web Server provided by OGCIO, the CCCNS SSL-VPN connection on GNET will be required.

2.5.2.2.3.2. Mobile Office

To facilitate onsite inspection by Inspectors, mobile devices will be adopted for inspection work. The mobile devices can provide Inspector with registered information, inspection history, and functions to record inspection result after each operation.

Tablet Computers may be considered for onsite inspection use due to their mobility, processing power and accessibility.

When Inspectors are in the office environment, they can access DMS through the office LAN connections. When the Inspectors are out of the office, they can connect to DMS by remote login through the EMSD VPN through broadband or wireless connections.

In addition to the online functionality, application will be developed for browsing the necessary data locally in the mobile device when remote network connection facilities mentioned above are not available.

Data Synchronization

Besides EMSD VPN connection would be utilized for remote access to DMS, offline operations would also be required on mobile device. Data synchronization would be arranged between DMS and mobile devices for exchange of offline data.

Data required for exchange:

- export building and submitted application data for enquiry during inspection to mobile device
- transfer Inspection records back to DMS

Backend system data would be extracted from DMS to a set of encrypted local files which the application in mobile device would be able to import them, and the files would be downloaded to mobile device during synchronization.

After inspection, the result records for storing information and findings would be transferred back to DMS for further processing.

2.5.2.2.3.3. Security

The security of DMS is designed with reference to the IT Security Guideline and the EMSD Security Policy. Security controls will be enforced on users, systems and the overall network. The following paragraphs describe the major security aspects and the recommendations.

Physical Security

Servers and network equipments will be protected from unauthorized access. The server equipments will be housed in locked racks in the server room designated for the EMSD Regulatory Services at EMSTF Kowloon Bay Data Centre that allows entries of authorized personnel only.

Data Security on Mobile Devices

Data security on mobile devices is addressed in Security Regulation No. 368, which lists out security requirements particularly for mobile communications. As mobile devices would be involved in online access to DMS and offline operations, security measures for mobile devices could be divided into 2 areas:

Online Access

- Make use of VPN to connect to EMSD Intranet through public network
- Login by username and password is required to access DMS
- Anti-virus program, if available, would be installed to mobile device

Offline Operation

- Encrypt data files downloaded from DMS using encryption software
- Encrypt input inspection data in mobile device

Measures for online access would be incorporated in the implementation. The data / files related to BEOO are classified as restricted, encryption of offline files / data would not be mandatory. The encryption of the data / files may be handled by 3rd party software if it is required in a later stage.

Access Control

In order to ensure that system security is maintained, proper security control procedures will be imposed. There are two levels of access control:

- DMS Application – access control is done by setting up different application user accounts, allowing them to access different application functions according to their business need
- System Level – login accounts for various servers and database are kept by Administrators only for system administration purpose, such as tracing problem, backup, etc.

DMS functions and data will be assigned to users based on their roles and responsibilities to ensure the right people getting the right piece of data and tools. DMS users can be classified into three types:

User Types	Major Responsibilities	Types of Function / Data Access
Business Users	Responsible for the BEO business functions,	DMS business functions and data.
User Administrators	Responsible for maintaining user rights, user profiles, change of functions, change of workflow, etc.	DMS security functions and data.
System Administrators	Responsible for maintaining the DMS operation service, e.g. setup/enforce the system backup operation, perform period health check on the system, etc. DMS user account maintenance, e.g. creation/deletion/reset system user accounts, assigns roles/permissions, etc.	DMS system administration functions, including system, software, and application levels.

When a workstation is temporarily not in use, users are recommended to enable the Windows screen saver with password protection to avoid illegal access of his/her computer.

System and application logs will be provided for audit trail purpose. User activities such as login, logout and record maintenance will be tracked. Special fields specified by users will also be logged for all updating activities.

Data Encryption

Based on the Security Regulations, restricted data in DMS will be stored in unencrypted format while transmission of restricted data on un-trusted network will be encrypted.

Restricted data transferred between DMS servers will be protected by the Internet Protocol Security (IPsec) which is an encryption protocol for secure encrypted data transmission at the network layer. It is supported by all common operating systems such as UNIX and Windows 2008. Electronic certificates for Intranet will be used for IPsec authentication and will be provided by EMSD for both production and development purposes.

Data transferred between DMS and its interfacing systems, namely WBRS and CIG, will be protected by using Hypertext Transfer Protocol Secure (HTTPS) connections and secure web service.

Data transferred between the DMS web server and client workstations will be protected by using the Secure Sockets Layer (SSL) protocol to ensure that data sent from the application's server pages are encrypted.

Some data, e.g. password, is to be stored in encrypted or hashed format by nature based on renowned algorithms before storing into the database.

Virus Scanning

Symantec anti-virus program is installed on PC workstations and Windows Servers to protect them from computer viruses by Computer Services Sub-division (CSSD) of EMSD. In particular, Symantec Endpoint Protection is the corporate provided antivirus software in EMSD for MS Windows workstation and server platforms. Moreover, virus signatures will be regularly updated, preferably by automatic means. The Email servers will also be installed with virus-scanning software to detect possible virus in Email attachments.

Anti-virus program such as McAfee or other anti-virus software will also be installed on all non-MS Windows servers to protect them from virus attack.

Network Protection

DMS is an intranet application. The entire DMS application is protected by the EMSD departmental firewalls. Remote connections to DMS will only be supported via the EMSD VPN.

2.5.2.2.3.4. Resilience

To improve the availability of the system, the following fault-tolerant measures are considered:

- Adopt virtualization solution
- Protection of servers from power outage
- Protection from hard disk failure
- Protection from network interface equipment failure

Adopt virtualization solution

Installation of Web/Application Server, Database Server and file system in virtual machines and managed by virtualization management program will provide high-availability (HA) and scalable environment for DMS. In case of hardware faults occurred in one of the servers, similar servers in production environment could serve as the resilience server of affected services by running the corresponding virtual machines in the working server and restoring the latest backup if necessary.

Protection of Servers from Power Outage

With the infrastructure in the EMSTF Data Centre, all registered servers will have redundant power supply facilities. There is no need for DMS to install additional UPS equipment as the infrastructure of the EMSTF Data Centre already catered this.

Protection from Hard Disk Failure

To minimize the chance of data lost due to hard disk failure, the server hard disks will be setup in RAID 5 (block-level striping with distributed parity) or similar configuration that supports data redundancy and fault-tolerance in the disk array.

Protection from Network Interface Equipment Failure

Dual LAN interface cards with connections to the floor switch will be used. The servers will have redundant LAN configuration to the switch to improve resilience.

2.5.2.2.3.5. Management Architecture

Network Management

DMS will make use of existing network monitoring tools established in Data Center for monitoring server status. Data Center operation staff will be alerted if there is any failure in hardware or services.

System and Database Management

For the operations of the servers, they can be managed and monitored using the built-in tools of the server operating system, the database management system. System performance figures such as CPU, memory, disk I/O utilizations will be collected and saved for capacity planning.

2.5.2.2.4 Database Management System

There will be one main database system in the DMS production environment. Application data will be stored in the application dataset; workflow and document management service will have their dataset. All information is stored in one single database instance.

The DMS application data will be centrally stored in a robust database server. Users will be able to access the data via the DMS application user interfaces residing on the application servers or users' mobile devices. Thus all data access is centrally controlled, resulting in a secure and easy to maintain database environment.

To maintain a versatile and open platform, RDBMS will be used for the databases of DMS. Microsoft SQL Server is recommended for this purpose as it supports all required features for DMS including data replication, scheduling of jobs and reporting service. MS SQL Server has been one of the popular RDBMS in use today. Many IT professionals are equipped with relevant skills and experience in the use of MS SQL Server. Technical support in solving issues that may

be encountered when developing and operating the system, therefore, could readily be available if needed.

Moreover, there will be a development database in development machine.

2.5.2.2.5 System Interface

WBRS Interface

DMS will interface with WBRS (E-submission module) using web service in both directions. That means DMS would make request to WBRS for data or operation and vice versa.

Application areas that DMS would initiate web service request:

- Provide application processing status to WBRS for public enquiry
- Transfer messages and notifications to WBRS users' inbox
- Provide relevant information to WBRS for submission form validation.

Application areas that WBRS would initiate web service request:

- Transfer application data to DMS for subsequent processing
- Provide access information of notification messages to DMS so that DMS users may check whether or not the notification messages are read and the last read date.

Data interface with backend system of ELD and LESD

The applications related to Electrical Installations and Life & Escalators as required under the Electricity Ordinance and Lifts and Escalators (Safety) Ordinance respectively will be helpful for the monitoring and inspection works as required under BEEO. Data interface with backend system of ELD and LESD for periodically acquiring essential information will be implemented.

By means of database replication on incremental basis, the acquisition of data from ELD and LESD backend systems were expected to be carried out initially on a weekly basis to help the identification of any FOC to be submitted due to completion of major retrofitting works of building services installation. The frequency of acquiring data from ELD and LESD backend systems may be reviewed and fine-tuned after the initial runs of the DMS-BEEO according to factors in system performance, currency of data, business requirements, etc.

As the necessary data (such as addresses, type of ELD/LESD applications, relevant data being submitted, etc.) would be acquired on an incremental basis, only the data that had been changed since the last successful replication would be involved. Further processing of the replicated data would be done locally in DMS-BEEO. The amount of data involved in each replication is expected to be relatively small and without requiring a lot of processing at the relevant source systems.

Internet Web Site Interface

DMS will upload the register information to CIG web hosting platform, which will in turn be transformed to web pages for public access. The register information will be exported to a

formatted data file and transferred to CIG platform through FTP, but a dedicated connection is required for this practice.

2.5.2.2.6 Chinese Character Support

The system will be able to support ISO10646 and the HKSCS standard, which is adopted by HKSARG. Data fields will be able to store data in English and Chinese (both Traditional and Simplified) characters. These fields will also be printable and viewable in the corresponding character sets as well.

Conversion of existing Data

At present, the existing data are employing US English ASCII character set for English characters while Chinese characters are stored in Unicode or Big5 character sets. Data conversion tools are available in the market to migrate the data from the existing sources to the DMS application database which also supports ISO10646 and the HKSCS standard.

Data Storage

All Chinese data will be stored in ISO10646 format in DMS, which is already supported by Chinese MS Windows, UNIX/Linux, and Oracle.

Chinese Printing

To support printing of English and Chinese characters simultaneously, proper locales settings, printer fonts, printer drivers, and utilities such as font creation utilities will be required. Such software is more popular among MS Windows environment than UNIX environment. Therefore MS Windows platforms will be used for initiating Chinese printing and laser printers will be used for printing.

Client workstations will run on Chinese MS Windows platforms to properly handle Chinese characters and Chinese printing.

Chinese Input

For the online input of Chinese characters, several methods can be used. Common methods include Pen-based handwriting input, keyboard input methods that are integral part of the standard PC client Chinese Windows platforms such as ChangJei Input Method and Simplified Input Method. These input methods are suitable for the input of general Chinese phrases.

It is recommended that both Pen-based handwriting input and keyboard input methods to be provided for DMS users who need to enter Chinese, so that the users can use whichever input method depending on what they are most comfortable with. Multiple keyboard input methods are provided in MS Windows and can be installed accordingly.

Chinese Viewing

Users currently using Chinese operating system can view Chinese characters properly. It is recommended that traditional Chinese editions of MS Windows will be used for the DMS users.

Character Addition

If there are special Chinese characters and fonts required that are beyond the aforesaid Chinese character set, the established government policy on character addition to HKSCS will be followed. A client PC will be used to create/add the new Chinese character for the transition period before the character is included in HKSCS.

File that contains special character will locate under the server share directory. Interface will be provided for user to collect this file and store in the client machine for general usage.

2.5.2.2.7 Hardware and Software Requirement

The recommended configurations for servers and workstations are listed as follows for reference. Models with equal or better performance can also be considered.

2.5.2.2.7.1. *Server Farm*

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Hardware	Quantity	Basic Specification	Description
Production Servers Host	2	<ul style="list-style-type: none"> - CPU: Hexa-core or above - RAM: 36GB or above - Internal hard disk – 2 x 146GB (mirror) - Internal hard disk – 3TB (usable capacity) - Gigabit Ethernet interfaces x 2 - Controller card for connecting the External Data Storage - Redundant power supply - Embedded Latest version of VMWare vSphere or equivalent 	These servers are production servers for hosting the virtual machines of Web and Application Server, Database Server. Both VMs will be initially assigned 2 virtual cores CPU. The Web and Application Server will be initially assigned 8 GB virtual memory and the Database Server will be assigned 16 GB virtual memory. The unassigned virtual core CPU and virtual memory will be reserved for allocation to improve the performance of the servers
External File Storage		<ul style="list-style-type: none"> - Dual controller interface - Support at least 4TB storage (RAID-5) - Redundant power supply - Support VMware virtualization and latest version of Windows or equivalent 	This is the external data storage for production data and documents.
Development Server	1	<ul style="list-style-type: none"> - CPU: quad-core or above - RAM: 16GB or above - Internal hard disk – 2 x 146GB (mirror) for OS installation - Hard disk 3TB usable capacity for data or file storage - Gigabit Ethernet interfaces x 2 - Redundant power supply - Embedded Latest version of VMWare vSphere or equivalent 	This is development server hosts the virtual machines for hosting the virtual machines of Web and Application Server, Database Server for development and testing purpose
Backup Server	1	<ul style="list-style-type: none"> - CPU: quad-core or above - RAM: 8GB or above - Internal hard disk – 2 x 	This is server for carrying out the backup jobs and hosting of

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Hardware	Quantity	Basic Specification	Description
		146GB (mirror) - Hard disk 2TB usable capacity - Gigabit Ethernet interfaces x 2 - Redundant power supply	monitoring applications of the virtual machines
External Backup Tape Autoloader	1	- Capacity of each cartridge at least: 1.5TB per tape uncompressed, 3TB per tape compressed - Store at least 8 cartridges - Data Transfer Rate Up to 140 MB/s (or 280MB/s for 2:1 compression)	

Software	Quantity	Description
Windows 2008 Server R2 Standard Edition or latest equivalent version	7	6 x Operating system for the virtual machines for Web/Application Server, Database Server and Development Server 1 x Operating system for Backup Server
Web and Application Server	2	The software application provides the hosting the website and executing of application for DMS in production and development environment
Database Server	2	The software application provides database services in the production, development and DR environment
Reporting Server	2	The software application provides reporting services in the production, development and DR environment
Backup Software	1	Backup software for making backup of the servers through network and restoration of backups for disaster recovery

2.5.2.2.7.2. Client Workstations

Hardware Requirement

- | | Recommended Specification |
|--------------|---|
| Processor | <ul style="list-style-type: none"> • Intel Duo Core CPU or above |
| Memory | <ul style="list-style-type: none"> • 4GB or above |
| Disk Storage | <ul style="list-style-type: none"> • 500GB or above |
| Network | <ul style="list-style-type: none"> • Integrated 10/100/1000 Ethernet |

Software Requirement

	Recommended Products
Operating System	<ul style="list-style-type: none">• Microsoft Windows XP, Vista, 7
System Tools	<ul style="list-style-type: none">• Symantec Endpoint Protection• ISO10646, HKSCS
Application Software	<ul style="list-style-type: none">• Internet Explorer 8 or above

2.5.2.2.7.3. Scanning Devices

Hardware Requirement

	Recommended Specification
Scanning Workstation	<ul style="list-style-type: none">• Intel Duo Core CPU or above• Memory of 4GB RAM or above• Disk storage of 500GB or above
Standalone Scanner	<ul style="list-style-type: none">• Integrated 10/100/1000 Ethernet• Simultaneous Duplex (double-sided scanning) scanner with automatic feeder• Automatic Document Feeder for continuous loading up to 100 sheets or above capacity• barcode scanning support• Support output File Format: Single and multi-page TIFF, JPEG, RTF, PDF, searchable PDF
Barcode Printer	<ul style="list-style-type: none">• Support Character Fonts and Barcode symbologies: CG Triumvirate Bold Condensed font, 16 standard bitmapped fonts, Code 39, Code 128, Interleaved 2 of 5 and PDF417, etc.

Software Requirement

	Recommended Products
Operating System	<ul style="list-style-type: none">• Microsoft Windows XP, Vista, 7
System Tools	<ul style="list-style-type: none">• Symantec Endpoint Protection• ISO10646, HKSCS
Application Software	<ul style="list-style-type: none">• Internet Explorer 8 or above• TWAIN, ISIS, SANE and Windows Imaging Architecture Drivers• Barcode generating software• Capture Software

2.5.2.2.7.4. Mobile Devices

Hardware Requirement

	Recommended Specification
Processor	<ul style="list-style-type: none">• 1GHz Dual Core or above
Memory	<ul style="list-style-type: none">• 1G RAM
Internal Storage	<ul style="list-style-type: none">• 16GB or above
Support Network connectivity	<ul style="list-style-type: none">• Wi-Fi and 3G
Others Peripherals	<ul style="list-style-type: none">• Able to connect removable storage

Software Requirement

	Recommended Products
System Tools	<ul style="list-style-type: none">• Applications for viewing PDF documents and images
Application Software	<ul style="list-style-type: none">• VPN client software

2.5.2.2.8 Data Backup and Recovery

The system will be regularly backed up. The backup media will be used for recovering the system if data corruption occurs due to disk failure, system errors.

Backup facilities will be customized to automatically execute the backup process at scheduled time. Restore facilities in accordance with the backup methods will also be provided.

Backup tapes will be used for storage of the backup data, application and system configurations. Upon completion of each backup process, a set of backup tapes will be produced. The backup tapes will be transferred twice a week to the DR site for offsite storage, while the oldest generation of the backup tapes will be transferred back to the DMS production site in preparation for the next backup process. Regular schedule on the transfer of the backup tapes will be agreed with the EMSTF Kowloon Bay Data Centre and the DR Site to maintain a smooth flow of the DMS backup tapes.

The DMS backup plan is recommended as follows:

Backup Type Backup Arrangement

Data	<ul style="list-style-type: none">• Daily incremental backup of the database and documents will be done;• Weekly full backup of the database and documents will be done;• One set of backup tapes will be transferred to off-site storage location twice a week;• A one-week backup cycle (7 days) will be maintained and a total of 10 tapes (4 tapes for weekly full backup and 6 tapes for daily incremental
------	--

Backup Type **Backup Arrangement**

- backup) shall be required.
- | | |
|----------------------|--|
| Application / System | <ul style="list-style-type: none">• Weekly full backup of the system / application will be done. In addition, ad-hoc backup will also be performed after major system and/or application configuration change;• One set of backup tapes will be transferred to off-site storage;• A three-week backup cycle will be maintained and a total of 9 tapes (3 tapes each week in a three-week cycle for system backup of application server, database server and development server) shall be required. |
|----------------------|--|

2.5.2.2.9 Disaster Recovery

Disaster recovery (DR) is required in order to prevent structural destruction to production which will introduce severe service interruption and data loss.

If the primary data centre becomes non-operational (subject to DR management team decision), the core DMS operations, namely the database functions, business applications will be switched to the DR site.

It is recommended to implement a DR site that has the functions provided as a cold-standby, i.e. when disaster strikes, the servers and system/application software is to be setup after declaration of DR, and the latest backup tapes will be used to restore data and/or software to the DR servers so that operations can be resumed. The DR site will be equipped with servers of similar configurations to that of the production servers, possibly with smaller processing capacity but sufficient disk storage. In case EMSD DN is out of service, mobile and home remote connections to the DR site will not be provided, as there is no VPN setup in the site. It is suggested that users to use offline mode for inspection data entry during the DR period.

DMS in the DR site will retain the workflow related functions as well as case related data in the DMS environment.

For DR situation with DN connection, DMS users can access the DMS DR Servers via GNET connection. For DR situation without DNS connection, DMS users need to go to DR site to access the DMS DR Server.

In case of DR, a DR management team and a DR working team will be setup. The DR management team is responsible for decisions on DR issues and the control and monitoring of the DR environment setup, while the DR working team will be responsible for the operations of the setting up the DR environment.

The following list shows the major steps that need to be performed in case of disaster:

- The DR management team will escalate to senior management of EEO for announcement of DR initiation and formation of the disaster recovery working team. The maintenance team will always be consulted before the declaration of a disaster situation.
- Restore/Verify the operating systems and application software to the DR servers;

- Configure/Verify the operating systems and database systems of all servers for the DR environment;
- Restore backup data to the DR servers;
- Restore/Verify client workstations software, to the networked client workstations at the DR Site for accessing the recovered server systems.
- Configure/Verify client workstations software to the networked client workstations at the office and/or home office, and the mobile devices for accessing the recovered server systems.
- Resume the operation.
- For Internet platform, manual operation is required to upload the export files from DMS to CIG. In case no connection is available from DR site to CIG, physical delivery of the files would be adopted.
- For WBRS, if no connection is available between WBRS and DMS DR site, WBRS can still accept public application, with the following limitations:
 - no real-time validation is available
 - application data cannot be passed to DMS instantly
 - no up-to-date enquiry is available
 - no information can be provided from DMS (inbox message, notification, application status)

2.5.2.2.9.1. Disaster Recovery Facilities

The recommended configuration for the DR server is listed as follows for reference. Models with equal or better performance can also be considered.

Web / Application / Database

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Hardware	Quantity	Basic Specification	Description
DR Server	1	<ul style="list-style-type: none"> - CPU: Hexa-core - RAM: 36GB - Internal hard disk – 2 x 146GB (mirror) - Internal hard disk 8TB (RAID-5) - Gigabit Ethernet interfaces x 2 - Redundant power supply - Embedded Latest version of VMWare vSphere - 	This is cold-standby server hosts the virtual machines of Production Web and Application Server, and Production Database Server and should be activated for disaster recovery
Backup Server	1	<ul style="list-style-type: none"> - CPU: quad-core or above - RAM: 8GB or above - Internal hard disk – 2 x 146GB (mirror) - Hard disk 2TB usable capacity - Gigabit Ethernet interfaces x 2 - Redundant power supply 	This is server for carrying out the backup jobs and hosting of monitoring applications of the virtual machines
External Backup Tape Autoloader	1	<ul style="list-style-type: none"> - Capacity of each cartridge at least: 800GB per tape uncompressed, 1.6TB per tape compressed - Store at least 8 cartridges - Data Transfer Rate Up to 120 MB/s (or 240MB/s for 2:1 compression) 	

Software	Quantity	Description
Windows 2008 Server R2 Standard Edition or latest available version	2	2 x Operating system for virtual machine x 2 for Web/Application Server and Database Server 1 x Operating system for Backup Server
Web and Application Server	1	The software application provides the hosting the website and executing of application for DMS in the DR environment
Database Server	1	The software application provides database services in the DR environment
Reporting Server	1	The software application provides reporting services in the DR environment
Backup Software	1	Backup software restoration of backups for DR and making backup of the servers during DR

2.5.2.2.10 Development Facilities

The development team will require a number of hardware and software during the implementation phase.

Dedicated environment will be used for development, maintenance, future enhancement, and user training. The development environment will be equipped with servers of similar configurations to that of the production servers, possibly with smaller processing capacity but sufficient disk storage.

The hardware and software development tools to be used will include the products listed in the following sections. Hardware models with equal or better performance can also be considered.

2.5.2.2.10.1. Web / Application / Database

Development Specified Software

	Recommended Products
Development Tools	<ul style="list-style-type: none">• Eclipse• Microsoft SQL Server Management Studio• Dreamweaver• Adobe Flash

2.5.2.2.11 Location of Equipments

The DMS production servers will be accommodated in a server room dedicated for the EMSD Regulatory Services at 1/F of the EMSTF Data Centre at Kowloon Bay. It will be setup with proper environment including 24-hour air conditioning, dual power supply, fire extinguishers, and locked doors, etc. Adequate floor space will be allocated for the servers.

To save floor space and ease management, the servers will be accommodated in racks. These racks and the server room will be locked at all time and only authorized persons will be allowed to access the servers.

2.5.2.2.12 Maintenance and Upgrade

The following paragraphs describe the maintenance of hardware and software of the new equipments in DMS.

2.5.2.2.12.1. Hardware Maintenance

The recommended hardware maintenance support is M3 which allows the on-site maintenance works to be conducted by the contractor in both office and non-office hours. The support service shall be provided within 4 hours for response time or on-site support when a call is made during office hours.

2.5.2.2.12.2. Software Maintenance

The recommended software maintenance support is L3 which allows the on-site software upgrades or patch installation works to be conducted by the contractor in both office and non-office hours. The support service shall be provided within 4 hours for response time or on-site support when a call is made during office hours.

2.5.2.3 Technical Application Architecture

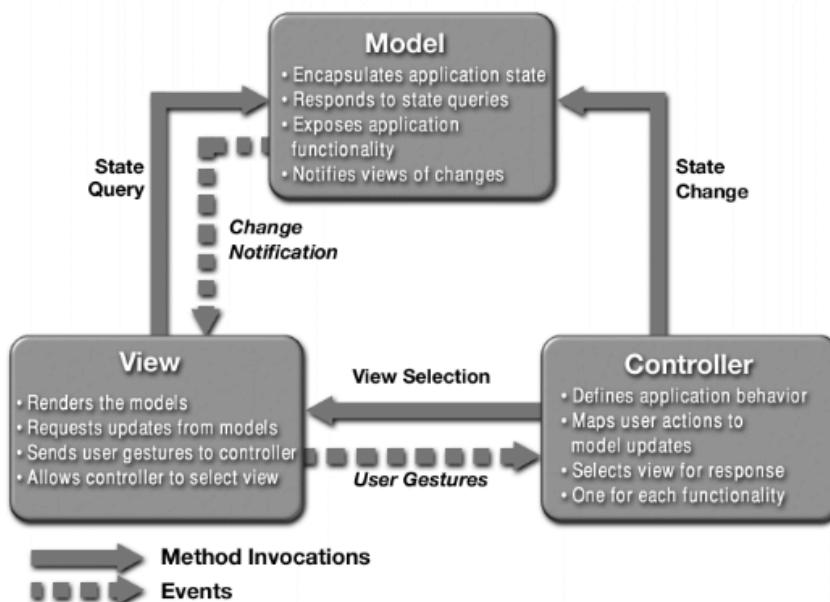
This section described the detailed technical application design of the system.

2.5.2.3.1 Overview

A common approach to building web-based applications is to separate responsibilities or services of the designed application into different roles by defining several architectural layers. By applying the Model-View-Controller (MVC) architecture to the DMS application, the core data access functionality can be separated from the presentation and control logic that uses this functionality. Such separation allows multiple views to share the same enterprise data model, which makes supporting multiple clients easier to implement, test, and maintain.

2.5.2.3.2 The MVC Architecture

The MVC architecture is a simple but effective approach in object oriented based development. It can be applied to map the input, processing, and output tasks to the graphical user interaction model and also mapped these concepts into the domain of tiered application design:



- The **model** represents enterprise data and the business rules that govern access to and updates of this data. Often the model serves as a software approximation to a real-world process, so simple real-world modeling techniques apply when defining the model.

- A **view** renders the contents of a model. It accesses enterprise data through the model and specifies how that data should be presented. It is the view's responsibility to maintain consistency in its presentation when the model changes. This can be achieved by using a push model, where the view registers itself with the model for change notifications, or a pull model, where the view is responsible for calling the model when it needs to retrieve the most current data.
- A **controller** translates interactions with the view into actions to be performed by the model. In a stand-alone GUI client, user interactions could be button clicks or menu selections. The actions performed by the model include activating business processes or changing the state of the model. Based on the user interactions and the outcome of the model actions, the controller responds by selecting an appropriate view.

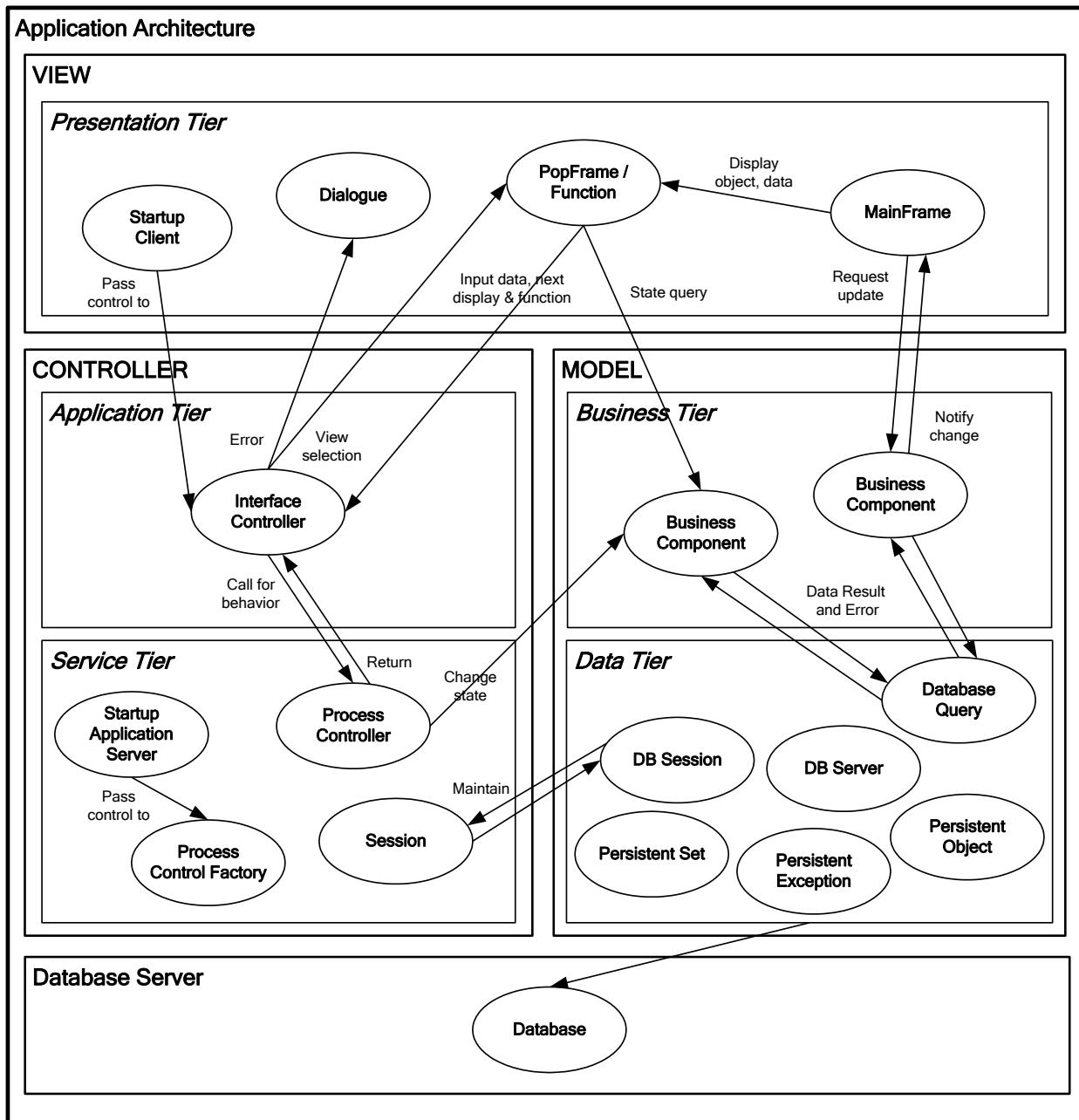
The MVC architecture has the following benefits:

- **Multiple views using the same model.** The separation of model and view allows multiple views to use the same enterprise model. Consequently, an enterprise application's model components are easier to implement, test, and maintain, since all access to the model goes through these components.
- **Easier support for new types of clients.** To support a new type of client, simply write a new view and controller for it, and wire them into the existing enterprise model.

2.5.2.3.3 Logical Tier

Tiered architecture leads to a more flexible and maintainable system. Tiers may be quite thin and have very little impact on system performance. Tiers can be changed with no effect on other tiers, as long as the API remains constant. If designed well, the entire can be swapped out and integrate to a new data source or take advantage of a new technology.

DMS is designed to partition the system into tiers, namely the presentation tier, the application tier, the service tier, the business tier, and the data tier. These tiers are physically split across the clients and the servers, and they are logically partitioned into the MVC architecture in order to gain the benefits as stated above. A high level diagram of the application architecture is depicted as follows:



Presentation Tier – Handle the presentation of data retrieved from specific business logic; accept input of information from users; maintain user interaction with the application; provide specific function to users and report other user events.

Application Tier – Provide interface between presentation tier and service tier; manage user interaction and navigation; select view for response to user events or errors; control security and allocation of specific function to users by call for behaviour from service tier.

Service Tier – Group a set of business components and logics into services to be used by the application tier, including the process controller; maintain and manage user sessions and integrate other system components through the model.

Business Tier – Contain a group of common business components and classes to be called by the service tier; provide interface for presentation tier to query data from the data tier; control the state of the data and transaction handling, response to state query from the presentation tier and notify the change to specific function or frame.

Data Tier – Provide the means for other tiers to access information in database; maintain persistent objects and data; maintain the connection factory.

2.5.2.3.4 Technology Preference

The application architecture provides clear division of different architectural responsibilities or services into different tiers. The architectural responsibilities can be identified as stereotypes for each logical tier of the application that involve using specific technology to implement the functionality. In order to facilitate the implementation of the MVC architecture into DMS, the Java 2 Platform, Enterprise Edition (J2EE) from SUN will be adopted.

2.5.2.3.5 Alignment with System Architecture

Both the application architecture and the system architecture of DMS are designed to provide an overall competent system environment for DMS.

To preserve the integrity of the architecture, other tiers, such as service tier or presentation tier, will only access the business tier located within the Application Server. The business tier will provide the required interface in the Application Server for other tiers to access information of other servers. This similar approach applies to the data tier as well.

Some static pages for the presentation tier will be resided in the Web Server. Database Server access will be limited to the data tier in order to protect the information in the database and retain the security of the system.

2.5.2.3.6 Application Security

DMS form-based logon from web will be used in conjunction with HTTPS/SSL. Before entering username and password, the SSL link will be established in the first place. The username and password is transmitted in a secured link to the application server. The username and password is authenticated within the java bean that checks against the designated database table. The application server will not store the list of valid usernames and passwords in its secondary storage. Enterprise server side programming design offers high security protection to DMS. Only the presentation layer will be exposed to users. All business logics will be hidden from user access as the logics are performed by components on the application server. All data access is bounded by objects on the application server and because data access is done through components, no direct manipulation of data is thus possible.

2.5.3 Data Retention and Archive

After the data retention period has expired, the data will be archived into offline storage media such as data tapes for permanent storage. These data will then be removed from the server to free up disk storage. Purging of data from the DMS databases can be performed at defined time, such as at the year-end after the data has successfully been archived. The offline data can be restored when required. A housekeeping facility including archiving and restore functions will be provided for retention period maintenance.

Depending on the information nature, data will be kept in the system with different retention periods and the following table summarizes the recommendation:

Information Nature	On-line Retention Period
Business information	As long as possible
Active Case information	As long as possible
Document / Photos	As long as possible
Reports	As long as possible
Expired system / alert messages	7 days
Audit trail records of completed cases	12 months

2.5.4 Impact Analysis

2.5.4.1 Effects on Organization

2.5.4.1.1 Support Staff

In order to provide support to end-users and to help them to use the system effectively, an DMS Maintenance Team comprising of appropriate staffs of P8 will be set up. The team will perform the following tasks:

- System and network administration;
- Database management;
- Problem analysis; and
- Help desk support.

It is expected that the team will only need to spare part of their daily working hours to perform these tasks and is expected to be less as the system becomes more stable and users getting used to the operation of the system. Training will be provided to the support team to equip the team members with skills to manage the system.

2.5.4.1.2 Training

Trainings will be provided to the DMS support staffs and end-users, which will include system training and application training.

System training will be focused on the system administration and management aspects, the use of system software, etc. which will be useful for system administrators and support staffs. Application training will be designed in relevancy to the roles of users so that users can learn the relevant components of DMS to help their daily operations. This may include the application aspect and operational aspect of the system.

2.5.4.2 Effects on User Operating Procedures

DMS will provide a working platform for streamlining the daily operations within EEO. It will change the ways in which works are being done to achieve easier information retrieval and better resource usage monitoring within EEO. New operating procedures will be in place in particular to the following areas:

2.5.4.2.1 Information Sharing

With DMS, paper documents and the relevant information will be managed by the Document Management Service of DMS. It is expected that DMS users will familiarize with the practice of storing, managing, and retrieving information in electronic format so that searching and sharing of data can be made easier among DMS users.

Moreover, users will be encouraged to utilize document management features to share information.

2.5.4.2.2 Automatic Workflow

In DMS, the business process of EEO will be automated by the use of a Workflow Management System. Existing paper flow will be minimized in the DMS environment. It is expected that DMS users will familiarize with the practice of processing cases in electronic format under an automated workflow environment.

2.5.4.2.3 Mobile Office

Mobile office will be implemented for inspectorate staff. Each responsible officer will be assigned a mobile device for their daily operation. Facilitation on wireless connection to the DMS servers will be used to facilitate inspectorate staff for information download/upload. With this implementation, inspectorate staff is expected to have the flexibility of getting their work at home or any convenient place so that they can save travelling time in getting to the inspection site.

2.5.4.2.4 Access via VPN

Remote access to DMS will be implemented. Authorized users, such as SE / Management will be enabled to login to the DMS application at a secured place so that users can gain access to the system even when they are outside office. It is expected that users will get the appropriate remote access settings and apply to their home PC for such flexibility.

2.5.4.3 Effects on Office Space

Space is required to accommodate servers and network equipment mounted in two 42U equipment racks.

Proper desk space will be required to accommodate the new PC workstations.

2.5.5 Implementation Plan

The physical development of the DMS will commence following the acceptance of the System & Analysis Design (SA&D) stage.

The entire project is estimated to require around 30 months to complete. The System will be implemented in 3 Phases with scope of works as summarized below:

Phase	Scope of work
I	<ul style="list-style-type: none">Enhancement of WBRS for public to submit e-applications for REA, COCR, FOC & Energy Audit Form
II(A)	<ul style="list-style-type: none">Development of DMS for the processing of received applications, an Internet Website for MBEC, and a Building Database
II(B)	<ul style="list-style-type: none">Enhancement of DMS to include workflow automation features
III	<ul style="list-style-type: none">Enhancement of DMS to include features for Compliance Site Inspection, Issuance of Improvement Notices, and ProsecutionDevelopment of applications running on Mobile Computing Devices for inspection work

The activities of system implementation will generally include programming, system integration test, user acceptance test, user training, data conversion, system deployment and production launch. The period of the activities in each phases will be vary according to the scope of works of that phase. Procurement will be conducted in Phase I and III for server equipments and mobile computing devices respectively.

The table in the following section indicates the major activities of the project plan. The plan is worked out with the assumption that the completion date of Stage 1 – SA&D is 7.3.2010.

2.5.5.1 Implementation Schedule

After the completion of Project Initiation Stage and SA&D Stage, the implementation stage will be started. The major tasks are summarized below:

Major Task	From	To	Involved Parties
<i>Stage 0 : Project Initiation</i>			
Project Kick-off	02.08.2011	02.08.2011	EEO, ITMU, P8
Draft Project Initiation Document (PID)	25.07.2011	15.08.2011	P8
Prepare Detail Project Plan	25.07.2011	19.08.2011	P8
Project Team Formation	02.08.2011	19.08.2011	P8
1st Round Comment EEO Comment on PID & Project Plan	22.08.2011	26.08.2011	EEO
Revise PID according to 1st Round Comment	29.08.2011	31.08.2011	P8
2nd Round EEO Comment on PID & Project Plan	01.09.2011	05.09.2011	EEO

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Major Task	From	To	Involved Parties
Revise PID according to 2nd Round Comment	06.09.2011	19.09.2011	P8
Endorse PID	20.09.2011	20.09.2011	EEO, P8
<i>Stage 1: System Analysis and Design</i>			
Current Environment & User Requirement Study for E-Submission	11.07.2011	12.08.2011	EEO, P8
Current Environment & User Requirement Study for Application Processing	15.08.2011	02.09.2011	EEO, P8
User Requirement Study for Website	05.09.2011	09.09.2011	EEO, P8
Draft Current Environment Description (CED), Business System Options (BSO) & User Requirement Description (UR)	12.08.2011	23.09.2011	P8
EEO Comment on CED, BSO, UR	26.09.2011	30.09.2011	EEO
Revise and Confirm CED, BSO, UR	30.09.2011	07.10.2011	P8
Draft System Specification (SS)	23.09.2011	07.10.2011	P8
EEO Comment on SS	10.10.2011	14.10.2011	EEO
Revise and Confirm SS	17.10.2011	21.10.2011	EEO, P8
Draft Functional Specification (FS)	24.10.2011	11.11.2011	P8
Draft Data Specification (DS)	24.10.2011	11.11.2011	P8
Draft Logical Processing Specification (LPS)	24.10.2011	18.11.2011	P8
EEO Comment on SS, DS and LPS	14.11.2011	25.11.2011	EEO
Revise and Confirm SS, DS and LPS	28.11.2011	02.12.2011	EEO, P8
Draft Selected Technical System Option (TSO)	10.10.2011	04.11.2011	P8
Comment and Revise Selected TSO	07.11.2011	28.12.2011	EEO, ITMU, P8
Confirm Selected TSO	29.12.2011	29.12.2011	EEO, P8
Draft SA&D Report	21.11.2011	31.01.2011	P8
Comment and Revise SA&D Report	19.12.2011	31.01.2012	EEO, ITMU, P8
SA&D Report Endorsement	03.02.2012	03.02.2012	EEO, P8

Stage 2 : System Development, Implementation and Integration

Physical Design

Develop Prototype of Major Functions	28.11.2011	13.01.2012	P8
1st Round Comment on Prototype	16.01.2012	20.01.2012	EEO
Revise Prototype according to 1st Round Comment	26.01.2012	01.02.2012	P8
2nd Round Comment on Prototype	02.02.2012	08.02.2012	EEO
Revise Prototype according to 2nd Round Comment	09.02.2012	16.02.2012	P8

Major Task	From	To	Involved Parties
Confirm Prototype	17.02.2012	17.02.2012	EEO, P8
Server Procurement			
Prepare Procurement Plan & Specification	15.11.2011	28.11.2011	P8
Comment and Revise Procurement Plan & Specification	29.11.2011	05.12.2011	EEO, ITMU, P8
Confirm Procurement Plan & Specification	06.12.2011	06.12.2011	EEO, ITMU, P8
Tendering	04.01.2012	03.02.2012	EEO, ITMU
Tender Evaluation and Award	03.02.2012	10.02.2012	EEO, ITMU, P8
Site Preparation	03.01.2012	02.02.2012	P8
Site Acceptance	03.02.2012	03.02.2012	P8
Delivery of Procured Item	10.02.2012	30.03.2012	EEO, P8
Server Installation	23.03.2012	10.04.2012	P8
Server Acceptance	11.04.2012	12.04.2012	P8
SI&I Phase I - E-Submission on WBRS			
Programming & Unit Test	24.10.2011	06.02.2012	P8
System Integration Test (SIT)	30.01.2012	17.02.2012	P8
User Acceptance Test (UAT) Preparation (UAT Plan, Specification, Test Cases, User Briefing)	06.02.2012	17.02.2012	EEO
Confirm UAT Start	17.02.2012	17.02.2012	EEO
Conduct UAT	20.02.2012	02.03.2012	EEO
Confirm User Acceptance	05.03.2012	05.03.2012	P8
User Training	06.03.2012	08.03.2012	EEO, P8
Prepare Production Roll Out Plan	05.03.2012	09.03.2012	P8
Comment and Revise Production Roll Out Plan	12.03.2012	14.03.2012	EEO, P8
Confirm Production Roll Out Plan	15.03.2012	15.03.2012	EEO, P8
Data Conversion and Validation	12.03.2012	23.03.2012	EEO, P8
Production Deployment	19.03.2012	24.03.2012	P8
E-Submission on WBRS Launch	22.03.2012	24.03.2012	EEO, P8
SI&I Phase II(A) - Internet Website & DMS			
<i>Internet Website</i>			
Define Website Structure	12.03.2012	23.03.2012	EEO
1st Round Website graphic design	22.03.2012	06.04.2012	P8
Comment 1st Round Website design	05.04.2012	13.04.2012	EEO
2nd Round Website graphic design	16.04.2012	20.04.2012	P8
Comment 2nd Round Website graphic design	23.04.2012	27.04.2012	EEO
Confirm website graphic design	27.04.2012	27.04.2012	EEO
Prepare web page content	20.03.2012	08.06.2012	EEO

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Major Task	From	To	Involved Parties
Draft English version web page layout	27.04.2012	01.06.2012	P8
Comment and Revise English version	04.06.2012	08.06.2012	EEO
Confirm English version	08.06.2012	08.06.2012	EEO
Draft Traditional Chinese version web page layout	04.06.2012	15.06.2012	P8
Comment and Revise Traditional Chinese version	18.06.2012	22.06.2012	EEO
Confirm Traditional Chinese version	25.06.2012	25.06.2012	EEO
Convert Simplified Chinese version	25.06.2012	29.06.2012	P8
Comment and Revise Simplified Chinese version	29.06.2012	06.07.2012	EEO
Confirm Simplified Chinese version	09.07.2012	09.07.2012	EEO
Edit for indexing by searching engine	15.06.2012	13.07.2012	P8
Prepare Website Launch	16.07.2012	31.07.2012	P8
Website Launch	01.08.2012	01.08.2012	EEO, P8
DMS			
Programming & Unit Test	20.02.2012	03.07.2012	P8
SIT	11.06.2012	29.06.2012	P8
UAT preparation	25.06.2012	03.07.2012	P8
Confirm UAT Start	03.07.2012	03.07.2012	EEO
Conduct UAT	04.07.2012	13.08.2012	EEO
Confirm User Acceptance	14.08.2012	14.08.2012	EEO
User Training Preparation	06.08.2012	10.08.2012	P8
User Training	15.08.2012	21.08.2012	EEO
Prepare Production Roll Out Plan	13.08.2012	17.08.2012	P8
Comment and Revise Production Roll Out Plan	20.08.2012	24.08.2012	EEO, P8
Data Conversion and Validation	27.08.2012	03.09.2012	EEO, P8
Production Deployment	27.08.2012	04.09.2012	P8
DMS Launch	04.09.2012	04.09.2012	EEO, P8
System Documentation	27.08.2012	18.10.2012	P8
SI&I Phase II(B) - DMS workflow			
Programming & Unit Test	03.07.2012	07.09.2012	P8
SIT	10.09.2012	28.09.2012	P8
UAT preparation	03.10.2012	15.10.2012	P8
Confirm UAT Start	12.10.2012	12.10.2012	EEO
Conduct UAT	15.10.2012	09.11.2012	EEO
Confirm User Acceptance	12.11.2012	12.11.2012	EEO
User Training Preparation	05.11.2012	09.11.2012	P8
Security Risk Assessment	13.11.2012	10.12.2012	EEO, P8

Major Task	From	To	Involved Parties
User Training	13.11.2012	19.11.2012	EEO, P8
Prepare Production Roll Out Plan	12.11.2012	16.11.2012	P8
Comment and Revise Production Roll Out Plan	19.11.2012	23.11.2012	EEO, P8
Data Conversion and Validation	26.11.2012	13.12.2012	EEO, P8
Production Deployment	10.12.2012	17.12.2012	P8
DMS workflow Launch	17.12.2012	17.12.2012	EEO, P8
System Documentation Update	05.11.2012	02.01.2013	P8

SI&I Phase III - Mobile Computing & Monitoring

Procurement for Mobile Device

Prepare Procurement Plan & Specification	03.09.2012	19.10.2012	P8
Comment and Revise Procurement Plan & Specification	19.10.2012	15.11.2012	EEO, ITMU, P8
Confirm Procurement Plan & Specification	16.11.2012	16.11.2012	EEO, ITMU, P8
Tendering	19.11.2012	07.12.2012	EEO, ITMU
Tender Evaluation and Award	06.12.2012	31.12.2012	EEO, ITMU
Delivery of Procured Item	01.01.2013	28.02.2013	EEO, P8
Programming & Unit Test	03.10.2012	17.04.2013	P8
SIT	15.04.2013	03.05.2013	P8
UAT preparation	22.04.2013	03.05.2013	P8
Confirm UAT Start	06.05.2013	06.05.2013	EEO
Conduct UAT	07.05.2013	10.06.2013	EEO
Confirm User Acceptance	11.06.2013	11.06.2013	EEO
Security Risk Assessment	12.06.2013	09.07.2013	EEO, P8
User Training Preparation	03.06.2013	07.06.2013	P8
User Training	12.06.2013	03.07.2013	EEO, P8
Prepare Production Roll Out Plan	03.06.2013	07.06.2013	P8
Comment and Revise Production Roll Out Plan	10.06.2013	28.06.2013	EEO, P8
Data Conversion and Validation	02.07.2013	30.07.2013	EEO, P8
Disaster Recovery Drill	03.06.2013	05.07.2013	EEO, P8
Production Deployment	08.07.2013	31.07.2013	P8
DMS Phase III Launch	31.07.2013	31.07.2013	EEO, P8

Stage 3 : System Nursery, Tuning and Handover

System Documentation & Tuning

System Documentation Update	24.06.2013	31.10.2013	P8
System Tuning	01.08.2013	30.09.2013	P8

Overall System Nursing

System Nursing	01.08.2013	31.01.2014	P8
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Major Task	From	To	Involved Parties
System Handover	02.12.2013	31.01.2014	EEO, P8
Project Closure			
Project Closure Preparation	02.01.2014	31.01.2014	P8
Project Closure	31.01.2014	31.01.2014	EEO, P8

2.5.6 Conversion Plan

2.5.6.1 Data to be converted

The following table summarizes the major data on the existing databases:

Data	Data Format	Estimated Size in MB	Description
REA	Excel	100	Temporary storage of REA application data and register
COCR	Excel	100	Temporary storage of COCR submitted data and register
FOC	Excel	100	Temporary storage of submitted FOC data records
Energy Audit	Excel	100	Temporary storage of submitted Energy Audit data records
Building	Excel	100	Temporary storage for building records with COCR, FOC and Energy Audit submissions
Building	MS SQL	200	Building information from EORS Database

2.5.6.2 Technical Approach

Conversion programs will be designed to automate the conversion process. Manual processes will be required to help converting the data that cannot be automatically converted by the system.

2.5.6.2.1 General Data

2.5.6.2.1.1. *Conversion Approach*

The main approach for the data conversion is using the ETL approach. ETL stands for Extract, Transform and Loading. Firstly, selected data is retrieved and extracted from DIMS & ESSC. Those extracted data will be transformed into a format for easy data manipulation. Finally, data loading involves business logic verification and data validation will take place before the actual upload to the DMS. There are some SQL scripts require to be developed to retrieve the data from the legacy system and transform before the data are loaded. After loading the data directly from the transformed format into DMS database, some data may require the transformation program to reorganize. For the other information not migrated into DMS, report may be provided for user future reference only. The daily backup of the existing database will be used for future reference (if required) for non-migrate data. Prior to the conversion start, there are two key points that needed to be considered. Existing database must be backed up if ETL rollback is necessary and, a cut off period will be declared to isolate the data for being modified by users.

Reports will be provided to facilitate user verification, which will include verification reports and exception reports. Details of the reports will be described in the Data Conversion Specification in later stage.

2.5.6.2.1.2. *Verification Approach*

All converted data must be validated from both a business and system point of view.

System Verification

Check sum will be adopted to verify the number of records required to convert must be recorded and then after the conversion verifies the number of records is same as before. There are several points that the number of records can be checked to ensure that if any problem occurs, the minimum effort and time to recover.

Business Verification

Inquiry functions and the reports generated from DMS can facilitate user to verify the data integrity.

2.5.6.2.1.3. Exception Handling

Exceptions detected during the data conversion process will be extracted and record to an Excel file template, if possible. Users will perform data rectification on this Excel file. The rectified data will then be verified and uploaded to the new database to complete the data conversion process.

For exceptions that cannot be recorded and rectified on Excel templates, error logs will be recorded and project team will analysis the problem and give advices to users in fixing up the data.

2.5.6.3 Plan & Schedule

Please refer to the project schedule or Section 2.5.5.1 Implementation Schedule for the conversion schedule.

2.5.7 Costs and Benefits

This section summarizes the estimated recurrent and non-recurrent costs for the implementation of the proposed system and the anticipated benefits of the system.

2.5.7.1 Costs

The annual inflation rate as 5.5% is assumed in the estimation of recurrent costs (for DMS system maintenance only). A summary of estimated non-recurrent (i.e. costs at Y0) and recurrent costs (from Y1 to Y7) are shown below:

	Description	Estimated Cost (in thousands HKD)							
		Y0 ¹	Y1	Y2	Y3	Y4	Y5	Y6	Y7
1.	Provision of SA&D, SI&I, and 2-year warranty with Operation Support Services by Project Team ²	5,825							
2.	Annual DMS system maintenance and operational support			470	490	520	550	580	610
3.	Hardware Procurement including first year support	493							
4.	Software Procurement including first year support	345							
5.	Hardware / Software installation	125							
6.	Annual hardware maintenance (assume 10% of procurement costs)		57	57	57	57	57	57	57
7.	Annual software support & subscription costs		72	72	72	72	72	72	72
Total		6,788	129	599	619	649	679	709	739

The cost breakdown for hardware and software procurement is as follows:

Item Name (including both hardware and software)	Quantity	Reference Price
Application Server	1	\$102,850
Database Server	1	\$102,850
External storage system (8TB storage in RAID-5)	1	\$129,316
User perpetual licenses for DMS-BEEO users (assume maximum of 50 users)	50	\$59,280
Development Server	1	\$71,642
DR Server	1	\$159,107
Backup Server	2	\$122,256
Tape Auto-loader	2	\$88,304
Hardware / Software Installation charge (assume 15% of hardware and software procurement costs)	1	\$125,341
Total:		\$960,946

¹ Y0 is defined as the first year of which the system DMS-BEEO shall be put into full production (i.e. completion of Phase 3 implementation) and is currently planned to be year 2013.

² Items include System Implementation, Operation Support Services, Hardware & Software maintenance charges provided by Project team

Following is the list of optional components which may be required by EEO users (not included in the cost above):

Item Name	Estimated Unit Price	Quantities	Sub-total
Tablet	\$5,000	5	\$25,000
Barcode Label Printer	\$10,000	1	\$10,000
Scanner	\$38,961	1	\$38,961
Scanning workstation (including software)	\$7,840	1	\$7,840
Hardware / Software Installation charge (assume 15% of hardware and software procurement costs)		1	\$12,270
		Total	\$94,071

The total non-recurrent costs for procurement of hardware and software shall be estimated to be \$1,055,017 (i.e. \$960,946 + \$94,071).

2.5.7.2 Benefits

This section provides an indication of the perceived value of the DMS in terms of tangible and intangible benefits. Tangible benefits which are directly derived from the implementation of this system will be described in the following section. Intangible benefits, which also may or may not be quantifiable, help to justify a project in terms other than direct dollar savings.

2.5.7.2.1 Tangible Benefits

2.5.7.2.1.1. *Realizable Savings*

As the implementation of BEEO is a new initiative, realizable savings are not available.

2.5.7.2.1.2. *Cost Avoidance*

Staff cost of an Inspector or technical officer required for checking submitted information and calculations submitted by applicants, compilation of management report from data contained in paper files, selection of buildings for compliance monitoring and inspection

2.5.7.2.1.3. *Notional Savings*

As the implementation of BEEO is a new initiative, notional savings are not available.

2.5.7.2.2 Intangible Benefits

The intangible benefits of DMS are those benefits that cannot be quantified in monetary value and that are realized as a result of the implementation of DMS. Intangible benefits encompass management enhancement, higher productivity, and better operational efficiency.

1. Improve Operational Efficiency

- *Improved Information Availability and Security.*

With DMS, users can quickly retrieve vital information. Majority of the information will stay active in the DMS; which will give management access to a wealth of information. The security features in the new system will prevent unauthorized access to DMS data.

- *Improved Workflow and Document Management.*

With automated workflow and document management services of DMS, problems with unavailable, lost, misplaced or mistakenly filed documents will be significantly reduced. The distribution of documents to multiple users can be done immediately after the document capture process. The processing of documents can also be speeded up with the capability of concurrent access and automatic workflow.

- *Better Sharing of Information.*

DMS users can quickly make reference to a vast pool of past experience and knowledge so that decisions can be made with precedent references. Besides, such information is being accrued as users use the system which makes the benefits even more promising as time goes on.

- *Automated Inspection Assignments.*

The rules of assigning inspection orders to inspection teams are optimised and built into the work assignment algorithm of DMS to relieve the burden of manual work assignments to inspection teams.

- *Better Monitoring of Work.*

With automated workflow, work-in-progress cases can be easily monitored to enable DMS users to have early alerts on cases with potential risk of not meeting the performance pledge. Besides, automatic system logging and online search facilities are in place to ease monitoring of work-in-progress cases.

- *Facilitated Timely Management Decision and Actions.*

Statistics and analysis reports can be generated in a timely manner to support the decision-making process of the EEO management.

- *Easy Access to the System.*

DMS is a web-based application that allows users access to the system with minimal PC installations.

2. Improve Quality of Service

- *Faster and More Efficient Processing of Documents and Cases.*

Information on incoming documents and cases will be immediately available to relevant user(s) right after the documents capture process. New cases, which may be complaints, enquiries, or cases requiring urgent attention, will be available for processing once they are created.

- *Reduced Turnaround Time for Public Enquiries.*

Enquiries from the public can be promptly handled and responded, as the data and information will be accessible from a centralised database.

- *Improved Information Availability During Field Inspections.*

With the use of mobile device and VPN connection to DMS, up-to-date product, shop and inspection information will always be at hand for staffs doing field inspections. Moreover, staff can record inspection result on mobile device and updates will be sent to DMS instantly via VPN connection.

- *Enabled Information Access after Normal Business Hours.*

The public are able to make application, check past history, and track case progress via WBRS which is designed to provide 7x24 online services.

- *Better System Availability.*

The DMS is designed to cater for disaster recovery. During non-operational in primary data centre, DR site of DMS will provide limited but crucial services to users to support the business activities of BEEO.

- *More Up-to-date Information Dissemination.*

Up-to-date information will be retrieved periodically from the DMS database, which will be passed to the internet platform for dissemination in a timely manner.

The above improvements to the quality of service will help bolster the level of professionalism as well as the image of EEO.

3. Transition to a Less-paper Environment

With DMS, most paper documents will be stored and processed electronically. There will be a significant reduction of paper usage, which can help maintaining a ‘Green’ office and protecting the environment in HKSAR. An enhanced office environment with less paper shall bring about higher productivity among DMS users. Besides, reduction of storage space, savings on cost of the reduced storage space and printing can also be anticipated.

4. More Effective Measurement of Performance

With DMS workflow service, better evaluation on business practices such as resource alignment and performance pledge achievement can be attained.

2.5.8 Reason for Selection

This section describes and compares the feasible technical system options. The recommended option will be given at end of this section.

2.5.8.1 Technical System Options Considered

The DMS adopts the 3-tier J2EE architecture and includes Application & Web Server and Database Server which are software application dedicated to perform the specific process in the whole system. In order to optimize the performance of DMS, the Application & Web Server and Database Server are physically hosted and operate on 2 individual servers.

By combinations of Hardware, Operating System and Hosting Mechanism, the feasible options are compared as follows:

Option 1: Standalone Servers + Operating System

Description:

- Application & Web Server and Database Server are directly operating on individual servers without any virtualization.

Characteristics:

- Architecture is simple to deploy and implement
- The resources on the server can be utilized by DMS with minimum overhead

Option 2: Standalone Servers + Virtualization

Description:

- Application & Web Server and Database Server are operating in guest operating systems on individual servers.

Characteristics:

- By making use of the virtualization characteristic, the individual servers can serve as resilience of each other
- In case of applying major system patches, simulation of the production environment by running the clone of production guests could be done to observe the impact to the system beforehand

2.5.8.2 Technical System Options Comparison

Option Comparison	Standalone Servers + Operating System	Standalone Servers + Virtualization Solutions
Availability	High	High
Resilience	No	Yes
System Failover	Manual	Manual

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System downtime ^{3, 4}	Medium (Less than 8 hours ⁵)	Short (Less than 4 hours ⁶)
Security vulnerability	Low	Low
OS Support	Good	Good
Hardware compatibility	Good	Good
Server Resource Utilization	Fully Utilized By the system	Resource overhead consumed by the virtualization
Vendor Availability	High	High

Base on the above comparison, the Option 2 (Standalone Servers + Virtualization) is recommended because of the following reasons:

- Provide high availability within budget
- Have server resilience
- Have shorter down time

2.5.8.3 Hypervisor comparison between VMware vSphere 5.0, Microsoft Hyper-V Server 2008 R2 and Citrix XenServer 6.0

Description	VMware vSphere 5.0	Microsoft Hyper-V Server 2008 R2	Citrix XenServer 6.0
Hot Add Memory	Supported	Not Supported	Not Supported
Network I/O control	Supported	Not Supported	Supported
Network Shared Storage	SAN & NAS	SAN only	SAN & NFS enabled NAS
Long Distance Live Migration of Virtual Machines	Supported	Not Supported	Not Supported
Support Windows version for Guest OS	All currently available version of Windows and Windows Servers	All currently available version of Windows and Windows Servers	All currently available version of Windows and Windows Servers
Support Linux version as Guest OS	Asianux, CentOS, Red Hat Enterprise Linux, SUSE Enterprise Linux, Oracle Enterprise Linux, Debian Squeeze,	CentOS, Red Hat Enterprise Linux, SUSE Linux Enterprise	CentOS, Red Hat Enterprise Linux, SUSE Enterprise Linux, Oracle Enterprise Linux, Debian Squeeze,

³ It is assumed that the system outage was caused by server hardware problem.

⁴ The system downtime is referring to the time spent for the system to resume services for normal user operations, In case of data lost, the time required for re-work by the user is not included in this measure

⁵ By assuming the replacement part of problematic hardware is ready, the system downtime would include the time spent for hardware replacement, server configuration and data/file restoration.

⁶ By assuming that system could be resumed on the secondary sever by either copying the virtual machine files from the failed server or restoring the latest backup of the system.

Description	VMware vSphere 5.0	Microsoft Hyper-V Server 2008 R2	Citrix XenServer 6.0
	Ubuntu		Ubuntu
Support Other OS as Guest OS	Solaris 10, OS/2, NetWare, Mac OS X	Nil	Nil

Base on the above comparison, the VMware vSphere 5.0 recommended because of the following reasons:

- Better support for performance tuning of the system with Hot Add Memory and Network I/O Control
- More choices of supported network shared storage and guest OS for system expand and further development
- Provide long distance live migration which could be an additional DR option

2.5.8.4 Comparison between Oracle, MySQL and MS SQL Server

Description	Oracle Database 11g	MySQL Enterprise Edition	MS SQL Server 2008 R2
Cost	Highest license free to setup and annual subscription required for support services	Annual subscription required for support services	One-off license fee
OS Support	Windows, Unix, Linux, Mac OS	Windows, Unix, Linux, Mac OS	Windows only
Online Database Backup	Yes	Available for InnoDB data only	Yes
Reporting Tool	Oracle Reports Services is available but is required to be procured separately	No reporting tool offered by MySQL. Third parties reporting tool is required to be procured separately	Included

Base on the above comparison, MS SQL Server 2008 R2 is recommended because of the following reasons:

- Less recurrent cost for support services
- Able to perform online database backup
- Native reporting tool included

2.5.8.5 Comparison between Windows Server 2008 R2 and Linux Server

Description	Windows Server 2008 R2	Linux Server
Cost	One-off license fee	Depends on the Linux distribution vendor, annual subscription for support services would require
Stability ⁷	High	High
Support	Patches for product updates or bugs fix will be provided by Microsoft until the end of life of the product.	Patches for product updates or bugs fix will be offered by the Linux distribution vendor, some patches would require valid subscription to download
Hardware	Vast options of hardware available	Hardware options available will depend on the Linux distribution

Base on the above comparison, Windows Server 2008 R2 or an equivalent latest version is recommended because of the following reasons:

- Provide high stability platform
- Less recurrent cost for support services

As MS SQL Server 2008 R2 is recommended for Database Server, the Operating Systems for the database server would therefore be Windows Server 2008 RS. For the ease of support and maintenance, the same operating system using in the servers of the system would be recommended.

2.5.8.6 Comparison between J2EE and Visual Studio .NET

Description	J2EE	Visual Studio .NET
Supported Sever Platforms	As different versions of Java Virtual Machine (JVM) are available for different platforms, the J2EE applications are therefore relatively more platform-independent.	Available to machines with .NET framework installed, where the framework can be installed to Windows Servers only.
Development	Java is architecture neutral without implementation dependent code, which increases	.NET framework based on the new CLR, enables development in any language that is supported

⁷ According to the survey conducted by Information Technology Intelligence Consulting (ITIC) in 2011, 92% majority of Windows Server 2008 R2 users experienced less than one or one Tier 3 outage per server, per annum. For details, please refer to <http://itic-corp.com/blog/2011/01/ibm-stratus-hp-fujitsu-top-iticgfi-software-hardware-reliability-survey/>

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Description	J2EE	Visual Studio .NET
	portability.	by Microsoft's tools.
Support Services	There is a lot of people developing and supporting Java for applications running on different platform. Java code is readily available on the Internet.	Due to limited availability of the platform as compared with J2EE, the development on the platform is not widely adopted by most developers, so support is limited in the market.
Development Tools	Many software vendors provide efficient development tools to easily build the required components. As J2EE/Java is an open standard, basically developer can build any software component from the specification by using standard development kit with no cost. Developers that can support this area are widely available.	Developer can only build the component by using the development tools and platform provided by Microsoft, which made it not as popular as J2EE in the market. So developer with sufficient knowledge that can support this area is limited.
Implementation Cost	Lower J2EE development tools are available as freeware by accepting the specific license terms or usage agreement.	Higher The software license for development tools & platform must be purchased.

Based on the above comparison, J2EE is selected.

2.5.8.7 Remote Access Option through Mobile Device Considered

Mobile devices are used by Inspector during site inspection. Enquiry function product data and shop information would be applied, plus update function for storing inspection results.

The following feasible options are compared as follows:

Option 1: Data Download and Updated to Mobile Device (Standalone Mode)

Description:

- Product data and shop information are downloaded to mobile devices on regular basis before inspection
- Enquiry function would base on local data and information in mobile device
- Inspection results would be updated and stored in mobile device during inspection
- Inspection results would be synchronized to DMS after inspection

Characteristics:

- Downloaded data is a snapshot of DMS at download time. Data would not be changed unless performing another download from DMS
- No access to DMS can be made during inspection

Option 2: Access DMS through Mobile Data Service (Online Mode)

Description:

- Inspectors make use of mobile device to connect to EMSD Intranet through mobile data service with VPN

Characteristics:

- Real-time information from DMS could be retrieved at any time
- Inspection result update could be reflected instantly in DMS
- Access can only be maintained where mobile data service is available

Option 3: Combination of Standalone Mode and Online Mode

Description:

- Hybrid mode of operation combining standalone mode and online mode
- Inspector can select which operation mode is used

Characteristics:

- Combining characteristics of standalone mode and online mode

2.5.8.8 Remote Access Option Comparison

Option Comparison	Data Download and Updated to Mobile Device (Standalone Mode)	Access through DMS Data Service (Online Mode)	Combination of Standalone Mode and Online Mode
Data Availability	Highest (local data)	High (may reach blind spot of mobile data service)	Highest (local data)
Most up-to-date data	No (Snapshot only)	Yes (Direct access to DMS)	Yes (Direct access to DMS)
Usability	Low (new software and interface would be introduced for mobile device)	High (Direct access to DMS)	High (Direct access to DMS)
Result Data Update	Until next data synchronization	Instantly (Direct access to DMS)	Instantly (Direct access to DMS)

Base on the above comparison, Option 3 is recommended because of the following reasons:

- High data availability with local data
- Able to obtain most up-to-date data when mobile data service is available
- Able to revert to offline mode whenever online mode is unavailable
- Easy to use
- Able to update inspection result instantly

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FOR
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OF
ELECTRICAL AND MECHANICAL SERVICES
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By



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1. DEFINITION OF TERMS

Term	Definition
WBRS	Web-based Registration Services for online application submission.
ETO	Electronic Transmission Ordinance which is governing the requirement on electronic transmission.
BEEO	Buildings Energy Efficiency Ordinance
DMS	Data Management System
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance



2. SELECTED TECHNICAL SYSTEM OPTION

The Selected Technical System Option (TSO) described in this Section consists of – Sizing Model and Technical System Architecture, Data Retention & Archive, Impact analysis, Implementation Plan, Conversion plan, Cost/Benefit Analysis and Reasons for Selection.

2.1 Sizing Model

2.1.1 Overview

This section documents the various systems sizing results of DMS. The data specification and projected transaction volumes of the future system has been examined to arrive at the sizing results.

Sizing calculations have been carried out for the following topics and are presented in the following sections:

- Data Storage Volume and Growth
- Server Disk Storage Requirement
- Workstation Requirement

2.1.1.1 General Assumptions

The calculations of the sizing of DMS were based on the following assumptions:

- The enhanced system is assumed to be in operation starting from the beginning of the year 2022. The period from the beginning of the year 2022 to the end of 2022 is regarded as Production Year 0.



- The sizing results will cater for a projected growth of the system in the subsequent 7 calendar years after Y0. Peak loading is taken into consideration for sizing on CPU computing power, server memory, disk size, and network bandwidth.
- For date and time calculation, the following conversion factors will be used:
 - 1 day = 7.5 working hours;
 - 1 month = 22.5 working days;
 - 1 year = 12 months = 270 working days.
- The regular operating hours of the system for EMSD users will be 8:30-17:30 from Monday to Friday. Batch jobs will be run after prime office hours within a window of 8 hours.



2.1.1.2 Registrations & Submissions Related Assumptions

It is anticipated that there will be around 500 REA registrations, 600 COCR submissions and 1,400 FOC submissions per year.

- Based on the schedule 5 of the Ordinance, the first energy audit for buildings without COCR shall be carried out as below:

Date of issue of occupation approval in respect of the building	Period within which the first energy audit must be carried out
On or after 1 January 1988	12 months from the commencement of Part 4 of the Ordinance
After 31 December 1977 but before 1 January 1988	24 months from the commencement of Part 4 of the Ordinance
After 31 December 1969 but before 1 January 1978	36 months from the commencement of Part 4 of the Ordinance
On or before 31 December 1969	48 months from the commencement of Part 4 of the Ordinance

- Each processing case for REA will have an average of 4 documents that may include:
 - Completed specified form EA1 (for New Application for Registration as a Registered Energy Assessor, Renewal application or Change of particulars), EA2 (for Application for Duplicate of Certificate of Registration - Registered Energy Assessor) or EA3 (for New Application for Registration as a Registered Energy Assessor or Change of particulars by public officer);
 - Documentary proofs of relevant practical experience;
 - Documentary proofs to substantiate professional qualifications and the qualified discipline of the applicant;
 - Documentary proof of updated information related to the change of particulars;
 - Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc.)



- Each processing case for COCR will have an average of 13 documents that may include:
 - Completed specified form EE1 (for Stage One Declaration);
 - Completed specified form EE2 (for Stage Two Declaration) or EE3 (for Renewal of Certificate of Compliance Registration);
 - Completed form EE-SU (Supplementary Information Form);
 - Completed forms for technical information sheet;
 - Developer's HKID / company business registration certificate;
 - Relevant documentary proof issued by the Land Registry to indicate the ownership and control of the land on which the relevant building is build or will be built;
 - Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;
 - Letter of authorization issued by the developer for the representative person;
 - "Consent to the commencement of building works for superstructure construction of the building" issued by Building Authority or other Authorities;
 - Site location plan / map in A3 size;
 - Schematic drawing;
 - Layout drawing;
 - Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);
 - Letter of authorization issued by the owner for the representative person;
 - Occupation approval issued by Building Authority or other Authorities;
- Each processing case for FOC will have an average of 9 documents that may include:
 - Completed specified form EE4 (Form of Compliance);
 - Completed form EE-SU (Supplementary Information Form);



- Completed forms for technical information sheet;
 - Schematic drawing;
 - Layout drawing;
 - Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;
 - Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);
 - Letter of authorization issued by the owner for the representative person;
 - Responsible person's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;
 - Documentary proof of the responsible person who occupies or is in possession or control of the relevant building or unit (e.g. Tenant agreement);
 - Letter of authorization issued by the owner for the representative person;
-
- Each processing case for Energy Audit will have an average of 3 documents that may include:
 - Completed specified form EE5 (Energy Audit Form);
 - Completed form EE-EA (Energy Audit Checklist);
 - Schematic drawing;
 - Layout drawing;
 - Energy Audit Report issued by Registered Energy Assessor;

 - No photos will be kept in the system during case processing.

 - Each document will be kept in the system with only one latest version.



- Documents are A4 size (except site location plan that is in A3 size; schematic drawing and layout drawing that could be in A3 size).
- Each document is assumed to have multiple pages in PDF format for storage in the system.
- Each page of document is assumed to have an average size of 400KB in PDF format for storage.

2.1.1.3 Other Assumptions

Assumptions specific to each of the sizing topics are listed at the beginning of the corresponding sections.



2.1.2 Data Storage Volume and Growth

The data volume for the first year of full production as at the end of year 2022 is estimated based on the data volume of corresponding entity respectively as shown below:

Entity	Estimated occurrence as at the end of year			Estimated Average Data Length (MB)
	2020	2021	2022	
REA	4,875	5,432	6,053	0.3
COCR	4,950	5,632	6,276	4.5
FOC	11,550	13,142	14,644	4.5
Energy Audit	64,400	66,422	74,014	4.5
Inspection	8,250	9,387	10,460	0.4
Buildings	54,200	54,758	61,010	2.0

The estimated annual growth rate for each major entity is shown below:

Entity	Estimated annual growth							
	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
REA	n/a	9.33%	8.63%	7.93%	7.23%	6.53%	5.83%	5.13%
COCR	n/a	11.39%	10.59%	9.79%	8.99%	8.19%	7.39%	6.59%
FOC	n/a	11.39%	10.59%	9.79%	8.99%	8.19%	7.39%	6.59%
Energy Audit	n/a	4.64%	4.39%	4.14%	3.89%	3.64%	3.39%	3.14%
Inspection	n/a	11.39%	10.59%	9.79%	8.99%	8.19%	7.39%	6.59%
Buildings	n/a	1.09%	1.08%	1.07%	1.06%	1.05%	1.04%	1.03%



The following table summarized the results of the projection:

Entity	Estimated Number of applications per year	Number of occurrences as at the end of year							
		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
REA	500	4,875	5,330	5,790	6,249	6,701	7,138	7,554	7,942
COCR	600	4,950	5,514	6,098	6,695	7,297	7,894	8,477	9,036
FOC	1,400	11,550	12,866	14,228	15,621	17,025	18,420	19,781	21,084
Energy Audit	3,000	64,400	67,388	70,347	73,259	76,109	78,879	81,553	84,114
Inspection	1,000	8,250	9,190	10,163	11,158	12,161	13,157	14,129	15,060
Buildings	600	54,200	54,791	55,383	55,975	56,568	57,162	57,757	58,352



**SELECTED TECHNICAL SYSTEM OPTION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Entity	Occurrence as at 2020 end	Average Data Length (MB)	Y0 (GB)	Y1 (GB)	Y2 (GB)	Y3 (GB)	Y4 (GB)	Y5 (GB)	Y6 (GB)	Y7 (GB)
REA	4,875	0.3	1.46	1.60	1.74	1.87	2.01	2.14	2.27	2.38
COCR	4,950	4.5	22.28	24.81	27.44	30.13	32.83	35.52	38.15	40.66
FOC	11,550	4.5	51.98	57.89	64.03	70.29	76.61	82.89	89.01	94.88
Energy Audit	64,400	4.5	289.80	303.25	316.56	329.66	342.49	354.96	366.99	378.51
Inspection	8,250	0.4	3.30	3.68	4.07	4.46	4.86	5.26	5.65	6.02
Buildings	54,200	2.0	108.40	109.58	110.77	111.95	113.14	114.32	115.51	116.70
Sub-Total:			477.21	500.81	524.59	548.37	571.95	595.10	617.58	639.16

The following 2 factors are included in the calculation of the total data storage volume:

- Database overhead of 70%
- Contingency of 40%



The data storage volume is projected as below:

	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Sub-Total (GB)	477.21	500.81	524.59	548.37	571.95	595.10	617.58	639.16
Sub-Total + overhead (70%) (GB)	811.26	851.38	891.81	932.23	972.31	1,011.66	1,049.89	1,086.58
Total Data Storage Volume (GB) =Sub-Total + overhead (70%) + contingency (40%)	1,135.77	1,191.93	1,248.53	1,305.13	1,361.24	1,416.33	1,469.85	1,521.21

Total Estimated Data Storage Volume (GB) = 1522 GB (or 1.52TB)



2.1.3 Data Storage and Growth

File Storages for Case

Server disk storage for documents is projected using the same approach for calculating the data storage for the next 7 years.

The following assumptions are made for cases to be submitted in hardcopy form or in electronic form through WBRS:

- Supporting documents would be submitted or scanned in PDF format with the following settings
 - 600 dpi A4 scanned in black and white mode is about 150KB per page
- 600 dpi A3 scanned in black and white mode is about 360KB per page
- 70% of received supporting documents would have additional copy provided from the applicant for amendment, clarification or supplementary purpose
- 40% contingency is considered



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FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
REA	1) Completed specified form EA1 (for New Application for Registration as a Registered Energy Assessor, Renewal application or Change of particulars); or 2) EA2 (for Application for Duplicate of Certificate of Registration - Registered Energy Assessor); or 3) EA3 (for New Application for Registration as a Registered Energy Assessor or Change of particulars by public officer)	1	9	9	9	150	1.32
	Documentary proofs of relevant practical experience;	1	N/A	50	50	150	7.32
	Documentary proofs to substantiate professional qualifications and the qualified discipline of the applicant;	1	N/A	50	50	150	7.32
	Documentary proof of updated information related to the change of particulars;	1	N/A	50	50	150	7.32
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc.)	10	N/A	2	20	150	2.93
Total :		14			179		26.22



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FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
COCR	Completed specified form EE1 (for Stage One Declaration)	1	5	8	8	150	1.17
	1) Completed specified form EE2 (for Stage Two Declaration); or 2) Completed specified form EE3 (for Renewal of Certificate of Compliance Registration);	1	5	8	8	150	1.17
	Completed form EE-SU (Supplementary Information Form);	1	7	8	8	150	1.17
	Completed forms for technical information sheet;	1	31	31	31	150	4.54
	Developer's HKID / company business registration certificate;	1	N/A	4	4	150	0.59
	Relevant documentary proof issued by the Land Registry to indicate the ownership and control of the land on which the relevant building is build or will be built;	1	N/A	8	8	150	1.17
	Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;	1	N/A	8	8	150	1.17
	Letter of authorization issued by the developer for the representative person;	1	N/A	8	8	150	1.17
	"Consent to the commencement of building works for superstructure construction of the building" issued by Building Authority or other Authorities;	1	N/A	8	8	150	1.17
	Site location plan / map in A3 size	1	N/A	3	3	360	1.05
	Schematic drawing	4	N/A	10	40	360	14.06
	Layout drawing	4	N/A	50	200	360	70.31
	Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);	1	N/A	8	8	150	1.17
	Letter of authorization issued by the owner for the representative person;	1	N/A	8	8	150	1.17

**SELECTED TECHNICAL SYSTEM OPTION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**



Occupation approval issued by Building Authority or other Authorities;	1	N/A	8	8	150	1.17
Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc.)	10	N/A	2	20	150	2.93
Total:	31			378		105.21



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FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
FOC	Completed specified form EE4 (Form of Compliance);	1	6	8	8	150	1.17
	Completed form EE-SU (Supplementary Information Form);	1	7	8	8	150	1.17
	Completed forms for technical information sheet;	1	31	31	31	150	4.54
	Schematic drawing	4	N/A	4	16	360	5.63
	Layout drawing	4	N/A	4	16	360	5.63
	Owner's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;	1	N/A	8	8	150	1.17
	Relevant documentary proof of the owner holding the relevant building (e.g. Land Register or Certificate of Registration issued by Land Registry Department);	1	N/A	8	8	150	1.17
	Letter of authorization issued by the owner for the representative person;	1	N/A	8	8	150	1.17
	Responsible person's HKID / company business registration certificate / Certificate of Registration issued by the Land Registry for the Incorporated Owners;	1	N/A	8	8	150	1.17
	Documentary proof of the responsible person who occupies or is in possession or control of the relevant building or unit (e.g. Tenant agreement);	1	N/A	8	8	150	1.17
	Letter of authorization issued by the owner for the representative person;	1	N/A	8	8	150	1.17
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc.)	10	N/A	2	20	150	2.93
		Total:	27		147		28.10



**SELECTED TECHNICAL SYSTEM OPTION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
Energy Audit	Completed specified form EE5 (Energy Audit Form);	1	3	8	8	150	1.17
	Completed form EE-EA (Energy Audit Checklist);	1	6	8	8	150	1.17
	Schematic drawing	1	N/A	10	10	360	3.52
	Layout drawing	1	N/A	10	10	360	3.52
	Energy Audit Report issued by Registered Energy Assessor;	1	N/A	100	100	150	14.65
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc.)	10	N/A	2	20	150	2.93
		Total:	15		156		26.95

Case Type	Case Attachments per submission	Est. no. of documents	Actual no. of pages	Est. no. of pages per document	Total est. no. of pages	Size per page (KB)	Total est. size of attachment (MB)
Inspection	Supporting documents for inspection results	15	N/A	8	120	150	17.58
	Outgoing correspondence (e.g. letter of outstanding information, confirmation, etc.)	10	N/A	2	20	150	2.93
		Total:	25		120		20.51



**SELECTED TECHNICAL SYSTEM OPTION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

The projection of sub-total number of records for all cases is shown in the table below:

Entity	Estimated size of documents per case (MB)	Y0 (GB)	Y1 (GB)	Y2 (GB)	Y3 (GB)	Y4 (GB)	Y5 (GB)	Y6 (GB)	Y7 (GB)
REA	27	36.25	49.44	62.62	75.81	88.99	102.17	115.36	128.54
COCR	106	77.64	139.75	201.86	263.96	326.07	388.18	450.29	512.40
FOC	29	49.56	89.21	128.86	168.51	208.15	247.80	287.45	327.10
Energy Audit	27	651.27	976.90	1,302.54	1,381.64	1,460.74	1,539.84	1,618.95	1,698.05
Inspection	21	25.63	46.14	66.65	87.16	107.67	128.17	148.68	169.19
Sub-Total (GB):		840.36	1,301.44	1,762.52	1,977.08	2,191.63	2,406.18	2,620.73	2,835.28
Sub-Total (GB) + 80% for 1 revision :		1,428.61	2,212.45	2,996.30	3,361.03	3,725.77	4,090.51	4,455.24	4,819.98
Total Estimated File Storage = Su b-Total (GB) + 80% for 1 revision + 50% contingency:		2,000.06	3,097.43	4,194.82	4,705.45	5,216.08	5,726.72	6,237.34	6,747.98

Total Estimated File Storage for cases (GB) = 6,748GB (or 6.75TB)



Storage for AutoCAD files

To support CAD file formats (such as AutoCAD) that have a larger file size than PDF files, the demand for additional file storage would be much higher. It is estimated that a total of around 22TB file storage (i.e. about 2.8 times that for PDF file format) would be required to support the cases with AutoCAD file submissions. The average size for each page of AutoCAD is around 2MB to 3MB and a comparable PDF file would usually be less than 500KB in size. In addition to the consideration in DMS storage sizing, the following issues are also considered:

Network bandwidth

According to the sizing estimate for COCR submissions, the total size of attachments with drawings in AutoCAD format is about 6 times of that with drawings in PDF format. Under the same networking infrastructure, it is estimated that the applicant/user would spent 6 times longer to upload/download the supporting documents when AutoCAD files are included. For e-submission through WBRS, the much longer upload/download time would discourage applicants from using the WBRS. This would also lower the efficiency for the DMS user to complete the processing of the cases.



WBRS storage

According to the latest estimation, a case of COCR may require 660MB of storage on average for the supporting documents and CAD files. As at today, available storage in WBRS would NOT be enough for handling 600 COCR cases even for the first year.

Client workstation configuration

Client workstation could be configured with additional software for users to view the CAD files in dwg format. However, different applicants may use different types of CAD software and different versions of viewer or regularly upgrade the software would be required to view the submitted files. This would increase the operation and maintenance efforts of the DMS.

CAD files should be converted into PDF file format for BEEO case submissions. In case the demand for supporting document submission in CAD file format have been increased in the future, it is recommended that the necessary study, evaluation and implementation would be conducted in another project to address the needs.



2.2 Technical Architecture

This section described the detailed technical design of the system. Technical recommendations on the following areas will be covered:

- Infrastructure
- Database Management Service
- System Interface
- Chinese Character Support
- Hardware and Software Requirement
- Data Backup and Recovery
- Disaster Recovery
- Development Facilities
- Location of Equipment
- Maintenance and Upgrade

2.2.1 System Environment Overview

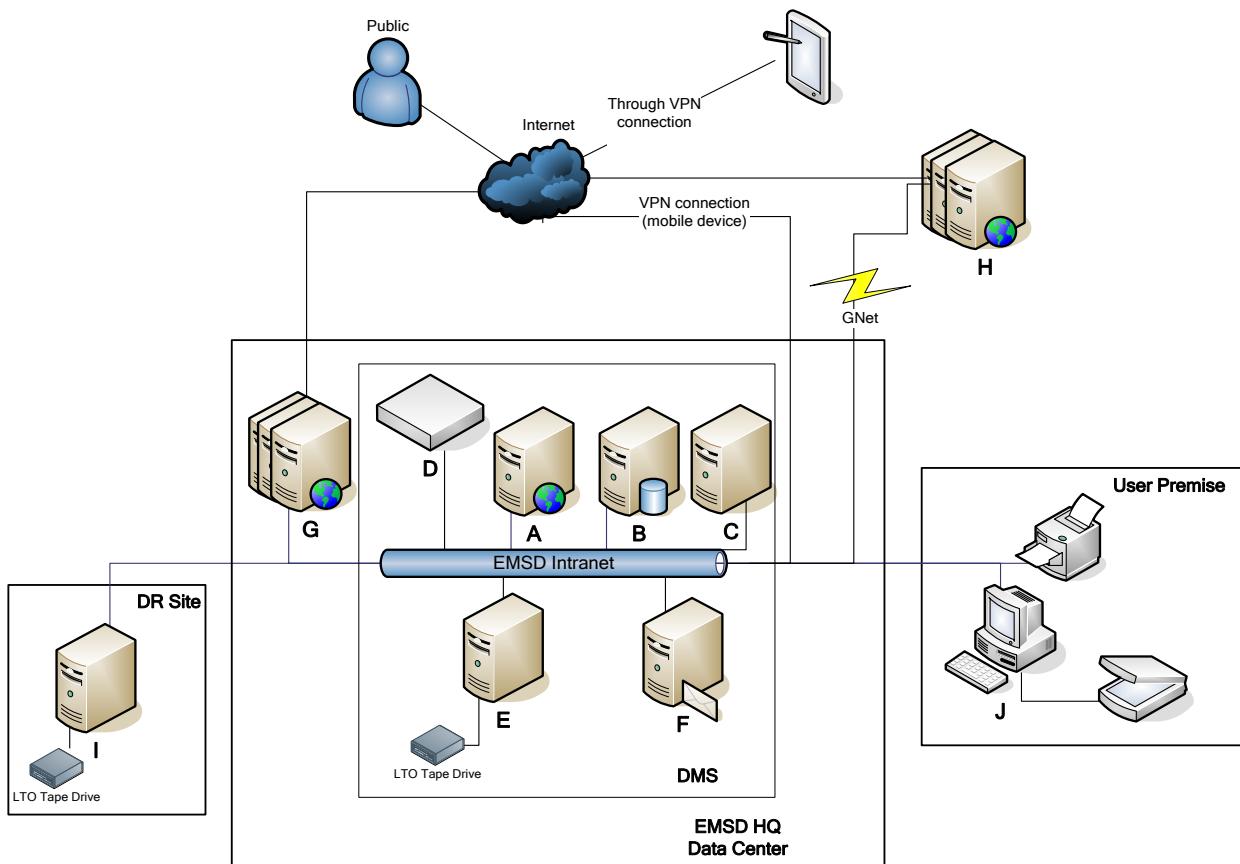
In this section, the recommended technical solution for DMS is described. The technical solution is devised after studying the user requirements. A modular and structured design has been adopted for the technical architecture of the system to ensure that the proposed system not only meets the current requirements but is also expandable to fit future expansion. Current and emerging technologies have been studied and the proper solutions have been identified.



2.2.2 Technical System Architecture

2.2.2.1 Logical Model

The DMS is designed to be a web-based system supporting the registration and required operations for Buildings Energy Efficiency Ordinance (BEOO) of EEO. Logical system architecture is shown below:



The DMS system will be a web-based system and make use of various web technologies.

Logically, it contains following hardware components:



Machine	Hardware	Description
A	1) Web Server	<ul style="list-style-type: none"> - A web page container - Accept and response web requests from users and generate web pages - Communicate with application server and database server
A	2) Application Server	<ul style="list-style-type: none"> - Process main business logic for requests from web server - Help to construction of web pages - Manage data stored in database server
B	3) Database Server	<ul style="list-style-type: none"> - Provide database services and data storage of DMS
B	4) Report Server	<ul style="list-style-type: none"> - Generation of certificate/reports/letters in various formats (e.g. pdf, word) for DMS as required
C	5) Development Server	<ul style="list-style-type: none"> - Serve as a development and testing machine for DMS
D	6) External File Storage	<ul style="list-style-type: none"> - Storage for Main DMS file repository
E	7) Backup Server	<ul style="list-style-type: none"> - Execute the scheduled backup jobs for production and development servers
F	8) Lotus Domino Server	<ul style="list-style-type: none"> - Process Lotus Notes e-mail from DMS for automatic reminders or notifications
G	9) WBRS Servers	<ul style="list-style-type: none"> - Accept and process e-submission requests of DMS
H	10) CIG Web Server	<ul style="list-style-type: none"> - Handle web requests from public and render web pages in DMS web site.
I	11) DR Server	<ul style="list-style-type: none"> - Provide DMS services when the required services could be provided by the DMS main servers
J	12) User Premise	<ul style="list-style-type: none"> - Includes user's client PC, printers, scanners, mobile devices and other peripherals - It acts as a "front-end" of DMS.

DMS will also interface with WBRS in the following areas:

- Acceptance of application data collected from the WBRS for subsequent processing;
- Provision of application processing status for public inquiry;
- Inbox for the applicants to receive event messages and reminders;
- Download area for the applicants to retrieve formatted application form and approval letters.



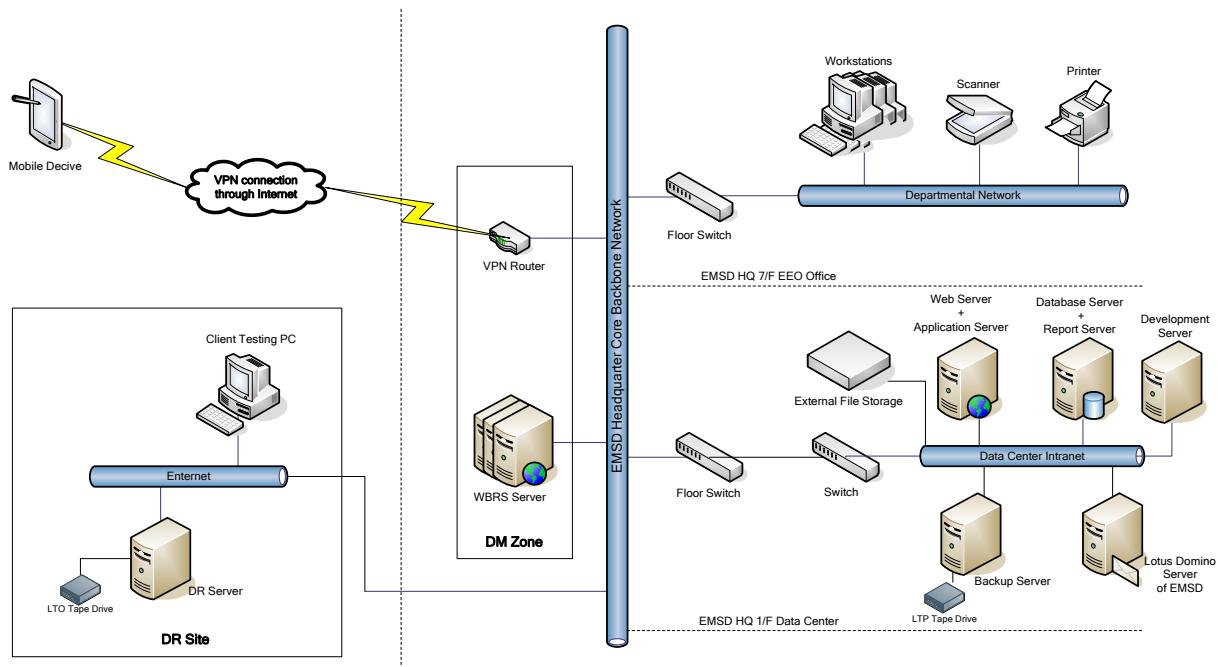
Electronic submission of application data through WBRS will be validated. WBRS will pass the validated application data to DMS in offline mode. A DMS background daemon will be triggered at scheduled time to grasp and read the exported XML files from WBRS. Those XML files will be copied to the Application Server and the corresponding process will be created for DMS processing. DMS information, namely application status, event messages and reminder notice alerts, will also be extracted and pass to WBRS in offline mode according to pre-defined schedule.

An Internet web site will also be hosted at CIG Web Server for showing latest register information of REA, COCR and FOC for public access. Data will be transferred from DMS to database provided by OGCIO via CCCNS SSL-VPN Service on GNET.



2.2.2.2 Physical Model

Physical system architecture is shown below:



The DMS system will be resided at Data Center of EMSD Headquarter. Users can access DMS using their own PC through Departmental Network. For remote users using mobile device, they can access departmental network through Virtual Private Network (VPN) and then access DMS.



2.2.2.3 Infrastructure

2.2.2.3.1 Network and Servers

2.2.2.3.1.1 Network Backbone

The network backbone of the EMSD Headquarter is based on Gigabit (1000Mbps) Ethernet on core network. This arrangement will be sufficient for DMS usage.

2.2.2.3.1.2 Server Farm

All servers will be centrally placed and managed in the EMSD Data Centre. By centrally accommodating these servers, a “server farm” is formed. The primary benefit of such arrangement is for easier central management and better network performance.

2.2.2.3.1.2.1 Web/Application Server

This Web/Application Server contains a web server and application server of DMS. It will be a mid-range server. Web and Application servers based on Java technology will be installed and configured on this server. DMS users will access this server for most of the DMS functions. Application components or services will also be installed on this server, which will call upon other application components for the required data and business logics (please refer to Section 2.2.3 Technical Application Architecture for the application architectural design of DMS).



2.2.2.3.1.2.2 Database Server

This server provides the database services of DMS. Users will be able to access/update the data via the web pages generated by the Web/Application Server and all the manipulations of data will be performed by this Database Server. Thus, all data access is centrally controlled, resulting in a secure and easy to maintain database environment.

All the DMS application data is physically stored in data storage of the Database Server. When data is required upon the user actions performed in the provided DMS frontends, the access to the data and the required data manipulation will be executed by the Database Server. The updated data will be persisted in the data store of the Database Server.

Moreover, a report server will also be installed in this server. The report sever will generate the required soft copies of certificates, reports and letters as scheduled or on demand.

2.2.2.3.1.2.3 External File Storage

The external file storage will store the soft copies of certificates, reports and letters generated by the Report Server and the files of unstructured data (images, scanned documents, etc.).

The centralized file storage environment facilitates data backup as only single source to be catered.

2.2.2.3.1.2.4 Lotus Domino Server

The DMS will make use of the Lotus Domino Server of EMSD to send reminders or notifications as Lotus Notes Mails to the responsible officer and external users (e.g., Developers, Registered Energy Assessors, Owners, Responsible Persons, etc.) who can read the reminders or notifications using the Lotus Notes clients.



2.2.2.3.1.2.5 Development Server

The development server will be used for system development and testing. To simulate DMS operation in production, the configuration of this server will be like the production environment to stimulate. Instances of web server, application server, database server and report server will be installed in this server.

2.2.2.3.1.2.6 DR Server

In case of significant damage occurred on the servers or interruption of services in Data Center of EMSD headquarter influencing the required operations of BEOO, the DR Server in the DR site will be activated for the continuation of the services until the damage had been recovered.

2.2.2.3.1.2.7 Backup Server

The backup server will be used for executing the backup job according to the backup policy for DMS. In addition, application for monitoring the Web/Application Server, Database Server and Development Server will be installed.

2.2.2.3.1.3 Network Services

There are several network related services related to the implementation of DMS that will be provided by CSSD of EMSTF. These services are described below.



2.2.2.3.1.3.1 DHCP Server

All PC workstations and servers will need to be assigned with IP addresses. All DMS servers will need to be assigned with fixed IP addresses. All PC workstations can have IP addresses dynamically assigned at startup by the EMSD Dynamic Host Configuration Protocol (DHCP) services. All fixed IP addresses must be applied from CSSD.

The following is the list of servers that required the use of fixed IP addresses:

- Web / Application Server
- Database Server
- Backup Server



2.2.2.3.1.3.2 Domain Name System (DNS) Server

To facilitate users to use easy-to-remember and meaningful names for referring to internal Intranet servers instead of having to memorize and refer to their numeric IP addresses, the EMSD Domain Name System (DNS) will be applied. All DMS domain names must be applied from CSSD.

The following is the domain name required by the DMS:

- beeodms.emsd.hksarg

2.2.2.3.1.4 Office Equipment

Office users can access DMS through the office LAN connection that is already set up in the EMSD headquarters.

The following table summarizes the list and location of the office equipment:

Equipment Description	Location
Desktop Workstations	EMSD HQ 7/F
Mobile Workstations	EMSD HQ 7/F / Outside office
Scanning Workstation	EMSD HQ 7/F
Printers	EMSD HQ 7/F



2.2.2.3.1.5 Remote Connections

Remote users can gain access to DMS by connecting through the EMSD VPN.

When connecting through the EMSD VPN, users can use either broadband connections or wireless connections. Users need to install and configure a VPN client onto mobile devices or remote PCs that are intended to be used to connect to the system. A user ID and password pair will be given to each VPN client user for VPN connection authentication. Currently, the existing EMSD VPN service restricts to port 25 (SMTP), port 80 (HTTP), and port 110 (POP3). DMS will also need Port 443 (HTTPS) for carrying out secured transactions.

GNET to connect CIG Server

For updating the content of the internet website hosting in CIG Web Server provided by OGCIO, the CCCNS SSL-VPN connection on GNET will be required.



2.2.2.3.2 Mobile Office

To facilitate onsite inspection by Inspectors, mobile devices will be adopted for inspection work.

The mobile devices can provide Inspector with registered information, inspection history, and functions to record inspection result after each operation.

Tablet Computers may be considered for onsite inspection use due to their mobility, processing power and accessibility.

When Inspectors are in the office environment, they can access DMS through the office LAN connections. When the Inspectors are out of the office, they can connect to DMS by remote login through the EMSD VPN through broadband or wireless connections.

In addition to the online functionality, application will be developed for browsing the necessary data locally in the mobile device when remote network connection facilities mentioned above are not available.



2.2.2.3.2.1.1 Data Synchronization

Besides EMSD VPN connection would be utilized for remote access to DMS, offline operations would also be required on mobile device. Data synchronization would be arranged between DMS and mobile devices for exchange of offline data.

Data required for exchange:

- export building and submitted application data for enquiry during inspection to mobile device
- transfer Inspection records back to DMS

Backend system data would be extracted from DMS to a set of encrypted local files which the application in mobile device would be able to import them, and the files would be downloaded to mobile device during synchronization.

After inspection, the result records for storing information and findings would be transferred back to DMS for further processing.



2.2.2.3.3 Security

The security of DMS is designed with reference to the IT Security Guideline and the EMSD Security Policy. Security controls will be enforced on users, systems, and the overall network. The following paragraphs describe the major security aspects and the recommendations.

2.2.2.3.3.1 Physical Security

Servers and network equipment will be protected from unauthorized access. The server equipment will be housed in locked racks in the server room designated for the EMSD Regulatory Services at EMSTF Kowloon Bay Data Centre that allows entries of authorized personnel only.



2.2.2.3.3.2 Data Security on Mobile Devices

Data security on mobile devices is addressed in Security Regulation No. 368, which lists out security requirements particularly for mobile communications. As mobile devices would be involved in online access to DMS and offline operations, security measures for mobile devices could be divided into 2 areas:

Online Access

- Make use of VPN to connect to EMSD Intranet through public network
- Login by username and password is required to access DMS
- Anti-virus program, if available, would be installed to mobile device

Offline Operation

- Encrypt data files downloaded from DMS using encryption software
- Encrypt input inspection data in mobile device

Measures for online access would be incorporated in the implementation. The data / files related to BEEO are classified as restricted, encryption of offline files / data would not be mandatory.

The encryption of the data / files may be handled by 3rd party software if it is required in a later stage.



2.2.2.3.3.3 Access Control

To ensure that system security is maintained, proper security control procedures will be imposed. There are two levels of access control:

- DMS Application – access control is done by setting up different application user accounts, allowing them to access different application functions according to their business need
- System Level – login accounts for various servers and database are kept by Administrators only for system administration purpose, such as tracing problem, backup, etc.

DMS functions and data will be assigned to users based on their roles and responsibilities to ensure the right people getting the right piece of data and tools. DMS users can be classified into three types:

User Types	Major Responsibilities	Types of Function / Data Access
Business Users	Responsible for the BEEO business functions	DMS business functions and data.
User Administrators	Responsible for maintaining user rights, user profiles, change of functions, change of workflow, etc.	DMS security functions and data.
System Administrators	Responsible for maintaining the DMS operation service, e.g., setup/enforce the system backup operation, perform period health check on the system, etc.	DMS system administration functions, including system, software, and application levels.



User Types	Major Responsibilities	Types of Function / Data Access
	DMS user account maintenance, e.g. creation/deletion/reset system user accounts, assigns roles/permissions, etc.	

When a workstation is temporarily not in use, users are recommended to enable the Windows screen saver with password protection to avoid illegal access of his/her computer.

System and application logs will be provided for audit trail purpose. User activities such as login, logout and record maintenance will be tracked. Special fields specified by users will also be logged for all updating activities.



2.2.2.3.3.4 Data Encryption

Based on the Security Regulations, restricted data in DMS will be stored in unencrypted format while transmission of restricted data on un-trusted network will be encrypted.

Restricted data transferred between DMS servers will be protected by the Internet Protocol Security (IPsec) which is an encryption protocol for secure encrypted data transmission at the network layer. It is supported by all common operating systems such as UNIX and Windows 2008. Electronic certificates for Intranet will be used for IPsec authentication and will be provided by EMSD for both production and development purposes.

Data transferred between DMS and its interfacing systems, namely WBRS and CIG, will be protected by using Hypertext Transfer Protocol Secure (HTTPS) connections and secure web service.

Data transferred between the DMS web server and client workstations will be protected by using the Secure Sockets Layer (SSL) protocol to ensure that data sent from the application's server pages are encrypted.

Some data, e.g., password, is to be stored in encrypted or hashed format by nature based on renowned algorithms before storing into the database.



2.2.2.3.3.5 Virus Scanning

Symantec anti-virus program is installed on PC workstations and Windows Servers to protect them from computer viruses by Computer Services Sub-division (CSSD) of EMSD. In particular, Symantec Endpoint Protection is the corporate provided antivirus software in EMSD for MS Windows workstation and server platforms. Moreover, virus signatures will be regularly updated, preferably by automatic means. The Email servers will also be installed with virus-scanning software to detect possible virus in Email attachments.

Anti-virus program such as McAfee or other anti-virus software will also be installed on all non-MS Windows servers to protect them from virus attack.

2.2.2.3.3.6 Network Protection

DMS is an intranet application. The entire DMS application is protected by the EMSD departmental firewalls. Remote connections to DMS will only be supported via the EMSD VPN.



2.2.2.3.4 Resilience

To improve the availability of the system, the following fault-tolerant measures are considered:

- Adopt virtualization solution
- Protection of servers from power outage
- Protection from hard disk failure
- Protection from network interface equipment failure

Adopt virtualization solution

Installation of Web/Application Server, Database Server and file system in virtual machines and managed by virtualization management program will provide high-availability (HA) and scalable environment for DMS. In case of hardware faults occurred in one of the servers, similar servers in production environment could serve as the resilience server of affected services by running the corresponding virtual machines in the working server and restoring the latest backup if necessary.

2.2.2.3.4.1 Protection of Servers from Power Outage

With the infrastructure in the EMSTF Data Centre, all registered servers will have redundant power supply facilities. There is no need for DMS to install additional UPS equipment as the infrastructure of the EMSTF Data Centre already catered this.



2.2.2.3.4.2 Protection from Hard Disk Failure

To minimize the chance of data lost due to hard disk failure, the server hard disks will be setup in RAID 5 (block-level striping with distributed parity) or similar configuration that supports data redundancy and fault-tolerance in the disk array.

2.2.2.3.4.3 Protection from Network Interface Equipment Failure

Dual LAN interface cards with connections to the floor switch will be used. The servers will have redundant LAN configuration to the switch to improve resilience.



2.2.2.3.5 Management Architecture

2.2.2.3.5.1 Network Management

DMS will make use of existing network monitoring tools established in Data Center for monitoring server status. Data Center operation staff will be alerted if there is any failure in hardware or services.

2.2.2.3.5.2 System and Database Management

For the operations of the servers, they can be managed and monitored using the built-in tools of the server operating system, the database management system. System performance figures such as CPU, memory, disk I/O utilizations will be collected and saved for capacity planning.

2.2.2.4 Database Management System

There will be one main database system in the DMS production environment. Application data will be stored in the application dataset; workflow and document management service will have their dataset. All information is stored in one single database instance.

The DMS application data will be centrally stored in a robust database server. Users will be able to access the data via the DMS application user interfaces residing on the application servers or users' mobile devices. Thus, all data access is centrally controlled, resulting in a secure and easy to maintain database environment.



To maintain a versatile and open platform, RDBMS will be used for the databases of DMS.

Microsoft SQL Server is recommended for this purpose as it supports all required features for DMS including data replication, scheduling of jobs and reporting service. MS SQL Server has been one of the popular RDBMS in use today. Many IT professionals are equipped with relevant skills and experience in the use of MS SQL Server. Technical support in solving issues that may be encountered when developing and operating the system, therefore, could readily be available if needed.

Moreover, there will be a development database in development machine.



2.2.2.5 System Interface

WBRS Interface

DMS will interface with WBRS (E-submission module) using web service in both directions.

That means DMS would make request to WBRS for data or operation and vice versa.

Application areas that DMS would initiate web service request:

- Provide application processing status to WBRS for public enquiry
- Transfer messages and notifications to WBRS users' inbox
- Provide relevant information to WBRS for submission form validation.

Application areas that WBRS would initiate web service request:

- Transfer application data to DMS for subsequent processing
- Provide access information of notification messages to DMS so that DMS users may check whether the notification messages are read and the last read date.

Data interface with backend system of ELD and LESD

The applications related to Electrical Installations and Lifts & Escalators as required under the Electricity Ordinance and Lifts and Escalators (Safety) Ordinance respectively will be helpful for the monitoring and inspection works as required under BEO. Data interface with backend system of ELD and LESD for periodically acquiring essential information will be implemented.

By means of database replication on incremental basis, the acquisition of data from ELD and LESD backend systems were expected to be carried out initially on a weekly basis to help the identification of any FOC to be submitted due to completion of major retrofitting works of building services installation. The frequency of acquiring data from ELD and LESD backend



systems may be reviewed and fine-tuned after the initial runs of the DMS-BEEO according to factors in system performance, currency of data, business requirements, etc.

As the necessary data (such as addresses, type of ELD/LESD applications, relevant data being submitted, etc.) would be acquired on an incremental basis, only the data that had been changed since the last successful replication would be involved. Further processing of the replicated data would be done locally in DMS-BEEO. The amount of data involved in each replication is expected to be relatively small and without requiring a lot of processing at the relevant source systems.

Internet Web Site Interface

DMS will upload the register information to CIG web hosting platform, which will in turn be transformed to web pages for public access. The register information will be exported to a formatted data file and transferred to CIG platform through FTP, but a dedicated connection is required for this practice.



2.2.2.6 Chinese Character Support

The system will be able to support ISO10646 and the HKSCS standard, which is adopted by HKSARG. Data fields will be able to store data in English and Chinese (both Traditional and Simplified) characters. These fields will also be printable and viewable in the corresponding character sets as well.

Conversion of existing Data

At present, the existing data are employing US English ASCII character set for English characters while Chinese characters are stored in Unicode or Big5 character sets. Data conversion tools are available in the market to migrate the data from the existing sources to the DMS application database which also supports ISO10646 and the HKSCS standard.

Data Storage

All Chinese data will be stored in ISO10646 format in DMS, which is already supported by Chinese MS Windows, UNIX/Linux, and Oracle.

Chinese Printing

To support printing of English and Chinese characters simultaneously, proper locales settings, printer fonts, printer drivers, and utilities such as font creation utilities will be required. Such software is more popular among MS Windows environment than UNIX environment. Therefore



MS Windows platforms will be used for initiating Chinese printing and laser printers will be used for printing.

Client workstations will run on Chinese MS Windows platforms to properly handle Chinese characters and Chinese printing.

Chinese Input

For the online input of Chinese characters, several methods can be used. Common methods include Pen-based handwriting input, keyboard input methods that are integral part of the standard PC client Chinese Windows platforms such as ChangJei Input Method and Simplified Input Method. These input methods are suitable for the input of general Chinese phrases.

It is recommended that both Pen-based handwriting input and keyboard input methods to be provided for DMS users who need to enter Chinese, so that the users can use whichever input method depending on what they are most comfortable with. Multiple keyboard input methods are provided in MS Windows and can be installed accordingly.

Chinese Viewing

Users currently using Chinese operating system can view Chinese characters properly. It is recommended that traditional Chinese editions of MS Windows will be used for the DMS users.



Character Addition

If there are special Chinese characters and fonts required that are beyond the aforesaid Chinese character set, the established government policy on character addition to HKSCS will be followed. A client PC will be used to create/add the new Chinese character for the transition period before the character is included in HKSCS.

File that contains special character will locate under the server share directory. Interface will be provided for user to collect this file and store in the client machine for general usage.



2.2.2.7 Hardware and Software Requirement

The recommended configurations for servers and workstations are listed as follows for reference. Models with equal or better performance can also be considered.

2.2.2.7.1 Server Farm

Hardware	Quantity	Basic Specification	Description
Production Servers Host	2	<ul style="list-style-type: none">- CPU: Hexa-core or above- RAM: 36GB or above- Internal hard disk – 2 x 146GB (mirror)- Internal hard disk – 3TB (usable capacity)- Gigabit Ethernet interfaces x 2- Controller card for connecting the External Data Storage- Redundant power supply- Embedded Latest version of VMWare vSphere or equivalent	These servers are production servers for hosting the virtual machines of Web and Application Server, Database Server. Both VMs will be initially assigned 2 virtual cores CPU. The Web and Application Server will be initially assigned 8 GB virtual memory and the Database Server will be assigned 16 GB virtual memory. The unassigned virtual core CPU and virtual memory will be reserved for allocation to improve the performance of the servers
External File Storage		<ul style="list-style-type: none">- Dual controller interface- Support at least 4TB storage (RAID-5)- Redundant power supply- Support VMware virtualization and latest version of Windows or equivalent	This is the external data storage for production data and documents.
Development Server	1	<ul style="list-style-type: none">- CPU: quad-core or above- RAM: 16GB or above- Internal hard disk – 2 x 146GB (mirror) for OS installation- Hard disk 3TB usable capacity for data or file storage- Gigabit Ethernet interfaces x 2- Redundant power supply- Embedded Latest version of VMWare vSphere or equivalent	This is development server hosts the virtual machines for hosting the virtual machines of Web and Application Server, Database Server for development and testing purpose

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Hardware	Quantity	Basic Specification	Description
Backup Server	1	<ul style="list-style-type: none"> - CPU: quad-core or above - RAM: 8GB or above - Internal hard disk – 2 x 146GB (mirror) - Hard disk 2TB usable capacity - Gigabit Ethernet interfaces x 2 - Redundant power supply 	This is server for carrying out the backup jobs and hosting of monitoring applications of the virtual machines
External Backup Tape Autoloader	1	<ul style="list-style-type: none"> - Capacity of each cartridge at least: 1.5TB per tape uncompressed, 3TB per tape compressed - Store at least 8 cartridges - Data Transfer Rate Up to 140 MB/s (or 280MB/s for 2:1 compression) 	

Software	Quantity	Description
Windows 2008 Server R2 Standard Edition or latest equivalent version	7	<p>6 x Operating system for the virtual machines for Web/ Application Server, Database Server and Development Server</p> <p>1 x Operating system for Backup Server</p>
Web and Application Server	2	The software application provides the hosting the website and executing of application for DMS in production and development environment
Database Server	2	The software application provides database services in the production, development, and DR environment
Reporting Server	2	The software application provides reporting services in the production, development, and DR environment
Backup Software	1	Backup software for making backup of the servers through network and restoration of backups for disaster recovery



2.2.2.7.2 Client Workstations

2.2.2.7.2.1 Hardware Requirement

	Recommended Specification
Processor	• INTEL DUO CORE CPU OR ABOVE
Memory	• 4GB OR ABOVE
Disk Storage	• 500GB OR ABOVE
Network	• INTEGRATED 10/100/1000 ETHERNET

2.2.2.7.2.2 Software Requirement

	Recommended Products
Operating System	• MICROSOFT WINDOWS XP, VISTA, 7
System Tools	• SYMANTEC ENDPOINT PROTECTION
Application Software	• ISO10646, HKSCS • Internet Explorer 8 or above



2.2.2.7.3 Scanning Devices

2.2.2.7.3.1 Hardware Requirement

- | | |
|----------------------|--|
| Scanning Workstation | Recommended Specification |
| | <ul style="list-style-type: none">• INTEL DUO CORE CPU OR ABOVE• MEMORY OF 4GB RAM OR ABOVE• DISK STORAGE OF 500GB OR ABOVE |
| Standalone Scanner | <ul style="list-style-type: none">• INTEGRATED 10/100/1000 ETHERNET• SIMULTANEOUS DUPLEX (DOUBLE-SIDED SCANNING) SCANNER WITH AUTOMATIC FEEDER• AUTOMATIC DOCUMENT FEEDER FOR CONTINUOUS LOADING UP TO 100 SHEETS OR ABOVE CAPACITY• BARCODE SCANNING SUPPORT• SUPPORT OUTPUT FILE FORMAT: SINGLE AND MULTI-PAGE TIFF, JPEG, RTF, PDF, SEARCHABLE PDF |
| Barcode Printer | <ul style="list-style-type: none">• SUPPORT CHARACTER FONTS AND BARCODE SYMOLOGIES: CG TRIUMVIRATE BOLD CONDENSED FONT, 16 STANDARD BITMAPPED FONTS, CODE 39, CODE 128, INTERLEAVED 2 OF 5 AND PDF417, ETC. |

2.2.2.7.3.2 Software Requirement

- | | |
|----------------------|--|
| Operating System | Recommended Products |
| | <ul style="list-style-type: none">• MICROSOFT WINDOWS XP, VISTA, 7 |
| System Tools | <ul style="list-style-type: none">• SYMANTEC ENDPOINT PROTECTION• ISO10646, HKSCS |
| Application Software | <ul style="list-style-type: none">• Internet Explorer 8 or above• TWAIN, ISIS, SANE and Windows Imaging Architecture Drivers• Barcode generating software• Capture Software |



2.2.2.7.4 Mobile Devices

2.2.2.7.4.1 Hardware Requirement

	Recommended Specification
Processor	• 1GHZ DUAL CORE OR ABOVE
Memory	• 1G RAM
Internal Storage	• 16GB OR ABOVE
Support Network connectivity	• WI-FI AND 3G
OTHERS PERIPHERALS	• ABLE TO CONNECT REMOVABLE STORAGE

2.2.2.7.4.2 Software Requirement

	Recommended Products
System Tools	• APPLICATIONS FOR VIEWING PDF DOCUMENTS AND IMAGES
Application Software	• VPN client software



2.2.2.8 Data Backup and Recovery

The system will be regularly backed up. The backup media will be used for recovering the system if data corruption occurs due to disk failure, system errors.

Backup facilities will be customized to automatically execute the backup process at scheduled time. Restore facilities in accordance with the backup methods will also be provided.

Backup tapes will be used for storage of the backup data, application and system configurations.

Upon completion of each backup process, a set of backup tapes will be produced. The backup tapes will be transferred twice a week to the DR site for offsite storage, while the oldest generation of the backup tapes will be transferred back to the DMS production site in preparation for the next backup process. Regular schedule on the transfer of the backup tapes will be agreed with the EMSTF Kowloon Bay Data Centre and the DR Site to maintain a smooth flow of the DMS backup tapes.

The DMS backup plan is recommended as follows:

Backup Type **Backup Arrangement**

Data

- Daily incremental backup of the database and documents will be done;
- Weekly full backup of the database and documents will be done;
- One set of backup tapes will be transferred to off-site storage location twice a week;



Backup Type **Backup Arrangement**

- | | |
|---------------------------------|---|
| Application /
System | <ul style="list-style-type: none">• A one-week backup cycle (7 days) will be maintained and a total of 10 tapes (4 tapes for weekly full backup and 6 tapes for daily incremental backup) shall be required.• Weekly full backup of the system / application will be done. In addition, ad-hoc backup will also be performed after major system and/or application configuration change;• One set of backup tapes will be transferred to off-site storage;• A three-week backup cycle will be maintained and a total of 9 tapes (3 tapes each week in a three-week cycle for system backup of application server, database server and development server) shall be required. |
|---------------------------------|---|



2.2.2.9 Disaster Recovery

Disaster recovery (DR) is required in order to prevent structural destruction to production which will introduce severe service interruption and data loss.

If the primary data centre becomes non-operational (subject to DR management team decision), the core DMS operations, namely the database functions, business applications will be switched to the DR site.

It is recommended to implement a DR site that has the functions provided as a cold-standby, i.e. when disaster strikes, the servers and system/application software is to be setup after declaration of DR, and the latest backup tapes will be used to restore data and/or software to the DR servers so that operations can be resumed. The DR site will be equipped with servers of similar configurations to that of the production servers, possibly with smaller processing capacity but sufficient disk storage. In case EMSD DN is out of service, mobile and home remote connections to the DR site will not be provided, as there is no VPN setup in the site. It is suggested that users to use offline mode for inspection data entry during the DR period.

DMS in the DR site will retain the workflow related functions as well as case related data in the DMS environment.



For DR situation with DN connection, DMS users can access the DMS DR Servers via GNET connection. For DR situation without DNS connection, DMS users need to go to DR site to access the DMS DR Server.

In case of DR, a DR management team and a DR working team will be setup. The DR management team is responsible for decisions on DR issues and the control and monitoring of the DR environment setup, while the DR working team will be responsible for the operations of the setting up the DR environment.

The following list shows the major steps that need to be performed in case of disaster:

- The DR management team will escalate to senior management of EEO for announcement of DR initiation and formation of the disaster recovery working team. The maintenance team will always be consulted before the declaration of a disaster situation.
- Restore/Verify the operating systems and application software to the DR servers;
- Configure/Verify the operating systems and database systems of all servers for the DR environment;
- Restore backup data to the DR servers;
- Restore/Verify client workstations software, to the networked client workstations at the DR Site for accessing the recovered server systems.
- Configure/Verify client workstations software to the networked client workstations at the office and/or home office, and the mobile devices for accessing the recovered server systems.
- Resume the operation.
- For Internet platform, manual operation is required to upload the export files from DMS to CIG. In case no connection is available from DR site to CIG, physical delivery of the files would be adopted.
- For WBRS, if no connection is available between WBRS and DMS DR site, WBRS can still accept public application, with the following limitations:
 - no real-time validation is available
 - application data cannot be passed to DMS instantly
 - no up-to-date enquiry is available
 - no information can be provided from DMS (inbox message, notification, application status)



2.2.2.9.1 Disaster Recovery Facilities

The recommended configuration for the DR server is listed as follows for reference. Models with equal or better performance can also be considered.

2.2.2.9.1.1 Web / Application / Database

Hardware	Quantity	Basic Specification	Description
DR Server	1	<ul style="list-style-type: none">- CPU: Hexa-core- RAM: 36GB- Internal hard disk – 2 x 146GB (mirror)- Internal hard disk 8TB (RAID-5)- Gigabit Ethernet interfaces x 2- Redundant power supply- Embedded Latest version of VMWare vSphere-	This is cold-standby server hosts the virtual machines of Production Web and Application Server, and Production Database Server and should be activated for disaster recovery
Backup Server	1	<ul style="list-style-type: none">- CPU: quad-core or above- RAM: 8GB or above- Internal hard disk – 2 x 146GB (mirror)- Hard disk 2TB usable capacity- Gigabit Ethernet interfaces x 2- Redundant power supply	This is server for carrying out the backup jobs and hosting of monitoring applications of the virtual machines
External Backup Tape Autoloader	1	<ul style="list-style-type: none">- Capacity of each cartridge at least: 800GB per tape uncompressed, 1.6TB per tape compressed- Store at least 8 cartridges- Data Transfer Rate Up to 120 MB/s (or 240MB/s for 2:1 compression)	

Software	Quantity	Description
Windows 2008 Server R2 Standard Edition or latest available version	2	<p>Operating system for virtual machine x 2 for Web/Application Server and Database Server</p> <p>Operating system for Backup Server</p>

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Software	Quantity	Description
Web and Application Server	1	The software application provides the hosting the website and executing of application for DMS in the DR environment
Database Server	1	The software application provides database services in the DR environment
Reporting Server	1	The software application provides reporting services in the DR environment
Backup Software	1	Backup software restoration of backups for DR and making backup of the servers during DR



2.2.2.9.2 Development Facilities

The development team will require a number of hardware and software during the implementation phase.

Dedicated environment will be used for development, maintenance, future enhancement, and user training. The development environment will be equipped with servers of similar configurations to that of the production servers, possibly with smaller processing capacity but sufficient disk storage.

The hardware and software development tools to be used will include the products listed in the following sections. Hardware models with equal or better performance can also be considered.

2.2.2.9.2.1 Web / Application / Database

2.2.2.9.2.1.1 Development Specified Software

Recommended Products

Development Tools

- **ECLIPSE**
- **MICROSOFT SQL SERVER MANAGEMENT STUDIO**
- **DREAMWEAVER**
- **ADOBE FLASH**



2.2.2.9.3 Location of Equipment

The DMS production servers will be accommodated in a server room dedicated for the EMSD Regulatory Services at 1/F of the EMSTF Data Centre at Kowloon Bay. It will be setup with proper environment including 24-hour air conditioning, dual power supply, fire extinguishers, and locked doors, etc. Adequate floor space will be allocated for the servers.

To save floor space and ease management, the servers will be accommodated in racks. These racks and the server room will be locked at all time and only authorized persons will be allowed to access the servers.



2.2.2.9.4 Maintenance and Upgrade

The following paragraphs describe the maintenance of hardware and software of the new equipment in DMS.

2.2.2.9.4.1 Hardware Maintenance

The recommended hardware maintenance support is M3 which allows the on-site maintenance works to be conducted by the contractor in both office and non-office hours. The support service shall be provided within 4 hours for response time or on-site support when a call is made during office hours.

2.2.2.9.4.2 Software Maintenance

The recommended software maintenance support is L3 which allows the on-site software upgrades or patch installation works to be conducted by the contractor in both office and non-office hours. The support service shall be provided within 4 hours for response time or on-site support when a call is made during office hours.



2.2.3 Technical Application Architecture

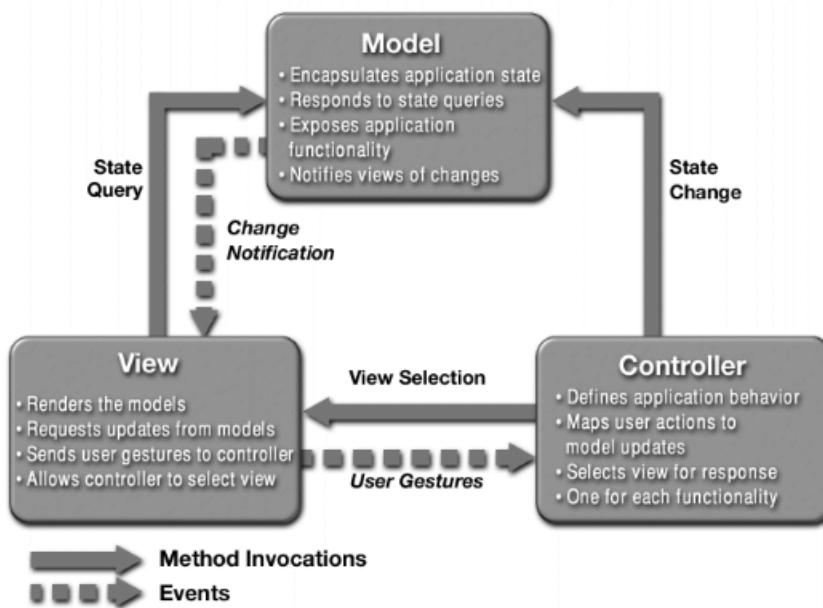
This section described the detailed technical application design of the system.

2.2.3.1 Overview

A common approach to building web-based applications is to separate responsibilities or services of the designed application into different roles by defining several architectural layers. By applying the Model-View-Controller (MVC) architecture to the DMS application, the core data access functionality can be separated from the presentation and control logic that uses this functionality. Such separation allows multiple views to share the same enterprise data model, which makes supporting multiple clients easier to implement, test, and maintain.

2.2.3.2 The MVC Architecture

The MVC architecture is a simple but effective approach in object oriented based development. It can be applied to map the input, processing, and output tasks to the graphical user interaction model and also mapped these concepts into the domain of tiered application design:



- The **model** represents enterprise data and the business rules that govern access to and updates of this data. Often the model serves as a software approximation to a real-world process, so simple real-world modeling techniques apply when defining the model.
- A **view** renders the contents of a model. It accesses enterprise data through the model and specifies how that data should be presented. It is the view's responsibility to maintain consistency in its presentation when the model changes. This can be achieved by using a push model, where the view registers itself with the model for change notifications, or a pull model, where the view is responsible for calling the model when it needs to retrieve the most current data.
- A **controller** translates interactions with the view into actions to be performed by the model. In a stand-alone GUI client, user interactions could be button clicks or menu selections. The actions performed by the model include activating business processes or changing the state of the model. Based on the user interactions and the outcome of the model actions, the controller responds by selecting an appropriate view.

The MVC architecture has the following benefits:

- **Multiple views using the same model.** The separation of model and view allows multiple views to use the same enterprise model. Consequently, an enterprise application's model components are easier to implement, test, and maintain, since all access to the model goes through these components.
- **Easier support for new types of clients.** To support a new type of client, simply write a new view and controller for it, and wire them into the existing enterprise model.



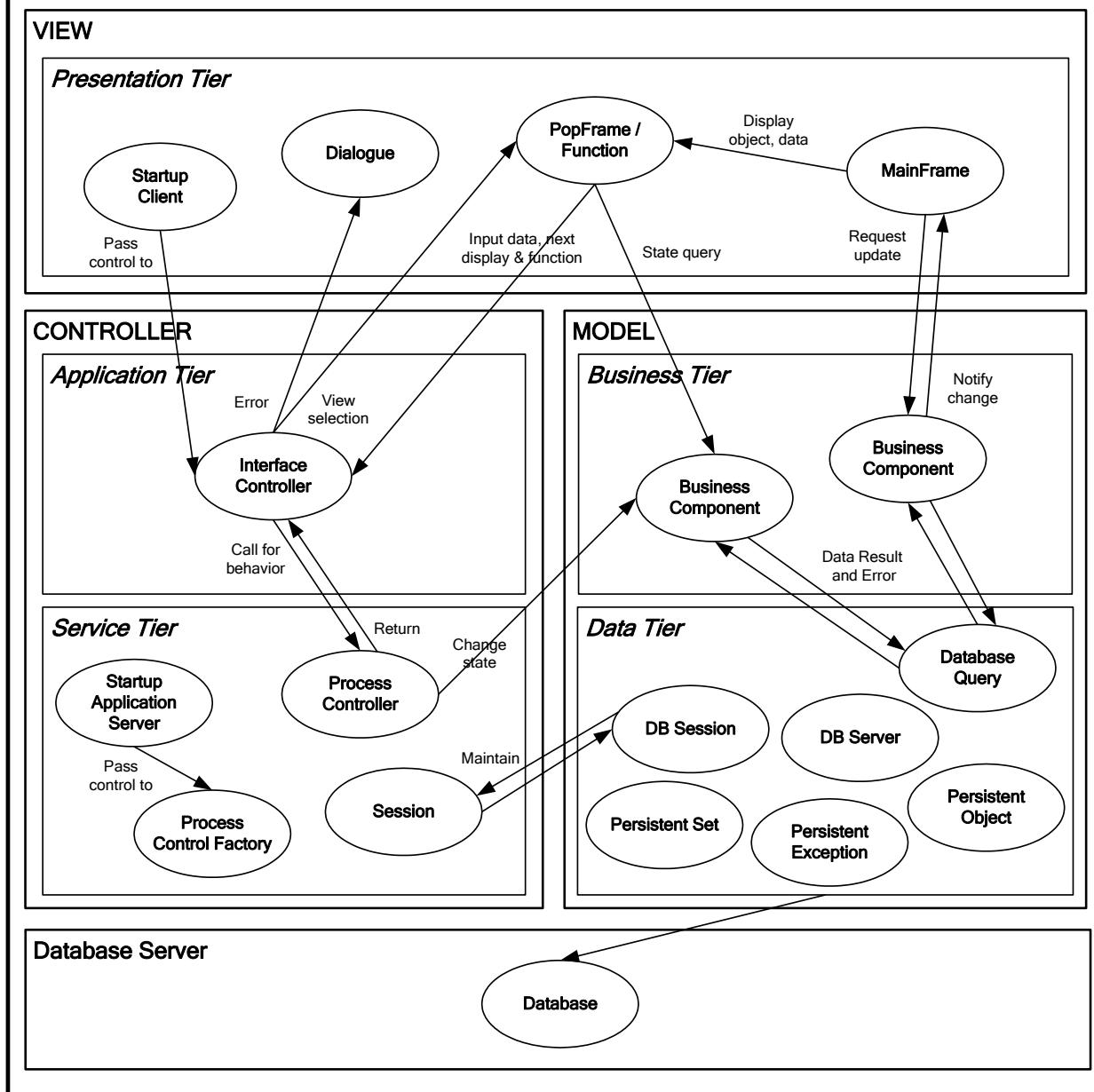
2.2.3.3 Logical Tier

Tiered architecture leads to a more flexible and maintainable system. Tiers may be quite thin and have very little impact on system performance. Tiers can be changed with no effect on other tiers, as long as the API remains constant. If designed well, the entire can be swapped out and integrate to a new data source or take advantage of a new technology.

DMS is designed to partition the system into tiers, namely the presentation tier, the application tier, the service tier, the business tier, and the data tier. These tiers are physically split across the clients and the servers, and they are logically partitioned into the MVC architecture in order to gain the benefits as stated above. A high level diagram of the application architecture is depicted as follows:



Application Architecture



PRESENTATION TIER – HANDLE THE PRESENTATION OF DATA RETRIEVED FROM SPECIFIC BUSINESS LOGIC; ACCEPT INPUT OF INFORMATION FROM USERS; MAINTAIN USER INTERACTION WITH THE APPLICATION; PROVIDE SPECIFIC FUNCTION TO USERS AND REPORT OTHER USER EVENTS.

APPLICATION TIER – PROVIDE INTERFACE BETWEEN PRESENTATION TIER AND SERVICE TIER; MANAGE USER INTERACTION AND NAVIGATION; SELECT VIEW FOR RESPONSE TO USER EVENTS OR ERRORS; CONTROL SECURITY AND ALLOCATION OF SPECIFIC FUNCTION TO USERS BY CALL FOR BEHAVIOUR FROM SERVICE TIER.



SERVICE TIER – GROUP A SET OF BUSINESS COMPONENTS AND LOGICS INTO SERVICES TO BE USED BY THE APPLICATION TIER, INCLUDING THE PROCESS CONTROLLER; MAINTAIN AND MANAGE USER SESSIONS AND INTEGRATE OTHER SYSTEM COMPONENTS THROUGH THE MODEL.

BUSINESS TIER – CONTAIN A GROUP OF COMMON BUSINESS COMPONENTS AND CLASSES TO BE CALLED BY THE SERVICE TIER; PROVIDE INTERFACE FOR PRESENTATION TIER TO QUERY DATA FROM THE DATA TIER; CONTROL THE STATE OF THE DATA AND TRANSACTION HANDLING, RESPONSE TO STATE QUERY FROM THE PRESENTATION TIER AND NOTIFY THE CHANGE TO SPECIFIC FUNCTION OR FRAME.

DATA TIER – PROVIDE THE MEANS FOR OTHER TIERS TO ACCESS INFORMATION IN DATABASE; MAINTAIN PERSISTENT OBJECTS AND DATA; MAINTAIN THE CONNECTION FACTORY.

2.2.3.4 Technology Preference

The application architecture provides clear division of different architectural responsibilities or services into different tiers. The architectural responsibilities can be identified as stereotypes for each logical tier of the application that involve using specific technology to implement the functionality. In order to facilitate the implementation of the MVC architecture into DMS, the Java 2 Platform, Enterprise Edition (J2EE) from SUN will be adopted.

2.2.3.5 Alignment with System Architecture

Both the application architecture and the system architecture of DMS are designed to provide an overall competent system environment for DMS.



To preserve the integrity of the architecture, other tiers, such as service tier or presentation tier, will only access the business tier located within the Application Server. The business tier will provide the required interface in the Application Server for other tiers to access information of other servers. This similar approach applies to the data tier as well.

Some static pages for the presentation tier will be resided in the Web Server. Database Server access will be limited to the data tier to protect the information in the database and retain the security of the system.

2.2.3.6 Application Security

DMS form-based logon from web will be used in conjunction with HTTPS/SSL. Before entering username and password, the SSL link will be established in the first place. The username and password are transmitted in a secured link to the application server. The username and password are authenticated within the java bean that checks against the designated database table. The application server will not store the list of valid usernames and passwords in its secondary storage. Enterprise server-side programming design offers high security protection to DMS. Only the presentation layer will be exposed to users. All business logics will be hidden from user access as the logics are performed by components on the application server. All data access is bounded by objects on the application server and because data access is done through components, no direct manipulation of data is thus possible.



2.3 Data Retention and Archive

After the data retention period has expired, the data will be archived into offline storage media such as data tapes for permanent storage. These data will then be removed from the server to free up disk storage. Purging of data from the DMS databases can be performed at defined time, such as at the year-end after the data has successfully been archived. The offline data can be restored when required. A housekeeping facility including archiving and restore functions will be provided for retention period maintenance.

Depending on the information nature, data will be kept in the system with different retention periods and the following table summarizes the recommendation:

Information Nature	On-line Retention Period
Business information	As long as possible
Active Case information	AS LONG AS POSSIBLE
Document / Photos	AS LONG AS POSSIBLE
Reports	As long as possible
Expired system / alert messages	7 days
Audit trail records of completed cases	12 months



2.4 Impact Analysis

2.4.1 Effects on Organization

2.4.1.1 Support Staff

In order to provide support to end-users and to help them to use the system effectively, an DMS Maintenance Team comprising of appropriate staffs of P8 will be set up. The team will perform the following tasks:

- System and network administration;
- Database management;
- Problem analysis; and
- Help desk support.

It is expected that the team will only need to spare part of their daily working hours to perform these tasks and is expected to be less as the system becomes more stable and users getting used to the operation of the system. Training will be provided to the support team to equip the team members with skills to manage the system.

2.4.1.2 Training

Trainings will be provided to the DMS support staffs and end-users, which will include system training and application training.

System training will be focused on the system administration and management aspects, the use of system software, etc. which will be useful for system administrators and support staffs.



Application training will be designed in relevancy to the roles of users so that users can learn the relevant components of DMS to help their daily operations. This may include the application aspect and operational aspect of the system.

2.4.2 Effects on User Operating Procedures

DMS will provide a working platform for streamlining the daily operations within EEO. It will change the ways in which works are being done to achieve easier information retrieval and better resource usage monitoring within EEO. New operating procedures will be in place in particular to the following areas:

2.4.2.1 Information Sharing

With DMS, paper documents and the relevant information will be managed by the Document Management Service of DMS. It is expected that DMS users will familiarize with the practice of storing, managing, and retrieving information in electronic format so that searching and sharing of data can be made easier among DMS users.

Moreover, users will be encouraged to utilize document management features to share information.



2.4.2.2 Automatic Workflow

In DMS, the business process of EEO will be automated by the use of a Workflow Management System. Existing paper flow will be minimized in the DMS environment. It is expected that DMS users will familiarize with the practice of processing cases in electronic format under an automated workflow environment.

2.4.2.3 Mobile Office

Mobile office will be implemented for inspectorate staff. Each responsible officer will be assigned a mobile device for their daily operation. Facilitation on wireless connection to the DMS servers will be used to facilitate inspectorate staff for information download/upload. With this implementation, inspectorate staff is expected to have the flexibility of getting their work at home or any convenient place so that they can save travelling time in getting to the inspection site.

2.4.2.4 Access via VPN

Remote access to DMS will be implemented. Authorized users, such as SE / Management will be enabled to login to the DMS application at a secured place so that users can gain access to the system even when they are outside office. It is expected that users will get the appropriate remote access settings and apply to their home PC for such flexibility.



2.4.3 Effects on Office Space

Space is required to accommodate servers and network equipment mounted in two 42U equipment racks.

Proper desk space will be required to accommodate the new PC workstations.



2.5 Implementation Plan

The physical development of the DMS will commence following the acceptance of the System & Analysis Design (SA&D) stage.

The project is to be managed under the following stages:-

Stage	Description	Start Date	End Date
1	Project Initiation	30 th Sep 2021	22 nd Oct 2021
2	System Analysis and Design (SA&D)	4 th Oct 2021	30 th Nov 2021
	System Implementation and Integration (SI&I)	15 th Nov 2021	30 th Jun 2022
3	Timebox 1 to 2 and Production Release 1	15 th Nov 2021	31 st Dec 2021
4	Timebox 3 to 4 and Production Release 2	28 th Dec 2021	28 th Feb 2022
5	Timebox 5 and Production Release 3	21 st Feb 2022	31 st Mar 2022
6	Timebox 6 to 7 and Production Release 4	1 st Apr 2022	30 th Jun 2022
7	System Nursing & Project Completion	1 st Jul 2022	30 th Sep 2022

The activities of system implementation will generally include programming, system integration test, user acceptance test, user training, data conversion, system deployment and production launch. The period of the activities in each phase will be vary according to the scope of works of that phase. Procurement will be conducted in Phase I and III for server equipment and mobile computing devices respectively.

The table in the following section indicates the major activities of the project plan. The plan is worked out with the assumption that the completion date of Stage 1 – SA&D is 22.10.2021.



2.5.1 Implementation Schedule

After the completion of Project Initiation Stage and SA&D Stage, the implementation stage will be started. The major tasks are summarized below:

ID	Task Name	Duration	Start	Finish	Predecessor	Resource Names	October M	November E	January B
1	EMSD - Enhancement of EORS and DMS of e-Service Integration - Project Planning	253 days	Thu 23/9/21	Fri 30/9/22					
2	Project Contract Award notification	1 day	Thu 23/9/21	Thu 23/9/21		EMSD,ASL			
3	Stage 0 - Team Formation	5 days	Thu 23/9/21	Wed 29/9/21					
4	Team Formation of PSC and PAT	5 days	Thu 23/9/21	Wed 29/9/21		EMSD			
5	Team Formation of Development Team	5 days	Thu 23/9/21	Wed 29/9/21		ASL			
6	Stage 1 - Project Initiation	20 days	Thu 30/9/21	Fri 29/10/21					
7	Kick-off Meeting	1 day	Thu 30/9/21	Thu 30/9/21		EMSD,ASL			
8	Prepare and Comment Project Initiation Document (PID)	15 days	Thu 30/9/21	Fri 22/10/21		ASL,EMSD			
9	Prepare and Comment Project Plan	15 days	Thu 30/9/21	Fri 22/10/21		ASL,EMSD			
10	Seek PSC Endorsement on PID	5 days	Mon 25/10/21	Fri 29/10/21	9	EMSD,ASL			
11	Stage 2 - System Analysis and Design	41 days	Mon 4/10/21	Tue 30/11/21					
12	Prepare SA&D Report	36 days	Mon 4/10/21	Tue 23/11/21					
13	Prepare and Comment Current Environment Description	14 days	Mon 4/10/21	Fri 22/10/21		EMSD,ASL			
14	Prepare and Comment Requirement Specification	14 days	Mon 11/10/21	Fri 29/10/21		EMSD,ASL			
15	Prepare and Comment System Specification	22 days	Mon 25/10/21	Tue 23/11/21		EMSD,ASL			
16	Prepare and Comment Technical System Options	22 days	Mon 25/10/21	Tue 23/11/21		EMSD,ASL			
17	Prepare and Comment Impact Analysis	7 days	Mon 15/11/21	Tue 23/11/21		EMSD,ASL			
18	Prepare and Comment Initial Release Plan	7 days	Mon 15/11/21	Tue 23/11/21		EMSD,ASL			
19	Seek PSC Endorsement on SA&D Report	5 days	Wed 24/11/21	Tue 30/11/21	12	EMSD,ASL			
20	Stage 3 - Timebox 1 and 2 (Program development, unit test, system test and uat) and Production Release 1	34 days	Mon 15/11/21	Fri 31/12/21					
21	Prepare Release 1 - Release Plan	3 days	Mon 15/11/21	Wed 17/11/21		ASL			
22	Prepare Interface Specification of Release 1	5 days	Thu 18/11/21	Wed 24/11/21	21	ASL			
23	Implementation and Unit Test of Release 1 - with Unit Test Result	16 days	Thu 25/11/21	Thu 16/12/21	22	ASL			
24	System Integration Test and User Acceptance Test of Release 1 - with Test Plan and Test Cases	6 days	Fri 17/12/21	Fri 24/12/21	23	ASL,EMSD			
25	Prepare Production Rollout for Release 1	5 days	Wed 22/12/21	Wed 29/12/21		EMSD,ASL			
26	Seek PSC Endorsement on Production Rollout for Release 1	1 day	Thu 30/12/21	Thu 30/12/21	25	EMSD,ASL			
27	Release 1 - Production Rollout	1 day	Fri 31/12/21	Fri 31/12/21	26	EMSD,ASL			
28	Stage 4 - Timebox 3 and 4 (Program development, unit test, system test and uat) and Production Release 2	42 days	Tue 28/12/21	Mon 28/2/22					

SELECTED TECHNICAL SYSTEM OPTION ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)



ID	Task Name	Duration	Start	Finish	Predecessor	Resource Names	October M	E	January B
29	Prepare Release 2 - Release Plan	3 days	Tue 28/12/21	Thu 30/12/21		ASL			
30	Prepare Interface Specification of Release 2	5 days	Fri 31/12/21	Thu 6/1/22	29	ASL			
31	Implementation and Unit Test of Release 2 - with Unit Test Result	20 days	Fri 7/1/22	Tue 8/2/22	30	ASL			
32	System Integration Test and User Acceptance Test of Release 2 - with Test Plan and Test Cases	7 days	Wed 9/2/22	Thu 17/2/22	31	ASL,EMSD			
33	Prepare Production Rollout for Release 2	5 days	Fri 18/2/22	Thu 24/2/22		EMSD,ASL			
34	Seek PSC Endorsement on Production Rollout for Release 2	1 day	Fri 25/2/22	Fri 25/2/22	33	EMSD,ASL			
35	Release 2 - in Production	1 day	Mon 28/2/22	Mon 28/2/22	34	EMSD,ASL			
36	Stage 5 - Timebox 5 (Program development, unit test, system test and uat) and Production Release 3	29 days	Mon 21/2/22	Thu 31/3/22					
37	Prepare Release 3 - Release Plan	2 days	Mon 21/2/22	Tue 22/2/22		ASL			
38	Prepare Interface Specification of Release 3	5 days	Wed 23/2/22	Tue 1/3/22	37	ASL			
39	Implementation and Unit Test of Release 3 - with Unit Test Result	12 days	Wed 2/3/22	Thu 17/3/22	38	ASL			
40	System Integration Test and User Acceptance Test of Release 3 - with Test Plan and Test Cases	5 days	Fri 18/3/22	Thu 24/3/22	39	ASL,EMSD			
41	Prepare Production Rollout for Release 3	5 days	Wed 23/3/22	Tue 29/3/22		EMSD,ASL			
42	Seek PSC Endorsement on Production Rollout for Release 3	1 day	Wed 30/3/22	Wed 30/3/22	41	EMSD,ASL			
43	Release 3 - in Production	1 day	Thu 31/3/22	Thu 31/3/22	42	EMSD,ASL			
44	Stage 6 - Timebox 6 and 7 (Program development, unit test, system test and uat) and Production Release 4	59 days	Fri 1/4/22	Thu 30/6/22					
45	Prepare Release 4 - Release Plan	3 days	Fri 1/4/22	Wed 6/4/22		ASL			
46	Prepare Interface Specification of Release 4	7 days	Thu 7/4/22	Tue 19/4/22	45	ASL			
47	Implementation and Unit Test of Release 4 - with Unit Test Result	31 days	Wed 20/4/22	Mon 6/6/22	46	ASL			
48	System Integration Test and User Acceptance Test of Release 4 - with Test Plan and Test Cases	12 days	Tue 7/6/22	Wed 22/6/22	47	ASL,EMSD			
49	Prepare Production Rollout for Release 4	5 days	Wed 22/6/22	Tue 28/6/22		EMSD,ASL			
50	Seek PSC Endorsement on Production Rollout for Release 4	1 day	Wed 29/6/22	Wed 29/6/22	49	EMSD,ASL			
51	Release 4 - in Production	1 day	Thu 30/6/22	Thu 30/6/22	50	EMSD,ASL			
52	Stage 7 - Privacy Impact Assessment (PIA) and Security risk assessment and audit	20 days	Mon 4/7/22	Fri 29/7/22					
53	Conduct PIA and Prepare PIA Report	20 days	Mon 4/7/22	Fri 29/7/22	51	ASL			

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ID	Task Name	Duration	Start	Finish	Predecessor	Resource Names	October M	E	January B
54	Conduct SRAA and Prepare SRAA Report (Third Party)	20 days	Mon 4/7/22	Fri 29/7/22	51	EMSD Third Party			
55	Stage 8 - Nursing Period	64 days	Mon 4/7/22	Fri 30/9/22					
56	Prepare system documentation	64 days	Mon 4/7/22	Fri 30/9/22					
57	User procedures manual	20 days	Mon 4/7/22	Fri 29/7/22	51	ASL			
58	Application operation manual	20 days	Mon 4/7/22	Fri 29/7/22	51	ASL			
59	Computer operation procedures manual	20 days	Mon 4/7/22	Fri 29/7/22	51	ASL			
60	Data manual	23 days	Mon 1/8/22	Wed 31/8/22	59	ASL			
61	Program manual	23 days	Mon 1/8/22	Wed 31/8/22	59	ASL			
62	System Manual	23 days	Mon 1/8/22	Wed 31/8/22	59	ASL			
63	System Specification	21 days	Thu 1/9/22	Fri 30/9/22	62	ASL			
64	Business Continuity Plan & Backup Plan	21 days	Thu 1/9/22	Fri 30/9/22	62	ASL			
65	Hand-over plan	21 days	Thu 1/9/22	Fri 30/9/22	62	ASL			
66	Stage 9 - Project Closure	21 days	Thu 1/9/22	Fri 30/9/22					
67	Prepare and Comment Project Evaluation Report (PER)	15 days	Thu 1/9/22	Thu 22/9/22		ASL			
68	Seek PSC on Endorsement of PER	5 days	Fri 23/9/22	Thu 29/9/22	67	EMSD,ASL			
69	Project Close	1 day	Fri 30/9/22	Fri 30/9/22	68	EMSD			

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2.6 Conversion Plan

2.6.1 Data to be converted

The following table summarizes the major data on the existing databases:

Data	Data Format	Estimated Size in MB	Description
REA	Excel	100	Temporary storage of REA application data and register
COCR	Excel	100	Temporary storage of COCR submitted data and register
FOC	Excel	100	Temporary storage of submitted FOC data records
Energy Audit	Excel	100	Temporary storage of submitted Energy Audit data records
Building	Excel	100	Temporary storage for building records with COCR, FOC and Energy Audit submissions
Building	MS SQL	200	Building information from EORS Database



2.6.2 Technical Approach

Conversion programs will be designed to automate the conversion process. Manual processes will be required to help converting the data that cannot be automatically converted by the system.

2.6.2.1 General Data

2.6.2.1.1 Conversion Approach

The main approach for the data conversion is using the ETL approach. ETL stands for Extract, Transform and Loading. Firstly, selected data is retrieved and extracted from DIMS & ESSC. Those extracted data will be transformed into a format for easy data manipulation. Finally, data loading involves business logic verification and data validation will take place before the actual upload to the DMS. There are some SQL scripts require to be developed to retrieve the data from the legacy system and transform before the data are loaded. After loading the data directly from the transformed format into DMS database, some data may require the transformation program to reorganize. For the other information not migrated into DMS, report may be provided for user future reference only. The daily backup of the existing database will be used for future reference (if required) for non-migrate data. Prior to the conversion start, there are two key points that needed to be considered. Existing database must be backed up if ETL rollback is necessary and, a cut off period will be declared to isolate the data for being modified by users.



Reports will be provided to facilitate user verification, which will include verification reports and exception reports. Details of the reports will be described in the Data Conversion Specification in later stage.

2.6.2.1.2 Verification Approach

All converted data must be validated from both a business and system point of view.

System Verification

Check sum will be adopted to verify the number of records required to convert must be recorded and then after the conversion verifies the number of records is same as before. There are several points that the number of records can be checked to ensure that if any problem occurs, the minimum effort and time to recover.

Business Verification

Inquiry functions and the reports generated from DMS can facilitate user to verify the data integrity.



2.6.2.1.3 Exception Handling

Exceptions detected during the data conversion process will be extracted and record to an Excel file template, if possible. Users will perform data rectification on this Excel file. The rectified data will then be verified and uploaded to the new database to complete the data conversion process.

For exceptions that cannot be recorded and rectified on Excel templates, error logs will be recorded, and project team will analysis the problem and give advices to users in fixing up the data.



2.6.3 Plan & Schedule

Please refer to the project schedule or Section 2.5.1 Implementation Schedule for the conversion schedule.



2.7 Costs and Benefits

This section summarizes the estimated recurrent and non-recurrent costs for the implementation of the proposed system and the anticipated benefits of the system.

2.7.1 Costs

The annual inflation rate as 5.5% is assumed in the estimation of recurrent costs (for DMS system maintenance only). A summary of estimated non-recurrent (i.e. costs at Y0) and recurrent costs (from Y1 to Y7) are shown below:

		Estimated Cost (in thousands HKD)							
Description		Y0 ¹	Y1	Y2	Y3	Y4	Y5	Y6	Y7
1.	Annual DMS system maintenance and operational support	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
2.	Annual hardware maintenance	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
3.	Annual software support & subscription costs	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
	Total	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC

The cost breakdown for hardware and software procurement is as follows:

¹ Y0 is defined as the first year of which the system DMS-BEO shall be put into full production and is currently planned to be year 2022.



Item Name (including both hardware and software)	Quantity	Reference
		Price
Application Server	1	TBC
Database Server	1	TBC
External storage system (8TB storage in RAID-5)	1	TBC
User perpetual licenses for DMS-BEEO users (assume maximum of 50 users)	50	TBC
Development Server	1	TBC
DR Server	1	TBC
Backup Server	2	TBC
Tape Auto-loader	2	TBC
Hardware / Software Installation charge (assume 15% of hardware and software procurement costs)	1	TBC
Total:		TBC

Following is the list of optional components which may be required by EEO users (not included in the cost above):



Item Name	Estimated Unit Price	Quantities	Sub-total
Tablet	\$5,000	5	TBC
Barcode Label Printer	\$10,000	1	TBC
Scanner	\$38,961	1	TBC
Scanning workstation (including software)	\$7,840	1	TBC
Hardware / Software Installation charge (assume 15% of hardware and software procurement costs)		1	TBC
		Total	TBC

The total non-recurrent costs for procurement of hardware and software shall be estimated to be TBC.

2.7.2 Benefits

This section provides an indication of the perceived value of the DMS in terms of tangible and intangible benefits. Tangible benefits which are directly derived from the implementation of this system will be described in the following section. Intangible benefits, which also may or may not be quantifiable, help to justify a project in terms other than direct dollar savings.

2.7.2.1 Tangible Benefits



2.7.2.1.1 Realizable Savings

As the implementation of BEEO is a new initiative, realizable savings are not available.

2.7.2.1.2 Cost Avoidance

Staff cost of an Inspector or technical officer required for checking submitted information and calculations submitted by applicants, compilation of management report from data contained in paper files, selection of buildings for compliance monitoring and inspection.

2.7.2.1.3 Notional Savings

As the implementation of BEEO is a new initiative, notional savings are not available.

2.7.2.2 Intangible Benefits

The intangible benefits of DMS are those benefits that cannot be quantified in monetary value and that are realized because of the implementation of DMS. Intangible benefits encompass management enhancement, higher productivity, and better operational efficiency.

1. Improve Operational Efficiency

- *Improved Information Availability and Security.*



With DMS, users can quickly retrieve vital information. Majority of the information will stay active in the DMS; which will give management access to a wealth of information. The security features in the new system will prevent unauthorized access to DMS data.

- *Improved Workflow and Document Management.*

With automated workflow and document management services of DMS, problems with unavailable, lost, misplaced or mistakenly filed documents will be significantly reduced. The distribution of documents to multiple users can be done immediately after the document capture process. The processing of documents can also be speeded up with the capability of concurrent access and automatic workflow.

- *Better Sharing of Information.*

DMS users can quickly make reference to a vast pool of past experience and knowledge so that decisions can be made with precedent references. Besides, such information is being accrued as users use the system which makes the benefits even more promising as time goes on.

- *Automated Inspection Assignments.*

The rules of assigning inspection orders to inspection teams are optimised and built into the work assignment algorithm of DMS to relieve the burden of manual work assignments to inspection teams.

- *Better Monitoring of Work.*

With automated workflow, work-in-progress cases can be easily monitored to enable DMS users to have early alerts on cases with potential risk of not meeting the performance pledge. Besides, automatic system logging and online search facilities are in place to ease monitoring of work-in-progress cases.

- *Facilitated Timely Management Decision and Actions.*

Statistics and analysis reports can be generated in a timely manner to support the decision-making process of the EEO management.

- *Easy Access to the System.*

DMS is a web-based application that allows users access to the system with minimal PC installations.

2. Improve Quality of Service

- *Faster and More Efficient Processing of Documents and Cases.*

Information on incoming documents and cases will be immediately available to relevant user(s) right after the documents capture process. New cases, which may be complaints, enquiries, or cases requiring urgent attention, will be available for processing once they are created.

- *Reduced Turnaround Time for Public Enquiries.*

Enquiries from the public can be promptly handled and responded, as the data and information will be accessible from a centralised database.

- *Improved Information Availability During Field Inspections.*



With the use of mobile device and VPN connection to DMS, up-to-date product, shop and inspection information will always be at hand for staffs doing field inspections. Moreover, staff can record inspection result on mobile device and updates will be sent to DMS instantly via VPN connection.

- *Enabled Information Access after Normal Business Hours.*
The public are able to make application, check past history, and track case progress via WBRS which is designed to provide 7x24 online services.
- *Better System Availability.*
The DMS is designed to cater for disaster recovery. During non-operational in primary data centre, DR site of DMS will provide limited but crucial services to users to support the business activities of BEEO.
- *More Up-to-date Information Dissemination.*
Up-to-date information will be retrieved periodically from the DMS database, which will be passed to the internet platform for dissemination in a timely manner.

The above improvements to the quality of service will help bolster the level of professionalism as well as the image of EEO.

3. Transition to a Less-paper Environment

With DMS, most paper documents will be stored and processed electronically. There will be a significant reduction of paper usage, which can help maintaining a ‘Green’ office and protecting the environment in HKSAR. An enhanced office environment with less paper shall bring about higher productivity among DMS users. Besides, reduction of storage space, savings on cost of the reduced storage space and printing can also be anticipated.

4. More Effective Measurement of Performance

With DMS workflow service, better evaluation on business practices such as resource alignment and performance pledge achievement can be attained.





2.8 Reason for Selection

This section describes and compares the feasible technical system options. The recommended option will be given at end of this section.

2.8.1 Technical System Options Considered

The DMS adopts the 3-tier J2EE architecture and includes Application & Web Server and Database Server which are software application dedicated to performing the specific process in the whole system. To optimize the performance of DMS, the Application & Web Server and Database Server are physically hosted and operate on 2 individual servers.

By combinations of Hardware, Operating System and Hosting Mechanism, the feasible options are compared as follows:

Option 1: Standalone Servers + Operating System

Description:

- Application & Web Server and Database Server are directly operating on individual servers without any virtualization.

Characteristics:

- Architecture is simple to deploy and implement
- The resources on the server can be utilized by DMS with minimum overhead

Option 2: Standalone Servers + Virtualization

Description:

- Application & Web Server and Database Server are operating in guest operating systems on individual servers.

Characteristics:

- By making use of the virtualization characteristic, the individual servers can serve as resilience of each other
- In case of applying major system patches, simulation of the production environment by running the clone of production guests could be done to observe the impact to the system beforehand



2.8.2 Technical System Options Comparison

Option Comparison	Standalone Servers + Operating System	Standalone Servers + Virtualization Solutions
Availability	High	High
Resilience	No	Yes
System Failover	Manual	Manual
System downtime ^{2, 3}	Medium (Less than 8 hours ⁴)	Short (Less than 4 hours ⁵)
Security vulnerability	Low	Low
OS Support	Good	Good
Hardware compatibility	Good	Good
Server Resource Utilization	Fully Utilized By the system	Resource overhead consumed by the virtualization
Vendor Availability	High	High

Based on the above comparison, the Option 2 (Standalone Servers + Virtualization) is recommended because of the following reasons:

- Provide high availability within budget
- Have server resilience
- Have shorter down time

² It is assumed that the system outage was caused by server hardware problem.

³ The system downtime is referring to the time spent for the system to resume services for normal user operations, In case of data lost, the time required for re-work by the user is not included in this measure

⁴ By assuming the replacement part of problematic hardware is ready, the system downtime would include the time spent for hardware replacement, server configuration and data/file restoration.

⁵ By assuming that system could be resumed on the secondary sever by either copying the virtual machine files from the failed server or restoring the latest backup of the system.



2.8.3 Hypervisor comparison between VMware vSphere 5.0, Microsoft Hyper-V Server 2008 R2 and Citrix XenServer 6.0

Description	VMware vSphere 5.0	Microsoft Hyper-V Server 2008 R2	Citrix XenServer 6.0
Hot Add Memory	Supported	Not Supported	Not Supported
Network I/O control	Supported	Not Supported	Supported
Network Shared Storage	SAN & NAS	SAN only	SAN & NFS enabled NAS
Long Distance Live Migration of Virtual Machines	Supported	Not Supported	Not Supported
Support Windows version for Guest OS	All currently available version of Windows and Windows Servers	All currently available version of Windows and Windows Servers	All currently available version of Windows and Windows Servers
Support Linux version as Guest OS	Asianux, CentOS, Red Hat Enterprise Linux, SUSE Enterprise Linux, Oracle Enterprise Linux, Debian Squeeze, Ubuntu	CentOS, Red Hat Enterprise Linux, SUSE Linux Enterprise	CentOS, Red Hat Enterprise Linux, SUSE Enterprise Linux, Oracle Enterprise Linux, Debian Squeeze, Ubuntu
Support Other OS as Guest OS	Solaris 10, OS/2, NetWare, Mac OS X	Nil	Nil

Based on the above comparison, the VMware vSphere 5.0 recommended because of the following reasons:

- Better support for performance tuning of the system with Hot Add Memory and Network I/O Control
- More choices of supported network shared storage and guest OS for system expand and further development
- Provide long distance live migration which could be an additional DR option



2.8.4 Comparison between Oracle, MySQL and MS SQL Server

Description	Oracle Database 11g	MySQL Enterprise Edition	MS SQL Server 2008 R2
Cost	Highest license free to setup and annual subscription required for support services	Annual subscription required for support services	One-off license fee
OS Support	Windows, Unix, Linux, Mac OS	Windows, Unix, Linux, Mac OS	Windows only
Online Database Backup	Yes	Available for InnoDB data only	Yes
Reporting Tool	Oracle Reports Services is available but is required to be procured separately	No reporting tool offered by MySQL. Third parties reporting tool is required to be procured separately	Included

Based on the above comparison, MS SQL Server 2008 R2 is recommended because of the following reasons:

- Less recurrent cost for support services
- Able to perform online database backup
- Native reporting tool included



2.8.5 Comparison between Windows Server 2008 R2 and Linux Server

Description	Windows Server 2008 R2	Linux Server
Cost	One-off license fee	Depends on the Linux distribution vendor, annual subscription for support services would require
Stability ⁶	High	High
Support	Patches for product updates or bugs fix will be provided by Microsoft until the end of life of the product.	Patches for product updates or bugs fix will be offered by the Linux distribution vendor, some patches would require valid subscription to download
Hardware	Vast options of hardware available	Hardware options available will depend on the Linux distribution

Based on the above comparison, Windows Server 2008 R2 or an equivalent latest version is recommended because of the following reasons:

- Provide high stability platform
- Less recurrent cost for support services

As MS SQL Server 2008 R2 is recommended for Database Server, the Operating Systems for the database server would therefore be Windows Server 2008 RS. For the ease of support and maintenance, the same operating system using in the servers of the system would be recommended.

⁶ According to the survey conducted by Information Technology Intelligence Consulting (ITIC) in 2011, 92% majority of Windows Server 2008 R2 users experienced less than one or one Tier 3 outage per server, per annum. For details, please refer to <http://itic-corp.com/blog/2011/01/ibm-stratus-hp-fujitsu-top-iticgfi-software-hardware-reliability-survey/>



2.8.6 Comparison between J2EE and Visual Studio .NET

Description	J2EE	Visual Studio .NET
Supported Sever Platforms	As different versions of Java Virtual Machine (JVM) are available for different platforms, the J2EE applications are therefore relatively more platform-independent.	Available to machines with .NET framework installed, where the framework can be installed to Windows Servers only.
Development	Java is architecture neutral without implementation dependent code, which increases portability.	.NET framework based on the new CLR, enables development in any language that is supported by Microsoft's tools.
Support Services	There is a lot of people developing and supporting Java for applications running on different platform. Java code is readily available on the Internet.	Due to limited availability of the platform as compared with J2EE, the development on the platform is not widely adopted by most developers, so support is limited in the market.
Development Tools	Many software vendors provide efficient development tools to easily build the required components. As J2EE/Java is an open standard, basically developer can build any software component from the specification by using standard development kit with no cost. Developers that can support this area are widely available.	Developer can only build the component by using the development tools and platform provided by Microsoft, which made it not as popular as J2EE in the market. So developer with sufficient knowledge that can support this area is limited.
Implementation Cost	Lower J2EE development tools are available as freeware by accepting the specific license terms or usage agreement.	Higher The software license for development tools & platform must be purchased.

Based on the above comparison, J2EE is selected.



2.8.7 Remote Access Option through Mobile Device Considered

Mobile devices are used by Inspector during site inspection. Enquiry function product data and shop information would be applied, plus update function for storing inspection results.

The following feasible options are compared as follows:

Option 1: Data Download and Updated to Mobile Device (Standalone Mode)

Description:

- Product data and shop information are downloaded to mobile devices on regular basis before inspection
- Enquiry function would base on local data and information in mobile device
- Inspection results would be updated and stored in mobile device during inspection
- Inspection results would be synchronized to DMS after inspection

Characteristics:

- Downloaded data is a snapshot of DMS at download time. Data would not be changed unless performing another download from DMS
- No access to DMS can be made during inspection

Option 2: Access DMS through Mobile Data Service (Online Mode)

Description:

- Inspectors make use of mobile device to connect to EMSD Intranet through mobile data service with VPN

Characteristics:

- Real-time information from DMS could be retrieved at any time
- Inspection result update could be reflected instantly in DMS
- Access can only be maintained where mobile data service is available

Option 3: Combination of Standalone Mode and Online Mode

Description:

- Hybrid mode of operation combining standalone mode and online mode
- Inspector can select which operation mode is used

Characteristics:

- Combining characteristics of standalone mode and online mode



2.8.8 Remote Access Option Comparison

Option Comparison	Data Download and Updated to Mobile Device (Standalone Mode)	Access DMS through Mobile Data Service (Online Mode)	Combination of Standalone Mode and Online Mode
Data Availability	Highest (local data)	High (may reach blind spot of mobile data service)	Highest (local data)
Most up-to-date data	No (Snapshot only)	Yes (Direct access to DMS)	Yes (Direct access to DMS)
Usability	Low (new software and interface would be introduced for mobile device)	High (Direct access to DMS)	High (Direct access to DMS)
Result Data Update	Until next data synchronization	Instantly (Direct access to DMS)	Instantly (Direct access to DMS)

Based on the above comparison, Option 3 is recommended because of the following reasons:

- High data availability with local data
- Able to obtain most up-to-date data when mobile data service is available
- Able to revert to offline mode whenever online mode is unavailable
- Easy to use
- Able to update inspection result instantly

**USER ACCEPTANCE TEST (UAT) PLAN, SPECIFICATION
AND TEST CASES**

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

FOR

**ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT
(EMSD)**



By

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February 2022

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1. INTRODUCTION

1.1 Identification

This document provides a UAT Test Plan, Specification & Result on Data Management System (DMS) for Buildings Energy Efficiency Ordinance (BEEO) for Energy Efficiency Office (EEO) of Electrical and Mechanical Services Department (EMSD).

1.2 Objective

The System Integration Test Plan is

- a) A description of the plans for testing DMS on BEEO enhancement.
- b) The testing environments
- c) System Test roles and responsibilities
- d) Application Functions
- e) Test descriptions, including test objectives.



2. TEST PREPARATIONS

All tests performed will be done in the testing environment located at the EMSD site.

In order to perform an efficient UAT test, test cases were prepared and available before UAT starts. The analysts of ASL are responsible for the test cases.



3. TEST SCHEDULE

The schedule testing period for System Integration Test will be from November 2021 to February 2022 by batch:

The scopes of functions delivered for testing and described in below table:

Testing Scope	Start Date	End Date
Perform Testing: General (EA1, EA3, EE1, EE2, EE3 & EE4) 1. Return Profile (Role List) to WBRS 2. Validate the Application Data Transmitting from WBRS 3. Receive online submission from WBRS 4. Assign WBRS Records 5. Search WBRS Records 6. View WBRS Records 7. Perform Case Maintenance Operations 8. Download Submission Details Specific (EA1, EA3 & EE2) 1. Generate QR Code & e-Licence 2. Facilitate Signing and Approval Process 3. Generate and Distribute e-mail with e-Licence Specific (EA1, EE2 & EE3) 1. Facilitate Payment Workflow	November 2021	February 2022
Prepare UAT Result Report	February 2022	February 2022



4. ROLES & RESPONSIBILITIES

Role	Responsibilities
Testing Team	<ol style="list-style-type: none">1. Preparation of test cases2. Coordinate testing3. Carry out testing4. Approval of testing result
Development Team (SA & Developers)	<ol style="list-style-type: none">1. Assist in test cases preparation2. Preparation of standard test cases3. Bug/Problem Fixing



5. TESTING ASPECTS

In case of major problems, which disabled the system testing/running, the development team must fix the problems and restart the UAT as soon as possible. Otherwise, minor bugs are fixed when reported.

The following table listed the possible classification of UAT defects:

Critical	These are blocking problems that will seriously interrupt the UAT testing. Without solving these problems, the UAT test team cannot continue with the testing. The development team will treat these as the highest priority and will fix them in the shortest time possible. For example, system shutdown or reboot, application failure etc.
High	These problems will affect certain major functions or with erroneous results. Without fixing them, UAT test team can't go any further with this particular function testing. However, these problems will not affect the UAT test team to test on other functions.
Medium	These are medium problems that will not affect the testing of a particular function flow. UAT test team may find it helpful if these problems are fixed.
Low	These are lowest priority problems and will not affect the UAT testing. For example, change of label wording, adding field control etc.



6. TEST TERMINATION / EXIT CRITERIA

Tested System can be accepted when criteria below were completed and achieved:

- Issues of severity Critical and High should have been cleared before exit of UAT;
- System Unit Tests are passed;
- Schedule fixing plan for all Medium and Low issues;



7. TEST OBJECTIVES AND TEST CASES

7.1 Test Objectives

The purpose of the UAT is to verify the functions listed as follows:

Testing Area	Scope
DMS-BEOO	<p><u>General (EA1, EA3, EE1, EE2, EE3 & EE4)</u></p> <ul style="list-style-type: none">1. Return Profile (Role List) to WBRS2. Validate the Application Data Transmitting from WBRS3. Receive online submission from WBRS4. Assign WBRS Records5. Search WBRS Records6. View WBRS Records7. Perform Case Maintenance Operations8. Download Submission Details <p><u>Specific (EA1, EA3 & EE2)</u></p> <ul style="list-style-type: none">1. Generate QR Code & e-Licence2. Facilitate Signing and Approval Process3. Generate and Distribute e-mail with e-Licence <p><u>Specific (EA1, EE2 & EE3)</u></p> <ul style="list-style-type: none">1. Facilitate Payment Workflow

7.2 Test Cases

Kindly refer to the Excel file named “T324 - EMSD DMS-BEOO – Unit Test Case v0.1” for the test cases.

END

SYSTEM MANUAL

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



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July 2022

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SYSTEM MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)

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1. PURPOSE

This document provides an overview of the e-Services integration for Data Management System for Buildings Energy Efficiency Ordinance (DMS-BEEO) regarding programs, data files, equipment, clerical procedure, computer operation procedure, and etc. Reader interested in specific area may refer to the corresponding manuals (Data Manual, Program Manual, etc.)

2. SCOPE

This document provides an overview of the e-Services integration for Data Management System for Buildings Energy Efficiency Ordinance (DMS-BEO). It lists out in brief the programs, equipment, etc. in the system only. Details of specific areas are documented in the manuals referred to in the References section.

3. REFERENCES

3.1 Standards

- Document Style Manual (S14)
- Documentation Standard for Implementation Phase Version 3 (S8)

3.2 Other References

- System Analysis & Design Report
- Selected Technical System Option
- Program Manual
- Data Manual
- Application Operation Manual
- Application User Manual
- Computer Operating Procedures Manual
- Hardware and Software Procured, Installed and Accepted
- System Installation Plan
- System Maintenance Plan

4. DEFINITION AND CONVENTION

4.1 Definition

In this document, unless the context otherwise requires, the following expressions have the following meanings:

Term	Definition
BEEO	Buildings Energy Efficiency Ordinance
WBRS	Web-based Registration Services for online application submission.
DMS	Data Management System
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance
VM	Virtual Machine

5. SYSTEM SUMMARY

5.1 Objectives

The Buildings Energy Efficiency Ordinance (Cap. 610) (BEOO) had been enacted in November 2010. To facilitate the application submission from public, EMSD has developed a web-based registration system (WBRS) for regulatory services divisions to receive online submissions under various EMSD legislations. It is planned that the WBRS for BEOO will be incorporated into the overall WBRS of EMSD with enhanced functions.

The objective of implementing the DMS are:

1. To facilitate automation of the process of checking, vetting and approval of submissions, and generation of reports, certificates, registers and database of buildings under Buildings Energy Efficiency Ordinance
2. To streamline the enforcement functions under the Ordinance
3. To provide internet platform for public or any relevant parties to search for status of application, registers of Certificate of Compliance Registration (COCR) and Registered Energy Assessor (REA), records of Form of Compliance (FOC) and Improvement Notice (IN), and acts as an interactive platform for disseminating energy efficiency and conservation messages to the general public
4. To integrate with Web-Based Registration Services (WBRS) to provide means for electronic application submissions to the public

5.2 System Functions

5.2.1 Assignment of WBRS Records

Function ID	Function Description	Mode	Frequency	Requirement ID
ASS-001	Search WBRS Records of COCR/FOC	Online/ Update	(Min: 0 Avg: 1000 Max: 2000)	REQ-3001
ASS-002	View WBRS Records of EE1	Online/ Update	(Min: 0 Avg: 300 Max: 600)	REQ-3001
ASS-003	View WBRS Records of EE2	Online/ Update	(Min: 0 Avg: 300 Max: 600)	REQ-3001
ASS-004	View WBRS Records of EE3	Online/ Update	(Min: 0 Avg: 300 Max: 600)	REQ-3001
ASS-005	View WBRS Records of EE4	Online/ Update	(Min: 0 Avg: 700 Max: 1400)	REQ-3001
ASS-006	Search WBRS Records of REA	Online/ Update	(Min: 0 Avg: 200 Max: 400)	REQ-2001
ASS-007	View WBRS Records of REA1	Online/ Update	(Min: 0 Avg: 200 Max: 400)	REQ-2001
ASS-008	View WBRS Records of REA3	Online/ Update	(Min: 0 Avg: 200 Max: 400)	REQ-2001

5.2.2 Registered Energy Assessor

Function ID	Function Description	Mode	Frequency	Requirement ID
REA-001	Maintain REA Case	Online/Update	(Min: 0 Avg: 200 Max: 400)	REQ-2001 REQ-2002 REQ-2003
REA-002	Generate REA E-Licence	Online/Update	(Min: 0 Avg: 200 Max: 400)	REQ-1004 REQ-1005 REQ-2002 REQ-2003 REQ-5004
REA-003	Maintain REA Registration	Online/Update	(Min: 0 Avg: 200 Max: 400)	REQ-2002 REQ-2003

5.2.3 Certificate of Compliance Registration

Function ID	Function Description	Mode	Frequency	Requirement ID
COCR-001	Maintain COCR Case	Online/ Update	(Min: 0 Avg: 300 Max: 600)	REQ-3001 REQ-3002 REQ-3003
COCR-002	Genereate COCR E-Licence	Online/ Update	(Min: 0 Avg: 300 Max: 600)	REQ-1004 REQ-1005 REQ-3002 REQ-3003 REQ-5004
COCR-003	Maintain COCR Registration	Online/ Update	(Min: 0 Avg: 300 Max: 600)	REQ-3002 REQ-3003

5.2.4 E-Tracking

Function ID	Function Description	Mode	Frequency	Requirement ID

6. EQUIPMENT CONFIGURATION

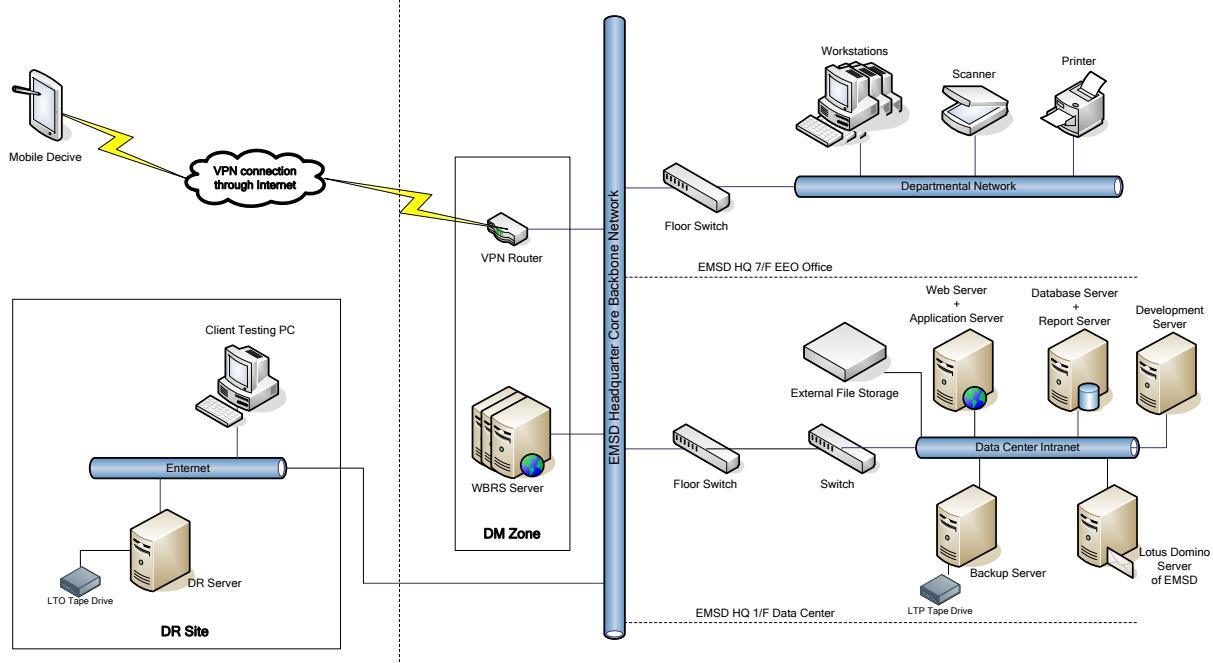
This section provides the equipment configuration which describes the inter-relationship among all hardware components including communication network.

The information in this section can also be found in the Computer Operating Procedures Manual.

6.1 Computer Hardware & Network

6.1.1 Network Overview

The overall architecture of the DMS-BEEO can be illustrated by the following diagram:



The DMS system will be resided at Data Center of EMSD Headquarter. Users can access DMS using their own PC through Departmental Network. For remote users using mobile device, they can access departmental network through Virtual Private Network (VPN) and then access DMS.

6.1.2 Summary of Network Address

IP	Host Name	Description	Machine Type (Physical/Virtual)	Location
10.16.133.22	Server01	VMware vSphere server	Physical	1/F Watson Centre, Kwai Chung
10.16.133.23	Server02	VMware vSphere server	Physical	1/F Watson Centre, Kwai Chung
10.16.133.214	beeodmsapp	Application server (production)	Virtual	Server02
10.16.133.215	beeodmsdb	Database server (production)	Virtual	Server02
10.16.133.216	beeodmsdev	Application server and Database server (Development)	Virtual	Server01

6.1.3 Production Web and Application Server

Hardware Configuration	Details
Host Name	BEEODMSAPP
Function	Production Web & Application Server
IP Address	10.16.133.214
Subnet Mask	255.255.255.0
Default Gateway	10.16.133.254
Domain	EMSD.HKSARG
Processor	2 Processors @ 3.20GHz 3.19GHz
RAM	32GB
HDD	299GB

Software	Details
OS Name	Microsoft Windows Server 2019 Standard x64
OS Version	10.0.17763 N/A Build 17763
IIS	10
SSL	Certificates Installed
.NET Framework	Version 4.8.03761

6.1.4 Production Database Server

Hardware Configuration	Details
Host Name	BEEODMSDB
Function	Production Database Server
IP Address	10.16.133.215
Subnet Mask	255.255.255.0
Default Gateway	10.16.133.254
Domain	EMSD.HKSARG
Processor	2 Processors @ 3.20GHz 3.19GHz
RAM	32GB
HDD	C : 299GB D : 999GB

Software	Details
OS Name	Microsoft Windows Server 2019 Standard x64
OS Version	10.0.17763 N/A Build 17763
SQL Server	Microsoft SQL Server 2017 (RTM-GDR) (KB4583456) - 14.0.2037.2 (X64)

6.1.5 UAT/DEV Web and Application Server

Hardware Configuration	Details
Host Name	BEEODMSDEV
Function	UAT/DEV Web & Application Server
IP Address	10.16.133.216
Subnet Mask	255.255.255.0
Default Gateway	10.16.133.254
Domain	EMSD.HKSARG
Processor	2 Processors @ 3.20GHz 3.19GHz
RAM	32GB
HDD	1TB

Software	Details
OS Name	Microsoft Windows Server 2019 Standard x64
OS Version	10.0.17763 N/A Build 17763
IIS	10
SSL	Certificates Installed
.NET Framework	Version 4.8.03761

6.1.6 UAT/DEV Database Server

Hardware Configuration	Details
Host Name	BEEODMSDEV
Function	UAT/DEV Database Server
IP Address	10.16.133.216
Subnet Mask	255.255.255.0
Default Gateway	10.16.133.254
Domain	EMSD.HKSARG
Processor	2 Processors @ 3.20GHz 3.19GHz
RAM	32GB
HDD	1TB

Software	Details
OS Name	Microsoft Windows Server 2019 Standard x64
OS Version	10.0.17763 N/A Build 17763
SQL Server	Microsoft SQL Server 2017 (RTM-CU28) (KB5008084) - 14.0.3430.2 (X64)

7. SOFTWARE INVENTORIES

This section summarizes all software that is required for the operational running of the system.

7.1 Inventory of Application Programs

The binary files containing application programs are listed below. Detailed documentation of the programs is given in the Program Manual.

Description	Item	Location
DMS-BEEO Application Main Folder	DMS-BEEO Code	D:\csudemo
ASP.NET AJAX Control Toolkit	AjaxControlToolkit.dll	D:\csudemo\bin
PDF library	iTextsharp.dll	D:\csudemo\bin
Microsoft Report Viewer	Microsoft.ReportViewer.*.dll	D:\csudemo\bin
Free PDF API	Spire.*.dll	D:\csudemo\bin
A .NET library for reading and writing CSV files	CsvHelper.dll	D:\csudemo\bin
JSON framework for .NET	Newtonsoft.Json.dll	D:\csudemo\bin

7.2 Inventory of System Software and Software Package

Device	Software	Version
Production Web and Application Server	Microsoft Windows Server	2019 Standard x64 10.0.17763 N/A Build 17763
	IIS	10
	.NET Framework	Version 4.8.03761
Production Database Server	Microsoft Windows Server	2019 Standard x64 10.0.17763 N/A Build 17763
	Microsoft SQL Server	2017 (RTM-GDR) (KB4583456) - 14.0.2037.2 (X64)

8. SECURITY AND BACKUP

8.1 System Control

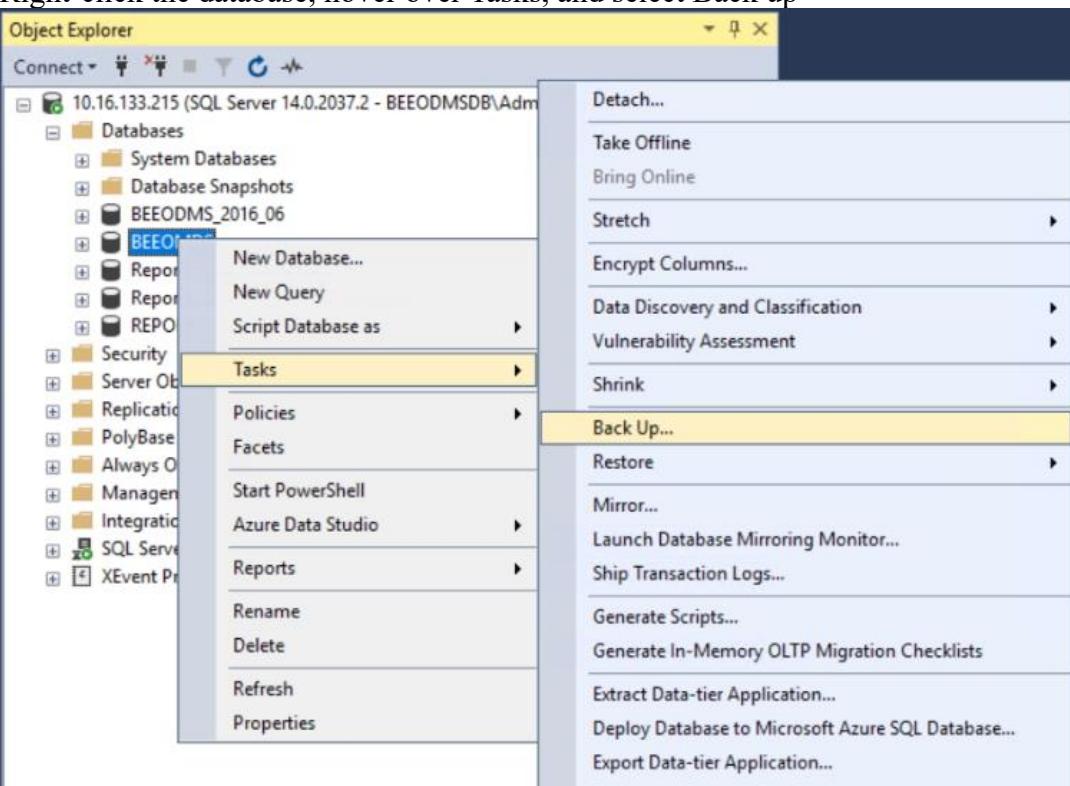
The security measures provided by DMS are:

- User name / password system login
- Encrypted password stored in the database system
- Function level access control for individual user
- All data is transferred between the user's web browser and the system via the SSL protocol to prevent eavesdropping, tampering and forgery

8.2 Database Backup

Below are the steps for manually backup the BEEODMS database.

1. Login into production database server
2. Launch SQL Server Management Studio (SSMS) and connect to production SQL Server instance.
3. Expand the Databases node in Object Explorer.
4. Right-click the database, hover over Tasks, and select Back up



5. Under Destination, confirm the path for your backup is correct. If you need to change this, select Remove to remove the existing path, and then Add to type in a new path. You can use the ellipses to navigate to a specific file.
6. Select OK to take a backup of your database.

8.3 System Backup

The source code of DMS is in Azure DevOps, which is managed by version control.

8.4 Recovery

The procedures to resume back to normal system configuration and the actions to be taken after restoration are documented in the T331 Disaster Recovery Drill Test Report (DR).

8.5 Security

8.5.1 Physical Security

Servers and network equipments will be protected from unauthorized access. The server equipments will be housed in locked racks in the server room designated for the EMSD Regulatory Services at EMSTF Kowloon Bay Data Centre that allows entries of authorized personnel only.

8.5.2 Access Control

In order to ensure that system security is maintained, proper security control procedures will be imposed. There are two levels of access control:

- DMS Application – access control is done by setting up different application user accounts, allowing them to access different application functions according to their business need
- System Level – login accounts for various servers and database are kept by Administrators only for system administration purpose, such as tracing problem, backup, etc.

Details of user account and function / access right mapping are documented in the T225 Selected TSO.

8.5.3 Data Encryption

Based on the Security Regulations, restricted data in DMS will be stored in unencrypted format while transmission of restricted data on un-trusted network will be encrypted.

Restricted data transferred between DMS servers will be protected by the Internet Protocol Security (IPsec) which is an encryption protocol for secure encrypted data transmission at the network layer. It is supported by all common operating systems such as UNIX and Windows 2008. Electronic certificates for Intranet will be used for IPsec authentication and will be provided by EMSD for both production and development purposes.

Data transferred between DMS and its interfacing systems, namely WBRS and CIG, will be protected by using Hypertext Transfer Protocol Secure (HTTPS) connections and secure web service.

Data transferred between the DMS web server and client workstations will be protected by using the Secure Sockets Layer (SSL) protocol to ensure that data sent from the application's server pages are encrypted.

Some data, e.g. password, is to be stored in encrypted or hashed format by nature based on renowned algorithms before storing into the database.

8.5.4 Security Patches Update

After security patches are available, Maintenance Team would perform impact analysis, make recommendation and consult EMSD before applying the patches. Other necessary actions and procedures relating to patch update will follow the same as provided in the System Maintenance Plan.

- End of Document -

PROGRAM MANUAL

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



Version: 0.1

July 2022

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PROGRAM MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)

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PROGRAM MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
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DEPARTMENT (EMSD)

Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	Draft Version	All	0.1	06/07/2022

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1 SCOPE

This document provides an overview of the e-Services integration for Data Management System for Buildings Energy Efficiency Ordinance (DMS-BEEO). It lists out in brief the programs, equipment, etc. in the system only. Details of specific areas are documented in the manuals referred to in the References section.

2 DEFINTION AND CONVENTION

2.1 DEFINITIONS

In this document, unless the context otherwise requires, the following expressions have the following meanings:

Term	Definition
BEEO	Buildings Energy Efficiency Ordinance
WBRS	Web-based Registration Services for online application submission.
REA	Registered Energy Assessor
COCR	Certificate of Compliance Registration
FOC	Form of Compliance

2.2 CONVENTION

N/A

3 PROGRAM SOURCE LIST

3.1 APPLICATION FUNCTIONS

Function ID	Function Name / Description	Mode	Frequency of Use
ASS-001	Search WBRS Records of COCR/FOC	Online/Update	Ad-hoc
ASS-002	View WBRS Records of EE1	Online/Update	Ad-hoc
ASS-003	View WBRS Records of EE2	Online/Update	Ad-hoc
ASS-004	View WBRS Records of EE3	Online/Update	Ad-hoc
ASS-005	View WBRS Records of EE4	Online/Update	Ad-hoc
ASS-006	Search WBRS Records of REA	Online/Update	Ad-hoc
ASS-007	View WBRS Records of REA1	Online/Update	Ad-hoc
ASS-008	View WBRS Records of REA3	Online/Update	Ad-hoc
REQ-2001	Maintain REA Case	Online/Update	Ad-hoc
REQ-2003	Genereate REA E-Licence	Online/Update	Ad-hoc
REA-001	Maintain REA Registration	Online/Update	Ad-hoc
REQ-3001	Maintain COCR Case	Online/Update	Ad-hoc
REQ-3003	Genereate COCR E-Licence	Online/Update	Ad-hoc
COCR-001	Maintain COCR Registration	Online/Update	Ad-hoc

3.2 REPORTS

N/A

3.3 COMMON UTILITIES

N/A

4 FUNCTION / USER INTERFACE DESCRIPTION

4.1 APPLICATION FUNCTIONS

4.1.1 ASS-001 Search WBRS Records of COCR/FOC

Program Environment:

Function ID	ASS-001	Function Name	Search WBRS Records of COCR/FOC
Mode	Online/Update	Description	Search WBRS Records of COCR/FOC
Project	BEEO		
Source	Csudemo\wbrsRecord.aspx csudemo\csudemo\wbrsRecord.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\wbrsRecordEE1Class.vb csudemo\csudemo\wbrsRecordEE2Class.vb csudemo\csudemo\wbrsRecordEE3Class.vb csudemo\csudemo\wbrsRecordEE4Class.vb csudemo\csudemo\buildentity.vb csudemo\csudemo\Task.vb csudemo\csudemo\clsJS.vb csudemo\csudemo\assignment.vb csudemo\csudemo\assignment_additionInformation.vb csudemo\csudemo\ProcessStatusAction.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript,,		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_sync_BEEO_FORMEE1			X		X
BEEODMS	tbl_sync_BEEO_FORMEE1_EESU					X
BEEODMS	tbl_sync_BEEO_FORMEE2			X		X
BEEODMS	tbl_sync_BEEO_FORMEE2_EESU					X
BEEODMS	tbl_sync_BEEO_FORMEE3			X		X
BEEODMS	tbl_sync_BEEO_FORMEE3_EESU					X
BEEODMS	tbl_sync_BEEO_FORMEE4			X		X
BEEODMS	tbl_sync_BEEO_FORMEE4_EESU					X
BEEODMS	tbl_sync_application_attachment					X
BEEODMS	tbl_assignment		X			
BEEODMS	tbl_sbmCOCR		X			
BEEODMS	tbl_sbmCOCR_AddtInfoEE1		X			

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BEEODMS	tbl_sbmCOCR_AddtioInfoEE2		X			
BEEODMS	tbl_sbmCOCR_AddtioInfoEE3		X			
BEEODMS	tbl_sbmFOC		X			
BEEODMS	tbl_sbmFOC_AddtioInfo		X			
BEEODMS	tbl_inbox		X			
BEEODMS	tbl_CaseDoc		X			

Program Logic:

Object	Event	Validation / Action / Remarks
“Status” DropDownList	On Change	If user wants to search WBRS Records of COCR/FOC then Call wbrsRecord.load_data () function for getting the result End If
“Cancel” Button	On Click	If user wants to cancel WBRS Records of COCR/FOC then Call wbrsRecord.btnCancel_Click () function for cancel the checked records End If
“Assign” Button	On Click	If user wants to cancel WBRS Records of COCR/FOC then Call wbrsRecord.btnAssign_Click () function for Assign the checked records End If

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrsRecord.aspx.vb):

Name	Return Type	Description Text
load_data	datatable	Load WBRS Records of COCR/FOC
btnCancel_Click	bool	Cancel WBRS Records of COCR/FOC
btnAssign_Click	bool	Assign WBRS Records of COCR/FOC

Parameters of the method (load_data)

Name	Data Type	Description Text
submission_type	String	Submission type

Parameters of the method (btnCancel_Click)

Name	Data Type	Description Text
ApplicationNo	String	Application No

Parameters of the method (btnAssign_Click)

Name	Data Type	Description Text
ApplicationNo	String	Application No

The Page elements

Column	Description

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Select to Assign	Checkbox to assign/cancel
Submission Type	Options: - EE1 - EE2 - EE3 - EE4
Application No.	Application Number generated from WBRS Link to WBRS Record details page
Building Name	Building Name
Building Address	Building Address
Receive Date	Receive Date
Status	Options: - PENDING - NEW - CONVERTED - CANCELLED
Inspector	Inspector of the assignment
Engineer	Engineer of the assignment

Screens Used:

Screen ID	ASS-001 Search WBRS Records of COCR/FOC (wbrsRecord.aspx)																																											
Description	Show the WBRS Records of COCR/FOC page																																											
Data Management System (BEEO) - WBRS Record Assignment Status: <input type="button" value="▼"/> <ul style="list-style-type: none"> - EE1 <input type="checkbox"/> Select to Assign <input type="checkbox"/> Submission Type <input type="checkbox"/> Application No. <input type="checkbox"/> Building Name <input type="checkbox"/> Building Address <input type="checkbox"/> Receive Date <input type="checkbox"/> Status <input type="checkbox"/> Inspector <input type="checkbox"/> Engineer <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Building Address</th> <th>Receive Date</th> <th>Status</th> <th>Inspector</th> <th>Engineer</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>EE1</td> <td>ee1005</td> <td>string</td> <td>Ostring-Ostring string string, Aberdeen</td> <td>24/11/2021</td> <td>CONVERTED TO/EEBS</td> <td>E/EEB5/1</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> - EE2 <input type="checkbox"/> Select to Assign <input type="checkbox"/> Submission Type <input type="checkbox"/> Application No. <input type="checkbox"/> Building Name <input type="checkbox"/> Building Address <input type="checkbox"/> Receive Date <input type="checkbox"/> Status <input type="checkbox"/> Inspector <input type="checkbox"/> Engineer <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Building Address</th> <th>Receive Date</th> <th>Status</th> <th>Inspector</th> <th>Engineer</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>EE2</td> <td>ee2003</td> <td>string</td> <td>Ostring-Ostring string string, Kowloon Bay</td> <td>24/11/2021</td> <td>CONVERTED TO/EEBS</td> <td>E/EEB5/1</td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> - EE3 - EE4 <p>Assign selected submission to:</p> <p>Engineer: <input type="button" value="E/EEB1/2"/> Inspector: <input type="button" value="BSI/EEB/PS9/3"/></p> <p>Cancel Reason: <input type="text"/></p> <p><input type="button" value="Cancel"/></p>										Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer	<input type="checkbox"/>	EE1	ee1005	string	Ostring-Ostring string string, Aberdeen	24/11/2021	CONVERTED TO/EEBS	E/EEB5/1			Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer	<input type="checkbox"/>	EE2	ee2003	string	Ostring-Ostring string string, Kowloon Bay	24/11/2021	CONVERTED TO/EEBS	E/EEB5/1	
	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer																																				
<input type="checkbox"/>	EE1	ee1005	string	Ostring-Ostring string string, Aberdeen	24/11/2021	CONVERTED TO/EEBS	E/EEB5/1																																					
	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer																																				
<input type="checkbox"/>	EE2	ee2003	string	Ostring-Ostring string string, Kowloon Bay	24/11/2021	CONVERTED TO/EEBS	E/EEB5/1																																					

Screen Navigation:

Screen ID	Called from	Calling
wbrsRecord.aspx	-	wbrsRecord.aspx

4.1.2 ASS-002 View WBRS Records of EE1

Program Environment:

Function ID	ASS-002	Function Name	View WBRS Records of EE1
Mode	Online/Update	Description	View WBRS Records of EE1
Project	BEEO		
Source	Csudemo\wbrs_EE1.aspx csudemo\csudemo\wbrs_EE1.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\clsJS.vb csudemo\csudemo\misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync BEEO FORMEE1					X
BEEODMS	tbl sync BEEO FORMEE1 EESU					X
BEEODMS	tbl sync application attachment					X

Program Logic:

Object	Event	Validation / Action / Remarks
NA	NA	NA

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrs_EE1.aspx.vb):

Name	Return Type	Description Text
load_data	Class	Load WBRS Records EE1

Parameters of the method (load_data)

Name	Data Type	Description Text
ApplicationNo	String	Application No

The page elements

WBRS - EE1 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	
Cancel Reason	Textarea	
Address of Proposed Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Lot No.	Textbox	
Developer		
BEC Edition	Textbox	
Company Name (English)	Textbox	
Company Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Position	Textbox	
Name (English)	Textbox	Developer Name (English)
Name (Chinese)	Textbox	Developer Name (Chinese)
Correspondence Address	Label	Developer Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	

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Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	REA Correspondence Addresss
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	Date format = dd/MM/yyyy
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational

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		- Other composite use	
Other composite use	Textbox	Description of Other composite use	
Date of Declaration by REA	Textbox	Date format = dd/MM/yyyy	
Supersede Previous Form	Radio Button	Options: - Yes - No	
Previous Submission No.	Textbox		
Date of Declaration by REA in Previous Form	Textbox		
Consent Building Work MapType	Radio Button	Options: - plan - map	
Consent Issue Date	Textbox		
Consent Document No. Type	Radio Button	Options: - Permit No. - Reference No. - Contract No.	
Consent Document No.	Textbox		
Commence Date Type	Radio Button	Options: - Anticipated - Actual	
Commence Date	Textbox		
Occupation Date	Textbox		
Internal Floor Area(m ²)	Textbox		
Exemption Grant	Radio Button	Options: - Yes - No	
Exemption Reference No.	Textbox		
Exemption Date	Textbox		
Exemption Installations	Textbox		
Checklist of Document Proof that must be submitted	Label		
Copy of consent to the commencement of building works	Checkbox		
Site location plan/ map * in A3 size	Checkbox		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: - Submission Form

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			<ul style="list-style-type: none"> - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form 	
Remark				

Screens Used:

Screen ID	ASS-002 View WBRS Records of EE1 (wbrs_EE1.aspx)		
Description	Show the WBRS Records of EE1 page		

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localhost:54350/csudemo/wbrs_EE1.aspx?AppNo=ee1005&Seq=1			
Building	Room/Flat string	Floor string	Block string
Street No.	string	Start No.: 0	Alpha string
		End No.: 0	Alpha string
Street (English)	string		
District	Aberdeen	Area	
Telephone	string	Fax	string
Email	string		
Registered Energy Assessor			
BEC Edition	2012		
Salutation	Mr. Miss Ms.		
Name (English)	string		
Name (Chinese)	string		
Correspondence Address			
Building	Room/Flat string	Floor string	Block string
Street No.	string	Start No.: 0	Alpha string
		End No.: 0	Alpha string
Street (English)	string		
District	Aberdeen	Area	
Telephone	string	Fax	string
Email	string		
Registration No.	string	Expiry Date	24/11/2021
localhost:54350/csudemo/wbrs_EE1.aspx?AppNo=ee1005&Seq=1			
Telephone	string	Fax	string
Email	string		
Registration No.	string	Expiry Date	24/11/2021
Supplementary Information			
Type of Building			
<input type="checkbox"/> Commercial	<input type="checkbox"/> Community	<input type="checkbox"/> Hospital, clinic or rehabilitation center	
<input type="checkbox"/> Residential	<input type="checkbox"/> Municipal	<input type="checkbox"/> Composite (industrial & office)	
<input type="checkbox"/> Industrial	<input type="checkbox"/> Government	<input type="checkbox"/> Composite (commercial & residential)	
<input type="checkbox"/> Hotel and guesthouse	<input type="checkbox"/> Railway station	<input type="checkbox"/> Passenger terminal building of airport	
<input type="checkbox"/> Educational	<input type="checkbox"/> Other composite use		
Date of Declaration by REA		Supersede Previous Form	<input type="radio"/> Yes <input type="radio"/> No
Previous Submission No.		Date of Declaration by REA in Previous Form	
Consent Building Work MapType	<input type="radio"/> plan <input type="radio"/> map	Consent Issue Date	
Consent Document No. Type	<input type="radio"/> Permit No. <input type="radio"/> Reference No. <input type="radio"/> Contract No.	Consent Document No.	
Commence Date Type	<input type="radio"/> Anticipated <input type="radio"/> Actual	Commence Date	
Occupation Date		Internal Floor Area(m^2)	
Exemption Grant	<input type="radio"/> Yes <input type="radio"/> No	Exemption Reference No.	
Exemption Date		Exemption Installations	
Checklist of Document Proof that must be submitted			
Copy of consent to the commencement of building works	<input type="checkbox"/>	Site location plan/ map * in A3 size	<input type="checkbox"/>
Responsible Person			
Organization Name (English)		Organization Name (Chinese)	
Name (English)		Name (Chinese)	
Attachment			

Screen Navigation:

Screen ID	Called from	Calling
wbrs_EE1.aspx	-	wbrs_EE1.aspx

4.1.3 ASS-003 View WBRS Records of EE2

Program Environment:

Function ID	ASS-003	Function Name	View WBRS Records of EE2
Mode	Online/Update	Description	View WBRS Records of EE2
Project	BEEO		
Source	Csudemo\wbrs_EE2.aspx csudemo\csudemo\wbrs_EE2.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync BEEO FORMEE2					X
BEEODMS	tbl sync BEEO FORMEE2 EESU					X
BEEODMS	tbl sync application attachment					X

Program Logic:

Object	Event	Validation / Action / Remarks
NA	NA	NA

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class wbrs_EE2.aspx.vb):

Name	Return Type	Description Text
load_data	Class	Load WBRS Records EE2

Parameters of the method (load_data)

Name	Data Type	Description Text

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ApplicationNo	String	Application No
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The page elements

WBRS - EE2 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	
Cancel Reason	Textarea	
Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Lot No.	Textbox	
Developer		
BEC Edition	Textbox	
Company Name (English)	Textbox	
Company Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Position	Textbox	
Name (English)	Textbox	Developer Name (English)
Name (Chinese)	Textbox	Developer Name (Chinese)
Correspondence Address	Label	Developer Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	

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Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	REA Correspondence Addresss
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport

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		<ul style="list-style-type: none"> - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	
Supersede Previous Form	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No
Previous Submission No.	Textbox	
Date of Declaration by REA in Previous Form	Textbox	
Technical Forms Enclosed	Label	
Form EE-EL	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA
Form EE-LG	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA
Form EE-AC	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA
Form EE-LE	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA
Form EE-PB	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA
Reference Number of Stage One Declaration	Textbox	
Issue Date of "occupation approval"	Textbox	
Reference No. of "occupation approval"	Textbox	
Total internal floor area of the building (m ²)	Textbox	
Exemption Grant	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No
Exemption Reference No.	Textbox	
Exemption Date	Textbox	
Exemption Installations	Textarea	
Checklist of Document Proof that must be submitted	Label	
Copy of occupation approval	Checkbox	
Responsible Person	Label	
Organization Name (English)	Textbox	
Organization Name (Chinese)	Textbox	

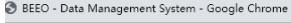
**PROGRAM MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
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Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: <ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form
		Remark	

Screens Used:

Screen ID	ASS-003 View WBRS Records of EE2 (wbrs_EE2.aspx)
Description	Show the WBRS Records of EE2 page

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 ① localhost:54350/csudemo/wbrs_EE2.aspx?AppNo=L210000216&Seq=1																																																																																																																																																																																
Data Management System (BEOO) WBRs - EE2																																																																																																																																																																																
<table border="1"> <tr> <td>Application No.</td> <td colspan="3">L210000216</td> </tr> <tr> <td>Building Name(English)</td> <td colspan="3">Transport Building</td> </tr> <tr> <td>Building Name(Chinese)</td> <td colspan="3">交通城大厦</td> </tr> <tr> <td>Cancel Reason</td> <td colspan="3"></td> </tr> <tr> <td colspan="4">Address of Building</td> </tr> <tr> <td>Street No.</td> <td>Start No.: 1</td> <td>Alpha:</td> <td>a</td> </tr> <tr> <td></td> <td>End No.: 2</td> <td>Alpha:</td> <td>a</td> </tr> <tr> <td>Street</td> <td>English</td> <td colspan="2">ATT Street</td> </tr> <tr> <td></td> <td>Chinese</td> <td colspan="2">運達路</td> </tr> <tr> <td>District</td> <td>Kowloon Bay</td> <td>Area</td> <td>Hong Kong</td> </tr> <tr> <td>Lot No</td> <td colspan="3">100</td> </tr> <tr> <td colspan="4">Developer</td> </tr> <tr> <td>BEC Edition</td> <td colspan="3">2021</td> </tr> <tr> <td>Company Name (English)</td> <td colspan="3">ABC AAA Company</td> </tr> <tr> <td>Company Name (Chinese)</td> <td colspan="3">利民公司</td> </tr> <tr> <td>Salution</td> <td><input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.</td> <td>Position</td> <td>Manager</td> </tr> <tr> <td>Name(English)</td> <td>Chan Tai Ha</td> <td>Name(Chinese)</td> <td>陳大夏</td> </tr> <tr> <td colspan="4">Correspondence Address</td> </tr> <tr> <td></td> <td>Room/Flat: Flat A</td> <td>Floor:</td> <td>1</td> </tr> <tr> <td>Building</td> <td colspan="3">Transport Building</td> </tr> <tr> <td>Street No.</td> <td>Start No.: A</td> <td>Alpha:</td> <td></td> </tr> <tr> <td>District</td> <td>Kowloon Bay</td> <td>Area</td> <td></td> </tr> <tr> <td>Telephone</td> <td>string</td> <td>Fax</td> <td>string</td> </tr> <tr> <td>Email</td> <td>string</td> <td colspan="2"></td> </tr> <tr> <td colspan="4">Registered Energy Assessor</td> </tr> <tr> <td>Inspect Date</td> <td colspan="3">24/11/2021</td> </tr> <tr> <td>Salutation</td> <td><input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.</td> <td colspan="2"></td> </tr> <tr> <td>Name (English)</td> <td colspan="3">WONG WAI PING</td> </tr> <tr> <td>Name (Chinese)</td> <td colspan="3">黃偉萍</td> </tr> <tr> <td colspan="4">Correspondence Address</td> </tr> <tr> <td></td> <td>Room/Flat: A</td> <td>Floor:</td> <td>Floor 1</td> </tr> <tr> <td>Building</td> <td colspan="3">ABC GEF Building</td> </tr> <tr> <td>Street No.</td> <td>Start No.: 0</td> <td>Alpha:</td> <td></td> </tr> <tr> <td></td> <td>End No.: 0</td> <td>Alpha:</td> <td></td> </tr> <tr> <td>Street (English)</td> <td colspan="3">ABC Street</td> </tr> <tr> <td>District</td> <td>Kowloon Bay</td> <td>Area</td> <td></td> </tr> <tr> <td>Telephone</td> <td>string</td> <td>Fax</td> <td>string</td> </tr> <tr> <td>Email</td> <td>string</td> <td colspan="2"></td> </tr> <tr> <td>Registration No.</td> <td>string</td> <td>Expiry Date</td> <td>24/11/2021</td> </tr> <tr> <td colspan="4">Supplementary Information</td> </tr> <tr> <td colspan="4"> Type of Building <table border="1"> <tr> <td><input type="checkbox"/> Commercial</td> <td><input type="checkbox"/> Community</td> <td><input type="checkbox"/> Hospital, clinic or rehabilitation center</td> </tr> <tr> <td><input type="checkbox"/> Residential</td> <td><input type="checkbox"/> Municipal</td> <td><input type="checkbox"/> Composite (industrial & office)</td> </tr> <tr> <td><input type="checkbox"/> Industrial</td> <td><input type="checkbox"/> Government</td> <td><input type="checkbox"/> Composite (commercial & residential)</td> </tr> </table> </td> </tr> </table>				Application No.	L210000216			Building Name(English)	Transport Building			Building Name(Chinese)	交通城大厦			Cancel Reason				Address of Building				Street No.	Start No.: 1	Alpha:	a		End No.: 2	Alpha:	a	Street	English	ATT Street			Chinese	運達路		District	Kowloon Bay	Area	Hong Kong	Lot No	100			Developer				BEC Edition	2021			Company Name (English)	ABC AAA Company			Company Name (Chinese)	利民公司			Salution	<input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.	Position	Manager	Name(English)	Chan Tai Ha	Name(Chinese)	陳大夏	Correspondence Address					Room/Flat: Flat A	Floor:	1	Building	Transport Building			Street No.	Start No.: A	Alpha:		District	Kowloon Bay	Area		Telephone	string	Fax	string	Email	string			Registered Energy Assessor				Inspect Date	24/11/2021			Salutation	<input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.			Name (English)	WONG WAI PING			Name (Chinese)	黃偉萍			Correspondence Address					Room/Flat: A	Floor:	Floor 1	Building	ABC GEF Building			Street No.	Start No.: 0	Alpha:			End No.: 0	Alpha:		Street (English)	ABC Street			District	Kowloon Bay	Area		Telephone	string	Fax	string	Email	string			Registration No.	string	Expiry Date	24/11/2021	Supplementary Information				Type of Building <table border="1"> <tr> <td><input type="checkbox"/> Commercial</td> <td><input type="checkbox"/> Community</td> <td><input type="checkbox"/> Hospital, clinic or rehabilitation center</td> </tr> <tr> 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Type of Building					
<input type="checkbox"/> Commercial	<input type="checkbox"/> Community	<input type="checkbox"/> Hospital, clinic or rehabilitation center			
<input type="checkbox"/> Residential	<input type="checkbox"/> Municipal	<input type="checkbox"/> Composite (industrial & office)			
<input type="checkbox"/> Industrial	<input type="checkbox"/> Government	<input type="checkbox"/> Composite (commercial & residential)			
<input type="checkbox"/> Hotel and guesthouse	<input type="checkbox"/> Railway station	<input type="checkbox"/> Passenger terminal building of airport			
<input type="checkbox"/> Educational	<input type="checkbox"/> Other composite use				
Date of Declaration by REA		Supersede Previous Form	<input type="radio"/> Yes <input type="radio"/> No		
Previous Submission No.		Date of Declaration by REA in Previous Form			
Technical Forms Enclosed					
Form EE-EL	<input type="radio"/> Yes <input type="radio"/> NA	Form EE-LG	<input type="radio"/> Yes <input type="radio"/> NA		
Form EE-AC	<input type="radio"/> Yes <input type="radio"/> NA	Form EE-LE	<input type="radio"/> Yes <input type="radio"/> NA		
Form EE-PB	<input type="radio"/> Yes <input type="radio"/> NA				
Reference Number of Stage One Declaration		Issue Date of "occupation approval"			
Reference No. of "occupation approval"		Total internal floor area of the building (m^2)			
Exemption Grant	<input type="radio"/> Yes <input type="radio"/> No	Exemption Reference No			
Exemption Date		Exemption Installations			
Checklist of Document Proof that must be submitted					
Copy of occupation approval	<input type="checkbox"/>				
Responsible Person					
Organization Name (English)		Organization Name (Chinese)			
Name (English)		Name (Chinese)			
Attachment					
File Name script.txt	Type	Remark			

Screen Navigation:

Screen ID	Called from	Calling
wbrs_EE2.aspx	-	wbrs_EE2.aspx

4.1.4 ASS-004 View WBRS Records of EE3

Program Environment:

Function ID	ASS-004	Function Name	View WBRS Records of EE3
Mode	Online/Update	Description	View WBRS Records of EE3
Project	BEEO		
Source	Csudemo\wbrs_EE3.aspx csudemo\csudemo\wbrs_EE3.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync BEEO FORMEE3					X
BEEODMS	tbl sync BEEO FORMEE3 EESU					X
BEEODMS	tbl sync BEEO FORMEE3 EESU COCR					X
BEEODMS	tbl sync BEEO FORMEE3 EESU FOC					X
BEEODMS	tbl sync application attachment					X

Program Logic:

Object	Event	Validation / Action / Remarks
NA	NA	NA

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrs_EE3.aspx.vb):

Name	Return Type	Description Text
load_data	Class	Load WBRS Records EE3

Parameters of the method (load_data)

Name	Data Type	Description Text

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ApplicationNo	String	Application No
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The page elements

WBRS – EE3 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Cancel Reason	Textarea	
Information of Building		
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	
Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
COCR Registration No.	Textbox	
Owner		
Name (English)	Textbox	
Name (Chinese)	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Representative Person	Label	
Position	Textbox	
Name (English)	Textbox	Representative Person Name (English)
Name (Chinese)	Textbox	Representative Person Name (Chinese)
Correspondence Address	Label	Representative Person Correspondence Address
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	

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Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr. - Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station

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		<ul style="list-style-type: none"> - Passenger terminal building of airport - Educational - Other composite use 																
Other composite use	Textbox	Description of Other composite use																
Date of Declaration by REA	Textbox																	
Supersede Previous Form	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No 																
Previous Submission No.	Textbox																	
Date of Declaration by REA in Previous Form	Textbox																	
Technical Forms Enclosed	Label																	
Form EE-EL	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA 																
Form EE-LG	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA 																
Form EE-AC	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA 																
Form EE-LE	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA 																
Form EE-PB	Radio Button	Options: <ul style="list-style-type: none"> - Yes - NA 																
Registration	Grid	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>Registration No.</td> <td></td> </tr> <tr> <td>Expiry Date</td> <td></td> </tr> </tbody> </table>	Name	Details	Registration No.		Expiry Date											
Name	Details																	
Registration No.																		
Expiry Date																		
Form of Compliance	Grid	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>Location of Works</td> <td></td> </tr> <tr> <td>Date of Issue</td> <td></td> </tr> <tr> <td>Edition of Code of Practice applied (Year)</td> <td></td> </tr> <tr> <td>Lighting</td> <td>Display Y if Type = LG</td> </tr> <tr> <td>Air Conditioning</td> <td>Display Y if Type = AC</td> </tr> <tr> <td>Electrical</td> <td>Display Y if Type = EL</td> </tr> <tr> <td>Lift & Escalator</td> <td>Display Y if Type = LE</td> </tr> </tbody> </table>	Name	Details	Location of Works		Date of Issue		Edition of Code of Practice applied (Year)		Lighting	Display Y if Type = LG	Air Conditioning	Display Y if Type = AC	Electrical	Display Y if Type = EL	Lift & Escalator	Display Y if Type = LE
Name	Details																	
Location of Works																		
Date of Issue																		
Edition of Code of Practice applied (Year)																		
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Air Conditioning	Display Y if Type = AC																	
Electrical	Display Y if Type = EL																	
Lift & Escalator	Display Y if Type = LE																	
Exemption Grant	Radio Button	Options: <ul style="list-style-type: none"> - Yes - No 																
Exemption Reference No.	Textbox																	

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Exemption Date	Textbox		
Exemption Installations	Textarea		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
	Type	Options:	<ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form
	Remark		

Screens Used:

Screen ID	ASS-004 View WBRS Records of EE3 (wbrs_EE3.aspx)
Description	Show the WBRS Records of EE3 page

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 BEOO - Data Management System - Google Chrome ① localhost:54350/csdemo/wbrs_EE3.aspx?AppNo=ee3001&Seq=1																																																																										
Data Management System (BEOO) WBRs - EE3																																																																										
<table border="1"> <tr> <td>Application No.</td> <td colspan="2">ee3001</td> </tr> <tr> <td>Cancel Reason</td> <td colspan="2"></td> </tr> <tr> <td colspan="3">Information of Building</td> </tr> <tr> <td>Building Name(English)</td> <td colspan="2">bldgName</td> </tr> <tr> <td>Building Name(Chinese)</td> <td colspan="2">bldgName中文</td> </tr> <tr> <td colspan="3">Address of Building</td> </tr> <tr> <td>Street No.</td> <td>Start No. 1</td> <td>Alpha string</td> </tr> <tr> <td></td> <td>End No. 22</td> <td>Alpha string</td> </tr> <tr> <td>Street</td> <td>English</td> <td>stName</td> </tr> <tr> <td></td> <td>Chinese</td> <td>stName中文</td> </tr> <tr> <td>District</td> <td>Aberdeen</td> <td>Area</td> </tr> <tr> <td>COCR Registration No.</td> <td colspan="2">Hong Kong</td> </tr> <tr> <td colspan="3">Owner</td> </tr> <tr> <td>Name (English)</td> <td colspan="2">reaName</td> </tr> <tr> <td>Name (Chinese)</td> <td colspan="2">reaName名字</td> </tr> <tr> <td>Salutation</td> <td colspan="2"> <input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms. </td> </tr> <tr> <td colspan="3">Representative Person</td> </tr> <tr> <td>Position</td> <td colspan="2">string</td> </tr> <tr> <td>Name (English)</td> <td colspan="2">represenName</td> </tr> <tr> <td>Name (Chinese)</td> <td colspan="2">represenName中文</td> </tr> </table>			Application No.	ee3001		Cancel Reason			Information of Building			Building Name(English)	bldgName		Building Name(Chinese)	bldgName中文		Address of Building			Street No.	Start No. 1	Alpha string		End No. 22	Alpha string	Street	English	stName		Chinese	stName中文	District	Aberdeen	Area	COCR Registration No.	Hong Kong		Owner			Name (English)	reaName		Name (Chinese)	reaName名字		Salutation	<input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.		Representative Person			Position	string		Name (English)	represenName		Name (Chinese)	represenName中文													
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Supplementary Information						
Type of Building						
<input type="checkbox"/> Commercial	<input type="checkbox"/> Community	<input type="checkbox"/> Hospital, clinic or rehabilitation center				
<input type="checkbox"/> Residential	<input type="checkbox"/> Municipal	<input type="checkbox"/> Composite (industrial & office)				
<input type="checkbox"/> Industrial	<input type="checkbox"/> Government	<input type="checkbox"/> Composite (commercial & residential)				
<input type="checkbox"/> Hotel and guesthouse	<input type="checkbox"/> Railway station	<input type="checkbox"/> Passenger terminal building of airport				
<input type="checkbox"/> Educational	<input type="checkbox"/> Other composite use					
Date of Declaration by REA	<input type="text"/>	Supersede Previous Form	<input type="radio"/> Yes	<input type="radio"/> No		
Previous Submission No.	<input type="text"/>	Date of Declaration by REA in Previous Form	<input type="text"/>			
Technical Forms Enclosed						
Form EE-EL	<input checked="" type="radio"/> Yes <input type="radio"/> NA	Form EE-LG	<input checked="" type="radio"/> Yes <input type="radio"/> NA			
Form EE-AC	<input checked="" type="radio"/> Yes <input type="radio"/> NA	Form EE-LE	<input checked="" type="radio"/> Yes <input type="radio"/> NA			
Form EE-PB	<input checked="" type="radio"/> Yes <input type="radio"/> NA					
Registration						
Registration No.	EXPIRY_DATE					
string	2021/11/19					
Form of Compliance						
Location of Works	Date of Issue	Edition of Code of Practice applied (Year)	Lighting	Air Conditioning	Electrical	Lift & Escalators
string	2021/11/19	string	Y	Y	Y	Y
Exemption Grant :	<input checked="" type="radio"/> Yes <input type="radio"/> No	Exemption Reference No.	<input type="text"/>			
Exemption Date	<input type="text"/>	Exemption Installations:	<input type="text"/>			
Responsible Person						
Organization Name(English)	<input type="text"/>	Organization Name(Chinese)	<input type="text"/>			
Name(English)	<input type="text"/>	Name(Chinese)	<input type="text"/>			
Attachment						

Screen Navigation:

Screen ID	Called from	Calling
wbrs_EE3.aspx	-	wbrs_EE3.aspx

4.1.5 ASS-005 View WBRS Records of EE4

Program Environment:

Function ID	ASS-005	Function Name	View WBRS Records of EE4
Mode	Online/Update	Description	View WBRS Records of EE4
Project	BEEO		
Source	Csudemo\wbrs_EE4.aspx csudemo\csudemo\wbrs_EE4.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

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File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync BEEO FORMEE4					X
BEEODMS	tbl sync BEEO FORMEE4 EESU					X
BEEODMS	tbl sync BEEO FORMEE4 EESU WORK					X
BEEODMS	tbl sync application attachment					X

Program Logic:

Object	Event	Validation / Action / Remarks
NA	NA	NA

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrs_EE4.aspx.vb):

Name	Return Type	Description Text
load_data	Class	Load WBRS Records EE4

Parameters of the method (load_data)

Name	Data Type	Description Text
ApplicationNo	String	Application No

The page elements

WBRS – EE4 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Cancel Reason	Textarea	
Information of Building		
Building Name (English)	Textbox	
Building Name (Chinese)	Textbox	
Address of Building	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	

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Information of Relevant Unit / Common Area		
Name (English)	Textbox	
Name (Chinese)	Textbox	
Location	Label	
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Other Description	Textbox	
Information of Responsible Person		
Type of Responsible Person	Checkbox	Options: - Owner of the relevant common area - Owner of the relevant central building services installation - Tenant of the relevant unit - Occupier of the relevant unit - Owner of the relevant unit
Name (English)	Textbox	Name of Responsible Person
Name (Chinese)	Textbox	Name of Responsible Person
Representative	Label	
Salutation	Radio Button	Options: - Mr. - Miss Ms.
Name (English)	Textbox	Name of Representative Person
Name (Chinese)	Textbox	Name of Representative Person
Position	Textbox	
Correspondence Address	Label	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street	Label	
English	Textbox	Street English Name
Chinese	Textbox	Street Chinese Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registered Energy Assessor		
BEC Edition	Textbox	
Inspect Date	Textbox	
Salutation	Radio Button	Options: - Mr.

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		- Miss - Ms.
Name (English)	Textbox	REA English Name
Name (Chinese)	Textbox	REA Chinese Name
Correspondence Addresss	Label	
Room/Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Street No.	Label	
Start No.	Textbox	Street Start No.
Alpha	Textbox	Street Start No. Alpha
End No.	Textbox	Street End No.
Alpha	Textbox	Street End No. Alpha
Street (English)	Textbox	Street English Name
District	Textbox	
Area	Textbox	
Telephone	Textbox	
Fax	Textbox	
Email	Textbox	
Registration No.	Textbox	REA Registration No.
Expiry Date	Textbox	
Supplementary Information		
Type of Building	Checkbox List	Options: - Commercial - Community - Hospital, clinic or rehabilitation center - Residential - Municipal - Composite (industrial & office) - Industrial - Government - Composite (commerical & residential) - Hotel and guesthouse - Railway station - Passenger terminal building of airport - Educational - Other composite use
Other composite use	Textbox	Description of Other composite use
Date of Declaration by REA	Textbox	
Supersede Previous Form	Radio Button	Options: - Yes - No

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Previous Submission No.	Textbox																					
Date of Declaration by REA in Previous Form	Textbox																					
Technical Forms Enclosed	Label																					
Form EE-EL	Radio Button	Options: - Yes - NA																				
Form EE-LG	Radio Button	Options: - Yes - NA																				
Form EE-AC	Radio Button	Options: - Yes - NA																				
Form EE-LE	Radio Button	Options: - Yes - NA																				
Form EE-PB	Radio Button	Options: - Yes - NA																				
Details of major retrofitting works	Grid	<table border="1"> <thead> <tr> <th>Name</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>Location of Works</td> <td></td> </tr> <tr> <td>Common Area</td> <td>Display Y if is selected</td> </tr> <tr> <td>Unit</td> <td>Display Y if is selected</td> </tr> <tr> <td>Area of Works (m²)</td> <td></td> </tr> <tr> <td>Lighting</td> <td>Display Y if Type = LG</td> </tr> <tr> <td>Air Conditioning</td> <td>Display Y if Type = AC</td> </tr> <tr> <td>Electrical</td> <td>Display Y if Type = EL</td> </tr> <tr> <td>Lift & Escalator</td> <td>Display Y if Type = LE</td> </tr> <tr> <td>Work Completion Date</td> <td></td> </tr> </tbody> </table>	Name	Details	Location of Works		Common Area	Display Y if is selected	Unit	Display Y if is selected	Area of Works (m ²)		Lighting	Display Y if Type = LG	Air Conditioning	Display Y if Type = AC	Electrical	Display Y if Type = EL	Lift & Escalator	Display Y if Type = LE	Work Completion Date	
Name	Details																					
Location of Works																						
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Unit	Display Y if is selected																					
Area of Works (m ²)																						
Lighting	Display Y if Type = LG																					
Air Conditioning	Display Y if Type = AC																					
Electrical	Display Y if Type = EL																					
Lift & Escalator	Display Y if Type = LE																					
Work Completion Date																						
Total Area of Works (m ²)	Textbox																					
Exemption Grant	Radio Button	Options: - Yes - No																				
Exemption Reference No.	Textbox																					
Exemption Date	Textbox																					
Exemption Installations	Textarea																					
Checklist of Document Proof that must be submitted	Label																					
Copy of letter, e-mail or delivery note/receipt etc. to certify that the Form of Compliance has been sent to responsible person of the relevant building / units	Checkbox																					
Copy of letter, e-mail or delivery note/receipt etc. to certify that the copy of Form of Compliance has	Label																					

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been sent to the following administrator of the building concerned			
Property Management Company	Checkbox		
Building Owner	Checkbox		
N/A	Checkbox		
Responsible Person	Label		
Organization Name (English)	Textbox		
Organization Name (Chinese)	Textbox		
Name (English)	Textbox		
Name (Chinese)	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
	Type	Options: - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form	
		Remark	

Screens Used:

Screen ID	ASS-005 Search WBRS Records of EE4 (wbrs_EE4.aspx)
Description	Show the WBRS Records of EE4 page

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BEEO - Data Management System - Google Chrome			
① localhost:54350/csudemo/wbrs_EE4.aspx?AppNo=77&Seq=1			
Data Management System (BEEO) WBRs - EE4			
Application No.	77		
Cancel Reason			
Information of Building			
Building Name(English)	1		
Building Name(Chinese)	1		
Address of Building			
Street No.	Start No. 0	Alpha 1	
	End No. 0	Alpha 1	
Street	English	1	
	Chinese	1	
District	Kowloon Bay	Area	
Information of Relevant Unit / Common Area			
Name (English)	1	Name (Chinese)	1
Location	Room/Flat 1	Floor 1	Block 1
Other Description	1		
Information of Responsible Person			
Type of Responsible Person	<input checked="" type="checkbox"/> Owner of the relevant common area <input checked="" type="checkbox"/> Owner of the relevant central building services installation <input checked="" type="checkbox"/> Tenant of the relevant unit <input checked="" type="checkbox"/> Occupier of the relevant unit <input checked="" type="checkbox"/> Owner of the relevant unit		
Name (English)	1	Name (Chinese)	1
Representative			
Salutation	<input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.		
English Name	1	Chinese Name	1
Position	1		
Correspondence Address			
Street No.	Start No. 0	Alpha 1	
	End No. 0	Alpha 1	
Correspondence Address	Room/Flat 1	Floor 1	Block 1
Building	1		
Street			
English	1	Chinese	
District	Kowloon Bay	Area	
Telephone	1	Fax	1
Email	1		
Registered Energy Assessor			
BEC Edition	1		
Inspect Date	19/11/2021		
Salutation	<input type="radio"/> Mr. <input type="radio"/> Miss <input type="radio"/> Ms.		
Name (English)	1		
Name (Chinese)	1		
Correspondence Address	Room/Flat 1	Floor 1	Block 1
Building	1		
Street No.	Start No. 0	Alpha 1	
	End No. 0	Alpha 1	
Street (English)	1		
District	Kowloon Bay	Area	

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The screenshot shows a web-based form titled "Supplementary Information". It includes the following sections:

- Type of Building:** A grid of checkboxes for various building types: Commercial, Residential, Industrial, Hotel and guesthouse, Educational, Community, Municipal, Government, Railway station, Other composite use, Hospital, clinic or rehabilitation center, Composite (industrial & office), Composite (commercial & residential), and Passenger terminal building of airport.
- Date of Declaration by REA:** A text input field.
- Supersede Previous Form:** A radio button group (Yes/No).
- Previous Submission No.:** A text input field.
- Date of Declaration by REA in Previous Form:** A text input field.
- Technical Forms Enclosed:** A section with three rows for Form EE-EL, Form EE-AC, and Form EE-PB, each with a radio button group (Yes/NA) and a corresponding text input field for the form number.
- Details of major retrofitting works:** A section with fields for Total Area of Works (m²), Exemption Grant (radio button group Yes/No), Exemption Reference No., Exemption Date, Exemption Installations, and several checkboxes for documentation methods (Copy of letter, e-mail or delivery note/receipt etc.) and administrator types (Property Management Company, Building Owner, N/A).
- Responsible Person:** A section with fields for Organization Name (English) and Organization Name (Chinese).

Screen Navigation:

Screen ID	Called from	Calling
wbrs_EE4.aspx	-	wbrs_EE4.aspx

4.1.6 ASS-006 Search WBRS Records of REA

Program Environment:

Function ID	ASS-006	Function Name	<i>Search WBRS Records of REA</i>
Mode	Online/Update	Description	<i>Search WBRS Records of REA</i>
Project	BEEO		
Source		Csudemo\wbrsRecordREA.aspx csudemo\csudemo\ wbrsRecordREA.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\wbrsRecordREA1Class.vb csudemo\csudemo\wbrsRecordREA3Class.vb csudemo\csudemo\builIdentity.vb csudemo\csudemo\Task.vb csudemo\csudemo\ clsJS.vb csudemo\csudemo\assignment.vb csudemo\csudemo\assignment_additionInformation.vb csudemo\csudemo\ProcessStatusAction.vb csudemo\csudemo \misc\MiscPRG.vb	
Language		VB.NET, Javascript,,	
Development Tools		Visual Studio 2019	
Platform		IIS	
Compiler		.net framework 4.6	

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync BEEO FORMEA1			X		X
BEEODMS	tbl sync BEEO FORMEA3			X		X
BEEODMS	tbl sync application attachment					X
BEEODMS	tbl assignment		X			
BEEODMS	tbl sbmREA		X			
BEEODMS	tbl BEEO FORMEA1		X			
BEEODMS	tbl BEEO FORMEA3		X			
BEEODMS	tbl inbox		X			
BEEODMS	tbl CaseDoc		X			

Program Logic:

Object	Event	Validation / Action / Remarks
“Status” DropDownList	On Change	If user wants to search WBRS Records of REA then Call wbrsRecordREA.load_data () function for getting the result End If

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“Cancel” Button	On Click	If user wants to cancel WBRS Records of REA then Call wbrsRecordREA.btnCancel_Click () function for cancel the checked records End If
“Assign” Button	On Click	If user wants to cancel WBRS Records of REA then Call wbrsRecordREA.btn Assign _Click () function for Assign the checked records End If

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrsRecordREA.aspx.vb):

Name	Return Type	Description Text
load_data	datatable	Load WBRS Records of REA
btnCancel_Click	bool	Cancel WBRS Records of REA
btnAssign_Click	bool	Assign WBRS Records of REA

Parameters of the method (load_data)

Name	Data Type	Description Text
submission_type	String	Submission type

Parameters of the method (btnCancel_Click)

Name	Data Type	Description Text
ApplicationNo	String	Application No

Parameters of the method (btnAssign_Click)

Name	Data Type	Description Text
ApplicationNo	String	Application No

The Page elements

Column	Description
Select to Assign	Checkbox to assign/cancel
Submission Type	Options: - REA1 - REA3
Application No.	Application Number generated from WBRS Link to WBRS Record details page
Name	Applicant Name
Registration No.	Registration No.
Receive Date	Receive Date
Status	Options: - PENDING - NEW - CONVERTED

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	- CANCELLED
STO	STO of the assignment
Engineer	Engineer of the assignment

Screens Used:

Screen ID	<i>ASS-006 Search WBRS Records of REA (wbrsRecordREA.aspx)</i>																																																																																																																																				
Description	Show the WBRS Records of REA page																																																																																																																																				
Data Management System (BEEO) - WBRS Record Assignment for EA Status: <input type="button" value="▼"/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Select to Assign</th> <th>Submission Type</th> <th>Application No.</th> <th>Name</th> <th>Registration No.</th> <th>Receive Date</th> <th>Status</th> <th>Inspector</th> <th>Engineer</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000001</td><td>L160000001_ENG_NAME</td><td></td><td>03/04/2018</td><td>CONVERTED</td><td>E/EEB5/2</td><td>E/EEB5/2</td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000002</td><td>L160000002_ENG_NAME</td><td></td><td>03/04/2018</td><td>CONVERTED</td><td>Guest</td><td>E/EEB1/2</td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000003</td><td>L160000003_ENG_NAME</td><td></td><td>03/04/2018</td><td>CANCELLED</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000004</td><td>L160000004_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000005</td><td>L160000005_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000006</td><td>L160000006_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000007</td><td>L160000007_ENG_NAME</td><td></td><td>03/04/2018</td><td>CONVERTED</td><td>Guest</td><td>E/EEB1/2</td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000008</td><td>L160000008_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000009</td><td>L160000009_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000010</td><td>L160000010_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA1</td><td>L160000011</td><td>L160000011_ENG_NAME</td><td></td><td>03/04/2018</td><td>NEW</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>REA3</td><td>a3250120221782</td><td>engName</td><td></td><td>22/11/2021</td><td>CONVERTED</td><td>STO/EEB2</td><td>E/EEB1/2</td></tr> <tr><td><input type="checkbox"/></td><td>REA3</td><td>a3260120221436</td><td>engName</td><td></td><td>22/11/2021</td><td>CONVERTED</td><td>STO/EEB2</td><td>E/EEB1/2</td></tr> </tbody> </table> <div style="margin-top: 10px;"> Assign selected submission to: Engineer: <input type="button" value="E/EEB1/2"/> <input type="button" value="Assign"/> Cancel Reason: <input type="text"/> <input type="button" value="Cancel"/> </div>								Select to Assign	Submission Type	Application No.	Name	Registration No.	Receive Date	Status	Inspector	Engineer	<input type="checkbox"/>	REA1	L160000001	L160000001_ENG_NAME		03/04/2018	CONVERTED	E/EEB5/2	E/EEB5/2	<input type="checkbox"/>	REA1	L160000002	L160000002_ENG_NAME		03/04/2018	CONVERTED	Guest	E/EEB1/2	<input type="checkbox"/>	REA1	L160000003	L160000003_ENG_NAME		03/04/2018	CANCELLED			<input type="checkbox"/>	REA1	L160000004	L160000004_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA1	L160000005	L160000005_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA1	L160000006	L160000006_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA1	L160000007	L160000007_ENG_NAME		03/04/2018	CONVERTED	Guest	E/EEB1/2	<input type="checkbox"/>	REA1	L160000008	L160000008_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA1	L160000009	L160000009_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA1	L160000010	L160000010_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA1	L160000011	L160000011_ENG_NAME		03/04/2018	NEW			<input type="checkbox"/>	REA3	a3250120221782	engName		22/11/2021	CONVERTED	STO/EEB2	E/EEB1/2	<input type="checkbox"/>	REA3	a3260120221436	engName		22/11/2021	CONVERTED	STO/EEB2	E/EEB1/2
Select to Assign	Submission Type	Application No.	Name	Registration No.	Receive Date	Status	Inspector	Engineer																																																																																																																													
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Screen Navigation:

Screen ID	Called from	Calling
wbrsRecordREA.aspx	-	wbrsRecordREA.aspx

4.1.7 ASS-007 View WBRS Records of REA1

Program Environment:

Function ID	ASS-007	Function Name	View WBRS Records of REA1
Mode	Online/Update	Description	View WBRS Records of REA1
Project	BEEO		
Source	Csudemo\wbrs_REA1.aspx csudemo\csudemo\wbrs_REA1.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_sync_BEEO_FORMEA1					X
BEEODMS	tbl_sync_BEEO_FORMEA1_EXP					X
BEEODMS	tbl_sync_BEEO_FORMEA1_SUBSTANTIATE					X
BEEODMS	tbl_sync_application_attachment					X

Program Logic:

Object	Event	Validation / Action / Remarks
NA	NA	NA

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrs_REA1.aspx.vb):

Name	Return Type	Description Text
load_data	Class	Load WBRS Records REA1

Parameters of the method (load_data)

Name	Data Type	Description Text

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ApplicationNo	String	Application No
---------------	--------	----------------

The page elements

WBRS – REA1 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Receive Date	Textbox	
Application Type	Textbox	
Change of Particulars	Checkbox	Options: - Name - Correspondence Address - Professional Qualification
Registration No.	Textbox	
Expiry Date	Textbox	
Cancel Reason	Textarea	
Personal Details		
Name (English)	Textbox	Salutation + English Name
Name (Chinese)	Textbox	Salutation + Chinese Name
Date of Birth	Textbox	
HKID / Travel Document Number		
Correspondence Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Current Company Name	Textbox	
Current Company Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	

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Region	Textbox						
Contact Phone	Textbox						
Current Company Name	Textbox						
Current Company Address	Label						
Flat	Textbox						
Floor	Textbox						
Block	Textbox						
Building	Textbox						
Start Street No.	Textbox						
Start Street Alpha	Textbox						
End Street No.	Textbox						
End Street Alpha	Textbox						
Street	Textbox						
District	Textbox						
Region	Textbox						
Current Position	Textbox						
Email Address	Textbox						
Telephonse No. (Office)	Textbox						
Fax No.	Textbox						
Professional Qualifications							
Name	Details						
Date of Qualified / Membership No.							
Professional Qualifications (Please tick in the appropriate box(s))	Checkbox Options: <ul style="list-style-type: none"> - Registered professional engineer within the meaning of section 2(1) of the Engineers Registration Ordinance (Cap.409) - Corporate member of the Hong Kong Institution of Engineers (HKIE) - Equivalent qualification recognized by HKIE as being of a standard not lower than that of a corporate member of the Institution in any of these disciplines (please read the attached "Notes to Applicants" Item 2.1) - (Please state your professional membership of the relevant professional body based upon the reciprocal recognition agreements between the HKIE and the professional body) - Other : (please read the attached "Notes to Applicant" Item 2.2) 						
Discipline	Checkbox: <ul style="list-style-type: none"> - BSS - ELL - ENV - MCL 						
Relevant Practical Experience		Label					
		Grid	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #cccccc;">Name</td> <td style="background-color: #cccccc;">Details</td> </tr> <tr> <td colspan="2">From (DD/MM/YY)</td> </tr> </table>	Name	Details	From (DD/MM/YY)	
Name	Details						
From (DD/MM/YY)							

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		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>To (DD/MM/YY)</td> <td></td> </tr> <tr> <td>Position</td> <td></td> </tr> <tr> <td>Company Name</td> <td></td> </tr> <tr> <td>Description</td> <td></td> </tr> </table>	To (DD/MM/YY)		Position		Company Name		Description	
To (DD/MM/YY)										
Position										
Company Name										
Description										
Checklist of Supporting Documents										
(i) I attach documentary proof of relevant practical experience.	<input type="checkbox"/>									
(ii) I attach a photocopy of document to substantiate my professional qualifications and the qualified discipline.	<input type="checkbox"/>									
(iii) I attach a photocopy of the following documents to substantiate my application made under section 5(2) of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B)	<input type="checkbox"/>	With description <input type="text"/>								
Declaration										
Applicable to new application /renewal application only	<input type="checkbox"/>									
(i) I declare that I have the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance.	<input type="checkbox"/>									
(ii) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	<input type="checkbox"/>									
Applicable to all application	<input type="checkbox"/>									
(iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.	<input type="checkbox"/>									
Attachment	Grid	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Name</th> <th style="width: 50%;">Details</th> </tr> </thead> <tbody> <tr> <td>File Name</td> <td>File full name</td> </tr> <tr> <td>Type</td> <td> Options: <ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo </td> </tr> </tbody> </table>	Name	Details	File Name	File full name	Type	Options: <ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo 		
Name	Details									
File Name	File full name									
Type	Options: <ul style="list-style-type: none"> - Submission Form - Acknowledgement Letter / Memo - Request for Supplementary Information Letter / Memo 									

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			<ul style="list-style-type: none"> - Checklist for general Checking - Inspection Notice - Detailed Compliance Checklist - Inspection Report - Improvement Notice - Others - S29 Letter - Reminder letters - COCR certificate - EA form
Remark			

Screens Used:

Screen ID	ASS-007 View WBRS Records of REA1 (wbrs_REA1.aspx)		
Description	Show the WBRS Records of REA1 page		

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http://emsd.hkost.gov.hk/emsdemo/wbrs_REA1.aspx?AppNo=L100000004			
Current Position		Email Address	test@abc.com
Telephone No. (Office)		Fax No.	
Professional Qualifications			
Date of Qualified / Membership No.	<i>Professional Qualifications (Please tick in the appropriate box(s))</i>		Discipline
1/1/2010 5646546	<input checked="" type="checkbox"/> Registered professional engineer within the meaning of section 2(1) of the Engineers Registration Ordinance (Cap.409) <input type="checkbox"/> Corporate member of the Hong Kong Institution of Engineers (HKIE) <input type="checkbox"/> Equivalent qualification recognized by HKIE as being of a standard not lower than that of a corporate member of the Institution in any of these disciplines (please read the attached "Notes to Applicants" Item 2.1) <small>(Please state your professional membership of the relevant professional body based upon the reciprocal recognition agreements between the HKIE and the professional body.)</small> <input type="checkbox"/> Other : (please read the attached "Notes to Applicant" Item 2.2)		<input type="checkbox"/> BSS <input checked="" type="checkbox"/> ELL <input type="checkbox"/> ENV <input type="checkbox"/> M
			<input type="checkbox"/> BSS <input type="checkbox"/> ELL <input type="checkbox"/> ENV <input type="checkbox"/> M
			<input type="checkbox"/> BSS <input type="checkbox"/> ELL <input type="checkbox"/> ENV <input type="checkbox"/> M
Relevant Practical Experience			
From (DD/MM/YY)	To (DD/MM/YY)	Position	Company Name
01/01/10	01/01/11		654654
Checklist of Supporting Documents			
(i)	I attach documentary proof of relevant practical experience.		
(ii)	I attach a photocopy of document to substantiate my professional qualifications and the qualified discipline.		
(iii)	I attach a photocopy of the following documents to substantiate my application made under section 5(2) of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B)		
<input type="checkbox"/> I declare that I have the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance. <input type="checkbox"/> I declare that I <input type="checkbox"/> have <input checked="" type="checkbox"/> have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect. Applicable to all application <input type="checkbox"/> I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.			
Attachment			

Screen Navigation:

Screen ID	Called from	Calling
wbrs_REA1.aspx	-	wbrs_REA1.aspx

4.1.8 ASS-008 View WBRS Records of REA3

Program Environment:

Function ID	ASS-008	Function Name	View WBRS Records of REA3
Mode	Online/Update	Description	View WBRS Records of REA3
Project	BEEO		
Source	Csudemo\wbrs_REA3.aspx csudemo\csudemo\wbrs_REA3.aspx.vb csudemo\csudemo\ds\dswbrsRecord.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_sync_BEO_FORMEA3					X
BEEODMS	tbl_sync_application_attachment					X

Program Logic:

Object	Event	Validation / Action / Remarks
NA	NA	NA

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (wbrs_REA3.aspx.vb):

Name	Return Type	Description Text
load_data	Class	Load WBRS Records REA3

Parameters of the method (load_data)

Name	Data Type	Description Text
ApplicationNo	String	Application No

The page elements

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WBRS – REA3 Record Details		
Field	Type	Details
Application No.	Textbox	WBRS Application Number
Receive Date	Textbox	
Application Type	Textbox	
Change of Particulars	Checkbox	Options: - Name - Correspondence Address
Registration No.	Textbox	
Cancel Reason	Textarea	
Personal Details		
Name (English)	Textbox	Salutation + English Name
Name (Chinese)	Textbox	Salutation + Chinese Name
Date of Birth	Textbox	
HKID	Textbox	
Correspondence Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Contact Phone	Textbox	
Department Name	Textbox	
Office Address	Label	
Flat	Textbox	
Floor	Textbox	
Block	Textbox	
Building	Textbox	
Start Street No.	Textbox	
Start Street Alpha	Textbox	
End Street No.	Textbox	
End Street Alpha	Textbox	
Street	Textbox	
District	Textbox	
Region	Textbox	
Current Position	Textbox	
Email Address	Textbox	
Telephone No. (Office)	Textbox	

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Fax No.	Textbox		
Declaration			
Applicable to new application only	Label		
(i) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	Checkbox		
(ii) I declare that I have / have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.	Checkbox		
Applicable to all application	Label		
(iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.	Checkbox		
Nomination			
I, the undersigned, on behalf of the Department described in this Section, nominate and support the public officer described in Section A of this form to apply for registration as a Registered Energy Assessor according to the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B).	Label		
Full Name of Nominator	Textbox		
Rank (D1 or above)	Textbox		
Post	Textbox		
Name of Department	Textbox		
Contact No.	Textbox		
Attachment			
Attachment	Grid	Name	Details
		File Name	File full name
		Type	Options: - Submission Form

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			<ul style="list-style-type: none">- Acknowledgement Letter / Memo- Request for Supplementary Information Letter / Memo- Checklist for general Checking- Inspection Notice- Detailed Compliance Checklist- Inspection Report- Improvement Notice- Others- S29 Letter- Reminder letters- COCR certificate- EA form
Remark			

Screens Used:

Screen ID	ASS-008 View WBRS Records of REA3 (wbrs_REA3.aspx)
Description	Show the WBRS Records of REA3 page

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The screenshot shows a web-based application form for 'Data Management System (BEEO) WBRs - REA3'. The form is divided into several sections:

- Personal Details:** Fields include Application No. (ea3190120221123), Receive Date (22/11/2021), Application Type (NEW), Change of particulars (checkboxes for Name and Correspondence Address), Registration No., Cancel Reason, Name (English) (Mr. engName), Name (Chinese) (先生 中文姓名), HKID (J1111111), Correspondence Address (Flat 1, Floor 2, Block 3, Building 4, Start Street No. 6, Start Street Alpha a, End Street No. 7, End Street Alpha b, Street 5, District Kowloon Bay, Region Kowloon), Contact Phone (12345678), Department Name (dept), and Office Address (checkbox for same address as correspondence).
- Declaration:** Applicable to new application only. Two declaration statements are present:
 - (i) I declare that I have not been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or not and have not committed any misconduct or neglect in a professional respect.
 - (ii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.
- Nomination:** A statement: I, the undersigned, on behalf of the Department described in this Section, nominate and support the public officer described in Section A of this form to apply for registration as a Registered Energy Assessor according to the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B). Below are fields for Nominator details: Full Name of Nominator (name), Rank (D1 or above) (rank), Post (post), Name of Department (dept), and Contact No. (12345678).
- Attachment:** A large empty text area for attachments.

Screen Navigation:

Screen ID	Called from	Calling
wbrs_REA3.aspx	-	wbrs_REA3.aspx

4.1.9 REQ-2001 Maintain REA Case

Program Environment:

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Function ID	REQ-2001	Function Name	Maintain REA Case
Mode	Online/Update	Description	Maintain REA Case
Project	BEEO		
Source	Csudemo\searchCase.aspx csudemo\csudemo\searchCase.aspx.vb csudemo\csudemo\clsbuildSearch.vb csudemo\csudemo\buildentity.vb csudemo\csudemo\Task.vb csudemo\csudemo\clsJS.vb csudemo\csudemo\multipleSearch.vb csudemo\csudemo\clsJS.vb csudemo\csudemo\clsFunc.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_assignment					X
BEEODMS	tbl_assignment_additionInformation					X
BEEODMS	tbl_inbox					X
BEEODMS	tbl_building					X
BEEODMS	tbl_ProcessStatus					X
BEEODMS	tbl_SbmType					X
BEEODMS	tbl_inbox					X

Program Logic:

Object	Event	Validation / Action / Remarks
“Search” Button	On Click	If user wants to Search REA Case then Call searchCase. search () function for Search REA Case End If

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (searchCase.aspx.vb):

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Name	Return Type	Description Text
search	datatable	Load REA Case

Parameters of the method (search)

Name	Data Type	Description Text
assignmentID	String	Assignment ID
REAEngName	String	REA EngName
Status	Int	Status
ReceivedDate	String	ReceivedDate
Subject Engineer	String	Subject Engineer

Screens Used:

Screen ID	REQ-2001 Maintain REA Case (searchCase.aspx)
Description	Show the REA Case page

The screenshot shows the 'Data Management System (BEEO) - Search Case (REA)' page. At the top, there's a navigation bar with links like 'Inbox', 'Assignment', 'Search', 'Building', 'Label', 'Batch Job', 'RASAS', 'Report', 'User Option', 'Configuration', and 'Logout'. The main area has two sections: a search form on the left and a results table on the right.

Search Form Fields:

- File No.: EMSD/EO/BC/19/01/
- Assignment No.: [empty]
- REA Name: [empty]
- Submission Type:
 - Status: [dropdown]
 - Received Date Range (dd/mm/yyyy): [date range input]
 - Subject Engineer: [dropdown]
 - STO: [dropdown]
- Search button

Results Table Headers:

- REA Name
- Submission Type
- Subject Engineer
- BSI/TTO
- File No.
- Assignment No.
- Assign By
- Assign Date
- Status
- Received

Sample Data from Results Table:

REA Name	Submission Type	Subject Engineer	BSI/TTO	File No.	Assignment No.	Assign By	Assign Date	Status	Received
engName25	REA-Registration as General Officer	E/EEB1/2	STO/EEB2	EMSD/EO/BC/19/01/00116	23134	CSA/EEBS	14/12/2021 11:35:54	Accepted	14/12/2021
	REA-Registration as General Officer	E/EEB1/2	STO/EEB2	EMSD/EO/BC/19/01/00137	23179	CSA/EEBS	23/12/2021 10:52:33	Certificate Issued	23/12/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00094	23077	CSA/EEBS	30/11/2021 16:09:16	General Checking in progress	30/11/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00095	23080	CSA/EEBS	30/11/2021 17:31:45	General Checking in progress	30/11/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00097	23089	CSA/EEBS	1/12/2021 10:00:28	General Checking in progress	01/12/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00098	23090	CSA/EEBS	1/12/2021 11:43:24	General Checking in progress	01/12/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00099	23091	CSA/EEBS	1/12/2021 11:48:48	General Checking in progress	01/12/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00100	23092	CSA/EEBS	1/12/2021 11:53:37	General Checking in progress	01/12/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00101	23093	CSA/EEBS	1/12/2021 12:09:24	General Checking in progress	01/12/2021
engName	REA-Registration as General Officer	E/EEB1/2	Guest	EMSD/EO/BC/19/01/00102	23094	CSA/EEBS	1/12/2021 12:11:55	General Checking in progress	01/12/2021

Screen Navigation:

Screen ID	Called from	Calling
searchCase.aspx	-	searchCase.aspx

4.1.10 REQ-2003 Genenerate REA E-Licence

Program Environment:

Function ID	REQ-2003	Function Name	Genenerate REA E-Licence
Mode	Online/Update	Description	Genenerate REA E-Licence
Project	BEEO		
Source	Csudemo\REAMain.aspx csudemo\csudemo\REAMain.aspx.vb csudemo\csudemo\ELicence.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript,		

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Development Tools	Visual Studio 2019
Platform	IIS
Compiler	.net framework 4.6

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync_BEEO_FORMEA1					X
BEEODMS	tbl sync_BEEO_FORMEA3					X
BEEODMS	tbl assignment					X
BEEODMS	tbl sbmREA					X
BEEODMS	tbl ProcessStatus					X
BEEODMS	tbl ELICENCE			X		X
BEEODMS	tbl ACTION LOG		X			X
BEEODMS	tbl ProcessStatus					X
BEEODMS	tbl SYS PARAM					X

Program Logic:

Object	Event	Validation / Action / Remarks
“Generate Certificate” Button	On Click	If user wants to Genereate REA E-Licence then Call REAMain.butdownload_Click () function for Generate End If

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (REAMain.aspx.vb):

Name	Return Type	Description Text
butdownload	Bool	Genereate REA E-Licence

Parameters of the method (butdownload)

Name	Data Type	Description Text
REARegNo	String	REARegNo

Screens Used:

Screen ID	REQ-2003 Genereate REA E-Licence (REAMain.aspx)
Description	Genereate REA E-Licence

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The screenshot shows a web-based application for energy efficiency assessments. It includes sections for checklist of supporting documents, declaration, comments/re-submission, and a certificate of compliance registration.

Section D : Checklist of Supporting Documents (Please tick in the appropriate box(s))

- (i) I attach documentary proof of relevant practical experience.
- (ii) I attach a photocopy of document to substantiate my professional qualifications and the qualified discipline.
- (iii) I attach a photocopy of the following documents to substantiate my application made under section 5(2) of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B) (please read the attached "Notes to Applicants" Item 2.2)

Section E : Declaration (Please tick in the appropriate box(s))

Applicable to new application / renewal application only

- (i) I declare that I have the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance.
- (ii) I declare that I (have / have not) been convicted in Hong Kong, or elsewhere, of any offence which, if committed by a registered energy assessor, may bring the profession of registered energy assessor into disrepute and sentenced to imprisonment, whether suspended or otherwise.

Applicable to all application

- (iii) I declare that the information in this form and the entire document submitted in relation to my application for registration are true and correct.

Date of Signature: _____

Comments & Re-submission

Add comment

Comment By:	Comments issued on (dd/mm/yyyy):	Resubmission Date (dd/mm/yyyy):
<input type="button" value="Delete comment"/>	01/12/2021	
Remarks:	post	

Generate Cert **Back To Work**

機電工程署 EMSD e-Licence System

Certificate of Compliance Registration
Buildings Energy Efficiency Ordinance (Cap. 610)

Registration No.	tom12345
Building Name (English)	Asia Perfect Development Limited
Building Name (Traditional Chinese)	誠邦發展有限公司
Address (English)	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong
Address (Traditional Chinese)	香港銅鑼灣羅素街1號 時代廣場
BEC Edition Involved	2018
Issue Date	24/01/2022
Expiry Date	24/01/2032

Screen Navigation:

Screen ID	Called from	Calling
REAMain.aspx	-	REAMain.aspx

4.1.11REA-001 Maintain REA Registration

Program Environment:

Function ID	REA-001	Function Name	Maintain REA Registration
Mode	Online/Update	Description	Maintain REA Registration
Project	BEEO		
Source	Csudemo\SearchREA.aspx csudemo\csudemo\SearchREA.aspx.vb csudemo\csudemo\dsSearchREA.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript,,		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_REARegister					X

Program Logic:

Object	Event	Validation / Action / Remarks
“Search” Button	On Click	If user wants to Search REA Registration then Call SearchREA.load_data () function for Search REA Registration End If

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (SearchREA.aspx.vb):

Name	Return Type	Description Text
load_data	datatable	Load REA Registration

Parameters of the method (search)

Name	Data Type	Description Text
REARegno	String	REA Number
EngName	String	English Name

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ChiName	Int	Chinese Name
RegDate	String	Registered Date (dd/mm/yyyy)
Status	Int	Status
RegDateFirst	String	Renewal
ExpiryDate	String	Expired

Screens Used:

Screen ID	REA-001 Maintain REA Registration (SearchREA.aspx)
Description	Show the Maintain REA Registration page

The screenshot displays the 'SearchREA.aspx' page. At the top, there's a navigation bar with links like 'Inbox', 'Assignment', 'Search', 'Building', 'Label', 'Batch Job', 'RASAS', 'Report', 'User Option', 'Configuration', 'Logout', and 'User:CSEA/EEBS'. Below the navigation is a search form titled 'Data Management System (BEOO) - Search REA'. It includes fields for 'REA Number', 'English Name', 'Chinese Name', 'Registered Date (dd/mm/yyyy)', 'Status' (with options 'Expired' and 'Renewal'), and a checkbox for 'Renewal'. Below the form is a table with 18 rows of data, each representing a REA registration record. The columns in the table are: Registered No, English Name, Chinese Name, Register Date, Expiry Date, Telephone, Email, English Remarks, Chinese Remarks, and Status.

Screen Navigation:

Screen ID	Called from	Calling
SearchREA.aspx	-	SearchREA.aspx

4.1.12REQ-3001 Maintain COCR Case

Program Environment:

Function ID	REQ-3001	Function Name	Maintain COCR Case		
Mode	Online/Update	Description	Maintain COCR Case		
Project	BEEO				
Source	Csudemo\searchCase.aspx csudemo\csudemo\searchCase.aspx.vb csudemo\csudemo\clsbuildSearch.vb csudemo\csudemo\buildentity.vb csudemo\csudemo\Task.vb csudemo\csudemo\clsJS.vb csudemo\csudemo\multipleSearch.vb csudemo\csudemo\clsJS.vb csudemo\csudemo\clsFunc.vb csudemo\csudemo \misc\MiscPRG.vb				
Language	VB.NET, Javascript,,				
Development Tools	Visual Studio 2019				
Platform	IIS				
Compiler	.net framework 4.6				

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_assignment					X
BEEODMS	tbl_assignment_additionInformation					X
BEEODMS	tbl_inbox					X
BEEODMS	tbl_building					X
BEEODMS	tbl_ProcessStatus					X
BEEODMS	tbl_SbmType					X
BEEODMS	tbl_inbox					X

Program Logic:

Object	Event	Validation / Action / Remarks
“Search” Button	On Click	If user wants to Search COCR Case then Call searchCase. search () function for Search COCR Case End If

Validity Checking

Checking	Field
N/A	N/A

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Input Parameters / Method list of the class (searchCase.aspx.vb):

Name	Return Type	Description Text
search	datatable	Load COCR Case

Parameters of the method (search)

Name	Data Type	Description Text
assignmentID	String	Assignment No
bldn.building	String	Eng. Bldg. Name
bldn.street	Int	Eng. Street Name
bldn.cbuilding	String	Chi. Bldg. Name
bldn.cstreet	String	Chi. Street Name
bldn.lotno	String	Lot No
WORK_LOC	String	Work Location
buildtypeid	Int	Building Type
StatusCode	Int	Status
ReceivedDate	String	Received Date Range
SubjectEngineer	String	Subject Engineer
SubjectInspector	String	BSI/TO
SubmissionType	String	Submission Type

Screens Used:

Screen ID	REQ-3001 Maintain COCR Case (searchCase.aspx)
Description	Show the COCR Case page

[Inbox](#) |
 [Assignment](#) |
 [Search](#) |
 [Building](#) |
 [Label](#) |
 [Batch Job](#) |
 [RASAS](#) |
 [Report](#) |
 [User Option](#) |
 [Configuration](#) |
 [Logout](#) |
 User:CSA/EEBS

Data Management System (BEOO) - Search Case (EA.FOR.COCR.INSP)

Bldg. Name	Address	Submission Type	Subject Engineer	BSI/TO	Building Type	File No.	Assignment No.	Assign By	Assign Date	Status	Received Date	Work Loc
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23104	CSA/EEBS	7/12/2021 14:29:12				General Checking in progress	07/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23120	CSA/EEBS	8/12/2021 15:02:27				General Checking in progress	08/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23122	CSA/EEBS	8/12/2021 15:03:35				General Checking in progress	08/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23155	CSA/EEBS	20/12/2021 15:31:28				General Checking in progress	20/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23156	CSA/EEBS	20/12/2021 15:34:29				General Checking in progress	20/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23157	CSA/EEBS	20/12/2021 15:38:08				General Checking in progress	20/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23163	CSA/EEBS	20/12/2021 15:59:48				General Checking in progress	20/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23164	CSA/EEBS	20/12/2021 16:05:46				General Checking in progress	20/12/2021	
COCR-Stage One Declaration	E/EEB1/2	BSI/EEB/PS9/3		23165	CSA/EEBS	20/12/2021 16:08:24				General Checking in progress	20/12/2021	

Screen Navigation:

Screen ID	Called from	Calling
searchCase.aspx	-	searchCase.aspx

4.1.13REQ-3003 Generate COCR E-Licence

Program Environment:

Function ID	REQ-3003	Function Name	Generate COCR E-Licence
Mode	Online/Update	Description	Generate COCR E-Licence
Project	BEEO		
Source	Csudemo\COCRMMain.aspx csudemo\csudemo\ COCRMMain.aspx.vb csudemo\csudemo\ELicence.vb csudemo\csudemo\clsJS.vb csudemo\csudemo \misc\MiscPRG.vb		
Language	VB.NET, Javascript,,		
Development Tools	Visual Studio 2019		
Platform	IIS		
Compiler	.net framework 4.6		

Amendment History:

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl sync BEEO_FORMEE1					X
BEEODMS	tbl sync BEEO_FORMEE2					X
BEEODMS	tbl sync BEEO_FORMEE3					X
BEEODMS	tbl sync BEEO_FORMEE4					X
BEEODMS	tbl assignment					X
BEEODMS	tbl sbmCOCR					X
BEEODMS	tbl ProcessStatus					X
BEEODMS	tbl ELICENCE			X		X
BEEODMS	tbl ACTION LOG		X			X
BEEODMS	tbl ProcessStatus					X
BEEODMS	tbl SYS PARAM					X

Program Logic:

Object	Event	Validation / Action / Remarks
“Generate Certificate” Button	On Click	If user wants to Generate COCR E-Licence then Call COCRMMain.butdownload_Click () function for Generate End If

Validity Checking

Checking	Field
N/A	N/A

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Input Parameters / Method list of the class (COCRMain.aspx.vb):

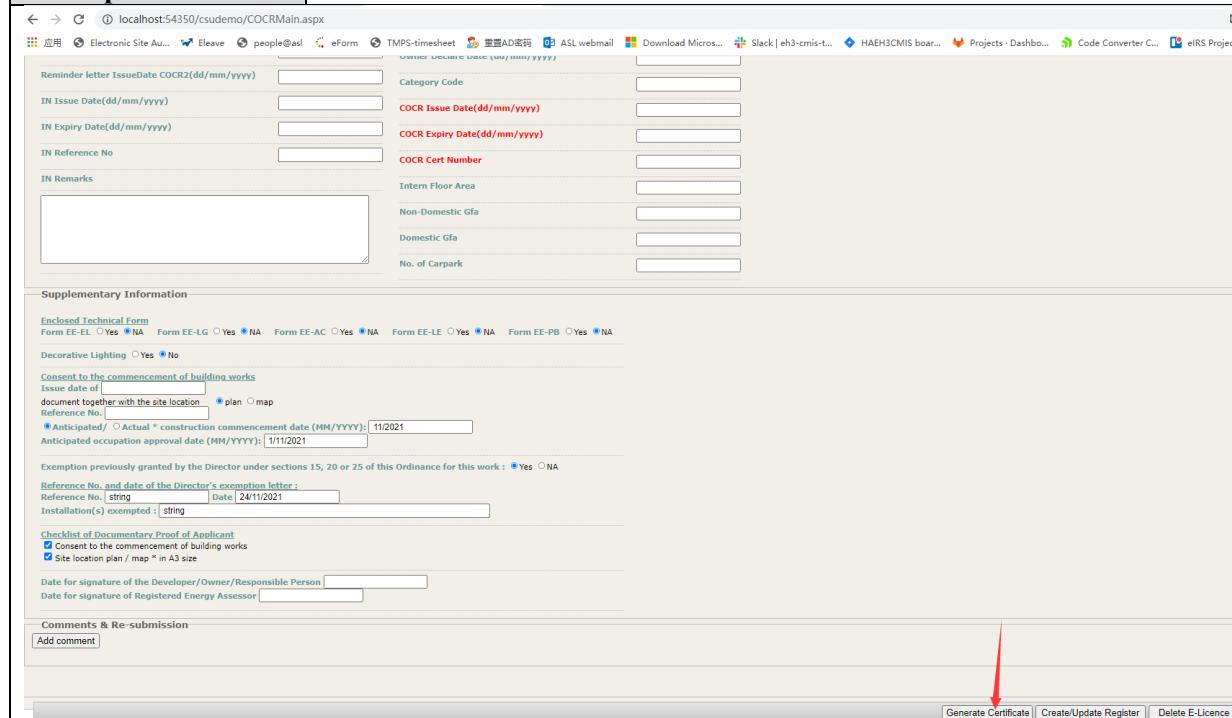
Name	Return Type	Description Text
butdownload	Bool	Genereate COCR E-Licence

Parameters of the method (butdownload)

Name	Data Type	Description Text
COCR_CertNo	String	COCR CertNo

Screens Used:

Screen ID	REQ-3003 Genereate COCR E-Licence (COCRMain.aspx)
Description	Genereate COCR E-Licence



The screenshot shows a web-based application form for generating a COCR E-Licence. The form includes fields for Reminder letter Issue Date, COCR Issue Date, COCR Expiry Date, COCR Reference No., IN Remarks, and various building details like Intern Floor Area, Non-Domestic Gfa, Domestic Gfa, and No. of Carpark. Below the main form, there's a 'Supplementary Information' section with checkboxes for Enclosed Technical Form, Decorative Lighting, and Consent to the commencement of building works. It also includes fields for document location, reference numbers, and construction dates. At the bottom, there's a 'Comments & Re-submission' section and a row of buttons for Generate Certificate, Create/Update Register, and Delete E-Licence. A red arrow points to the 'Generate Certificate' button.

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The screenshot shows a web-based application for managing energy efficiency certificates. At the top, there's a header with the URL 'd32u5qschurz37.cloudfront.net/token/5ac3472c-c56a-4727-88d3-c202672df896' and a link to 'BEEO - Data Manag...'. Below the header is the EMSD logo (機電工程署) and the text 'e-Licence System'. A language selection dropdown shows 'English' with a checked box. The main content area displays a 'Certificate of Compliance Registration' for 'Buildings Energy Efficiency Ordinance (Cap. 610)'. The registration details are as follows:

Registration No.	tom12345
Building Name (English)	Asia Perfect Development Limited
Building Name (Traditional Chinese)	誠邦發展有限公司
Address (English)	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong
Address (Traditional Chinese)	香港銅鑼灣羅素街1號 時代廣場
BEC Edition Involved	2018
Issue Date	24/01/2022
Expiry Date	24/01/2032

Screen Navigation:

Screen ID	Called from	Calling
COCRMain.aspx	-	COCRMain.aspx

4.1.14 COCR-001 Maintain COCR Registration

Program Environment:

Function ID	COCR-001	Function Name	Maintain COCR Registration		
Mode	Online/Update	Description	Maintain COCR Registration		
Project	BEEO				
Source	Csudemo\searchCOCRRegistry.aspx csudemo\csudemo\ searchCOCRRegistry.aspx.vb csudemo\csudemo\ clsbuildSearch.vb csudemo\csudemo\ Task.vb csudemo\csudemo\ clsJS.vb csudemo\csudemo\ clsFunc.vb csudemo\csudemo\ multipleDistrict.vb csudemo\csudemo\ buildentity.vb csudemo\csudemo \misc\MiscPRG.vb				
Language	VB.NET, Javascript,				
Development Tools	Visual Studio 2019				
Platform	IIS				
Compiler	.net framework 4.6				

Amendment History:

**PROGRAM MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**

Change Number	Revision Description	Revision Number	Date
1	Revision 1.0	1.0	11 Feb 22

File Usage:

Database	Table Name	Alias	Insert	Update	Delete	Enquiry
BEEODMS	tbl_COCR_Register					X
BEEODMS	BuildingMaster					X
BEEODMS	tbl_sbmCOCR					X

Program Logic:

Object	Event	Validation / Action / Remarks
“Search” Button	On Click	If user wants to Search COCR Registration then Call searchCOCRRegistry.load_data () function for Search COCR Registration End If

Validity Checking

Checking	Field
N/A	N/A

Input Parameters / Method list of the class (searchCOCRRegistry.aspx.vb):

Name	Return Type	Description Text
load_data	datatable	Load REA Registration

Parameters of the method (search)

Name	Data Type	Description Text
CASENO	String	File No.
bldn.building	String	Eng. Bldg. Name
bldn.street	String	Eng. Street Name
bldn.cbuilding	String	Chi. Bldg. Name
bldn.cstreet	String	Chi. Street Name
Expired	String	Expired
Renewal	String	Renewal
issuedate	String	Issue Date Range (dd/mm/yyyy)
ta.SubjectEngineer	String	Subject Engineer
District	String	District

Screens Used:

Screen ID	COCR-001 Maintain COCR Registration (searchCOCRRegistry.aspx)
Description	Show the Maintain COCR Registration page

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The screenshot shows a search interface for the COCR Registry. At the top, there are input fields for 'File No.' (containing 'EMSD/EEO/BC/34-20472'), 'Eng. Bldg. Name', 'Eng. Street Name', 'Chi. Bldg. Name', 'Chi. Street Name', and checkboxes for 'Expired' and 'Renewal'. To the right, there are dropdown menus for 'District', 'Issue Date Range (dd/mm/yyyy)', and 'Subject Engineer'. Below these are buttons for 'Search' and 'Show related submissions'. The main area displays a table with columns: 'File No. (COCR No.)', 'Issue Date Expiry Date', 'BEC Edition', 'Subject Engineer', 'REA', 'Expired', and 'Renewal'. One row is visible, showing 'EMSD/EEO/BC/34-20472 (34-20472)' in the first column, '03/01/2032' in the second, '2012' in the third, 'E/EEB1/2' in the fourth, 'N' in the fifth, 'N' in the sixth, and a 'Previous Page' button at the bottom right.

Screen Navigation:

Screen ID	Called from	Calling
searchCOCRRegistry.aspx	-	searchCOCRRegistry.aspx

4.2 REPORTS

N/A

4.3 COMMON UTILITIES

N/A

5 APPENDIX

N/A

- End of Document -

DATA MANUAL
ON
DATA MANAGEMENT SYSTEM
FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE
FOR
ENERGY EFFICIENCY OFFICE
OF
**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



Version: 0.1

July 2022

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DATA MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)

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DATA MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)

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1 SCOPE

This manual covers all computer data captured, processed and produced by the DMS-BEEO System. Other data used manually are not included.

2 DEFINTION AND CONVENTION

2.1 DEFINITIONS

In this document, unless the context otherwise requires, the following expressions have the following meanings:

Term	Definition
DMS-BEOO	The Data Management System (DMS) for Buildings Energy Efficiency Ordinance (BEOO)
DMS	Data Management System

2.2 ABBREVIATION

The following acronyms are used in the text of this document:

Acronym	Long Name
EMSD	Electrical and Mechanical Services Department
EEO	Energy Efficiency Office
BEOO	Buildings Energy Efficiency Ordinance

3 DATA FILE DESCRIPTION

3.1 STRUCTURE CHART

The relationship among tables are shown in the Entity-Relationship Diagram (ERD) in section 5.

3.2 LIST OF FILES/TABLES

The list of files/tables used in DMS system are shown below:

Item No.	File / Table Name
1.	Applications\$
2.	BuildingMaster
3.	Details\$
4.	DIMS_Holiday
5.	Engineer\$
6.	ex_rea\$
7.	ex_REA1
8.	RASAS_CODE
9.	RASAS_CODE_TYPE
10.	RASAS_CODELIST
11.	RASAS_CONTR
12.	RASAS_INFORMANT
13.	RASAS_ORDINANCE
14.	RASAS_PROD
15.	RASAS_REFERRAL
16.	RASAS_REFERRAL_CHARGE
17.	RASAS_REFERRAL_NATURE
18.	RASAS_SUMMONS
19.	RASAS_SUMMONS_PROS
20.	sp_GlobalVariables
21.	tbl_ACTION_LOG
22.	tbl_Advisory_Letter
23.	tbl_area
24.	tbl_assignment
25.	tbl_assignment_additionInformation
26.	tbl_Attachemnt_Type
27.	tbl_BATCH_JOB
28.	tbl_BATCH_JOB_PARAM
29.	tbl_BatchJobGenLetter
30.	tbl_BatchRDCAssign
31.	tbl_BatchRGenInsp
32.	tbl_BatchRGenInsp_Base_BLDgList
33.	tbl_BatchRGenInsp_BLDgList
34.	tbl_BatchType

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Item No.	File / Table Name
35.	tbl_BECEdition
36.	tbl_BEEO_DMS_map
37.	tbl_BEEO_EEEAes_ACBreakDn
38.	tbl_BEEO_EEEAes_ACInstallationFullList
39.	tbl_BEEO_EEEAes_ACTotal
40.	tbl_BEEO_EEEAes_BldChar
41.	tbl_BEEO_EEEAes_CBSIServedAreaSummary
42.	tbl_BEEO_EEEAes_CMV
43.	tbl_BEEO_EEEAes_EMO
44.	tbl_BEEO_EEEAes_EMOCatSummary
45.	tbl_BEEO_EEEAes_EnImportExport
46.	tbl_BEEO_EEEAes_GeneralInfo
47.	tbl_BEEO_EEEAes_HistoricalAnalysis
48.	tbl_BEEO_EEEAes_LiftEPC
49.	tbl_BEEO_EEEAes_Lighting
50.	tbl_BEEO_EEEAes_OpCharFullList
51.	tbl_BEEO_EEEAes_OtrInstallation
52.	tbl_BEEO_EORS_WR2
53.	tbl_BEEO_FORMEA1
54.	tbl_BEEO_FORMEA1_EXP
55.	tbl_BEEO_FORMEA1_SUBSTANTIATE
56.	tbl_BEEO_FORMEA2
57.	tbl_BEEO_FORMEA3
58.	tbl_BEEO_FORMEE1
59.	tbl_BEEO_FORMEE1_EESU
60.	tbl_BEEO_FORMEE2
61.	tbl_BEEO_FORMEE2_EESU
62.	tbl_BEEO_FORMEE3
63.	tbl_BEEO_FORMEE3_EESU
64.	tbl_BEEO_FORMEE3_EESU_COCR
65.	tbl_BEEO_FORMEE3_EESU_FOC
66.	tbl_BEEO_FORMEE4
67.	tbl_BEEO_FORMEE4_EESU
68.	tbl_BEEO_FORMEE4_EESU_WORK
69.	tbl_BEEO_FORMEE5
70.	tbl_BEEO_FORMEE7
71.	tbl_BEEO_FORMEEET
72.	tbl_BEEO_FORMEEEX
73.	tbl_BEEO_FORMEEEX_EXEMPTION
74.	tbl_formFOC
75.	tbl_formFOC_AC_ACChiller
76.	tbl_formFOC_AC_ACChiller_Supp
77.	tbl_formFOC_AC_ACUnitaryACHeatPump
78.	tbl_formFOC_AC_ACUnitaryACHeatPump_Supp
79.	tbl_formFOC_AC_AirSideDistribution
80.	tbl_formFOC_AC_EnergyMetering

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Item No.	File / Table Name
81.	tbl_formFOC_AC_Summary
82.	tbl_formFOC_AC_SystemControl
83.	tbl_formFOC_AC_ThermalInsulation
84.	tbl_formFOC_AC_WaterSideDistribution
85.	tbl_formFOC_Detail
86.	tbl_formFOC_EL_MeteringAndMointoring
87.	tbl_formFOC_EL_Motor
88.	tbl_formFOC_EL_Motor_Supp
89.	tbl_formFOC_EL_PowerDistributionLoss
90.	tbl_formFOC_EL_PowerQuality
91.	tbl_formFOC_EL_Summary
92.	tbl_formFOC_LE_Escalator
93.	tbl_formFOC_LE_Escalator_Supp
94.	tbl_formFOC_LE_PassengerConveyor
95.	tbl_formFOC_LE_PassengerConveyor_Supp
96.	tbl_formFOC_LE_Summary
97.	tbl_formFOC_LE_TractionLiftAndHydraulicLift
98.	tbl_formFOC_LE_TractionLiftAndHydraulicLift_Supp
99.	tbl_formFOC_LG_Lighting
100.	tbl_formFOC_LG_Other
101.	tbl_formFOC_LG_Summary
102.	tbl_formFOC_PB_BuildingEnergy
103.	tbl_formFOC_PB_BuildingEnergy_PartC_Supp1
104.	tbl_formFOC_PB_BuildingEnergy_PartC_Supp2
105.	tbl_formFOC_PB_BuildingEnergy_PartC_Supp3
106.	tbl_formFOC_PB_BuildingEnergy_PartD_Supp
107.	tbl_formFOC_PB_BuildingEnergy_PartE_Supp
108.	tbl_formFOC_PB_SoftwareProgram
109.	tbl_formFOC_PB_SoftwareProgram_PartA_Supp1
110.	tbl_formFOC_PB_SoftwareProgram_PartA_Supp2
111.	tbl_formFOC_PB_SoftwareProgram_PartB_Supp1
112.	tbl_formFOC_PB_SoftwareProgram_PartB_Supp2
113.	tbl_formFOC_PB_SoftwareProgram_PartB_Supp3
114.	tbl_formFOC_PB_SoftwareProgram_PartC_Supp1
115.	tbl_formFOC_PB_SoftwareProgram_PartC_Supp2
116.	tbl_formFOC_PB_Summary
117.	tbl_formFOC_type
118.	tbl_BEEO_LEOS_F5_F7
119.	tbl_bldg_EA_Anticipation
120.	tbl_bldg_EA_con_assess
121.	tbl_bldg_EA_Insp_result
122.	tbl_bldg_EA_Sumbitted
123.	tbl_bldg_status
124.	tbl_BringUp
125.	tbl_BringUp_config
126.	tbl_BringUp_para_config

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Item No.	File / Table Name
127.	tbl_BringUp_Recipient_Info
128.	tbl_building
129.	tbl_building_deleted
130.	tbl_Building_Group
131.	tbl_Building_Group_map
132.	tbl_Building_Party_Info
133.	tbl_buildtype
134.	tbl_buildusage
135.	tbl_CaseDoc
136.	tbl_CaseDoc_IN
137.	tbl_CaseDoc_Info
138.	tbl_CaseDoc_S
139.	tbl_caseno
140.	tbl_CheckList
141.	tbl_CheckList_config
142.	tbl_CheckList_Content
143.	tbl_CheckList_DetailQue
144.	tbl_CheckList_Head
145.	tbl_CheckList_module
146.	tbl_ChillerCompressorType
147.	tbl_ChillerType
148.	tbl_CL_Ans_config
149.	tbl_CL_Ans_Type
150.	tbl_CL_Qes_config
151.	tbl_COOCR_register
152.	tbl_commentCOOCR
153.	tbl_commentEA
154.	tbl_commentFOC
155.	tbl_commentREA
156.	tbl_common_pharse
157.	tbl_district
158.	tbl_DocCategory
159.	tbl_DocPath
160.	tbl_ELICENCE
161.	tbl_ELICENCE_CSV
162.	tbl_energy_audit
163.	tbl_EPAYMENT
164.	tbl_excel_import_output_field
165.	tbl_excel_table_fld
166.	tbl_FormType
167.	tbl_full_addr
168.	tbl_func
169.	tbl_Gov_Bldg_Map
170.	tbl_Holiday
171.	tbl_Improvement_Note
172.	tbl_inbox

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Item No.	File / Table Name
173.	tbl_InputCtrl_Logic
174.	tbl_Inspection
175.	tbl_InspectionResults
176.	tbl_label
177.	tbl_Letter
178.	tbl_LetterContent
179.	tbl_LetterContentTemplate
180.	tbl_LetterInfo
181.	tbl_LetterTemplate
182.	tbl_LetterType
183.	tbl_LOG
184.	tbl_MajorSpaceType
185.	tbl_Party
186.	tbl_Party_Additional_Contact
187.	tbl_party_role
188.	tbl_ProcessAction
189.	tbl_ProcessAction_Config
190.	tbl_ProcessStatus
191.	tbl_REARegister
192.	tbl_reminder
193.	tbl_reminder_attachment
194.	tbl_report_1_REA
195.	tbl_report_config
196.	tbl_report_para_config
197.	tbl_REQUEST_RESPONSE_LOGGING
198.	tbl_RGInspSelType
199.	tbl_RGInspSelType_Item
200.	tbl_sbm_AdditionInfoEEET
201.	tbl_sbm_AdditionInfoEEEEX
202.	tbl_sbm_AdditionInfoEEEEX_EXEMPT
203.	tbl_sbm_COCR
204.	tbl_sbm_COCR_AddtioInfoEE1
205.	tbl_sbm_COCR_AddtioInfoEE2
206.	tbl_sbm_COCR_AddtioInfoEE3
207.	tbl_sbm_COCR_AddtioInfoEE3_COCR
208.	tbl_sbm_COCR_AddtioInfoEE3_FOC
209.	tbl_sbm_COCR_AddtioInfoEE7
210.	tbl_sbmEA_AddtioInfoEE7
211.	tbl_sbmFOC
212.	tbl_sbmFOC_AddtioInfo
213.	tbl_sbmFOC_AddtioInfoEE7
214.	tbl_sbmFOCMajorWorks
215.	tbl_sbmREA
216.	tbl_SbmType
217.	tbl_SbmType_additionalInfo
218.	tbl_security

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Item No.	File / Table Name
219.	tbl_sequenceNum
220.	tbl_SubmissionID_Party_Info
221.	tbl_sync_application_attachment
222.	tbl_sync_BEO_FORMEA1
223.	tbl_sync_BEO_FORMEA1_EXP
224.	tbl_sync_BEO_FORMEA1_SUBSTANTIATE
225.	tbl_sync_BEO_FORMEA2
226.	tbl_sync_BEO_FORMEA3
227.	tbl_sync_BEO_FORMEE1
228.	tbl_sync_BEO_FORMEE1_EESU
229.	tbl_sync_BEO_FORMEE2
230.	tbl_sync_BEO_FORMEE2_EESU
231.	tbl_sync_BEO_FORMEE3
232.	tbl_sync_BEO_FORMEE3_EESU
233.	tbl_sync_BEO_FORMEE3_EESU_COOR
234.	tbl_sync_BEO_FORMEE3_EESU_FOC
235.	tbl_sync_BEO_FORMEE4
236.	tbl_sync_BEO_FORMEE4_EESU
237.	tbl_sync_BEO_FORMEE4_EESU_WORK
238.	tbl_sync_BEO_FORMEE5
239.	tbl_sync_BEO_FORMEE7
240.	tbl_sync_BEO_FORMEEET
241.	tbl_sync_BEO_FORMEEET_DOCUMENT
242.	tbl_sync_BEO_FORMEEEX
243.	tbl_sync_BEO_FORMEEEX_DOCUMENT
244.	tbl_sync_BEO_FORMEEEX_EXEMPTION
245.	tbl_SYS_PARAM
246.	tbl_tmp_building
247.	tbl_user
248.	tmp
249.	TMP_buildusage_TRANSFORM
250.	tmp_rpt
251.	tmp1
252.	tmpcaseno
253.	Top500
254.	WORK_ALL_BLDGPOLY1

4 TABLE AND COLUMN DESCRIPTION

The tables and columns in the DMS database are described below:

4.1 APPLICATIONS\$

Table Name : Applications\$				
Table Description : Information of Applications				
Column Name	Data Type	P K	Mandator y	Column Description
Case No	Nvarchar(255)	N	N	Case Number
Reg# No#	Nvarchar(255)	N	N	Registration Number
Type of Application	Nvarchar(255)	N	N	Type of Application
Public Officer	Nvarchar(255)	N	N	Public Officer
Status	Nvarchar(255)	N	N	Status
Date of receipt	Date	N	N	Date of receipt
Comment	Date	N	N	Comment
Clarify	Date	N	N	Clarify
2nd Comment	Date	N	N	Second Comment
Last Clarify	Date	N	N	Last Clarify
Process Day	Number	N	N	Process Day
Process Day after Clarification	Number	N	N	Process Day after Clarification
Date of registration	Nvarchar(255)	N	N	Date of registration
Expiry Date	Nvarchar(255)	N	N	Expiry Date
Mech	Nvarchar(255)	N	N	Mech
Building	Nvarchar(255)	N	N	Building
Environmental	Nvarchar(255)	N	N	Environmental
Electrical	Nvarchar(255)	N	N	Electrical
RPE	Nvarchar(255)	N	N	RPE
HKIE	Nvarchar(255)	N	N	HKIE
RRA	Nvarchar(255)	N	N	RRA
Others	Nvarchar(255)	N	N	Others
Remarks	Nvarchar(255)	N	N	Remarks
a# design, installation, testing and commissioning of BS	Nvarchar(255)	N	N	Design, installation, testing and commissioning of BS
Date of Removed / Withdrawn	Nvarchar(255)	N	N	Date of Removed / Withdrawn
Reason of Withdrawn : - _a# Insufficient for Professional Qualifi	Nvarchar(255)	N	N	Reason of Withdrawn
List of Supporting Documents	Nvarchar(255)	N	N	List of Supporting Documents
Remarks1	Nvarchar(255)	N	N	Remarks1
F29	Nvarchar(255)	N	N	F29
F30	Nvarchar(255)	N	N	F30
Cal Year of Submission	Number	N	N	Cal Year of Submission

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Fin Year of Submission	Number	N	N	Fin Year of Submission
Cut-off by Subm# date	Number	N	N	Cut-off by Submission date
Cal Year of Registration	Number	N	N	Cal Year of Registration
Fin Year of Registration	Number	N	N	Fin Year of Registration
Cut-off by Reg# Date	Number	N	N	Cut-off by Reg Date
New App	Nvarchar(255)	N	N	New App
Renewal	Nvarchar(255)	N	N	Renewal
Change	Nvarchar(255)	N	N	Change
Public	Nvarchar(255)	N	N	Public
Non-Public	Nvarchar(255)	N	N	Non-Public
Mech1	Nvarchar(255)	N	N	Mech1
Building1	Nvarchar(255)	N	N	Building1
Environmental1	Nvarchar(255)	N	N	Environmental1
Elect	Nvarchar(255)	N	N	Elect
RPE1	Nvarchar(255)	N	N	RPE1
HKIE1	Nvarchar(255)	N	N	HKIE1
RRA1	Nvarchar(255)	N	N	RRA1
Others1	Nvarchar(255)	N	N	Others1
New App1	Nvarchar(255)	N	N	New App1
Renewal1	Nvarchar(255)	N	N	Renewal1
Change1	Nvarchar(255)	N	N	Change1
Public1	Nvarchar(255)	N	N	Public1
Non-Public1	Nvarchar(255)	N	N	Non-Public1
Mech2	Nvarchar(255)	N	N	Mech2
Building2	Nvarchar(255)	N	N	Building2
Environmental2	Nvarchar(255)	N	N	Environmental2
Elect1	Nvarchar(255)	N	N	Elect1
RPE2	Nvarchar(255)	N	N	RPE2
HKIE2	Nvarchar(255)	N	N	HKIE2
RRA2	Nvarchar(255)	N	N	RRA2
Others2	Nvarchar(255)	N	N	Others2
F63	Nvarchar(255)	N	N	F63
Converted Registration Date	Date	N	N	Converted Registration Date
Converted Expiry Date	Date	N	N	Converted Expiry Date
F66	Nvarchar(255)	N	N	F66
Registered (Public Officer)	Number	N	N	Registered (Public Officer)
Registered (General Officer)	Number	N	N	Registered (General Officer)
HKIE & RPE	Number	N	N	HKIE & RPE
Under Processing (General)	Number	N	N	Under Processing (General)
Under Processing (Public Officer)	Number	N	N	Under Processing (Public Officer)
Removed (General)	Number	N	N	Removed (General)
Removed (Public Officer)	Number	N	N	Removed (Public Officer)

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Total REA_Handled_by_E/EEB 2/1	Nvarchar(255)	N	N	Total REA_Handled_by_E/EEB2/1
Total REA_Handled_by_E/EEB 2/2	Nvarchar(255)	N	N	Total REA_Handled_by_E/EEB2/2
Total REA_Handled_by_E/EEB 5/1	Nvarchar(255)	N	N	Total REA_Handled_by_E/EEB5/1
Total REA_Handled_by_E/EEB 5/2	Nvarchar(255)	N	N	Total REA_Handled_by_E/EEB5/2
Total REA_Handled_by_E/EEB 7/1	Nvarchar(255)	N	N	Total REA_Handled_by_E/EEB7/1
Total REA_Handled_by_E/EEB 7/2	Nvarchar(255)	N	N	Total REA_Handled_by_E/EEB7/2
Handled_by	Nvarchar(255)	N	N	Handled_by
Date to BSI for DCI	Date	N	N	Date to BSI for DCI
Iusse_Date of DCI	Date	N	N	Iusse_Date of DCI
Letter return_Date of DCI	Date	N	N	Letter return_Date of DCI
Agree to disclosure of Tel# no# (Y/N)	Nvarchar(255)	N	N	Agree to disclosure of Tel no (Y/N)
Agree to disclosure of Email address (Y/N)	Nvarchar(255)	N	N	Agree to disclosure of Email address (Y/N)
No of duplicate Certificate Issued	Nvarchar(255)	N	N	No of duplicate Certificate Issued

4.2 BUILDINGMASTER

Table Name : BuildingMaster				
Table Description : Master table of building				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	Building ID
FileNo	Varchar(50)	N	N	File Number
GEO_REFNO	Varchar(10)	N	N	GEO Reference Number
ENG_BLDNM	Varchar(255)	N	N	English Building Number
CHI_BLDNM	Nvarchar(255)	N	N	Chinese Building Number
ST_ENG_NM	Varchar(255)	N	N	Street English Name
ST_CHI_NM	Nvarchar(255)	N	N	Street Chinese Name
START_NO	Int	N	N	Street Start Number
START_NO_ALPHA	Varchar(10)	N	N	Street Start Alpha
END_NO	Int	N	N	Street End Number
END_NO_ALPHA	Varchar(10)	N	N	Street End Alpha
LOT_NO	Nvarchar(13)	N	N	Lot Number
DISTRICT_CD	Varchar(20)	N	N	Distirct Code
AREA_CD	Int	N	N	Area Code

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OP_NO	Nvarchar(15)	N	N	OP Number
OP_DATE	Date	N	N	OP Date
COMP_YEAR	Int	N	N	Comp Year
BLD_TY	Int	N	N	Building TY
BLDG_STATUS	Varchar(1)	N	N	Building Status
MODIFY_DT	Date	N	N	Modify Date
ConsentDate	Date	N	N	Consent Date
ConsentRef	Nvarchar(50)	N	N	Consent Reference
masterid	Int	N	N	Master ID
CSUID	Nvarchar(50)	N	N	CSU ID

4.3 DETAILS\$

Table Name : Details\$				
Table Description : Details				
Column Name	Data Type	PK	Mandatory	Column Description
Case No	Nvarchar(255)	N	N	Case Number
Title	Nvarchar(255)	N	N	Title
Eng# Name	Nvarchar(255)	N	N	Eng Name
Chi# Name	Nvarchar(255)	N	N	Chi Name
H#K#I#D# No#/ _Travel Docunment Number	Nvarchar(255)	N	N	HKID Number / Travel Document Number
Date of Birth	Date	N	N	Date of Birth
Corr# Address	Nvarchar(255)	N	N	Corresponding Address
Mobile Phone	Number	N	N	Mobile Phone
Current Company Name	Nvarchar(255)	N	N	Current Company Name
Current Company Address	Nvarchar(255)	N	N	Current Company Address
Current Position	Nvarchar(255)	N	N	Current Position
Email address	Nvarchar(255)	N	N	Email Address
Tel# No# (office)	Number	N	N	Office Telephone Number
Fax No#	Number	N	N	Fax Number
Mech	Nvarchar(255)	N	N	Mech
Building	Nvarchar(255)	N	N	Building
Environmental	Nvarchar(255)	N	N	Environmental
Electrical	Nvarchar(255)	N	N	Electrical
RPE	Nvarchar(255)	N	N	RPE
HKIE	Nvarchar(255)	N	N	HKIE
RRA	Nvarchar(255)	N	N	RRA
Others	Nvarchar(255)	N	N	Others
Trade_(A) Consultant_(B) Contractor_(C) Property Management_(D)	Nvarchar(255)	N	N	A: Trade B: Consultant C: Contractor D: Property Management
No# of Application_(1 st / 2 nd / 3 rd)	Nvarchar(255)	N	N	Number of Application (First / Second / Third)

4.4 DIMS_HOLIDAY

Table Name : DIMS_Holiday				
Table Description : Information of DIMS Holiday				
Column Name	Data Type	PK	Mandatory	Column Description
HOLIDAY_ID	Nvarchar(384)	Y	Y	Holiday ID
HOLIDAY_ENAME	Nvarchar(160)	N	Y	Holiday Eng Name
HOLIDAY_CNAME	Nvarchar(160)	N	N	Holiday Chi Name
HOLIDAY_DATE	Date	N	N	Holiday Date
LAST_UPD_DATE	Date	N	N	Last Update Date
LAST_UPD_BY	Nvarchar(384)	N	N	Last Update By
CREATION_DATE	Date	N	Y	Creation Date
CREATED_BY	Nvarchar(384)	N	Y	Created By
LAST_UPD_FORM_ID	Nvarchar(384)	N	Y	Last Update Form ID
LAST_UPD_FUNC_ID	Nvarchar(384)	N	Y	Last Update Function ID

4.5 ENGINEER\$

Table Name : Engineer\$				
Table Description : Information of engineer				
Column Name	Data Type	PK	Mandatory	Column Description
F1	Nvarchar(255)	N	N	F1
F2	Nvarchar(255)	N	N	F2

4.6 EX_REA\$

Table Name : ex_rea\$				
Table Description : Information of REA				
Column Name	Data Type	PK	Mandatory	Column Description
REARegNo	Nvarchar(255)	N	N	REA Registration Number
EngName	Nvarchar(255)	N	N	Eng Name
ChiName	Nvarchar(255)	N	N	Chi Name
RegDate	Date	N	N	Registration Date
ExpiryDate	Date	N	N	Expiry Date
ContactTel	Nvarchar(255)	N	N	Contact Telephone Number
EmailAddr	Nvarchar(255)	N	N	Email Address
EngRemarks	Nvarchar(255)	N	N	Eng Remarks
ChiRemarks	Nvarchar(255)	N	N	Chi Remarks
Status	Number	N	N	Status

4.7 EX_REA1

Table Name : ex_REA1				
Table Description : Information of REA				
Column Name	Data Type	PK	Mandatory	Column Description

REA_NO	Nvarchar(255)	N	N	REA Number
REA_ENAME	Nvarchar(255)	N	N	REA Eng Name
REA_CNAME	Nvarchar(255)	N	N	REA Chi Name
REA_SCNAME	Nvarchar(255)	N	N	REA Simplified Chi Name
ISSUE_DATE	Date	N	N	Issue Date
EXPIRY_DATE	Date	N	N	Expiry Date
TEL1	Nvarchar(255)	N	N	Tel 1
TEL2	Nvarchar(255)	N	N	Tel 2
EMAIL	Nvarchar(255)	N	N	Email
REMARK	Nvarchar(255)	N	N	Remark
REMARK_C	Nvarchar(255)	N	N	Chinese Remark
REMARK_SC	Nvarchar(255)	N	N	Simplified Chinese Remark
LAST_DATA_IMPORT_DATE	Date	N	N	Last Data Import Date

4.8 RASAS_CODE

Table Name : RASAS_CODE				
Table Description : Information of RASAS code				
Column Name	Data Type	PK	Mandatory	Column Description
CODE_TYPE	Char(3)	N	N	Code Type
CODE_ID	Number	N	N	Code ID
CLASS_ID	Number	N	N	Class ID
CODE_DESC	Nvarchar(30)	N	N	Code Description
SYMBOL	Char(1)	N	N	Symbol
TEXT1	Nvarchar(100)	N	N	Text 1
TEXT2	Nvarchar(200)	N	N	Text 2
ANNEX_1	Nvarchar(100)	N	N	Annex 1
ANNEX_2	Nvarchar(100)	N	N	Annex 2
ANNEX_3	Nvarchar(100)	N	N	Annex 3
ANNEX_4	Nvarchar(100)	N	N	Annex 4
ANNEX_5	Nvarchar(100)	N	N	Annex 5
ANNEX_DEF	Nvarchar(200)	N	N	Annex Def
DEFT_NAME	Nvarchar(30)	N	N	Deft Name
CREATE_BY	Nvarchar(10)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
MODIFY_BY	Nvarchar(10)	N	N	Modify By
MODIFY_DATE	Date	N	N	Modify Date

4.9 RASAS_CODE_TYPE

Table Name : RASAS_CODE_TYPE				
Table Description : Information of RASAS code type				
Column Name	Data Type	PK	Mandatory	Column Description
CODE_TYPE	Char(3)	N	N	Code Type
CODE_TYPE_DESC	Nvarchar(30)	N	N	Code Type Description
CODE_LENGTH	Int	N	N	Code Length

CREATE_BY	Nvarchar(10)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
MODIFY_BY	Nvarchar(10)	N	N	Modify By
MODIFY_DATE	Date	N	N	Modify Date

4.10 RASAS_CODELIST

Table Name : RASAS_CODELIST				
Table Description : Information of RASAS codelist				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
CODE_TYPE	Nvarchar(30)	N	N	Code type
CODE_VALUE	Nvarchar(30)	N	N	Code value
CODE_CP_EN	Nvarchar(400)	N	N	Code CP Eng
CODE_CP_TC	Nvarchar(400)	N	N	Code CP Chi
SEQ	Int	N	N	Sequence
REC_STATUS	Nvarchar(30)	N	N	REC Status
REMARK	Nvarchar(300)	N	N	Remark
CRE_BY	Nvarchar(10)	N	N	Create By
CRE_DT	Date	N	N	Create Date
LAST_BY	Nvarchar(10)	N	N	Last Modify By
LAST_DT	Date	N	N	Last Modify Date

4.11 RASAS_CONTR

Table Name : RASAS_CONTR				
Table Description : Information of RASAS contrary				
Column Name	Data Type	PK	Mandatory	Column Description
CONTR_CODE	Nvarchar(30)	N	N	Contrary code
ORD_TYPE	Int	N	N	Ordinance Type
WEIGHT	Int	N	N	Weight
CONTRARY	Nvarchar(1000)	N	N	Contrary
OFF_DESC	Nvarchar(1000)	N	N	Off description
OFF_DESC_C	Nvarchar(1000)	N	N	Off description Chi
CREATE_BY	Nvarchar(10)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
MODIFY_BY	Nvarchar(10)	N	N	Modify By
MODIFY_DATE	Date	N	N	Modify Date
CONTR_ID	Int	N	N	Contrary ID
CONTRARY_C	Nvarchar(1000)	N	N	Contrary Chinese
CHAPTER	Nvarchar(50)	N	N	Chapter
SECTION	Nvarchar(50)	N	N	Section
SUBSECTION	Nvarchar(50)	N	N	Sub-section
PARAGRAPH	Nvarchar(50)	N	N	Paragraph
SUBLEG	Nvarchar(50)	N	N	Sub-leg
SUBPARAGRAPH	Nvarchar(50)	N	N	Sub-paragraph

4.12 RASAS_INFORMANT

Table Name : RASAS_INFORMANT				
Table Description : Information of RASAS informant				
Column Name	Data Type	PK	Mandatory	Column Description
INFORM_NAME	Nvarchar(30)	N	N	Informant Name
INFORM_NAME_C	Nvarchar(12)	N	N	Informant Name Chinese
INFORM_NAME_CCC	Nvarchar(24)	N	N	Informant Name CCC
OIC	Char(1)	N	N	OIC
CREATE_BY	Nvarchar(10)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
MODIFY_BY	Nvarchar(10)	N	N	Modify By
MODIFY_DATE	Date	N	N	Modify Date
ID	Int	N	N	ID

4.13 RASAS_ORDINANCE

Table Name : RASAS_ORDINANCE				
Table Description : Information of RASAS ordinance				
Column Name	Data Type	PK	Mandatory	Column Description
ORD_CODE	Nvarchar(30)	N	N	Ordinance Code
ORD_TYPE	Int	N	N	Ordinance Type
OFF_TYPE	Int	N	N	Off Type
SYMBOL	Char(1)	N	N	Symbol
CONTRARY	Nvarchar(220)	N	N	Contrary
CONTRARY_C	Nvarchar(220)	N	N	Contrary Chi
CREATE_BY	Nvarchar(10)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
MODIFY_BY	Nvarchar(10)	N	N	Modify By
MODIFY_DATE	Date	N	N	Modify Date
ORD_ID	Int	N	N	Ordinance ID

4.14 RASAS_PROD

Table Name : RASAS_PROD				
Table Description : Information of RASAS product				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	N	N	ID
PROD_REF_NO	Nvarchar(12)	N	N	Product Reference Number
PROD_REF_NO_OTH	Nvarchar(12)	N	N	Product Reference Number OTH
ITEM	Nvarchar(30)	N	N	Item
PROD_TYPE	Nvarchar(30)	N	N	Product Type
BRAND_ID	Int	N	N	Brand ID
BRAND_OTH	Nvarchar(30)	N	N	Brand OTH
MODEL_ID	Int	N	N	Model ID
MODEL_OTH	Nvarchar(75)	N	N	Model OTH

QUANTITY	Int	N	N	Quantity
CRE_DT	Date	N	N	Create Date
CRE_BY	Int	N	N	Create By
LAST_DT	Date	N	N	Last Modify Date
LAST_BY	Int	N	N	Last Modify By
LAST_UPD_FORM_ID	Int	N	N	Last Update Form ID
LAST_UPD_FUNC_ID	Int	N	N	Last Update Function ID
SUMM_ID	Int	N	N	Summon ID

4.15 RASAS_REFERRAL

Table Name : RASAS_REFERRAL				
Table Description : Information of RASAS referral				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
REFER_NO	Nvarchar(30)	N	N	Referral Number
M_NO	Nvarchar(10)	N	N	M Number
FILE_REF	Nvarchar(30)	N	N	File Referral
OPEN_DATE	Date	N	N	Open Date
COMPLETE_DATE	Date	N	N	Complete Date
PASS_FILE_DATE	Date	N	N	Pass File Date
ISSUE_DATE_FILE	Date	N	N	Issue Date File
ISSUE_DATE_BEOO	Date	N	N	Issue Date BEOO
PREPARATION_DATE	Date	N	N	Preparation Date
CASE_NO	Nvarchar(20)	N	N	Case Number
BS_INSTALL	Char(1)	N	N	BS Install
BEC_EDITION	Nvarchar(4)	N	N	BEC Edition
SUMM_ACTUAL	Int	N	N	Summon Actual
SUMM_MAX	Int	N	N	Summon Max
SUMM_MIN	Int	N	N	Summon Min
SUMM_TOTAL	Int	N	N	Summon Total
DISC_ACTUAL	Int	N	N	Disc Actual
DISC_MAX	Int	N	N	Disc Max
DISC_MIN	Int	N	N	Disc Min
ANNEX_DEFT	Nvarchar(120)	N	N	Annex Deft
ANNEX_DEPT_IND	Char(1)	N	N	Annex Dept Ind
ANNEX_DEPT	Nvarchar(2000)	N	N	Annex Dept
ANNEX_HEAD_IND	Char(1)	N	N	Annex Head Ind
ANNEX_HEAD	Nvarchar(1000)	N	N	Annex Head
INFORM_NAME	Nvarchar(30)	N	N	Inform Name
REFER_DESC	Nvarchar(200)	N	N	Referral Description
REMARK	Nvarchar(250)	N	N	Remark
INVESTIGATION_INSP_ECTOR	Nvarchar(20)	N	N	Investigation Inspector
CASE_OFFICER	Nvarchar(20)	N	N	Case Officer
S_INVESTIGATION_INSPECTOR	Nvarchar(20)	N	N	S Investigation Inspector

S_CASE_OFFICER	Nvarchar(20)	N	N	S Case Officer
PROSECUTION_INSPECTOR	Nvarchar(20)	N	N	Prosecution Inspector
PRO_CASE_OFFICER	Nvarchar(20)	N	N	Pro Case Officer
STATUS	Nvarchar(30)	N	N	Status
CRE_BY	Nvarchar(10)	N	N	Create By
CRE_DATE	Date	N	N	Create Date
LAST_BY	Nvarchar(10)	N	N	Last Modify By
LAST_DT	Date	N	N	Last Modify Date

4.16 RASAS_REFERRAL_CHARGE

Table Name : RASAS_REFERRAL_CHARGE				
Table Description : Information of RASAS referral charge				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SEQ	Int	N	Y	Sequence
REFER_NO	Nvarchar(30)	N	N	Referral Number
CHARGE	Nvarchar(120)	N	N	Charge
FIRST_KNOWN_DATE	Date	N	N	First Known Date
SAVE_BAR_DATE	Date	N	N	Save Bar Date
CRE_BY	Nvarchar(10)	N	N	Create By
CRE_DT	Date	N	N	Create Date
LAST_BY	Nvarchar(10)	N	N	Last Modify By
LAST_DT	Date	N	N	Last Modify Date
CHARGE AGAINST	Varchar(30)	N	N	Charge Against
PASS_FILE_DATE	Date	N	N	Pass File Date
STATUS	Nvarchar(30)	N	N	Status

4.17 RASAS_REFERRAL_NATURE

Table Name : RASAS_REFERRAL_NATURE				
Table Description : Information of RASAS referral nature				
Column Name	Data Type	PK	Mandatory	Column Description
REFER_NO	Nvarchar(30)	N	N	Referral Number
CODE_TYPE	Char(3)	N	N	Code Type
CODE_ID	Int	N	N	Code ID
CREATE_BY	Nvarchar(10)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
MODIFY_BY	Nvarchar(10)	N	N	Modify By
MODIFY_DATE	Date	N	N	Modify Date

4.18 RASAS_SUMMONS

Table Name : RASAS_SUMMONS				
Table Description : Information of RASAS summons				
Column Name	Data Type	PK	Mandatory	Column Description

**DATA MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
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DEPARTMENT (EMSD)**

ID	Int	Y	Y	ID
REFER_NO	Nvarchar(30)	N	N	Referral Number
SUMM_NO	Nvarchar(4)	N	N	Summon Number
CASE_NO	Nvarchar(14)	N	N	Case Number
OFF_TYPE	Int	N	N	Off Type
SUMM_RESULT	Int	N	N	Summon Result
UPLOAD_DATE	Date	N	N	Upload Date
COUNT_DATE	Date	N	N	Count Date
RESULT_DATE	Date	N	N	Result Date
PLEA_DATE	Date	N	N	Plea Date
SENTENCE_DATE	Date	N	N	Sentence Date
FINE	Number	N	N	Fine
IMPRISON	Int	N	N	Imprison
IDENT_TYPE	Int	N	N	Ident Type
IDENT_NO	Nvarchar(2048)	N	N	Ident Number
SERVE_MODE	Char(1)	N	N	Serve Mode
OFF_ADDR	Nvarchar(200)	N	N	Off Address
OFF_ADDR_C	Nvarchar(200)	N	N	Off Address Chi
OFF_DIST	Char(3)	N	N	Off District
OFF_CODE	Nvarchar(30)	N	N	Off Code
REMARK	Nvarchar(300)	N	N	Remark
INFORM_NAME	Nvarchar(30)	N	N	Inform Name
MANUAL_SCH	Char(1)	N	N	Manual Search
HEAR_GP_ID	Nvarchar(3)	N	N	Hear GP ID
ATTACHMENT	Char(1)	N	N	Attachment
TIME_BAR	Char(1)	N	N	Time bar
OFF_DATE_FMT	Char(1)	N	N	Off Date Fmt
OFF_DATE_1	Date	N	N	Off Date 1
OFF_DATE_2	Date	N	N	Off Date 2
REC_REW	Nvarchar(8)	N	N	REC REW
DEFT_TYPE	Char(1)	N	N	Deft Type
DEFT_NAME	Nvarchar(2048)	N	N	Deft Name
DEFT_NAME_C	Nvarchar(2048)	N	N	Deft Name Chi
DEFT_CCC	Nvarchar(2048)	N	N	Deft CCC
SEX	Char(1)	N	N	Sex
AGE	Int	N	N	Age
ADDRESS	Nvarchar(2048)	N	N	Address
ADDRESS_C	Nvarchar(2048)	N	N	Address Chi
DISTRICT	Char(3)	N	N	District
TERRITORY	Nvarchar(5)	N	N	Territory
PHONE_NO	Nvarchar(2048)	N	N	Phone Number
DIALECT	Int	N	N	Dialect
ARRANGE	Nvarchar(100)	N	N	Arrange
H_WEIGHT	Int	N	N	H weight
P_WEIGHT	Int	N	N	P weight
PGBL	Char(1)	N	N	PGBL
CONTRARY	Nvarchar(220)	N	N	Contrary

CONTRARY_C	Nvarchar(220)	N	N	Contrary Chi
SHORT_DESC	Nvarchar(200)	N	N	Short Description
SHORT_DESC_C	Nvarchar(200)	N	N	Short Description Chi
OFF_DESC	Nvarchar(2000)	N	N	Off Description
OFF_DESC_C	Nvarchar(2000)	N	N	Off Description Chi
CRE_BY	Nvarchar(10)	N	N	Create By
CRE_DT	Date	N	N	Create Date
LAST_BY	Nvarchar(10)	N	N	Last Modify By
LAST_DT	Date	N	N	Last Modify Date
ORD_ID	Int	N	N	Ordinance ID
PRODUCT_SUBCATEG ORY_ID	Int	N	N	Product Subcategory ID
ACTION_DATE	Date	N	N	Action Date
PRODUCT_SUBCATEG ORY_ID2	Int	N	N	Product Subcategory ID 2
PRODUCT_SUBCATEG ORY_ID3	Int	N	N	Product Subcategory ID 3

4.19 RASAS_SUMMONS_PROS

Table Name : RASAS_SUMMONS_PROS				
Table Description : Information of RASAS summons products				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SUMM_ID	Int	N	N	Summon ID
REFER_NO	Nvarchar(30)	N	N	Referral Number
SUMM_NO	Nvarchar(4)	N	N	Summon Number
DAY	Int	N	N	Day
HEARING_DATE	Date	N	N	Hearing Date
COURT_NO	Int	N	N	Court Number
MAGIS	Int	N	N	Magis
VERDICT_MODE	Int	N	N	Verdict Mode
PROS_TYPE	Char(1)	N	N	Products Type
PROS_NAME	Nvarchar(50)	N	N	Products Name
REMARK	Nvarchar(80)	N	N	Remark
CRE_BY	Nvarchar(10)	N	N	Create By
CRE_DT	Date	N	N	Create Date
LAST_BY	Nvarchar(10)	N	N	Last Modify By
LAST_DT	Date	N	N	Last Modify Date

4.20 SP_GLOBALVARIABLES

Table Name : sp_GlobalVariables				
Table Description : Information of SP global variables				
Column Name	Data Type	PK	Mandatory	Column Description
varName	Nvarchar(100)	N	N	Variable Name
varValue	Nvarchar(MAX)	N	N	Variable Value

4.21 TBL_ACTION_LOG

Table Name : tbl_ACTION_LOG				
Table Description : Information of action log				
Column Name	Data Type	PK	Mandatory	Column Description
ACTIONLOGID	Int	Y	Y	Action Log ID
ACTIONCODE	Int	N	Y	Action Code
TaskCategory	Varchar(10)	N	N	Task Category
SubmissionID	Int	N	N	Submission ID
Detail	Nvarchar(255)	N	N	Detail
Remark	Nvarchar(1024)	N	N	Remark
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
ACTIONTYPE	Nvarchar(50)	N	N	Action Type

4.22 TBL_ADVISORY LETTER

Table Name : tbl_Advisory_Letter				
Table Description : Information of advisory letter				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
LetterID	Int	N	N	Letter ID
AnticipatedSubmitDate	Date	N	N	Anticipated Submit Date
WithAnticipatedSubmit	Int	N	N	With Anticipated Submit
DateSurveyReturn	Date	N	N	Date Survey Return
ActualDateINSP	Date	N	N	Actual Date Inspect
INSPResult	Nvarchar(1000)	N	N	Inspect Result
ShoppingMallPriority	Nvarchar(10)	N	N	Shopping Mall Priority
ServiceContractorAssessment_isEAneed	Int	N	N	Service Contractor Assessment – is EA need
ServiceContractor_SiteVisitDate	Date	N	N	Service Contractor – Site Visit Date
AnticipatedEACommencementDate	Date	N	N	Anticipated EA Commencement Date
AnticipatedEACompletionDate	Date	N	N	Anticipated EA Completion Date

4.23 TBL_AREA

Table Name : tbl_area				
Table Description : Information of address - area				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
AREA_CD	Int	N	N	Area Code
ENAME	Varchar(255)	N	N	Eng Name
CNAME	Nvarchar(255)	N	N	Chi Name

SCNAME	Nvarchar(255)	N	N	Simplified Chi Name
REMARK	Nvarchar(255)	N	N	Remark
MODIFY_DT	Date	N	N	Modify Date

4.24 TBL_ASSIGNMENT

Table Name : tbl_assignment				
Table Description : Information of assignment of application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
Category	Varchar(10)	N	N	Category
SourceID	Int	N	N	Source ID
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
HandlingOfficer	Nvarchar(50)	N	N	Handling Officer
BuildingID	Int	N	N	Building ID
CaseNo	Nvarchar(20)	N	N	Case Number
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
AssignDate	Date	N	N	Assign Date
AssignBy	Nvarchar(50)	N	N	Assign By
StatusCode	Char(10)	N	N	Status Code
SubmissionType	Int	N	N	Submission Type
ReceivedDate	Date	N	N	Received Date

4.25 TBL_ASSIGNMENT_ADDITIONINFORMATION

Table Name : tbl_assignment_additionInformation				
Table Description : Additional information of assignment				
Column Name	Data Type	PK	Mandatory	Column Description
assignmentID	Int	Y	Y	Assignment ID
ENG_BLDNM	Varchar(255)	N	N	Eng Building Name
CHI_BLDNM	Nvarchar(255)	N	N	Chi Building Name
ST_ENG_NM	Varchar(255)	N	N	Eng Street Name
ST_CHI_NM	Nvarchar(255)	N	N	Chi Street Name
START_NO	Int	N	N	Street Start Number
START_NO_ALPHA	Varchar(10)	N	N	Street Start Alpha
END_NO	Int	N	N	Street End Number
END_NO_ALPHA	Varchar(10)	N	N	Street End Alpha
LOT_NO	Nvarchar(13)	N	N	Lot Number
DISTRICT_CD	Varchar(20)	N	N	District Code
BLD_TY	Int	N	N	Building TY
Remark	Nvarchar(1024)	N	N	Remark
SbmCategory	Varchar(10)	N	N	Submission Category
SubmissionID	Int	N	N	Submission ID
REARegNo	Varchar(25)	N	N	REA Registration Number
REAEngName	Varchar(256)	N	N	REA Eng Name

REAChiName	Nvarchar(256)	N	N	REA Chi Name
WorkLocation	Nvarchar(256)	N	N	Work Location
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
needDocCheck	Char(1)	N	N	Need Document Check

4.26 TBL_ATTACHMENT_TYPE

Table Name : tbl_Attachemnt_Type				
Table Description : Information of attachment type				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
TypeCode	Nvarchar(100)	N	N	Type Code
TypeDesc	Nvarchar(1000)	N	N	Type Description

4.27 TBL_BATCH_JOB

Table Name : tbl_BATCH_JOB				
Table Description : Information of batch job				
Column Name	Data Type	PK	Mandatory	Column Description
BatchID	Int	Y	Y	Batch ID
BatchTypeID	Int	N	N	Batch Type ID
BatchDesc	Nvarchar(1000)	N	N	Batch Description
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.28 TBL_BATCH_JOB_PARAM

Table Name : tbl_BATCH_JOB_PARAM				
Table Description : Information of batch job parameters				
Column Name	Data Type	PK	Mandatory	Column Description
BatchParamID	Int	Y	Y	Batch Parameter ID
BatchID	Int	N	N	Batch ID
ParamName	Nvarchar(50)	N	N	Parameter Name
ParamValue	Nvarchar(MAX)	N	N	Parameter Value
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

BatchTypeID	Int	N	N	Batch Type ID
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4.29 TBL_BATCHJOBGENLETTER

Table Name : tbl_BatchJobGenLetter				
Table Description : Information of batch job generate letter				
Column Name	Data Type	PK	Mandatory	Column Description
BatchID	Int	Y	Y	Batch ID
RoleID	Int	N	N	Role ID
FolderPath	Nvarchar(255)	N	N	Folder Path
GenDocDate	Date	N	N	Generate Document Date
IssueDate	Date	N	N	Issue Date
IssueBy	Nvarchar(50)	N	N	Issue By

4.30 TBL_BATCHRDCASSIGN

Table Name : tbl_BatchRDCAssign				
Table Description : Information of batch RDC assign				
Column Name	Data Type	PK	Mandatory	Column Description
BatchID	Int	Y	Y	Batch ID
assignmentID	Int	N	N	Assignment ID
RDCcategory	Varchar(50)	N	N	RDC Category
needDocCheck	Varchar(1)	N	N	Need Document Check
INSPAssignmentID	Int	N	N	Inspect Assignemnt ID
REARegNo	Varchar(25)	N	N	RE Registration Number
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
RandomNum	GUIDs	N	N	Random Number

4.31 TBL_BATCHRGENINSPI

Table Name : tbl_BatchRGenInsp				
Table Description : Information of batch generate inspect				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
BatchID	Int	N	Y	Batch ID
INSPTYPE	Nvarchar(50)	N	N	Inspect Type
STID	Int	N	N	STID
SUBDateFrom	Date	N	N	Submission Date From
SUBDateTo	Date	N	N	Submission Date To
NumOfBldg	Varchar(50)	N	N	Number of building
isBaseListExcelGen	Varchar(1)	N	N	Is base list Excel generate

4.32 TBL_BATCHRGENINSPI_BASE_BLDGLIST

Table Name : tbl_BatchRGenInsp_Base_BLDgList				
Table Description : Information of batch generate inspect base building list				
Column Name	Data Type	PK	Mandatory	Column Description
BatchID	Int	Y	Y	Batch ID
BuildingID	Int	N	N	Building ID
eaddress	Varchar(3000)	N	N	Eng Address
ENG_BLDNM	Varchar(255)	N	N	Eng Building Name
caddress	Nvarchar(3000)	N	N	Chi Address
CHI_BLDNM	Nvarchar(255)	N	N	Chi Building Name
BLD_TY	Int	N	N	Building TY
BuildingGroupID	Int	N	N	Building Group ID
CaseNo	Nvarchar(23)	N	N	Case Number
withIN	Varchar(1)	N	N	With IN
SbmCategory	Varchar(10)	N	N	Submission Category
SbmTypeID	Int	N	N	Submission TypeID
SubmissionID	Int	N	N	Submission ID
SubmissionReceivedDate	Date	N	N	Submission Received Date
isSelected	Int	N	N	Is Selected

4.33 TBL_BATCHRGENINSPIBLDGLIST

Table Name : tbl_BatchRGenInsp_BLDgList				
Table Description : Information of batch generate inspect building list				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
BatchID	Int	N	Y	Batch ID
BuildingID	Int	N	N	Building ID
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
InspectionID	Int	N	N	Inspection ID
SubmissionID	Int	N	N	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category

4.34 TBL_BATCHTYPE

Table Name : tbl_BatchType				
Table Description : Information of batch type				
Column Name	Data Type	PK	Mandatory	Column Description
BatchTypeID	Int	Y	Y	Batch Type ID
ProcessCategory	Varchar(10)	N	N	Process Category
EngTypeDesc	Nvarchar(50)	N	Y	Eng Type Desc
ChiTypeDesc	Nvarchar(50)	N	N	Chi Type Desc
func	Nvarchar(50)	N	N	Function
BatchType	Nvarchar(50)	N	N	Batch Type
StatusCode	Nvarchar(50)	N	N	Status Code

4.35 TBL_BECEDITION

Table Name : tbl_BECEdition				
Table Description : Information of BEC edition				
Column Name	Data Type	PK	Mandatory	Column Description
BECEdition	Varchar(30)	N	N	BEC Edition

4.36 TBL_BEEO_DMS_MAP

Table Name : tbl_BEEO_DMS_map				
Table Description : Information of BEEO DMS map				
Column Name	Data Type	PK	Mandatory	Column Description
FormId	Nvarchar(50)	N	N	Form ID
tablename	Nvarchar(100)	N	N	Table Name
fieldname	Nvarchar(100)	N	N	Field Name
DMStablename	Nvarchar(100)	N	N	DMS Table Name
DMSfieldname	Nvarchar(100)	N	N	DMS Field Name
func	Nvarchar(100)	N	N	Function
funcPARA	Nvarchar(100)	N	N	Function Parameter

4.37 TBL_BEEO_EEEAES_ACBREAKDN

Table Name : tbl_BEEO_EEEAes_ACBreakDn				
Table Description : Information of BEEO EEEA AC break down				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
ChilledWtrPmp_1st_RatedMotorPwr	Number	N	N	Chilled Wtr Pmp First Rated Motor Power
ChilledWtrPmp_1st_RatedFlw	Number	N	N	Chilled Wtr Pmp First Rated Flw
ChilledWtrPmp_1st_Qty	Int	N	N	Chilled Wtr Pmp First Quantity
ChilledWtrPmp_1st_Performance	Number	N	N	Chilled Wtr Pmp First Performance
ChilledWtrPmp_2nd_RateMotorPwr	Number	N	N	Chilled Wtr Pmp Second Rated Motor Power
ChilledWtrPmp_2nd_RateFlw	Number	N	N	Chilled Wtr Pmp Second Rated Flw
ChilledWtrPmp_2nd_Qty	Int	N	N	Chilled Wtr Pmp Second Quantity
ChilledWtrPmp_2nd_Performance	Number	N	N	Chilled Wtr Pmp Second Performance
ChilledWtrPmp_Total_RatedMotorPwr	Number	N	N	Chilled Wtr Pmp Total Rated Motor Power
ChilledWtrPmp_Total_RatedFlw	Number	N	N	Chilled Wtr Pmp Total Rated Flw

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ChilledWtrPmp_Total_Qty	Int	N	N	Chilled Wtr Pmp Total Quantity
ChilledWtrPmp_Total_Performance	Number	N	N	Chilled Wtr Pmp Total Performance
CondenserWtrPmp_Total_RatedMotorPwr	Number	N	N	Condenser Wtr Pmp Total Reated Motor Power
CondenserWtrPmp_Total_RatedFlw	Number	N	N	Condenser Wtr Pmp Total Rated Flw
CondenserWtrPmp_Total_Qty	Int	N	N	Condenser Wtr Pmp Total Quantity
CondenserWtrPmp_Total_Performance	Number	N	N	Condenser Wtr Pmp Total Performance
CondenserWtrPmp_Fresh_Wtr_RatedMotorPwr	Number	N	N	Condenser Wtr Pmp Fresh Wtr Rated Motor Power
CondenserWtrPmp_Fresh_Wtr_RatedFlw	Number	N	N	Condenser Wtr Pmp Fresh Wtr Rated Flw
CondenserWtrPmp_Fresh_Wtr_Qty	Int	N	N	Condenser Wtr Pmp Fresh Wtr Quantity
CondenserWtrPmp_Fresh_Wtr_Performance	Number	N	N	Condenser Wtr Pmp Fresh Wtr Performance
CondenserWtrPmp_SeaWtr_RatedMotorPwr	Number	N	N	Condenser Wtr Pmp Sea Wtr Rated Motor Power
CondenserWtrPmp_SeaWtr_RatedFlw	Number	N	N	Condenser Wtr Pmp Sea Wtr Rated Flw
CondenserWtrPmp_SeaWtr_Qty	Int	N	N	Condenser Wtr Pmp Sea Wtr Quantity
CondenserWtrPmp_SeaWtr_Performance	Number	N	N	Condenser Wtr Pmp Sea Wtr Performance
HeaterWtrPmp_Total_RatedMotorPwr	Number	N	N	Heater Wtr Pmp Total Rated Motor Power
HeaterWtrPmp_Total_RatedFlw	Number	N	N	Heater Wtr Pmp Total Rated Flw
HeaterWtrPmp_Total_Qty	Int	N	N	Heater Wtr Pmp Total Quantity
HeaterWtrPmp_Total_Performance	Number	N	N	Heater Wtr Pmp Total Performance
HeatRejection_CoolingTower_RatedMotorPwr	Number	N	N	Heat Rejection Cooling Tower Rated Motor Power
HeatRejection_CoolingTower_RatedHeatRejectionCap	Number	N	N	Heat Rejection Cooling Tower Rated Heat Rejection Cap
HeatRejection_CoolingTower_Qty	Int	N	N	Heat Rejection Cooling Tower Quantity
HeatRejection_CoolingTower_Performance	Number	N	N	Heat Rejection Cooling Tower Performance
HeatRejection_Radiator_RatedMotorPwr	Number	N	N	Heat Rejection Radiator Rated Motor Power

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HeatRejection_Radiator_RatedHeatRejectionCap	Number	N	N	Heat Rejection Radiator Rated Heat Rejection Cap
HeatRejection_Radiator_Qty	Int	N	N	Heat Rejection Radiator Quantity
HeatRejection_Radiator_Performance	Number	N	N	Heat Rejection Radiator Performance
HeatRejection_Total_RatedMotorPwr	Number	N	N	Heat Rejection Total Rated Motor Power
HeatRejection_Total_RatedHeatRejectionCap	Number	N	N	Heat Rejection Total Rated Heat Rejection Cap
HeatRejection_Total_Qty	Int	N	N	Heat Rejection Total Quantity
HeatRejection_Total_Performance	Number	N	N	Heat Rejection Total Performance
ACFan_AHUFCU_RatedMotorPwr	Number	N	N	ACFan AHUFCU Rated Motor Power
ACFan_AHUFCU_RatedFlw	Number	N	N	ACFan AHUFCU Rated Flw
ACFan_AHUFCU_Qty	Int	N	N	ACFan AHUFCU Quantity
ACFan_AHUFCU_Performance	Number	N	N	ACFan AHUFCU Performance
ACFan_1stAirAHUFreshAirReturnAirFan_RatedMotorPwr	Number	N	N	AC Fan First Air AHU Fresh Air Return Air Fan Rated Motor Power
ACFan_1stAirAHUFreshAirReturnAirFan_RatedFlw	Number	N	N	AC Fan First Air AHU Fresh Air Return Air Fan Rated Flw
ACFan_1stAirAHUFreshAirReturnAirFan_Qty	Int	N	N	AC Fan First Air AHU Fresh Air Return Air Fan Quantity
ACFan_1stAirAHUFreshAirReturnAirFan_Performance	Number	N	N	AC Fan First Air AHU Fresh Air Return Air Fan Performance
ACFan_Total_RatedMotorPwr	Number	N	N	AC Fan Total Rated Motor Power
ACFan_Total_RatedFlw	Number	N	N	AC Fan Total Rated Flw
ACFan_Total_Qty	Int	N	N	AC Fan Total Quantity
ACFan_Total_Performance	Number	N	N	AC Fan Total Performance
ACFanToTotalFanRatedMotorPwrPercentage_OfficeFlr	Number	N	N	AC Fan To Total Fan Rated Motor Pwr Percentage Office Flr
ACFanToTotalFanRatedMotorPwrPercentage_ShoppingLeisureFlr	Number	N	N	AC Fan To Total Fan Rated Motor Pwr Percentage Shopping Leisure Flr
ACFanToTotalFanRatedMotorPwrPercentage_OtrFlr	Number	N	N	AC Fan To Total Fan Rated Motor Pwr Percentage Otr Flr

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isAutomaticSequencingControlProvided	Bit	N	N	Is Automatic Sequencing Control Provided
OverallRepresentativeIndoorRmTempSetPointInSummer	Number	N	N	Overall Representative Indoor Room Temperture Set Point In Summer
isAirSideSysTypeProvided_ChilledWtrAHU	Bit	N	N	Is Air Side Sys Type Provided Chilled Wtr AHU
isAirSideSysTypeProvided_ChilledWtrFCU	Bit	N	N	Is Air Side Sys Type Provided Chilled Wtr FCU
isAirSideSysTypeProvided_UnitaryAC	Bit	N	N	Is Air Side Sys Type Provided Unitary AC
AirSideSysAccountancy	Nvarchar(50)	N	N	Air Side Sys Accountancy

4.38 TBL_BEO_EEEAES_ACINSTALLATIONFULLLIST

Table Name : tbl_BEO_EEEAES_ACInstallationFullList				
Table Description : Information of BEO EEEA AC installation full list				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
EquipmentType	Nvarchar(50)	N	N	Equipment Type
CoolingMethod	Nvarchar(50)	N	N	Cooling Method
CompressorType	Nvarchar(50)	N	N	Compressor Type
isVRF	Nvarchar(50)	N	N	Is VRF
RefrigerantType	Nvarchar(50)	N	N	Refrigerant Type
RatedCap	Number	N	N	Rated Cap
RatedInputPwr	Number	N	N	Rated Input Power
Qty	Int	N	N	Quantity
COP	Number	N	N	COP

4.39 TBL_BEO_EEEAES_ACTOTAL

Table Name : tbl_BEO_EEEAES_ACTotal				
Table Description : Information of BEO EEEA AC total				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
ChillerHeatPmp_TotalRatedCap_Cooling	Number	N	N	Chiller Heat Pmp Total Rated Cap Cooling
ChillerHeatPmp_TotalRatedInputPwr_Cooling	Number	N	N	Chiller Heat Pmp Total Rated Input Pwr Cooling
ChillerHeatPmp_TotalQty_Cooling	Int	N	N	Chiller Heat Pmp Total Quantity Cooling
ChillerHeatPmp_TotalCOP_Cooling	Number	N	N	Chiller Heat Pmp Total COP Cooling
ChillerHeatPmp_TotalRatedCap_Heating	Number	N	N	Chiller Heat Pmp Total Rated Cap Heating

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ChillerHeatPmp_TotalRatedInputPwr_Heating	Number	N	N	Chiller Heat Pmp Total Rated Input Pwr Heating
ChillerHeatPmp_TotalQty_Heating	Int	N	N	Chiller Heat Pmp Total Quantity Heating
ChillerHeatPmp_TotalCOP_Heating	Number	N	N	Chiller Heat Pmp Total COP Heating
UnitaryAC_TotalRatedCap_Cooling	Number	N	N	Unitary AC Total Rated Cap Cooling
UnitaryAC_TotalRatedInputPwr_Cooling	Number	N	N	Unitary AC Total Rated Input Pwr Cooling
UnitaryAC_TotalQty_Cooling	Int	N	N	Unitary AC Total Quantity Cooling
UnitaryAC_TotalCOP_Cooling	Number	N	N	Unitary AC Total COP Cooling
UnitaryAC_TotalRatedCap_Heating	Number	N	N	Unitary AC Total Rated Cap Heating
UnitaryAC_TotalRatedInputPwr_Heating	Number	N	N	Unitary AC Total Rated Input Pwr Heating
UnitaryAC_TotalQty_Heating	Int	N	N	Unitary AC Total Quantity Heating
UnitaryAC_TotalCOP_Heating	Number	N	N	Unitary AC Total COP Heating
UnitaryACToTotalCoolingCapacityPercentage_OfficeFlr	Number	N	N	Unitary AC To Total Cooling Capacity Percentage Office Flr
UnitaryACToTotalCoolingCapacityPercentage_ShoppingLeisureFlr	Number	N	N	Unitary AC To Total Cooling Capacity Percentage Shopping Leisure Flr
UnitaryACToTotalCoolingCapacityPercentage_OtrFlr	Number	N	N	Unitary AC To Total Cooling Capacity Percentage Otr Flr

4.40 TBL_BEEO_EEEAES_BLDCHAR

Table Name : tbl_BEEO_EEEAES_BldChar				
Table Description : Information of BEEO EEEA building char				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
BldType	Nvarchar(50)	N	N	Building Type
CommonAreaPortion	Number	N	N	Common Area Portion
BlockCnt	Number	N	N	Block Cnt
TotalInternalFlrArea	Number	N	N	Total Internal Flr Area
FlrCnt	Int	N	N	Flr Cnt
BldFacadeType	Nvarchar(50)	N	N	Building Façade Type
DtOccupationApproval	Date	N	N	Occupation Approval Date

isACTypeProvided_CoolAir	Bit	N	N	Is AC Type Provided Cool Air
isACTypeProvided_ChilledWtr	Bit	N	N	Is AC Type Provided Chilled Wtr
isACTypeProvided_CondenserWtr	Bit	N	N	Is AC Type Provided Condenser Wtr
TotalAreaPercentageToTotalBldEntity	Number	N	N	Total Area Percentage To Total Building Entity
TotalACAreaPercentageToTotalBldEntity	Number	N	N	Total AC Area Percentage To Total Building Entity
TotalDailyAvgOccupantCnt	Int	N	N	Total Daily Average Occupant Cnt
DailyAvgOccupantDensity	Nvarchar(50)	N	N	Daily Average Occupant Density

4.41 TBL_BEEO_EEEAESCBSISERVEDAREASUMMARY

Table Name : tbl_BEEO_EEEAES_CBSIServedAreaSummary				
Table Description : Information of BEEO EEEA CBSI served area summary				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	N	Audit Form ID
MajorUsage	Nvarchar(MAX)	N	N	Major Usage
AreaPercentageToTotalBldEntity	Number	N	N	Area Percentage To Total Building Entity
ACAreaPercentageToTotalBldEntity	Number	N	N	AC Area Percentage To Total Building Entity
AvgWeeklyOperatingHr	Number	N	N	Average Weekly Operating Hr
DailyAvgOccupantCount	Nvarchar(50)	N	N	Daily Average Occupant Count

4.42 TBL_BEEO_EEEAES_CMV

Table Name : tbl_BEEO_EEEAES_CMV				
Table Description : Information of BEEO EEEA CMV				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
ExhaustAndIntakeFanForCarPark_RatedMotorPwr	Number	N	N	Exhaust And Intake Fan For Car Park Rated Motor Power
ExhaustAndIntakeFanForCarPark_RatedFlw	Number	N	N	Exhaust And Intake Fan For Car Park Rated Flw
ExhaustAndIntakeFanForCarPark_Qty	Int	N	N	Exhaust And Intake Fan For Car Park Quantity
ExhaustAndIntakeFanForCarPark_Performance	Number	N	N	Exhaust And Intake Fan For Car Park Performance

ExhaustAndIntakeFanForToiletPantryUnconditionedArea_RatedMotorPwr	Number	N	N	Exhaust And Intake Fan For Toilet Pantry Unconditioned Area Rated Motor Power
ExhaustAndIntakeFanForToiletPantryUnconditionedArea_RatedFlw	Number	N	N	Exhaust And Intake Fan For Toilet Pantry Unconditioned Area Rated Flw
ExhaustAndIntakeFanForToiletPantryUnconditionedArea_Qty	Int	N	N	Exhaust And Intake Fan For Toilet Pantry Unconditioned Area Quantity
ExhaustAndIntakeFanForToiletPantryUnconditionedArea_Performance	Number	N	N	Exhaust And Intake Fan For Toilet Pantry Unconditioned Area Performance
Total_RatedMotorPwr	Number	N	N	Total Rated Motor Power
Total_RatedFlw	Number	N	N	Total Rated Flw
Total_Qty	Int	N	N	Total Quantity
Total_Performance	Number	N	N	Total Performance
TotalInternalFlrArea_CMV	Number	N	N	Total Internal Flr Area CMV
CMVToTotalRatedMotorPowerPercentage_OfficeFlr	Number	N	N	CMV To Total Rated Motor Power Percentage Office Flr
CMVToTotalRatedMotorPowerPercentage_ShoppingLeisureFlr	Number	N	N	CMV To Total Rated Motor Power Percentage Shopping Leisure Flr
CMVToTotalRatedMotorPowerPercentage_OtrFlr	Number	N	N	CMV To Total Rated Motor Power Percentage Otr Flr

4.43 TBL_BEEO_EEEAES_EMO

Table Name : tbl_BEEO_EEEAES_EMO				
Table Description : Information of BEEO EEEAES EMO				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
RefNo	Nvarchar(50)	N	N	Reference Number
Cat	Nvarchar(50)	N	N	Category
isType_Lighting	Bit	N	N	Is Type Lighting
isType_AC	Bit	N	N	Is Type AC
isType_Ele	Bit	N	N	Is Type Electric
isType_LiftEscalator	Bit	N	N	Is Type Lift Escalator
isType_Otr	Bit	N	N	Is Type Other
DetailDesc	Nvarchar(MAX)	N	N	Detail Description

4.44 TBL_BEEO_EEEAES_EMOCATSUMMARY

Table Name : tbl_BEEO_EEEAES_EMOCatSummary				
Table Description : Information of BEEO EEEAES EMO category summary				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID

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AuditFormID	Int	N	N	Audit Form ID
EMOCatSum_I_Cnt	Int	N	N	EMO Category Summary 1 Count
EMOCatSum_II_Cnt	Int	N	N	EMO Category Summary 2 Count
EMOCatSum_III_Cnt	Int	N	N	EMO Category Summary 3 Count
EMOCatSum_Lighting_Cnt	Int	N	N	EMO Category Summary Lighting Count
EMOCatSum_AC_Cnt	Int	N	N	EMO Category Summary AC Count
EMOCatSum_Ele_Cnt	Int	N	N	EMO Category Summary Electric Count
EMOCatSum_LiftEscalator_Cnt	Int	N	N	EMO Category Summary Lift Escalator Count
EMOCatSum_Otr_Cnt	Int	N	N	EMO Category Summary Other Count

4.45 TBL_BEEO_EEEAES_ENIMPORTEXPORT

Table Name : tbl_BEEO_EEEAes_EnImportExport				
Table Description : Information of BEEO EEEA import export				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
BldName	Nvarchar(50)	N	N	Building Name
BldAddr	Nvarchar(MAX)	N	N	Building Address
ImportOrExport	Nvarchar(50)	N	N	Import Or Export

4.46 TBL_BEEO_EEEAES_GENERALINFO

Table Name : tbl_BEEO_EEEAes_GeneralInfo				
Table Description : Information of BEEO EEEA general information				
Column Name	Data Type	PK	Mandatory	Column Description
AuditFormID	int	Y	Y	Audit Form ID
SubmissionID	Int	N	N	Submission ID
BuildingID	Int	N	N	Building ID
SbmTypeID	Int	N	N	Submission Type ID
SbmCategory	Varchar(10)	N	N	Submission Category
BldName	Nvarchar(MAX)	N	N	Building Name
BldAddr	Nvarchar(MAX)	N	N	Building Address
DtAuditCommence	Date	N	N	Audit Commence Date
DtAuditComplete	Date	N	N	Audit Complete Date
ValidDtIssue	Date	N	N	Valid Issue Date
ValidDtExpire	Date	N	N	Valid Expire Date
EARptRefNo	Nvarchar(50)	N	N	EA Report Reference Number

haveEnIO	Bit	N	N	Have En IO
File_Name	Nvarchar(100)	N	N	File Name
File_Path	Nvarchar(50)	N	N	File Path
File_Name_server	Nvarchar(100)	N	N	File Name Server
Import_Action	Nvarchar(50)	N	N	Import Action
Log_Desc	Nvarchar(50)	N	N	Log Description
Log_Time	Date	N	N	Log Time
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.47 TBL_BEO_EEEAES_HISTORICALANALYSIS

Table Name : tbl_BEO_EEEAES_HistoricalAnalysis				
Table Description : Information of BEO EEEA historical analysis				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
AnnualEUI_1	Number	N	N	Annual EUI 1
AnnualEUI_2	Number	N	N	Annual EUI 2
AnnualEUI_3	Number	N	N	Annual EUI 3
MonthlyEUI_1	Number	N	N	Monthly EUI 1
MonthlyEUI_2	Number	N	N	Monthly EUI 2
MonthlyEUI_3	Number	N	N	Monthly EUI 3
MonthlyEUI_4	Number	N	N	Monthly EUI 4
MonthlyEUI_5	Number	N	N	Monthly EUI 5
MonthlyEUI_6	Number	N	N	Monthly EUI 6
MonthlyEUI_7	Number	N	N	Monthly EUI 7
MonthlyEUI_8	Number	N	N	Monthly EUI 8
MonthlyEUI_9	Number	N	N	Monthly EUI 9
MonthlyEUI_10	Number	N	N	Monthly EUI 10
MonthlyEUI_11	Number	N	N	Monthly EUI 11
MonthlyEUI_12	Number	N	N	Monthly EUI 12
AnnualEleConsumption_1	Number	N	N	Annual Electric Consumption 1
AnnualEleConsumption_2	Number	N	N	Annual Electric Consumption 2
AnnualEleConsumption_3	Number	N	N	Annual Electric Consumption 3
AnnualOtrEnConsumption_1	Number	N	N	Annual Other Energy Consumption 1
AnnualOtrEnConsumption_2	Number	N	N	Annual Other Energy Consumption 2
AnnualOtrEnConsumption_3	Number	N	N	AnnualOtrEnConsumption_3

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AnnualTotalEnConsumption_1	Number	N	N	Annual Total Energy Consumption 1
AnnualTotalEnConsumption_2	Number	N	N	Annual Total Energy Consumption 2
AnnualTotalEnConsumption_3	Number	N	N	Annual Total Energy Consumption 3
AnnualEnConsumptionBreakDn_AC	Number	N	N	Annual Energy Consumption Break Down AC
AnnualEnConsumptionBreakDn_Lighting	Number	N	N	Annual Energy Consumption Break Down Lighting
AnnualEnConsumptionBreakDn_LiftEscalator	Number	N	N	Annual Energy Consumption Break Down Lift Escalator
AnnualEnConsumptionBreakDn_Otr	Number	N	N	Annual Energy Consumption Break Down Other
EnSupplyPercentage	Number	N	N	Energy Supply Percentage
EnBillRefMonth	Date	N	N	Energy Bill Reference Month

4.48 TBL_BEEO_EEEAES_LIFTEPC

Table Name : tbl_BEEO_EEEAes_LiftEPC				
Table Description : Information of BEEO EEEA lift EPC				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
TLift_DCWardLeonardDrive_RatedMotorPwr	Number	N	N	TLift DC Ward Leonard Drive Rated Motor Power
TLift_DCWardLeonardDrive_Qty	Int	N	N	TLift DC Ward Leonard Drive Quantity
TLift_DCThyristorLeonardDrive_RatedMotorPwr	Number	N	N	TLift DC Thyristor Leonard Drive Rated Motor Power
TLift_DCThyristorLeonardDrive_Qty	Int	N	N	TLift DC Thyristor Leonard Drive Quantity
TLift_ACVariableVoltageDrive_RatedMotorPwr	Number	N	N	TLift AC Variable Voltage Drive Rated Motor Power
TLift_ACVariableVoltageDrive_Qty	Int	N	N	TLift AC Variable Voltage Drive Quantity
TLift_ACVariableFrequencyDrive_RatedMotorPwr	Number	N	N	TLift AC Variable Frequency Drive Rated Motor Power
TLift_ACVariableFrequencyDrive_Qty	Int	N	N	TLift AC Variable Frequency Drive Quantity
TLift_ACVVVFDrive_RatedMotorPwr	Number	N	N	TLift AC VVVF Drive Rated Motor Power

TLift_ACVVVFDrive_Qt y	Int	N	N	TLift AC VVVF Drive Quantity
TLift_Otr_RatedMotorPwr	Number	N	N	TLift Other Rated Motor Power
TLift_Otr_Qty	Int	N	N	TLift Other Quantity
HLift_RatedMotorPwr	Number	N	N	HLift Rated Motor Power
HLift_Qty	Int	N	N	HLift Quantity
EPC_RatedMotorPwr	Number	N	N	EPC Rated Motor Power
EPC_Qty	Int	N	N	EPC Quantity
LiftEPC_TotalRatedMotor Pwr	Number	N	N	Lift EPC Total Rated Motor Power
LiftEPC_TotalQty	Int	N	N	Lift EPC Total Quantity
LiftEPCToTotalRatedMot orPwrPercentage_OfficeFl r	Number	N	N	Lift EPC To Total Rated Motor Power Percentage Office Flr
LiftEPCToTotalRatedMot orPwrPercentage_Shoppin gLeisureFlr	Number	N	N	Lift EPC To Total Rated Motor Power Percentage Shopping Leisure Flr
LiftEPCToTotalRatedMot orPwrPercentage_OtrFlr	Number	N	N	Lift EPC To Total Rated Motor Power Percentage Other Flr

4.49 TBL_BEEO_EEEAES_LIGHTING

Table Name : tbl_BEEO_EEEAes_Lighting				
Table Description : Information of BEEO EEEA lighting				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
LightingPwr_FluorescentL ampT5	Number	N	N	Lighting Power Fluorescent Lamp T5
LightingPwr_FluorescentL ampNotT5	Number	N	N	Lighting Power Fluorescent Lamp Not T5
LightingPwr_CompactFlu orescentLamp	Number	N	N	Lighting Power Compact Fluorescent Lamp
LightingPwr_Incandescent Lamp	Number	N	N	Lighting Power Incandescent Lamp
LightingPwr_DischargeLa mp	Number	N	N	Lighting Power Discharge Lamp
LightingPwr_LED	Number	N	N	Lighting Power LED
LightingPwr_Otr	Number	N	N	Lighting Power Other
LightingPwr_Total	Number	N	N	Lighting Power Total
TotalInternalFlrArea_Ligh tingInstallation	Number	N	N	Total Internal Flr Area Lighting Installation
TotalLightingPwrDensity	Number	N	N	Total Lighting Power Density
LuminaryToTotalLighting PwrPercentage_OfficeFlr	Number	N	N	Luminary To Total Lighting Power Percentage Office Flr

LuminaryToTotalLighting PwrPercentage_Shopping LeisureFlr	Number	N	N	Luminary To Total Lighting Power Percentage Shopping Leisure Flr
LuminaryToTotalLighting PwrPercentage_OtrFlr	Number	N	N	Luminary To Total Lighting Power Percentage Other Flr

4.50 TBL_BEEO_EEEAES_OPCHARFULLLIST

Table Name : tbl_BEEO_EEEAES_OpCharFullList				
Table Description : Information of BEEO EEEA OP char full list				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
MajorUsage	Nvarchar(MAX)	N	N	Major Usage
GeneralOr24Hour	Nvarchar(50)	N	N	General Or 24 Hour
ACOrNonAC	Nvarchar(50)	N	N	AC Or Non AC
AreaPercentageToTotalBl dEntity	Number	N	N	Area Percentage To Total Building Entity
WeeklyOperatingHr_Wee kday	Number	N	N	Weekly Operating Hour Weekday
WeeklyOperatingHr_Wee kend	Number	N	N	Weekly Operating Hour Weekend
WeeklyOperatingHr_Wee kTotal	Number	N	N	Weekly Operating Hour Week Total

4.51 TBL_BEEO_EEEAES_OTRINSTALLATION

Table Name : tbl_BEEO_EEEAES_OtrInstallation				
Table Description : Information of BEEO EEEA other installation				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
AuditFormID	Int	N	Y	Audit Form ID
ComputersPhotocopiers	Number	N	N	Computers Photocopiers
PlumbingDrainagePmp	Number	N	N	Plumbing Drainage Pmp
Otr	Nvarchar(MAX)	N	N	Other

4.52 TBL_BEEO_EORS_WR2

Table Name : tbl_BEEO_EORS_WR2				
Table Description : Information of BEEO EORS WR2				
Column Name	Data Type	PK	Mandatory	Column Description
WR2_SUBMISSION_DA TE	Date	N	N	WR2 Submission Date
WR2_ENDORSED_DAT E	Date	N	N	WR2 Endorsed Date
WR2_ENDORSED_BY	Nvarchar(10)	N	N	WR2 Endorsed By
BUILDING_ID	Nvarchar(10)	N	N	Building ID

TRACK_ADDR_ID	Nvarchar(15)	N	Y	Track Adress ID
TRACK_ADDRESS	Nvarchar(100)	N	N	Track Adress
GEO_REFERENCE	Nvarchar(10)	N	N	GEO Reference
PREMISE_TYPE	Nvarchar(120)	N	N	Premise Type
BUILDING_TYPE	Nvarchar(8)	N	N	Building Type
WR2_EXPIRY_DATE	Date	N	N	WR2 Expiry Date

4.53 TBL_BEEO_FORMEA1

Table Name : tbl_BEEO_FORMEA1				
Table Description : Information of cases of form EA1				
Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Varchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
APPLICATION_TYPE	Nvarchar(20)	N	N	Application Type
REG_NO	Varchar(20)	N	N	REA Registration Number
EXPIRY_DATE	Date	N	N	Expiry Date
ENG_NAME	Nvarchar(100)	N	N	English Name
CHI_NAME	Nvarchar(100)	N	N	Chinese Name
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)
DATE_OF_BIRTH	Date	N	N	Date of Birth
TRAVEL_DOC_NO	Nvarchar(30)	N	N	Travel Document Number
ADDR_LANG	Char(1)	N	N	Address Language
ADDR_FLAT	Nvarchar(50)	N	N	Address Flat
ADDR_FLOOR	Nvarchar(50)	N	N	Address Floor
ADDR_BLOCK	Nvarchar(50)	N	N	Address Block
ADDR_BLDG	Nvarchar(300)	N	N	Address Building
ADDR_START_NO	Int	N	N	Address Start Street No
ADDR_START_NO_ALP_HA	Nvarchar(10)	N	N	Address Start Street Alpha
ADDR_END_NO	Int	N	N	Address End Street No
ADDR_END_NO_ALPH_A	Nvarchar(10)	N	N	Address End Street Alpha
ADDR_ST	Nvarchar(300)	N	N	Address Street
ADDR_DISTRICT_CD	Nvarchar(300)	N	N	Address District Code
ADDR_AREA_CD	Int	N	N	Address Area Code
COMP_NAME	Nvarchar(300)	N	N	Company Name
COMP_ADDR_LANG	Char(1)	N	N	Company Address Language
COMP_ADDR_FLAT	Nvarchar(50)	N	N	Company Address Flat
COMP_ADDR_FLOOR	Nvarchar(50)	N	N	Company Address Floor
COMP_ADDR_BLOCK	Nvarchar(50)	N	N	Company Address Block
COMP_ADDR_BLDG	Nvarchar(300)	N	N	Company Address Building
COMP_ADDR_START_NO	Int	N	N	Company Address Start Street No

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COMP_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Company Address Start Street Alpha
COMP_ADDR_END_NO	Int	N	N	Company Address End Street No
COMP_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Company Address End Street Alpha
COMP_ADDR_ST	Nvarchar(300)	N	N	Company Address Street
COMP_ADDR_DISTRICT_CD	Nvarchar(300)	N	N	Company Address District Code
COMP_ADDR_AREA_CD	Int	N	N	Company Address Area Code
COMP_POST	Nvarchar(300)	N	N	Company Post
EMAIL_ADDR	Nvarchar(100)	N	N	Email Address
TEL_NO	Nvarchar(20)	N	N	Telephone Number
FAX_NO	Nvarchar(20)	N	N	Fax Number
OFFICE_TEL_NO	Nvarchar(20)	N	N	Office Telephone Number
QUAL_RE	Char(1)	N	N	Qualification – Registered Engineer
QUAL_RE_DATE	Date	N	N	Qualification – Registered Engineer: Date of Qualified
QUAL_RE_NO	Nvarchar(50)	N	N	Qualification – Registered Engineer: Membership Number
QUAL_RE_BSS	Char(1)	N	N	Qualification – Registered Engineer: Building Services
QUAL_RE_ELL	Char(1)	N	N	Qualification – Registered Engineer: Electrical
QUAL_RE_ENV	Char(1)	N	N	Qualification – Registered Engineer: Environmental
QUAL_RE_MCL	Char(1)	N	N	Qualification – Registered Engineer: Mechanical
QUAL_HKIE	Char(1)	N	N	Qualification – Hong Kong Institution of Engineers
QUAL_HKIE_DATE	Date	N	N	Qualification – HKIE: Date of Qualified
QUAL_HKIE_NO	Nvarchar(50)	N	N	Qualification – HKIE: Membership Number
QUAL_HKIE_BSS	Char(1)	N	N	Qualification – HKIE: Building Services
QUAL_HKIE_ELL	Char(1)	N	N	Qualification – HKIE: Electrical
QUAL_HKIE_ENV	Char(1)	N	N	Qualification – HKIE: Environmental
QUAL_HKIE_MCL	Char(1)	N	N	Qualification – HKIE: Mechanical
QUAL_EQV	Char(1)	N	N	Qualification – Equivalent qualification recognized by HKIE

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QUAL_EQV_DATE	Date	N	N	Qualification – Equivalent qualification: Date of Qualified
QUAL_EQV_NO	Nvarchar(50)	N	N	Qualification – Equivalent qualification: Membership Number
QUAL_EQV_BSS	Char(1)	N	N	Qualification – Equivalent qualification: Building Services
QUAL_EQV_ELL	Char(1)	N	N	Qualification – Equivalent qualification: Electrical
QUAL_EQV_ENV	Char(1)	N	N	Qualification – Equivalent qualification: Environmental
QUAL_EQV_MCL	Char(1)	N	N	Qualification – Equivalent qualification: Mechanical
QUAL_EQV_MEMBERSHIP	Nvarchar(300)	N	N	Qualification – Equivalent qualification: Professional Membership
DECLARE_KNOWLEDGE	Char(1)	N	N	Declaration of having the knowledge required
DECLARE_CONVICTED_STATUS	Char(1)	N	N	Declaration of convicted status
DECLARE_HAVEBEEN_CONVICTED	Char(1)	N	N	Declaration of have been convicted or not
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of correctness of information stated
INTERVIEW_SCHEDULE	Date	N	N	Interview Schedule
INTERVIEW_LAST_EDITED_BY	Varchar(50)	N	N	Interview Last Edited By
QUAL_OTHER	Char(1)	N	N	Qualification – Other
QUAL_OTHER_TEXT	Nvarchar(300)	N	N	Qualification – Other: Details
CHG_NAME	Char(1)	N	N	Change Name
CHG_ADDR	Char(1)	N	N	Change Address
CHG_QUAL	Char(1)	N	N	Change Qualification
CHKLIST_EXP	Char(1)	N	N	Checklist - Experience
CHKLIST_QUAL	Char(1)	N	N	Checklist - Qualification
CHKLIST_SUBST	Char(1)	N	N	Checklist – Substantiate Document
SIGN_DATE	Date	N	N	Sign Date
STATUS_CODE	Char(10)	N	N	Status Code
FORMSTATUS	Int	N	N	Form Status
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

substantiate_desc	Nvarchar(200)	N	N	Substantiate Description
HKID	Varbinary(max)	N	N	HKID Number

4.54 TBL_BEEO_FORMEA1_EXP

Table Name : tbl_BEEO_FORMEA1_EXP				
Table Description : Information of cases of form EA1 - experience				
Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Varchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
SUB_SEQ	Int	N	N	Sub-Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
EXP_FROM	Date	N	N	Experience From Date
EXP_TO	Date	N	N	Experience To Date
POST	Nvarchar(100)	N	N	Post
COMP_NAME	Nvarchar(300)	N	N	Company Name
DESCRIPTION	Nvarchar(300)	N	N	Description
ORIGINAL_NAME	Nvarchar(300)	N	N	Original Name
STATUS_CODE	Char(10)	N	N	Status Code
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.55 TBL_BEEO_FORMEA1_SUBSTANTIALE

Table Name : tbl_BEEO_FORMEA1_SUBSTANTIALE				
Table Description : Information of cases of form EA1 - substantiate				
Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Varchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
SUB_SEQ	Int	N	N	Sub-Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
DESCRIPTION	Nvarchar(300)	N	N	Description
ORIGINAL_NAME	Nvarchar(300)	N	N	Original Name
STATUS_CODE	Char(10)	N	N	Status Code
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.56 TBL_BEEO_FORMEA2

Table Name : tbl_BEEO_FORMEA2				
Table Description : Information of cases of form EA2				

Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Varchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
DUPLICATE_NO	Int	N	N	Duplicate Number
REG_NO	Varchar(20)	N	N	Registration Number
ENG_NAME	Nvarchar(100)	N	N	English Name
CHI_NAME	Nvarchar(100)	N	N	Chinese Name
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)
ADDR_LANG	Char(1)	N	N	Address Language
ADDR_FLAT	Nvarchar(50)	N	N	Address Flat
ADDR_FLOOR	Nvarchar(50)	N	N	Address Floor
ADDR_BLOCK	Nvarchar(50)	N	N	Address Block
ADDR_BLDG	Nvarchar(300)	N	N	Address Building
ADDR_START_NO	Int	N	N	Address Start Street No
ADDR_START_NO_ALP HA	Nvarchar(10)	N	N	Address Start Street Alpha
ADDR_END_NO	Int	N	N	Address End Street No
ADDR_END_NO_ALPH A	Nvarchar(10)	N	N	Address End Street Alpha
ADDR_ST	Nvarchar(300)	N	N	Address Street
ADDR_DISTRICT_CD	Nvarchar(300)	N	N	Address District Code
ADDR_AREA_CD	Int	N	N	Address Area Code
TEL_NO	Nvarchar(20)	N	N	Telephone Number
SIGN_DATE	Date	N	N	Sign Date
FORMSTATUS	Int	N	N	Form Status
STATUS_CODE	Char(10)	N	N	Status Code
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
HKID	Varbinary(max)	N	N	HKID Number

4.57 TBL_BEEO_FORMEA3

Table Name : tbl_BEEO_FORMEA3				
Table Description : Information of cases of form EA3				
Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Varchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
APPLICATION_TYPE	Nvarchar(20)	N	N	Application Type
REG_NO	Varchar(20)	N	N	REA Registration Number
CHG_NAME	Char(1)	N	N	Change Name
CHG_ADDR	Char(1)	N	N	Change Address

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ENG_NAME	Nvarchar(100)	N	N	English Name
CHI_NAME	Nvarchar(100)	N	N	Chinese Name
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)
DATE_OF_BIRTH	Date	N	N	Date of Birth
ADDR_LANG	Char(1)	N	N	Address Language
ADDR_FLAT	Nvarchar(50)	N	N	Address Flat
ADDR_FLOOR	Nvarchar(50)	N	N	Address Floor
ADDR_BLOCK	Nvarchar(50)	N	N	Address Block
ADDR_BLDG	Nvarchar(300)	N	N	Address Building
ADDR_START_NO	Int	N	N	Address Start Street No
ADDR_START_NO_ALP HA	Nvarchar(10)	N	N	Address Start Street Alpha
ADDR_END_NO	Int	N	N	Address End Street No
ADDR_END_NO_ALPH A	Nvarchar(10)	N	N	Address End Street Alpha
ADDR_ST	Nvarchar(300)	N	N	Address Street
ADDR_DISTRICT_CD	Nvarchar(300)	N	N	Address District Code
ADDR_AREA_CD	Int	N	N	Address Area Code
COMP_NAME	Nvarchar(300)	N	N	Company Name
COMP_ADDR_SAME	Char(1)	N	N	Company Address Same as Correspondence Address
COMP_ADDR_LANG	Char(1)	N	N	Company Address Language
COMP_ADDR_FLAT	Nvarchar(50)	N	N	Company Address Flat
COMP_ADDR_FLOOR	Nvarchar(50)	N	N	Company Address Floor
COMP_ADDR_BLOCK	Nvarchar(50)	N	N	Company Address Block
COMP_ADDR_BLDG	Nvarchar(300)	N	N	Company Address Building
COMP_ADDR_START_NO	Int	N	N	Company Address Start Street No
COMP_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Company Address Start Street Alpha
COMP_ADDR_END_NO	Int	N	N	Company Address End Street No
COMP_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Company Address End Street Alpha
COMP_ADDR_ST	Nvarchar(300)	N	N	Company Address Street
COMP_ADDR_DISTRIC T_CD	Nvarchar(300)	N	N	Company Address District Code
COMP_ADDR_AREA_C D	Int	N	N	Company Address Area Code
COMP_POST	Nvarchar(300)	N	N	Company Post
EMAIL_ADDR	Nvarchar(100)	N	N	Email Address
TEL_NO	Nvarchar(20)	N	N	Telephone Number
FAX_NO	Nvarchar(20)	N	N	Fax Number
OFFICE_TEL_NO	Nvarchar(20)	N	N	Office Telephone Number
DECLARE_CONVICTED _STATUS	Char(1)	N	N	Declaration of convicted status

DECLARE_HAVEBEEN_CONVICTED	Char(1)	N	N	Declaration of have been convicted or not
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of correctness of information stated
NOMI_NAME	Nvarchar(100)	N	N	Nominator Name
NOMI_RANK	Nvarchar(100)	N	N	Nominator Rank
NOMI_POST	Nvarchar(300)	N	N	Nominator Post
NOMI_DEPT	Nvarchar(300)	N	N	Nominator Department
NOMI_TEL	Nvarchar(20)	N	N	Nominator Telephone Number
SIGN_DATE	Date	N	N	Sign Date
FORMSTATUS	Int	N	N	Form Status
STATUS_CODE	Char(10)	N	N	Status Code
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
HKID	Varbinary(max)	N	N	HKID Number
EXPIRY_DATE	Date	N	N	Expiry Date

4.58 TBL_BEEO_FORMEE1

Table Name : tbl_BEEO_FORMEE1				
Table Description : Information of cases of form EE1				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOT_NO	Nvarchar(200)	N	N	Building Lot Number
COMP_BEC_EDITION	Nvarchar(10)	N	N	Company BEC Edition
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name

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REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOC_K	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
BEC_EDITION	Nvarchar(10)	N	N	BEC Edition
REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_NO	Int	N	N	REA Address Start Street Number
REA_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha

REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	REA Address District Code
REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
status_code	Char(10)	N	N	Status Code

4.59 TBL_BEEO_FORMEE1_EESU

Table Name : tbl_BEEO_FORMEE1_EESU				
Table Description : Information of cases of form EE1 EESU				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
PARENT_FORM	Nvarchar(20)	N	Y	Parent From
bldg_commercial	Char(1)	N	N	Building - Commerical
bldg_community	Char(1)	N	N	Building - Community
bldg_clinic	Char(1)	N	N	Building - Clinic
bldg_residential	Char(1)	N	N	Building - Residential
bldg_municipal	Char(1)	N	N	Building - Municipal
bldg_composite_ci	Char(1)	N	N	Building - Composite CI
bldg_industrial	Char(1)	N	N	Building - Industrial
bldg_government	Char(1)	N	N	Building - Government
bldg_composite_cr	Char(1)	N	N	Building - Composite CR
bldg_hotel	Char(1)	N	N	Building - Hotel
bldg_railway	Char(1)	N	N	Building - Railway
bldg_airport_passenger	Char(1)	N	N	Building - Airport Passenger
bldg_education	Char(1)	N	N	Building - Education
bldg_composite_other	Char(1)	N	N	Building - Composite Other

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BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type - Other
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WORK_MAPTYPE	Char(1)	N	N	Consent Building Work Maptype
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOC_NO	Nvarchar(20)	N	N	Consent Document Number
COMMENCE_DATE_TYPE	Char(1)	N	N	Commence Date Type
COMMENCE_DATE	Date	N	N	Commence Date
OCCUPATION_DATE	Date	N	N	Occupation Date
STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DATE	Date	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Number
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
CHKLIST_OCCP_APPROVAL	Char(1)	N	N	Checklist OCCP Approval
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of correctness of information stated
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.60 TBL_BEEO_FORMEE2

Table Name : tbl_BEEO_FORMEE2				
Table Description : Information of cases of form EE2				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number

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BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOT_NO	Nvarchar(200)	N	N	Building Lot Number
COMP_BEC_EDITION	Nvarchar(10)	N	N	Company BEC Edition
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOC_K	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number

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CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
INSPECT_DATE	Date	N	N	Inspect Date
REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_NO	Int	N	N	REA Address Start Street Number
REA_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	REA Address District Code
REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.61 TBL_BEEO_FORMEE2_EESU

Table Name : tbl_BEEO_FORMEE2_EESU				
Table Description : Information of cases of form EE2 EESU				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number

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PARENT_FORM	Nvarchar(20)	N	Y	Parent From
bldg_commerical	Char(1)	N	N	Building - Commerical
bldg_community	Char(1)	N	N	Building - Community
bldg_clinic	Char(1)	N	N	Building - Clinic
bldg_residential	Char(1)	N	N	Building - Residential
bldg_municipal	Char(1)	N	N	Building - Municipal
bldg_composite_ci	Char(1)	N	N	Building - Composite CI
bldg_industrial	Char(1)	N	N	Building - Industrial
bldg_government	Char(1)	N	N	Building - Government
bldg_composite_cr	Char(1)	N	N	Building - Composite CR
bldg_hotel	Char(1)	N	N	Building - Hotel
bldg_railway	Char(1)	N	N	Building - Railway
bldg_airport_passenger	Char(1)	N	N	Building - Airport Passenger
bldg_education	Char(1)	N	N	Building - Education
bldg_composite_other	Char(1)	N	N	Building - Composite Other
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type - Other
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WOR K_MAPTYPE	Char(1)	N	N	Consent Building Work Maptype
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOC_NO	Nvarchar(20)	N	N	Consent Document Number
COMMENCE_DATE_TY PE	Char(1)	N	N	Commence Date Type
COMMENCE_DATE	Date	N	N	Commence Date
OCCUPATION_DATE	Date	N	N	Occupation Date
STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DA TE	Date	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Number
EXEMPT_INSTALLATI ONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
CHKLIST_OCCP_APPR OVAL	Char(1)	N	N	Checklist OCCP Approval
DECLARE_INFO_CORR ECT	Char(1)	N	N	Declaration of correctness of information stated
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date

REA_SIGN_DATE	Date	N	N	REA Sign Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.62 TBL_BEEO_FORMEE3

Table Name : tbl_BEEO_FORMEE3				
Table Description : Information of cases of form EE3				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
COCR_REG_NO	Nvarchar(20)	N	N	COCR Registration Number
COMP_BEC_EDITION	Nvarchar(10)	N	N	Company BEC Edition
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number

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CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
BEC_EDITION	Nvarchar(10)	N	N	BEC Edition
INSPECT_DATE	Date	N	N	Inspect Date
REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_NO	Int	N	N	REA Address Start Street Number
REA_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	REA Address District Code
REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
REA_SIGN_DATE	Date	N	N	REA Sign Date

FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.63 TBL_BEEO_FORMEE3_EESU

Table Name : tbl_BEEO_FORMEE3_EESU				
Table Description : Information of cases of form EE3 EESU				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
PARENT_FORM	Nvarchar(20)	N	Y	Parent From
bldg_commerical	Char(1)	N	N	Building - Commerical
bldg_community	Char(1)	N	N	Building - Community
bldg_clinic	Char(1)	N	N	Building - Clinic
bldg_residentail	Char(1)	N	N	Building - Residential
bldg_municipal	Char(1)	N	N	Building - Municipal
bldg_composite_ci	Char(1)	N	N	Building - Composite CI
bldg_industrial	Char(1)	N	N	Building - Industrial
bldg_government	Char(1)	N	N	Building - Government
bldg_composite_cr	Char(1)	N	N	Building - Composite CR
bldg_hotel	Char(1)	N	N	Building - Hotel
bldg_railway	Char(1)	N	N	Building - Railway
bldg_airport_passenger	Char(1)	N	N	Building - Airport Passenger
bldg_education	Char(1)	N	N	Building - Education
bldg_composite_other	Char(1)	N	N	Building - Composite Other
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type - Other
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WOR	Char(1)	N	N	Consent Building Work
K_MAPTYPE				Maptype
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOC_NO	Nvarchar(20)	N	N	Consent Document Number
COMMENCE_DATE_TYPE	Char(1)	N	N	Commence Date Type

COMMENCE_DATE	Date	N	N	Commence Date
OCCUPATION_DATE	Date	N	N	Occupation Date
STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DATE	Date	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Number
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
CHKLIST_OCCP_APPROVAL	Char(1)	N	N	Checklist OCCP Approval
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of correctness of information stated
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.64 TBL_BEEO_FORMEE3_EESU_COCR

Table Name : tbl_BEEO_FORMEE3_EESU_COCR				
Table Description : Information of cases of form EE3 EESU COCR				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
SUB_SEQ	Int	N	Y	Sub Sequence
REG_NO	Nvarchar(20)	N	N	Registration Number
EXPIRY_DATE	Date	N	N	Expiry Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.65 TBL_BEEO_FORMEE3_EESU_FOC

Table Name : tbl_BEEO_FORMEE3_EESU_FOC				
Table Description : Information of cases of form EE3 EESU FOC				

Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
SUB_SEQ	Int	N	Y	Sub Sequence
REF_NO	Nvarchar(20)	N	N	Reference Number
ISSUE_DATE	Date	N	N	Issue Date
BEC_EDITION	Nvarchar(20)	N	N	BEC Edition
IS_TYPE_LG	Char(1)	N	N	Is type LG
IS_TYPE_AC	Char(1)	N	N	Is type AC
IS_TYPE_EL	Char(1)	N	N	Is type EL
IS_TYPE_LE	Char(1)	N	N	Is type LE
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.66 TBL_BEEO_FORMEE4

Table Name : tbl_BEEO_FORMEE4				
Table Description : Information of cases of form EE4				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
IS_OWNER_COMMON_AREA	Char(1)	N	N	Is Owner Common Area

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IS_OWNER_CENTRAL_BS	Char(1)	N	N	Is Owner Central BS
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPIPER_UNIT	Char(1)	N	N	Is Occupier Unit
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
RESPON_TITLE_ID	Int	N	N	Response Person Title ID (Mr./Mrs./Miss)
RESPON_ENAME	Nvarchar(256)	N	N	Response Person Eng Name
RESPON_CNAME	Nvarchar(256)	N	N	Response Person Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
BEC_EDITION	Nvarchar(10)	N	N	BEC Edition
INSPECT_DATE	Date	N	N	Inspect Date

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REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_NO	Int	N	N	REA Address Start Street Number
REA_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	REA Address District Code
REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.67 TBL_BEEO_FORMEE4_EESU

Table Name : tbl_BEEO_FORMEE4_EESU				
Table Description : Information of cases of form EE4 EESU				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
PARENT_FORM	Nvarchar(20)	N	Y	Parent From
bldg_commercial	Char(1)	N	N	Building - Commerical
bldg_community	Char(1)	N	N	Building - Community
bldg_clinic	Char(1)	N	N	Building - Clinic

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bldg_residential	Char(1)	N	N	Building - Residential
bldg_municipal	Char(1)	N	N	Building - Municipal
bldg_composite_ci	Char(1)	N	N	Building - Composite CI
bldg_industrial	Char(1)	N	N	Building - Industrial
bldg_government	Char(1)	N	N	Building - Government
bldg_composite_cr	Char(1)	N	N	Building - Composite CR
bldg_hotel	Char(1)	N	N	Building - Hotel
bldg_railway	Char(1)	N	N	Building - Railway
bldg_airport_passenger	Char(1)	N	N	Building - Airport Passenger
bldg_education	Char(1)	N	N	Building - Education
bldg_composite_other	Char(1)	N	N	Building - Composite Other
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type - Other
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WOR K_MAPTYPE	Char(1)	N	N	Consent Building Work Maptype
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOC_NO	Nvarchar(20)	N	N	Consent Document Number
COMMENCE_DATE_TY PE	Char(1)	N	N	Commence Date Type
COMMENCE_DATE	Date	N	N	Commence Date
OCCUPATION_DATE	Date	N	N	Occupation Date
STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DA TE	Date	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Number
EXEMPT_INSTALLATI ONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
CHKLIST_OCCP_APPR OVAL	Char(1)	N	N	Checklist OCCP Approval
DECLARE_INFO_CORR ECT	Char(1)	N	N	Declaration of correctness of information stated
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date

UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.68 TBL_BEEO_FORMEE4_EESU_WORK

Table Name : tbl_BEEO_FORMEE4_EESU_WORK				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
SUB_SEQ	Int	N	Y	Sub Sequence
WORK_LOC	Nvarchar(1024)	N	N	Work Location
COMMON_AREA	Char(1)	N	N	Common Area
UNIT	Char(1)	N	N	Unit
WORK_AREA	Number	N	N	Work Area
IS_TYPE_LG	Char(1)	N	N	Is type LG
IS_TYPE_AC	Char(1)	N	N	Is type AC
IS_TYPE_EL	Char(1)	N	N	Is type EL
IS_TYPE_LE	Char(1)	N	N	Is type LE
COMPLETE_DATE	Date	N	N	Complete Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.69 TBL_BEEO_FORMEE5

Table Name : tbl_BEEO_FORMEE5				
Table Description : Information of cases of form EE5				
Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code

REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_NO	Nvarchar(256)	N	N	REA Number
COMPLETED_DATE	Date	N	N	Completed Date
EXPIRE_DATE	Date	N	N	Expire Date
EUI_NO1	Nvarchar(256)	N	N	EUI Number 1
EUI_NO2	Nvarchar(256)	N	N	EUI Number 2
SIGN_DATE	Date	N	N	Sign Date
CATEGORY	Varchar(10)	N	N	Category
STATUS_CODE	Char(10)	N	N	Status Code
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
FORMSTATUS	Int	N	N	Form Status

4.70 TBL_BEEO_FORMEE7

Table Name : tbl_BEEO_FORMEE7				
Table Description : Information of cases of form EE7				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
COCR_NO	Varchar(25)	N	N	COCR Number
FOC_NO	Varchar(25)	N	N	FOC Number
EAF_NO	Varchar(25)	N	N	EAF Number
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
IS_DEVELOPER	Char(1)	N	N	Is Developer
IS_OWNER_BUILDING	Char(1)	N	N	Is Owner Building
IS_INC_OWNER	Char(1)	N	N	Is INC Owner

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IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPIER_UNIT	Char(1)	N	N	Is Occupier Unit
RESPON_TITLE_ID	Int	N	N	Response Person Title ID (Mr./Mrs./Miss)
RESPON_ENAME	Nvarchar(256)	N	N	Response Person Eng Name
RESPON_CNAME	Nvarchar(256)	N	N	Response Person Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOC_K	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
IS_BRC	Char(1)	N	N	Is BRC
IS_HKID	Char(1)	N	N	Is HKID
IS_LAND_REGISTER	Char(1)	N	N	Is Land Registered
IS_INC_OWNER_CERT	Char(1)	N	N	Is INC Owner Certificate
IS_TENANT_AUTH	Char(1)	N	N	Is Tenant Authenticate

FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.71 TBL_BEEO_FORMEEET

Table Name : tbl_BEEO_FORMEEET				
Table Description : Information of cases of form EEET				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
EXTENSION_DESC	Nvarchar(3000)	N	N	Extension Description
IS_DEVELOPER	Char(1)	N	N	Is Developer
IS_OWNER_BUILDING	Char(1)	N	N	Is Owner Building
IS_INC_OWNER	Char(1)	N	N	Is INC Owner
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPIER_UNIT	Char(1)	N	N	Is Occupier Unit
RESPON_TITLE_ID	Int	N	N	Response Person Title ID (Mr./Mrs./Miss)
RESPON_ENAME	Nvarchar(256)	N	N	Response Person Eng Name
RESPON_CNAME	Nvarchar(256)	N	N	Response Person Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)

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REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOC_K	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.72 TBL_BEEO_FORMEEEX

Table Name : tbl_BEEO_FORMEEEX				
Table Description : Information of cases of form EEEEX				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID

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category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
IS_500	Char(1)	N	N	Is 500
IS_400A	Char(1)	N	N	Is 400A
IS_350KW	Char(1)	N	N	Is 350kW
IS_MOTOR	Char(1)	N	N	Is Motor
DECLARE_ENAME	Nvarchar(256)	N	N	Declare Eng Name
DECLARE_CNAME	Nvarchar(256)	N	N	Declare Chi Name
IS_DEVELOPER	Char(1)	N	N	Is Developer
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUUPER_UNIT	Char(1)	N	N	Is Occupier Unit
RESPON_TITLE_ID	Int	N	N	Response Person Title ID (Mr./Mrs./Miss)
RESPON_ENAME	Nvarchar(256)	N	N	Response Person Eng Name
RESPON_CNAME	Nvarchar(256)	N	N	Response Person Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block

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CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDR	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.73 TBL_BEO_FORMEEEX_EXEMPTION

Table Name : tbl_BEO_FORMEEEX_EXEMPTION				
Table Description : Information of cases of form EEEEX exemption				
Column Name	Data Type	PK	Mandatory	Column Description
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
SUB_SEQ	Int	N	Y	Sub-Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
IS_TYPE_LG	Char(1)	N	N	Is type LG
IS_TYPE_AC	Char(1)	N	N	Is type AC
IS_TYPE_EL	Char(1)	N	N	Is type EL
IS_TYPE_LE	Char(1)	N	N	Is type LE
IS_EXEMPTION_HERITAGE	Char(1)	N	N	Is Exemption Heritage
IS_EXEMPTION_TECH	Char(1)	N	N	Is Exemption Tech

IS_EXEMPTION_OPER	Char(1)	N	N	Is Exemption Oper
DETAILS	Nvarchar(1000)	N	N	Details
BEC_EDITION	Nvarchar(20)	N	N	BEC Edition
CODE_EXEMPTION	Nvarchar(200)	N	N	Code Exemption
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.74 TBL_FORMFOC

Table Name : tbl_formFOC				
Table Description : Information of cases of form FOC				
Column Name	Data Type	PK	Mandatory	Column Description
FormID	Int	Y	Y	Form ID
SubmissionID	Int	N	N	Submission ID
BuildingID	Int	N	N	Building ID
SbmTypeID	Int	N	N	Submission Type ID
SbmCategory	Varchar(10)	N	N	Submission Category
status_code	Char(10)	N	N	Status Code
type	Char(2)	N	N	Type

4.75 TBL_FORMFOC_AC_ACCHILLER

Table Name : tbl_formFOC_AC_ACChiller				
Table Description : Information of cases of form FOC AC AC chiller				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
ACChillerYes	Nvarchar(MAX)	N	N	AC Chiller Yes
ACChillerNo	Nvarchar(MAX)	N	N	AC Chiller No

4.76 TBL_FORMFOC_AC_ACCHILLER_SUPP

Table Name : tbl_formFOC_AC_ACChiller_Supp				
Table Description : Information of cases of form FOC AC AC chiller supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
EquipmentRefNo	Nvarchar(MAX)	N	N	Equipment Reference Number
TechnicalCatalogueRefNo	Nvarchar(MAX)	N	N	Technical Catalogue Reference Number
AirCooledChiller	Nvarchar(MAX)	N	N	Air Cooled Chiller
ReciprocatingCentrifugal	Nvarchar(MAX)	N	N	Reciprocating Centrifugal

CoolingRatedCapacity	Nvarchar(MAX)	N	N	Cooling Rated Capacity
CoolingRatedCOP	Nvarchar(MAX)	N	N	Cooling Rated COP
CoolingMinAllowedCOP	Nvarchar(MAX)	N	N	Cooling Minimum Allowed COP

4.77 TBL_FORMFOC_AC_ACUNITARYACHEATPUMP

Table Name : tbl_formFOC_AC_ACUnitaryACHeatPump				
Table Description : Information of cases of form FOC AC AC unitary AC heat pump				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
ACUnitaryACHeatPumpYes	Nvarchar(MAX)	N	N	AC Unitary AC Heat Pump Yes
ACUnitaryACHeatPumpNo	Nvarchar(MAX)	N	N	AC Unitary AC Heat Pump No

4.78 TBL_FORMFOC_AC_ACUNITARYACHEATPUMP_SUPP

Table Name : tbl_formFOC_AC_ACUnitaryACHeatPump_Supp				
Table Description : Information of cases of form FOC AC AC unitary AC heat pump supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
EquipmentRefNo	Nvarchar(MAX)	N	N	Equipment Reference Number
TechnicalCatalogueRefNo	Nvarchar(MAX)	N	N	Technical Catalogue Reference Number
AircooledWatercooled	Nvarchar(MAX)	N	N	Aircooled Watercooled
CoolingRatedCapactiy	Nvarchar(MAX)	N	N	Cooling Rated Capactiy
CoolingRatedCOP	Nvarchar(MAX)	N	N	Cooling Rated COP
CoolingMinAllowedCOP	Nvarchar(MAX)	N	N	Cooling Minimum Allowed COP
HeatingRatedCapactiy	Nvarchar(MAX)	N	N	Heating Rated Capactiy
HeatingRatedCOP	Nvarchar(MAX)	N	N	Heating Rated COP
HeatingMinAllowedCOP	Nvarchar(MAX)	N	N	Heating Minimum Allowed COP

4.79 TBL_FORMFOC_AC_AIRSIDEDISTRIBUTION

Table Name : tbl_formFOC_AC_AirSideDistribution				
Table Description : Information of cases of form FOC AC air side distribution				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	DataID	N	Y	Form ID

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FormDetailID	FormID	N	Y	Form Detail ID
ACDuctworkYes	Nvarchar(MAX)	N	N	AC Duct work Yes
ACDuctworkNo	Nvarchar(MAX)	N	N	AC Duct work No
ACAirDistSysYes	Nvarchar(MAX)	N	N	AC Air Distribution System Yes
ACAirDistSysSeparated	Nvarchar(MAX)	N	N	AC Air Distribution System Separated
ACAirDistSysShared	Nvarchar(MAX)	N	N	AC Air Distribution System Shared
ACAirDistSysNo	Nvarchar(MAX)	N	N	AC Air Distribution System No
ACAirDistDuctYes	Nvarchar(MAX)	N	N	AC Air Distribution Duct Yes
ACAirDistDuctNo	Nvarchar(MAX)	N	N	AC Air Distribution Duct No
ACAirDistFanCAVNo	Nvarchar(MAX)	N	N	AC Air Distribution Fan CAV Number
ACAirDistFanCAVType1	Nvarchar(MAX)	N	N	AC Air Distribution Fan CAV Type 1
ACAirDistFanCAVType2	Nvarchar(MAX)	N	N	AC Air Distribution Fan CAV Type 2
ACAirDistFanCAVType2_1	Nvarchar(MAX)	N	N	AC Air Distribution Fan CAV Type 2_1
ACAirDistFanCAVType2_2	Nvarchar(MAX)	N	N	AC Air Distribution Fan CAV Type 2_2
ACAirDistFanCAVType2_3	Nvarchar(MAX)	N	N	AC Air Distribution Fan CAV Type 2_3
ACAirDistFanVAVNo	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Number
ACAirDistFanVAVType1	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Type 1
ACAirDistFanVAVType2	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Type 2
ACAirDistFanVAVType2_1	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Type 2_1
ACAirDistFanVAVType2_2	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Type 2_2
ACAirDistFanVAVType2_3	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Type 2_3
ACAirDistFanVAVAirFan	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Air Fan
ACAirDistFanVAVNoAirFan	Nvarchar(MAX)	N	N	AC Air Distribution Fan VAV Number Air Fan

4.80 TBL_FORMFOC_AC_ENERGYMETERING

Table Name : tbl_formFOC_AC_EnergyMetering
Table Description : Information of cases of form FOC AC energy metering

Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
ACChillerMeterYes	Nvarchar(MAX)	N	N	AC Chiller Meter Yes
ACChillerMeterNo	Nvarchar(MAX)	N	N	AC Chiller Meter No
ACWaterPlantMeterYes	Nvarchar(MAX)	N	N	AC Water Plant Meter Yes
ACWaterPlantMeterNo	Nvarchar(MAX)	N	N	AC Water Plant Meter No
ACSysLoadYes	Nvarchar(MAX)	N	N	AC System Load Yes
ACSysLoadASHRAE	Nvarchar(MAX)	N	N	AC System Load ASHRAE
ACSysLoadCIBSE	Nvarchar(MAX)	N	N	AC System Load CIBSE
ACSysLoadOthers	Nvarchar(MAX)	N	N	AC System Load Others
ACSysLoadOthersDesc	Nvarchar(MAX)	N	N	AC System Load Others Description
ACSysLoadComplyBEC	Nvarchar(MAX)	N	N	AC System Load Comply BEC
ACSysLoadNo	Nvarchar(MAX)	N	N	AC System Load No

4.81 TBL_FORMFOC_AC_SUMMARY

Table Name : tbl_formFOC_AC_Summary				
Table Description : Information of cases of form FOC AC summary				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
BldName	Nvarchar(MAX)	N	N	Building Name
BldAddr	Nvarchar(MAX)	N	N	Building Addr
READeclareDate	Nvarchar(MAX)	N	N	REA Declare Date
WorkLocation	Nvarchar(MAX)	N	N	Work Location
SpecifiedForm	Nvarchar(MAX)	N	N	Specified Form
ACPPart1	Nvarchar(MAX)	N	N	AC Part 1
ACPPart1NumPg	Nvarchar(MAX)	N	N	AC Part 1 Number Pg
ACPPart2	Nvarchar(MAX)	N	N	AC Part 2
ACPPart2NumPg	Nvarchar(MAX)	N	N	AC Part 2 Number Pg
ACPPart3	Nvarchar(MAX)	N	N	AC Part 3
ACPPart3NumPg	Nvarchar(MAX)	N	N	AC Part 3 Number Pg
ACPPart4	Nvarchar(MAX)	N	N	AC Part 4
ACPPart4NumPg	Nvarchar(MAX)	N	N	AC Part 4 Number Pg
ACPPart5	Nvarchar(MAX)	N	N	AC Part 5
ACPPart5NumPg	Nvarchar(MAX)	N	N	AC Part 5 Number Pg
ACPPart6	Nvarchar(MAX)	N	N	AC Part 6
ACPPart6NumPg	Nvarchar(MAX)	N	N	AC Part 6 Number Pg
ACPPart7	Nvarchar(MAX)	N	N	AC Part 7
ACPPart7NumPg	Nvarchar(MAX)	N	N	AC Part 7 Number Pg
ACDrawing	Nvarchar(MAX)	N	N	AC Drawing
ACDrawingNumPg	Nvarchar(MAX)	N	N	AC Drawing Number Pg

ACDrawingList	Nvarchar(MAX)	N	N	AC Drawing List
ACDrawingListNumPg	Nvarchar(MAX)	N	N	AC Drawing List Number Pg
ACTechDoc	Nvarchar(MAX)	N	N	AC Technology Document
ACTechDocNumPg	Nvarchar(MAX)	N	N	AC Technology Document Number Pg
ACTechDocList	Nvarchar(MAX)	N	N	AC Technology Document List
ACTechDocListNumPg	Nvarchar(MAX)	N	N	AC Technology Document List Number Pg
ACOthers	Nvarchar(MAX)	N	N	AC Others
ACOthersDesc	Nvarchar(MAX)	N	N	AC Others Description
ACOthersNumPg	Nvarchar(MAX)	N	N	AC Others Number Pg

4.82 TBL_FORMFOC_AC_SYSTEMCONTROL

Table Name : tbl_formFOC_AC_SystemControl				
Table Description : Information of cases of form FOC AC system control				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
ACControlYes	Nvarchar(MAX)	N	N	AC Control Yes
ACControlNo	Nvarchar(MAX)	N	N	AC Control No
ACTempControlYes	Nvarchar(MAX)	N	N	AC Temperture Control Yes
ACTempControlNo	Nvarchar(MAX)	N	N	AC Temperture Control No
ACTempControl1Yes	Nvarchar(MAX)	N	N	AC Temperture Control 1 Yes
ACTempControl2Yes	Nvarchar(MAX)	N	N	AC Temperture Control 2 Yes
ACTempControl3Yes	Nvarchar(MAX)	N	N	AC Temperture Control 3 Yes
ACTempControl3No	Nvarchar(MAX)	N	N	AC Temperture Control 3 No
ACTempControl4Yes	Nvarchar(MAX)	N	N	AC Temperture Control 4 Yes
ACHumControlYes	Nvarchar(MAX)	N	N	AC Humidity Control Yes
ACHumControlNo	Nvarchar(MAX)	N	N	AC Humidity Control No
ACHumControl1Yes	Nvarchar(MAX)	N	N	AC Humidity Control 1 Yes
ACHumControl2Yes	Nvarchar(MAX)	N	N	AC Humidity Control 2 Yes
ACHumControl2No	Nvarchar(MAX)	N	N	AC Humidity Control 2 No
ACHumControl3Yes	Nvarchar(MAX)	N	N	AC Humidity Control 3 Yes
ACHumControl3No	Nvarchar(MAX)	N	N	AC Humidity Control 3 No
ACZoneControlYes	Nvarchar(MAX)	N	N	AC Zone Control Yes
ACZoneControlNo	Nvarchar(MAX)	N	N	AC Zone Control No
ACZoneControl1Yes	Nvarchar(MAX)	N	N	AC Zone Control 1 Yes
ACZoneControl2Yes	Nvarchar(MAX)	N	N	AC Zone Control 2 Yes
ACZoneControl2No	Nvarchar(MAX)	N	N	AC Zone Control 2 No
ACZoneControl3Yes	Nvarchar(MAX)	N	N	AC Zone Control 3 Yes

ACZoneControl3Type1	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1
ACZoneControl3Type1_1	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1_1
ACZoneControl3Type1_2	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1_2
ACZoneControl3Type1_3	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1_3
ACZoneControl3Type1_4	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1_4
ACZoneControl3Type1_5	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1_5
ACZoneControl3Type1_6	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 1_6
ACZoneControl3Type2	Nvarchar(MAX)	N	N	AC Zone Control 3 Type 2
ACZoneControl3No	Nvarchar(MAX)	N	N	AC Zone Control 3 No
ACOffHourControlYes	Nvarchar(MAX)	N	N	AC Office Hour Control Yes
ACOffHourControlType1 Yes	Nvarchar(MAX)	N	N	AC Office Hour Control Type 1 Yes
ACOffHourControlType1 No	Nvarchar(MAX)	N	N	AC Office Hour Control Type 1 No
ACOffHourControlType2 _1Yes	Nvarchar(MAX)	N	N	AC Office Hour Control Type 2_1 Yes
ACOffHourControlType2 _2Yes	Nvarchar(MAX)	N	N	AC Office Hour Control Type 2_2 Yes
ACOffHourControlNo	Nvarchar(MAX)	N	N	AC Office Hour Control No
ACOffHourControlType2 No	Nvarchar(MAX)	N	N	AC Office Hour Control Type 2 No
ACOffHourControlType3 Yes	Nvarchar(MAX)	N	N	AC Office Hour Control Type 3 Yes
ACOffHourControlType3 No	Nvarchar(MAX)	N	N	AC Office Hour Control Type 3 No

4.83 TBL_FORMFOC_AC_THERMALINSULATION

Table Name : tbl_formFOC_AC_ThermalInsulation				
Table Description : Information of cases of form FOC AC thermal insulation				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
ACThermalInsYes	Nvarchar(MAX)	N	N	AC Thermal Insulation Yes
ACThermalInsNo	Nvarchar(MAX)	N	N	AC Thermal Insulation No
ACWaterPipeworkYes	Nvarchar(MAX)	N	N	AC Water Pipe work Yes
ACWaterPipeworkNo	Nvarchar(MAX)	N	N	AC Water Pipe work No
ACRefPipeworkYes	Nvarchar(MAX)	N	N	AC Reference Pipe work Yes
ACRefPipeworkNo	Nvarchar(MAX)	N	N	AC Reference Pipe work No

ACDuctAHUCasingYes	Nvarchar(MAX)	N	N	AC Duct AHU Casing Yes
ACDuctAHUCasingNo	Nvarchar(MAX)	N	N	AC Duct AHU Casing No
ACUncondSpaceInsYes	Nvarchar(MAX)	N	N	AC Uncond Space Insulation Yes
ACUncondSpaceInsNo	Nvarchar(MAX)	N	N	AC Uncond Space Insulation No

4.84 TBL_FORMFOC_AC_WATERSIDEDISTRIBUTION

Table Name : tbl_formFOC_AC_WaterSideDistribution				
Table Description : Information of cases of form FOC AC water side distribution				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
ACPipeworkYes	Nvarchar(MAX)	N	N	AC Pipe work Yes
ACPipeworkNo	Nvarchar(MAX)	N	N	AC Pipe work No
ACPumpSysVFNo	Nvarchar(MAX)	N	N	AC Pump System VF No
ACPumpSysVFType1	Nvarchar(MAX)	N	N	AC Pump System VF Type 1
ACPumpSysVFType2	Nvarchar(MAX)	N	N	AC Pump System VF Type 2
ACPumpSysVFType2_1	Nvarchar(MAX)	N	N	AC Pump System VF Type 2_1
ACPumpSysVFType2_2	Nvarchar(MAX)	N	N	AC Pump System VF Type 2_2
ACPumpSysVFType2_3	Nvarchar(MAX)	N	N	AC Pump System VF Type 2_3
ACPumpSysVFVSPump	Nvarchar(MAX)	N	N	AC Pump System VF VS Pump
ACPumpSysVFNoVSPump	Nvarchar(MAX)	N	N	AC Pump System VF No VS Pump
ACWaterPipingSysType1	Nvarchar(MAX)	N	N	AC Water Piping System Type 1
ACWaterPipingSysType2	Nvarchar(MAX)	N	N	AC Water Piping System Type 2
ACWaterPipingSysType3	Nvarchar(MAX)	N	N	AC Water Piping System Type 3
ACWaterPipingSysType4	Nvarchar(MAX)	N	N	AC Water Piping System Type 4

4.85 TBL_FORMFOC_DETAIL

Table Name : tbl_formFOC_Detail				
Table Description : Information of cases of form FOC detail				
Column Name	Data Type	PK	Mandatory	Column Description
FormDetailID	Int	Y	Y	Form Detail ID
FormID	Int	N	Y	Form ID

isMaster	Bit	N	Y	Is Master
File_Name	Nvarchar(100)	N	N	File Name
Files_Path	Nvarchar(50)	N	N	Files Path
File_Name_server	Nvarchar(100)	N	N	File Name server
Import_Action	Nvarchar(50)	N	N	Import Action
Log_Desc	Nvarchar(50)	N	N	Log Desc
Log_Time	Date	N	N	Log Time
status_code	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.86 TBL_FORMFOC_EL_METERINGANDMOINTORING

Table Name : tbl_formFOC_EL_MeteringAndMointoring				
Table Description : Information of cases of form FOC EL metering and monitoring				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
MC_InstallationAbove400aYes	Nvarchar(MAX)	N	N	MC Installation Above 400A Yes
MC_InstallationAbove400aNo	Nvarchar(MAX)	N	N	MC Installation Above 400A No
FASC200_InstallationYes	Nvarchar(MAX)	N	N	FASC200 Installation Yes
FASC200_InstallationNo	Nvarchar(MAX)	N	N	FASC200 Installation No
FASC400_InstallationYes	Nvarchar(MAX)	N	N	FASC400 Installation Yes
FASC400_InstallationNo	Nvarchar(MAX)	N	N	FASC400 Installation No

4.87 TBL_FORMFOC_EL_MOTOR

Table Name : tbl_formFOC_EL_Motor				
Table Description : Information of cases of form FOC EL motor				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
MotorWorksheet_Installati onYes	Nvarchar(MAX)	N	N	Motor Worksheet Installation Yes
MotorWorksheet_Installati onNo	Nvarchar(MAX)	N	N	Motor Worksheet Installation No

4.88 TBL_FORMFOC_EL_MOTOR_SUPP

Table Name : tbl_formFOC_EL_Motor_Supp				
Table Description : Information of cases of form FOC EL motor supp				

Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
MotorReferenceNo	Nvarchar(MAX)	N	N	Motor Reference Number
RatedOutputPower	Nvarchar(MAX)	N	N	Rated Output Power
Poles	Nvarchar(MAX)	N	N	Poles
RatedEfficiency	Nvarchar(MAX)	N	N	Rated Efficiency
MinAllowedRatedMotorEfficiency	Nvarchar(MAX)	N	N	Minimum Allowed Rated Motor Efficiency
PercentageOfOutputPower	Nvarchar(MAX)	N	N	Percentage Of Output Power

4.89 TBL_FORMFOC_EL_POWERDISTRIBUTIONLOSS

Table Name : tbl_formFOC_EL_PowerDistributionLoss				
Table Description : Information of cases of form FOC EL power distribution loss				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DT_ProvidedByElectricitySupplier	Nvarchar(MAX)	N	N	DT Provided By Electricity Supplier
DT_NotProvidedByElectricitySupplier	Nvarchar(MAX)	N	N	DT Not Provided By Electricity Supplier
DT_NoInstallationDistributionTransformer	Nvarchar(MAX)	N	N	DT No Installation Distribution Transformer
MC_NoInstallation	Nvarchar(MAX)	N	N	MC No Installation
MC_ProvidedByElectricitySupplier	Nvarchar(MAX)	N	N	MC Provided By Electricity Supplier
MC_NotProvidedByElectricitySupplier1	Nvarchar(MAX)	N	N	MC Not Provided By Electricity Supplier 1
MC_NotProvidedByElectricitySupplier2	Nvarchar(MAX)	N	N	MC Not Provided By Electricity Supplier 2
FC_InstallaitonYes	Nvarchar(MAX)	N	N	FC Installaiton Yes
FC_InstallationNo	Nvarchar(MAX)	N	N	FC Installation No
SC_InstallationNotExceed100mYes	Nvarchar(MAX)	N	N	SC Installation Not Exceed 100M Yes
SC_InstallationNotExceed100mNo	Nvarchar(MAX)	N	N	SC Installation Not Exceed 100M No
SC_InstallationExceed100mYes	Nvarchar(MAX)	N	N	SC Installation Exceed 100M Yes
SC_InstallationExceed100mNo	Nvarchar(MAX)	N	N	SC Installation Exceed 100M No
SC_InstallationInResidentialBuildingYes	Nvarchar(MAX)	N	N	SC Installation In Residential Building Yes
SC_InstallationInResidentialBuildingNo	Nvarchar(MAX)	N	N	SC Installation In Residential Building No

FinalCircuit_InstallationO ver32aYes	Nvarchar(MAX)	N	N	Final Circuit Installation Over 32A Yes
FinalCircuit_InstallationO ver32aNo	Nvarchar(MAX)	N	N	Final Circuit Installation Over 32A No

4.90 TBL_FORMFOC_EL_POWERQUALITY

Table Name : tbl_formFOC_EL_PowerQuality				
Table Description : Information of cases of form FOC EL power quality				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
PQ_InstallationYes	Nvarchar(MAX)	N	N	PQ Installation Yes
PQ_InstallationNo	Nvarchar(MAX)	N	N	PQ Installation No
TotalPowerfactor	Nvarchar(MAX)	N	N	Total Power factor
TotalHarmonicDistortion	Nvarchar(MAX)	N	N	Total Harmonic Distortion
BOSPL_InstallationYes	Nvarchar(MAX)	N	N	BOSPL Installation Yes
BOSPL_InstallationNo	Nvarchar(MAX)	N	N	BOSPL Installation No

4.91 TBL_FORMFOC_EL_SUMMARY

Table Name : tbl_formFOC_EL_Summary				
Table Description : Information of cases of form FOC EL summary				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
BldNameType	Nvarchar(MAX)	N	N	Building Name Type
BldName	Nvarchar(MAX)	N	N	Building Name
BldAddrType	Nvarchar(MAX)	N	N	Building Address Type
BldAddr	Nvarchar(MAX)	N	N	Building Address
AssessorInForm	Nvarchar(MAX)	N	N	Assess or In Form
READeclareDate	Nvarchar(MAX)	N	N	REA Declare Date
EISummary	Nvarchar(MAX)	N	N	EI Summary
EISummaryNumPg	Nvarchar(MAX)	N	N	EI Summary Number Pg
PDWorkSheet	Nvarchar(MAX)	N	N	PD Work Sheet
PDWorkSheetNumPg	Nvarchar(MAX)	N	N	PD Work Sheet Number Pg
MotorWorkSheet	Nvarchar(MAX)	N	N	Motor Work Sheet
MotorWorkSheetNumPg	Nvarchar(MAX)	N	N	Motor Work Sheet Number Pg
PQWorkSheet	Nvarchar(MAX)	N	N	PQ Work Sheet
PQWorkSheetNumPg	Nvarchar(MAX)	N	N	PQ Work Sheet Number Pg
MMFWorkSheet	Nvarchar(MAX)	N	N	MMF Work Sheet
MMFWorkSheetNumPg	Nvarchar(MAX)	N	N	MMF Work Sheet Number Pg
SchematicDrawings	Nvarchar(MAX)	N	N	Schematic Drawings

SchematicDrawingsNumPg	Nvarchar(MAX)	N	N	Schematic Drawings Number Pg
IndicatingTitleRefNo	Nvarchar(MAX)	N	N	Indicating Title Reference Number
IndicatingTitleRefNoNumPg	Nvarchar(MAX)	N	N	Indicating Title Reference Number Number Pg
IndicatingRating	Nvarchar(MAX)	N	N	Indicating Rating
IndicatingRatingNumPg	Nvarchar(MAX)	N	N	Indicating Rating Number Pg
SummarisingTitles	Nvarchar(MAX)	N	N	Summarising Titles
SummarisingTitlesNumPg	Nvarchar(MAX)	N	N	Summarising Titles Number Pg
Others	Nvarchar(MAX)	N	N	Others
OtherDocDetails	Nvarchar(MAX)	N	N	Other Document Details
OthersNumPg	Nvarchar(MAX)	N	N	Others Number Pg

4.92 TBL_FORMFOC_LE_ESCALATOR

Table Name : tbl_formFOC_LE_Escalator				
Table Description : Information of cases of form FOC LE escalator				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
Involved	Nvarchar(MAX)	N	N	Involved
NoInvolved	Nvarchar(MAX)	N	N	No Involved
TotalPowerFactor	Nvarchar(MAX)	N	N	Total Power Factor
TotalPowerFactorCorrection	Nvarchar(MAX)	N	N	Total Power Factor Correction
TotalHarmonicDistortion	Nvarchar(MAX)	N	N	Total Harmonic Distortion
TotalHarmonicDistortionCorrection	Nvarchar(MAX)	N	N	Total Harmonic Distortion Correction
MeteringAndMonitoring	Nvarchar(MAX)	N	N	Metering And Monitoring
MeteringAndMonitoringProvision	Nvarchar(MAX)	N	N	Metering And Monitoring Provision

4.93 TBL_FORMFOC_LE_ESCALATOR_SUPP

Table Name : tbl_formFOC_LE_Escalator_Supp				
Table Description : Information of cases of form FOC LE escalator supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
EscalatorRefNo	Nvarchar(MAX)	N	N	Escalator Reference Number
Type	Nvarchar(MAX)	N	N	Type
Rise	Nvarchar(MAX)	N	N	Rise

NominalWidth	Nvarchar(MAX)	N	N	Nominal Width
RatedSpeed	Nvarchar(MAX)	N	N	Rated Speed
RunningActive	Nvarchar(MAX)	N	N	Running Active
MaxAllowed	Nvarchar(MAX)	N	N	Maximum Allowed

4.94 TBL_FORMFOC_LE_PASSENGERCONVEYOR

Table Name : tbl_formFOC_LE_PassengerConveyor				
Table Description : Information of cases of form FOC LE passenger conveyor				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
Involved	Nvarchar(MAX)	N	N	Involved
NoInvolved	Nvarchar(MAX)	N	N	No Involved
TotalPowerFactor	Nvarchar(MAX)	N	N	Total Power Factor
TotalPowerFactorCorrection	Nvarchar(MAX)	N	N	Total Power Factor Correction
TotalHarmonicDistortion	Nvarchar(MAX)	N	N	Total Harmonic Distortion
TotalHarmonicDistortionCorrection	Nvarchar(MAX)	N	N	Total Harmonic Distortion Correction
MeteringAndMonitoring	Nvarchar(MAX)	N	N	Metering And Monitoring
MeteringAndMonitoringProvision	Nvarchar(MAX)	N	N	Metering And Monitoring Provision

4.95 TBL_FORMFOC_LE_PASSENGERCONVEYOR_SUPP

Table Name : tbl_formFOC_LE_PassengerConveyor_Supp				
Table Description : Information of cases of form FOC LE passenger conveyor supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
PassengerConveyorRefNo	Nvarchar(MAX)	N	N	Passenger Conveyor Reference Number
Type	Nvarchar(MAX)	N	N	Type
NominalLength	Nvarchar(MAX)	N	N	Nominal Length
NominalWidth	Nvarchar(MAX)	N	N	Nominal Width
RatedSpeed	Nvarchar(MAX)	N	N	Rated Speed
RunningActive	Nvarchar(MAX)	N	N	Running Active
MaxAllowed	Nvarchar(MAX)	N	N	Maximum Allowed

4.96 TBL_FORMFOC_LE_SUMMARY

Table Name : tbl_formFOC_LE_Summary				
Table Description : Information of cases of form FOC LE summary				
Column Name	Data Type	PK	Mandatory	Column Description

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DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
BldNameType	Nvarchar(MAX)	N	N	Building Name Type
BldName	Nvarchar(MAX)	N	N	Building Name
BldAddrType	Nvarchar(MAX)	N	N	Building Address Type
BldAddr	Nvarchar(MAX)	N	N	Building Address
AssessorInForm	Nvarchar(MAX)	N	N	Assess or In Form
READeclareDate	Nvarchar(MAX)	N	N	REA Declare Date
LESummary	Nvarchar(MAX)	N	N	LE Summary
LESUMMARYNUMPG	Nvarchar(MAX)	N	N	LE Summary Number Pg
TLHWorksheet	Nvarchar(MAX)	N	N	TLH Worksheet
TLHWorksheetNumPg	Nvarchar(MAX)	N	N	TLH Worksheet Number Pg
EscalatorWorksheet	Nvarchar(MAX)	N	N	Escalator Worksheet
EscalatorWorksheetNumPg	Nvarchar(MAX)	N	N	Escalator Worksheet Number Pg
PCWorksheet	Nvarchar(MAX)	N	N	PC Worksheet
PCWorksheetNumPg	Nvarchar(MAX)	N	N	PC Worksheet Number Pg
LocationLayout	Nvarchar(MAX)	N	N	Location Layout
LocationLayoutNumPg	Nvarchar(MAX)	N	N	Location Layout Number Pg
DrawingList	Nvarchar(MAX)	N	N	Drawing List
DrawingListNumPg	Nvarchar(MAX)	N	N	Drawing List Number Pg
Manufacturer	Nvarchar(MAX)	N	N	Manufacturer
ManufacturerNumPg	Nvarchar(MAX)	N	N	Manufacturer Number Pg
SummarisingTitles	Nvarchar(MAX)	N	N	Summarising Titles
SummarisingTitlesNumPg	Nvarchar(MAX)	N	N	Summarising Titles Number Pg
Others	Nvarchar(MAX)	N	N	Others
OtherDocDetails	Nvarchar(MAX)	N	N	Other Document Details
OthersNumPg	Nvarchar(MAX)	N	N	Others Number Pg

4.97 TBL_FORMFOC_LE_TRACTIONLIFTANDHYDRAULICLIFT

Table Name : tbl_formFOC_LE_TractionLiftAndHydraulicLift				
Table Description : Information of cases of form FOC LE traction lift and hydraulic lift				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
Involved	Nvarchar(MAX)	N	N	Involved
NoInvolved	Nvarchar(MAX)	N	N	No Involved
Decoration	Nvarchar(MAX)	N	N	Decoration
NoDecoration	Nvarchar(MAX)	N	N	No Decoration
Ventilation	Nvarchar(MAX)	N	N	Ventilation
VentilationAirConditioning	Nvarchar(MAX)	N	N	Ventilation Air Conditioning

VentilationNoAirConditioning	Nvarchar(MAX)	N	N	Ventilation No Air Conditioning
LiftParking	Nvarchar(MAX)	N	N	Lift Parking
NoLiftParking	Nvarchar(MAX)	N	N	No Lift Parking
TotalPowerFactor	Nvarchar(MAX)	N	N	Total Power Factor
TotalPowerFactorCorrection	Nvarchar(MAX)	N	N	Total Power Factor Correction
TotalHarmonicDistortion	Nvarchar(MAX)	N	N	Total Harmonic Distortion
TotalHarmonicDistortionCorrection	Nvarchar(MAX)	N	N	Total Harmonic Distortion Correction
MeteringAndMonitoring	Nvarchar(MAX)	N	N	Metering And Monitoring
MeteringAndMonitoringProvision	Nvarchar(MAX)	N	N	Metering And Monitoring Provision

4.98 TBL_FORMFOC_LE_TRACTIONLIFTANDHYDRAULICLIFT_SUPP

Table Name : tbl_formFOC_LE_TractionLiftAndHydraulicLift_Supp				
Table Description : Information of cases of form FOC LE traction lift and hydraulic lift supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
LiftRefNo	Nvarchar(MAX)	N	N	Lift Reference Number
TractionHydraulic	Nvarchar(MAX)	N	N	Traction Hydraulic
ObservationLiftYes	Nvarchar(MAX)	N	N	Observation Lift Yes
ObservationLiftNo	Nvarchar(MAX)	N	N	Observation Lift No
RatedLoad	Nvarchar(MAX)	N	N	Rated Load
RatedSpeed	Nvarchar(MAX)	N	N	Rated Speed
RunningActive	Nvarchar(MAX)	N	N	Running Active
MaxAllowed	Nvarchar(MAX)	N	N	Maximum Allowed

4.99 TBL_FORMFOC_LG_LIGHTING

Table Name : tbl_formFOC_LG_Lighting				
Table Description : Information of cases of form FOC LG lighting				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DrawingNoOfLighting	Nvarchar(MAX)	N	N	Drawing No Of Lighting
NameOfSpaceRefNo	Nvarchar(MAX)	N	N	Name Of Space Reference Number
AreaOfSpace	Nvarchar(MAX)	N	N	Area Of Space
InstalledLPD	Nvarchar(MAX)	N	N	Installed LPD
InstalledNoOfLightingCP	Nvarchar(MAX)	N	N	Installed Number Of Lighting CP

BECApplicableTypeOfSpace	Nvarchar(MAX)	N	N	BEC Applicable Type Of Space
BECMaxAllowed	Nvarchar(MAX)	N	N	BEC Maximum Allowed
BECMinAllowed	Nvarchar(MAX)	N	N	BEC Minimum Allowed
IsApplicable	Nvarchar(MAX)	N	N	Is Applicable

4.100 TBL_FORMFOC_LG_OTHER

Table Name : tbl_formFOC_LG_Other				
Table Description : Information of cases of form FOC LG other				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DrawingNoOfLighting	Nvarchar(MAX)	N	N	Drawing Number Of Lighting
NameOfSpaceRefNo	Nvarchar(MAX)	N	N	Name Of Space Referebce Number
Purpose	Nvarchar(MAX)	N	N	Purpose
AreaOfSpace	Nvarchar(MAX)	N	N	Area Of Space
InstalledLPD	Nvarchar(MAX)	N	N	Installed LPD

4.101 TBL_FORMFOC_LG_SUMMARY

Table Name : tbl_formFOC_LG_Summary				
Table Description : Information of cases of form FOC LG summary				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
BldName	Nvarchar(MAX)	N	N	Building Name
BldAddr	Nvarchar(MAX)	N	N	Building Address
READeclareDate	Nvarchar(MAX)	N	N	REA Declare Date
WorkLocation	Nvarchar(MAX)	N	N	Work Location
SpecifiedForm	Nvarchar(MAX)	N	N	Specified Form
LGSummary	Nvarchar(MAX)	N	N	LG Summary
LGSummaryNumPg	Nvarchar(MAX)	N	N	LG Summary Number Pg
LPDControlSummary	Nvarchar(MAX)	N	N	LPD Control Summary
LPDControlSummaryNumPg	Nvarchar(MAX)	N	N	LPD Control Summary Number Pg
OtherInfo	Nvarchar(MAX)	N	N	Other Information
OtherInfoNumPg	Nvarchar(MAX)	N	N	Other Information Number Pg
LayoutDrawing	Nvarchar(MAX)	N	N	Layout Drawing
LayoutDrawingNumPg	Nvarchar(MAX)	N	N	Layout Drawing Number Pg
LayoutDrawingList	Nvarchar(MAX)	N	N	Layout Drawing List

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LayoutDrawingListNumPg	Nvarchar(MAX)	N	N	Layout Drawing List Number Pg
Others	Nvarchar(MAX)	N	N	Others
OtherDocDetails	Nvarchar(MAX)	N	N	Other Document Details
OthersNumPg	Nvarchar(MAX)	N	N	Others Number Pg
GovernedByLPD_BEEO_Sch2_6_Yes	Nvarchar(MAX)	N	N	Governed By LPD BEEO Search 2_6 Yes
GovernedByLPD_BEEO_Sch2_6_No	Nvarchar(MAX)	N	N	Governed By LPD BEEO Search 2_6 No

4.102 TBL_FORMFOC_PB_BUILDINGENERGY

Table Name : tbl_formFOC_PB_BuildingEnergy				
Table Description : Information of cases of form FOC PB building energy				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
PartA_DesignEnergy	Nvarchar(MAX)	N	N	Part A Design Energy
PartA_EnergyBudget	Nvarchar(MAX)	N	N	Part A Energy Budget
PartB_BECBasicReqComplied	Nvarchar(MAX)	N	N	Part B BEC Basic Require Complied
PartC1_EnergyRequireTotal	Nvarchar(MAX)	N	N	Part C1 Energy Require Total
PartC2_EnergyAvailableTotal	Nvarchar(MAX)	N	N	Part C2 Energy Available Total
PartC2_OTTVDesignedBuilding	Nvarchar(MAX)	N	N	Part C2 OT TV Designed Building
PartC2_OTTVReferenceBuilding	Nvarchar(MAX)	N	N	Part C2 OT TV Reference Building
PartC3_EnergyAvailableTotal	Nvarchar(MAX)	N	N	Part C3 Energy Available Total
PartC4_Owner1	Nvarchar(MAX)	N	N	Part C4 Owner 1
PartC4_Owner2	Nvarchar(MAX)	N	N	Part C4 Owner 2
PartC4_Owner3	Nvarchar(MAX)	N	N	Part C4 Owner 3
PartD_EstimatedEnergyConsumption	Nvarchar(MAX)	N	N	Part D Estimated Energy Consumption
PartE_EstimatedEnergy	Nvarchar(MAX)	N	N	Part E Estimated Energy

4.103 TBL_FORMFOC_PB_BUILDINGENERGY_PARTC_SUPP1

Table Name : tbl_formFOC_PB_BuildingEnergy_PartC_Supp1				
Table Description : Information of cases of form FOC PB building energy part c supp 1				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item

DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
DesignPerformance	Nvarchar(MAX)	N	N	Design Performance
ApplicableBEC	Nvarchar(MAX)	N	N	Applicable BEC
BECRequirement	Nvarchar(MAX)	N	N	BEC Requirement
EnergyOffSet	Nvarchar(MAX)	N	N	Energy Off Set

4.104 TBL_FORMFOC_PB_BUILDINGENERGY_PARTC_SUPP2

Table Name : tbl_formFOC_PB_BuildingEnergy_PartC_Supp2				
Table Description : Information of cases of form FOC PB building energy part c supp 2				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
DesignPerformance	Nvarchar(MAX)	N	N	Design Performance
ApplicableBEC	Nvarchar(MAX)	N	N	Applicable BEC
BECRequirement	Nvarchar(MAX)	N	N	BEC Requirement
EnergyOffSet	Nvarchar(MAX)	N	N	Energy Off Set

4.105 TBL_FORMFOC_PB_BUILDINGENERGY_PARTC_SUPP3

Table Name : tbl_formFOC_PB_BuildingEnergy_PartC_Supp3				
Table Description : Information of cases of form FOC PB building energy part c supp 3				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
EnergyAvailableOffSet	Nvarchar(MAX)	N	N	Energy Available Off Set

4.106 TBL_FORMFOC_PB_BUILDINGENERGY_PARTD_SUPP

Table Name : tbl_formFOC_PB_BuildingEnergy_PartD_Supp				
Table Description : Information of cases of form FOC PB building energy part d supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
AssumedEnergy	Nvarchar(MAX)	N	N	Assumed Energy
ApplicableBEC	Nvarchar(MAX)	N	N	Applicable BEC
EstimatedEnergy	Nvarchar(MAX)	N	N	Estimated Energy

4.107 TBL_FORMFOC_PB_BUILDINGENERGY_PARTE_SUPP

Table Name : tbl_formFOC_PB_BuildingEnergy_PartE_Supp				
Table Description : Information of cases of form FOC PB building energy part e supp				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
DesignPerformance	Nvarchar(MAX)	N	N	Design Performance
ApplicableBEC	Nvarchar(MAX)	N	N	Applicable BEC
ContributingToTradeOffNo	Nvarchar(MAX)	N	N	Contributing To Trade Off No
ContributingToTradeOffYes	Nvarchar(MAX)	N	N	Contributing To Trade Off Yes
EstimatedEnergy	Nvarchar(MAX)	N	N	Estimated Energy

4.108 TBL_FORMFOC_PB_SOFTWAREPROGRAM

Table Name : tbl_formFOC_PB_SoftwareProgram				
Table Description : Information of cases of form FOC PB software program				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
PartA_SumOf1and2	Nvarchar(MAX)	N	N	Part A Sum Of 1 and 2
PartB_SumOf1and2and3	Nvarchar(MAX)	N	N	Part B Sum Of 1 and 2 and 3
PartC_OthersTypeOfSpace	Nvarchar(MAX)	N	N	Part C Others Type Of Space
PartC_OperatingScheduleNo	Nvarchar(MAX)	N	N	Part C Operating Schedule Number
PartC_ApplicableTo	Nvarchar(MAX)	N	N	Part C Applicable To
PartC_OthersOperationSchedule	Nvarchar(MAX)	N	N	Part C Others Operation Schedule
PartD_SoftwareName	Nvarchar(MAX)	N	N	Part D Software Name
PartD_SoftwareVersion	Nvarchar(MAX)	N	N	Part D Software Version
PartD_SoftwareDevelopedBy	Nvarchar(MAX)	N	N	Part D Software Developed By
PartD_Checkbox1	Nvarchar(MAX)	N	N	Part D Checkbox 1
PartD_ThermalZonesMaxNo	Nvarchar(MAX)	N	N	Part D Thermal Zones Maximum Number
PartD_Checkbox2	Nvarchar(MAX)	N	N	Part D Checkbox 2
PartD_Checkbox3	Nvarchar(MAX)	N	N	Part D Checkbox 3
PartD_Checkbox4	Nvarchar(MAX)	N	N	Part D Checkbox 4
PartD_Checkbox5	Nvarchar(MAX)	N	N	Part D Checkbox 5
PartD_Checkbox6	Nvarchar(MAX)	N	N	Part D Checkbox 6

PartD_Format	Nvarchar(MAX)	N	N	Part D Format
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4.109 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTA_SUPP1

Table Name : tbl_formFOC_PB_SoftwareProgram_PartA_Supp1				
Table Description : Information of cases of form FOC PB software program part A supp 1				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
RelevantClauseNo	Nvarchar(MAX)	N	N	Relevant Clause Number
RoughEstimateOfEnergy	Nvarchar(MAX)	N	N	Rough Estimate Of Energy

4.110 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTA_SUPP2

Table Name : tbl_formFOC_PB_SoftwareProgram_PartA_Supp2				
Table Description : Information of cases of form FOC PB software program part A supp 2				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
RoughEstimateOfEnergy	Nvarchar(MAX)	N	N	Rough Estimate Of Energy

4.111 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTB_SUPP1

Table Name : tbl_formFOC_PB_SoftwareProgram_PartB_Supp1				
Table Description : Information of cases of form FOC PB software program part B supp 1				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
ContributingToTradeOffNo	Nvarchar(MAX)	N	N	Contributing To Trade Off No
ContributingToTradeOffYes	Nvarchar(MAX)	N	N	Contributing To Trade Off Yes
RoughEstimateOfEnergy	Nvarchar(MAX)	N	N	Rough Estimate Of Energy

4.112 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTB_SUPP2

Table Name : tbl_formFOC_PB_SoftwareProgram_PartB_Supp2				
Table Description : Information of cases of form FOC PB software program part B supp 2				

Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
ContributingToTradeOffNo	Nvarchar(MAX)	N	N	Contributing To Trade Off No
ContributingToTradeOffYes	Nvarchar(MAX)	N	N	Contributing To Trade Off Yes
EstimateOfEnergy	Nvarchar(MAX)	N	N	Estimate Of Energy

4.113 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTB_SUPP3

Table Name : tbl_formFOC_PB_SoftwareProgram_PartB_Supp3				
Table Description : Information of cases of form FOC PB software program part B supp 3				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
DescriptionOfItem	Nvarchar(MAX)	N	N	Description Of Item
DrawingNo	Nvarchar(MAX)	N	N	Drawing Number
ContributingToTradeOffNo	Nvarchar(MAX)	N	N	Contributing To Trade Off No
ContributingToTradeOffYes	Nvarchar(MAX)	N	N	Contributing To Trade Off Yes
RoughEstimateOfEnergy	Nvarchar(MAX)	N	N	Rough Estimate Of Energy

4.114 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTC_SUPP1

Table Name : tbl_formFOC_PB_SoftwareProgram_PartC_Supp1				
Table Description : Information of cases of form FOC PB software program part C supp 1				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
TypeOfSpace	Nvarchar(MAX)	N	N	Type Of Space
OccupantDensity	Nvarchar(MAX)	N	N	Occupant Density
MinOutdoorAir	Nvarchar(MAX)	N	N	Minimum Outdoor Air
OperatingSchedule	Nvarchar(MAX)	N	N	Operating Schedule
LightingPowerDensity	Nvarchar(MAX)	N	N	Lighting Power Density
EquipmentPowerDensity	Nvarchar(MAX)	N	N	Equipment Power Density
ServiceWaterHeatingPower	Nvarchar(MAX)	N	N	Service Water Heating Power
Others	Nvarchar(MAX)	N	N	Others

4.115 TBL_FORMFOC_PB_SOFTWAREPROGRAM_PARTC_SUPP2

Table Name : tbl_formFOC_PB_SoftwareProgram_PartC_Supp2				
Table Description : Information of cases of form FOC PB software program part C supp 2				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
OperatingScheduleName	Nvarchar(MAX)	N	N	Operating Schedule Name
HoursInMonToFri	Nvarchar(MAX)	N	N	Hours In Monday To Friday
HoursInSat	Nvarchar(MAX)	N	N	Hours In Saturday
HoursInSun	Nvarchar(MAX)	N	N	Hours In Sunday

4.116 TBL_FORMFOC_PB_SUMMARY

Table Name : tbl_formFOC_PB_Summary				
Table Description : Information of cases of form FOC PB summary				
Column Name	Data Type	PK	Mandatory	Column Description
DataID	Int	Y	Y	Data ID
FormID	Int	N	Y	Form ID
FormDetailID	Int	N	Y	Form Detail ID
BldName	Nvarchar(MAX)	N	N	Building Name
BldAddr	Nvarchar(MAX)	N	N	Building Address
READeclareDate	Nvarchar(MAX)	N	N	REA Declare Date
WorkLocation	Nvarchar(MAX)	N	N	Work Location
SpecifiedForm	Nvarchar(MAX)	N	N	Specified Form
PBPart1	Nvarchar(MAX)	N	N	PB Part 1
PBPart1NumPg	Nvarchar(MAX)	N	N	PB Part 1 Number Pg
PBPart2	Nvarchar(MAX)	N	N	PB Part 2
PBPart2NumPg	Nvarchar(MAX)	N	N	PB Part 2 NumberPg
PBPart3	Nvarchar(MAX)	N	N	PB Part 3
PBPart3NumPg	Nvarchar(MAX)	N	N	PB Part 3 Number Pg
PbPart4	Nvarchar(MAX)	N	N	Pb Part 4
PBPart4NumPg	Nvarchar(MAX)	N	N	PB Part 4 Number Pg
PBPart5	Nvarchar(MAX)	N	N	PB Part 5
PBPart5NumPg	Nvarchar(MAX)	N	N	PB Part 5 Number Pg
PBPart6	Nvarchar(MAX)	N	N	PB Part 6
PBPart6NumPg	Nvarchar(MAX)	N	N	PB Part 6 Number Pg
PBPart7	Nvarchar(MAX)	N	N	PB Part 7
PBPart7NumPg	Nvarchar(MAX)	N	N	PB Part 7 Number Pg
PBOthers	Nvarchar(MAX)	N	N	PB Others
PBOthersDesc	Nvarchar(MAX)	N	N	PB Others Description
PBOthersNumPg	Nvarchar(MAX)	N	N	PB Others Number Pg

4.117 TBL_FORMFOC_TYPE

Table Name : tbl_formFOC_type				
Table Description : Information of cases of form FOC type				

Column Name	Data Type	PK	Mandatory	Column Description
formFocTypeID	Int	Y	Y	Form FOC Type ID
formFocTypeEngDesp	Nvarchar(50)	N	Y	Form FOC Type Eng Description
formFocTypeChiDesp	Nvarchar(50)	N	Y	Form FOC Type Chi Description
formFocTypeCode	Char(2)	N	Y	Form FOC Type Code

4.118 TBL_BEEO_LEOS_F5_F7

Table Name : tbl_BEEO_LEOS_F5_F7				
Table Description : Information of BEEO LEOS form 5 and form 7				
Column Name	Data Type	PK	Mandatory	Column Description
FORM	Nchar(2)	N	N	Form
LOC_ID	Nvarchar(10)	N	N	Location ID
BP_NO	Nvarchar(3)	N	N	BP Number
APP_DT	Date	N	N	Application Date
AUTH_DT	Date	N	N	Authenticate Date
AUTH_BY	Nvarchar(10)	N	N	Authenticate By
LE_TYPE	Nvarchar(1)	N	N	LE Type
GEO_REFNO	Nvarchar(10)	N	N	GEO Reference Number

4.119 TBL_BLDG_EA_ANTICIPATION

Table Name : tbl_bldg_EA_Anticipation				
Table Description : Information of building EA anticipation				
Column Name	Data Type	PK	Mandatory	Column Description
id	Int	Y	Y	ID
result	Nvarchar(1000)	N	N	Result
isDeleted	Int	N	N	Is Deleted

4.120 TBL_BLDG_EA_CON_ASSESS

Table Name : tbl_bldg_EA_con_assess				
Table Description : Information of building EA continuous assess				
Column Name	Data Type	PK	Mandatory	Column Description
id	Int	Y	Y	ID
result	Nvarchar(1000)	N	N	Result
isDeleted	Int	N	N	Is Deleted

4.121 TBL_BLDG_EA_INSP_RESULT

Table Name : tbl_bldg_EA_Insp_result				
Table Description : Information of building EA inspect result				
Column Name	Data Type	PK	Mandatory	Column Description
id	Int	Y	Y	ID
result	Nvarchar(1000)	N	N	Result

isDeleted	Int	N	N	Is Deleted
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4.122 TBL_BLDG_EA_SUMBITTED

Table Name : tbl_bldg_EA_Sumbitted				
Table Description : Information of building EA submitted				
Column Name	Data Type	PK	Mandatory	Column Description
id	Int	Y	Y	ID
result	Nvarchar(1000)	N	N	Result
isDeleted	Int	N	N	Is Deleted

4.123 TBL_BLDG_STATUS

Table Name : tbl_bldg_status				
Table Description : Information of building status				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Varchar(1)	N	N	ID
BLDG_STATUS	Varchar(20)	N	N	Building Status
MODIFY_DT	Date	N	N	Modify Date

4.124 TBL_BRINGUP

Table Name : tbl_BringUp				
Table Description : Information of bring up				
Column Name	Data Type	PK	Mandatory	Column Description
BringUpID	Int	Y	Y	Bring Up ID
BringUpType	Nvarchar(100)	N	N	Bring Up Type
SubmissionID	Int	N	N	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category
CaseNo	Nvarchar(23)	N	N	Case Number
Name	Nvarchar(2000)	N	N	Name
Msg	Nvarchar(2000)	N	N	Message
BringUpDate	Date	N	N	Bring Up Date
BringUpHour	Int	N	N	Bring Up Hour
BringUpMin	Int	N	N	Bring Up Minute
recipients	Nvarchar(2000)	N	N	Recipients
EnableGenReminder	Char(1)	N	N	Enable Generate Reminder
isReminderGenerated	Char(1)	N	N	Is Reminder Generated
ReminderID	Int	N	N	Reminder ID
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.125 TBL_BRINGUP_CONFIG

Table Name : tbl_BringUp_config				
Table Description : Information of bring up config				
Column Name	Data Type	PK	Mandatory	Column Description
BringUpType	Nvarchar(100)	N	N	Bring Up Type
Desc	Nvarchar(2000)	N	N	Description
isBatchGen	Char(1)	N	N	Is Batch Generate
BatchGen_sql	Nvarchar(2000)	N	N	Batch Generate SQL
isReportGen	Char(1)	N	N	Is Report Generate
ReportTypeID	Int	N	N	Report Type ID
recipients	Nvarchar(2000)	N	N	Recipients
ReminderHeaderTemplate	Nvarchar(2000)	N	N	Reminder Header Template
ReminderContentTemplate	Nvarchar(2000)	N	N	Reminder Content Template
isScheduledGen	Char(1)	N	N	Is Scheduled Generate
ScheduledDateWeekly	Int	N	N	Scheduled Date Weekly
ScheduledDateMonthly	Int	N	N	Scheduled Date Monthly
LastRunDate	Date	N	N	Last Run Date
enableBringUp	Char(1)	N	N	Enable Bring Up
enableReminder	Char(1)	N	N	Enable Reminder

4.126 TBL_BRINGUP_PARA_CONFIG

Table Name : tbl_BringUp_para_config				
Table Description : Information of bring up parameter config				
Column Name	Data Type	PK	Mandatory	Column Description
BringUpType	Nvarchar(100)	N	N	Bring Up Type
ParaName	Nvarchar(100)	N	N	Parameter Name
val	Nvarchar(2000)	N	N	Value

4.127 TBL_BRINGUP_RECIPIENT_INFO

Table Name : tbl_BringUp_Recipient_Info				
Table Description : Information of bring up recipient information				
Column Name	Data Type	PK	Mandatory	Column Description
BringUpID	Int	N	Y	Bring Up ID
post	Nvarchar(50)	N	N	Post
isRead	Char(1)	N	N	Is Read

4.128 TBL_BUILDING

Table Name : tbl_building				
Table Description : Information of building				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
GEO_REFNO	Varchar(10)	N	N	GEO Reference Number
ENG_BLDNM	Varchar(255)	N	N	Eng Building Name
CHI_BLDNM	Nvarchar(255)	N	N	Chi Building Name
ST_ENG_NM	Varchar(255)	N	N	Eng Street Name

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ST_CHI_NM	Nvarchar(255)	N	N	Chi Street Name
START_NO	Int	N	N	Start Street Number
START_NO_ALPHA	Varchar(10)	N	N	Start Street Alpha
END_NO	Int	N	N	End Street Number
END_NO_ALPHA	Varchar(10)	N	N	End Street Alpha
LOT_NO	Nvarchar(100)	N	N	Lot Number
DISTRICT_CD	Varchar(20)	N	N	District Code
AREA_CD	Int	N	N	Area Code
OP_NO	Nvarchar(15)	N	N	OP Number
OP_DATE	Date	N	N	OP Date
COMP_YEAR	Int	N	N	Complete Year
BLD_TY	Int	N	N	Building Type
BLDG_STATUS	Varchar(1)	N	N	Building Status
MODIFY_DT	Date	N	N	Modify Date
ConsentDate	Date	N	N	Consent Date
ConsentRef	Nvarchar(50)	N	N	Consent Reference
masterid	Int	N	N	Master ID
CSUID	Nvarchar(50)	N	N	CSU ID
OPYear	Int	N	N	OP Year
OPMonth	Int	N	N	OP Month
OPDay	Int	N	N	OP Day
EA_Insp_result	Int	N	N	EA Inspect Result
EA_Sumbitted	Int	N	N	EA Sumbitted
EA_con_assess	Int	N	N	EA Continuous Assess
Remarks	Nvarchar(3000)	N	N	Remarks
EA_Anticipation	Int	N	N	EA Anticipation
landsBid	Int	N	N	Lands Bid

4.129 TBL_BUILDING_DELETED

Table Name : tbl_building_deleted				
Table Description : Information of building deleted				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
GEO_REFNO	Varchar(10)	N	N	GEO Reference Number
ENG_BLDNM	Varchar(255)	N	N	Eng Building Name
CHI_BLDNM	Nvarchar(255)	N	N	Chi Building Name
ST_ENG_NM	Varchar(255)	N	N	Eng Street Name
ST_CHI_NM	Nvarchar(255)	N	N	Chi Street Name
START_NO	Int	N	N	Start Street Number
START_NO_ALPHA	Varchar(10)	N	N	Start Street Alpha
END_NO	Int	N	N	End Street Number
END_NO_ALPHA	Varchar(10)	N	N	End Street Alpha
LOT_NO	Nvarchar(100)	N	N	Lot Number
DISTRICT_CD	Varchar(20)	N	N	District Code
AREA_CD	Int	N	N	Area Code
OP_NO	Nvarchar(15)	N	N	OP Number

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OP_DATE	Date	N	N	OP Date
COMP_YEAR	Int	N	N	Complete Year
BLD_TY	Int	N	N	Building Type
BLDG_STATUS	Varchar(1)	N	N	Building Status
MODIFY_DT	Date	N	N	Modify Date
ConsentDate	Date	N	N	Consent Date
ConsentRef	Nvarchar(50)	N	N	Consent Reference
masterid	Int	N	N	Master ID
CSUID	Nvarchar(50)	N	N	CSU ID
OPYear	Int	N	N	OP Year
OPMonth	Int	N	N	OP Month
OPDay	Int	N	N	OP Day
EA_Insp_result	Int	N	N	EA Inspect Result
EA_Sumbitted	Int	N	N	EA Sumbitted
EA_con_assess	Int	N	N	EA Continuous Assess
Remarks	Nvarchar(3000)	N	N	Remarks
EA_Anticipation	Int	N	N	EA Anticipation
deletedate	Date	N	N	Delete Date
landsBid	Int	N	N	Lands Bid

4.130 TBL_BUILDING_GROUP

Table Name : tbl_Building_Group				
Table Description : Information of building group				
Column Name	Data Type	PK	Mandatory	Column Description
GroupID	Int	Y	Y	Group ID
GroupName	Nvarchar(100)	N	N	Group Name
GroupDesc	Nvarchar(1000)	N	N	Group Description

4.131 TBL_BUILDING_GROUP_MAP

Table Name : tbl_Building_Group_map				
Table Description : Information of building group map				
Column Name	Data Type	PK	Mandatory	Column Description
GroupID	Int	N	Y	Group ID
BuildID	Int	N	Y	Build ID

4.132 TBL_BUILDING_PARTY_INFO

Table Name : tbl_Building_Party_Info				
Table Description : Information of building party information				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
BuildingID	Int	N	N	Building ID
PartyID	Int	N	N	Party ID
RoleID	Int	N	N	Role ID

4.133 TBL_BUILDTYPE

Table Name : tbl_buildtype				
Table Description : Information of build type				
Column Name	Data Type	PK	Mandatory	Column Description
buildtypeid	Int	N	N	Build Type ID
buildtype	Nvarchar(255)	N	N	Build Type

4.134 TBL_BUILDUSAGE

Table Name : tbl_buildusage				
Table Description : Information of build usage				
Column Name	Data Type	PK	Mandatory	Column Description
id	Int	N	N	ID
buildusage	Nvarchar(255)	N	N	Build Usage

4.135 TBL_CASEDOC

Table Name : tbl_CaseDoc				
Table Description : Information of case document				
Column Name	Data Type	PK	Mandatory	Column Description
CaseDocID	Int	Y	Y	Case Document ID
CaseNo	Nvarchar(20)	N	Y	Case Number
DocCatCode	Varchar(10)	N	N	Document Category Code
SubmissionID	Int	N	N	Submission ID
DocName	Nvarchar(255)	N	N	Document Name
DocDesc	Nvarchar(255)	N	N	Document Description
EndorsedDate	Date	N	N	Endorsed Date
SentDate	Date	N	N	Sent Date
ReceivedDate	Date	N	N	Received Date
BaseLocation	Nvarchar(255)	N	N	Base Location
DocLocation	Nvarchar(255)	N	Y	Document Location
DocFileName	Nvarchar(255)	N	Y	Document File Name
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
AttTypeID	Int	N	N	Attachment Type ID
PaCode	Nchar(10)	N	N	Pa Code
REARegNo	Varchar(25)	N	N	REA Registration Number

4.136 TBL_CASEDOC_IN

Table Name : tbl_CaseDoc_IN				
Table Description : Information of case document input				

Column Name	Data Type	PK	Mandatory	Column Description
RefNo	Nvarchar(255)	N	N	Reference Number
IssueDate	Date	N	N	Issue Date
IsIssued	Nvarchar(255)	N	N	Is Issued
Week	Number	N	N	Week
LatestDate	Date	N	N	Latest Date
ActualDate	Date	N	N	Actual Date
IsLate	Nvarchar(255)	N	N	Is Late
ClosureDate	Date	N	N	Closure Date
Remarks_01	Nvarchar(255)	N	N	Remarks 01
Stage1DeclarationRecDate	Date	N	N	Stage 1 Declaration Record Date
CaseNo	Nvarchar(255)	N	N	Case Number
KnowDate	Nvarchar(255)	N	N	Know Date
BarDate	Nvarchar(255)	N	N	Bar Date
Remarks_02	Nvarchar(1000)	N	N	Remarks 02
Status	Nvarchar(200)	N	N	Status
Remarks	Nvarchar(1000)	N	N	Remarks

4.137 TBL_CASEDOC_INFO

Table Name : tbl_CaseDoc_Info				
Table Description : Information of case document information				
Column Name	Data Type	PK	Mandatory	Column Description
CaseDocInfoID	Int	Y	Y	Case Document Information ID
CaseDocID	Int	N	Y	Case Document ID
AttTypeID	Int	N	N	Attachment Type ID
RefNo	Nvarchar(200)	N	N	Reference Number
IssueDate	Date	N	N	Issue Date
IsIssued	Nchar(10)	N	N	Is Issued
Week	Nchar(10)	N	N	Week
LatestDate	Date	N	N	Latest Date
ActualDate	Date	N	N	Actual Date
IsLate	Nchar(10)	N	N	Is Late
ClosureDate	Date	N	N	Closure Date
ExpiryDate	Date	N	N	Expiry Date
KnowDate	Date	N	N	Know Date
BarDate	Date	N	N	Bar Date
isContravention	Nchar(10)	N	N	Is Contravention
Reply	Nvarchar(MAX)	N	N	Reply
Type	Nvarchar(200)	N	N	Type
Status	Nvarchar(200)	N	N	Status
Remarks	Nvarchar(MAX)	N	N	Remarks
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date

UpdateBy	Nvarchar(50)	N	N	Update By
MAILNO	Nvarchar(100)	N	N	Mail Number
STATUS_DELIVERY	Nvarchar(100)	N	N	Status Delivery
CE_APPROVAL_NO_ACT	Nvarchar(100)	N	N	CE Approval Number Act
SE_APPROVAL	Nvarchar(100)	N	N	SE Approval
CE_APPROVAL	Nvarchar(100)	N	N	CE Approval
SE_APPROVAL_REF	Nvarchar(255)	N	N	SE Approval Reference
CE_APPROVAL_REF	Nvarchar(255)	N	N	CE Approval Reference
SE_APPROVAL_DATE	Date	N	N	SE Approval Date
CE_APPROVAL_DATE	Date	N	N	CE Approval Date
PROSECUTION_ACTION	Nvarchar(255)	N	N	Prosecution Action

4.138 TBL_CASEDOC_S

Table Name : tbl_CaseDoc_S				
Table Description : Information of case document S				
Column Name	Data Type	PK	Mandatory	Column Description
RefNo	Number	N	N	Reference Number
BuildingNameChi	Nvarchar(255)	N	N	Building Name Chi
BuildingNameEng	Nvarchar(255)	N	N	Building Name Eng
NoofS29Letterissued	Number	N	N	Numbebr of S29 Letter Issued
IssueDate	Date	N	N	Issue Date
ExpiryDate	Date	N	N	Expiry Date
S29Expired	Nvarchar(255)	N	N	S29 Expired
Reply	Nvarchar(255)	N	N	Reply
KnowDate	Date	N	N	Know Date
BarDate	Date	N	N	Bar Date
Exceedbardate	Nvarchar(255)	N	N	Exceed Bar Date
isContravention	Nvarchar(255)	N	N	Is Contravention
CaseNo	Nvarchar(255)	N	N	Case Number
Subjectofficer	Nvarchar(255)	N	N	Subject Officer
Remarks	Nvarchar(1000)	N	N	Remarks

4.139 TBL_CASENO

Table Name : tbl_caseno				
Table Description : Information of case number				
Column Name	Data Type	PK	Mandatory	Column Description
caseno	Nvarchar(20)	N	N	Case Number
buildID	Int	N	N	Build ID
ismaster	Int	N	N	Is Master

4.140 TBL_CHECKLIST

Table Name : tbl_CheckList				
Table Description : Information of checklist				
Column Name	Data Type	PK	Mandatory	Column Description
CLID	Int	Y	Y	Checklist ID
CLTemplateID	Int	N	N	Checklist Template ID
SubmissionID	Int	N	N	Submission ID
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
StatusCode	Varchar(10)	N	N	Status Code
SbmCategory	Varchar(10)	N	N	Submission Category

4.141 TBL_CHECKLIST_CONFIG

Table Name : tbl_CheckList_config				
Table Description : Information of checklist config				
Column Name	Data Type	PK	Mandatory	Column Description
CLTemplateID	Int	Y	Y	Checklist Template ID
CLTitle	Nvarchar(1000)	N	N	Checklist Title
CLDesc	Nvarchar(100)	N	N	Checklist Description
EffectiveDate	Date	N	N	Effective Date
EndDate	Date	N	N	End Date
SbmCategory	Varchar(100)	N	N	Submission Category
SbmTypeIDs	Char(50)	N	N	Submission Type IDs
ReportTypeID	Int	N	N	Report Type ID

4.142 TBL_CHECKLIST_CONTENT

Table Name : tbl_CheckList_Content				
Table Description : Information of checklist content				
Column Name	Data Type	PK	Mandatory	Column Description
CLContentID	Int	Y	Y	Checklist Content ID
CLID	Int	N	N	Checklist ID
AID	Int	N	N	A ID
Avalue	Nvarchar(1000)	N	N	A value
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.143 TBL_CHECKLIST_DETAILQUE

Table Name : tbl_CheckList_DetailQue				
Table Description : Information of checklist detail que				
Column Name	Data Type	PK	Mandatory	Column Description
CLDetailQueID	Int	N	Y	Checklist Detail Que ID
CLHeadID	Int	N	Y	Checklist Head ID
CLModuleID	Int	N	Y	Checklist Module ID

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CLDetailSeq	Int	N	N	Checklist Detail Sequence
CLResultSeq	Int	N	N	Checklist Result Sequence
ItemToCheck	Nvarchar(MAX)	N	N	Item To Check
AreaInspect	Nvarchar(MAX)	N	N	Area Inspect
IsInpected	Char(1)	N	N	Is Inspected
RemarksNoInsp	Nvarchar(MAX)	N	N	Remarks No Inspect
Remarks	Nvarchar(MAX)	N	N	Remarks
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.144 TBL_CHECKLIST_HEAD

Table Name : tbl_CheckList_Head				
Table Description : Information of checklist head				
Column Name	Data Type	PK	Mandatory	Column Description
CLHeadID	Int	Y	Y	Checklist Head ID
CLID	Int	N	Y	Checklist ID
CLTemplateID	Int	N	Y	Checklist Template ID
SubmissionID	Int	N	Y	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category
SbmTypeID	Int	N	N	Submission Type ID
BuildingID	Int	N	N	Building ID
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
SubmissionDate	Date	N	N	Submission Date
InspectionDateTime	Date	N	N	Inspection DateTime
Remarks	Nvarchar(MAX)	N	N	Remarks
XMLFileName	Nvarchar(100)	N	N	XML File Name
XMLFileNameRetv	Nvarchar(100)	N	N	XML File Name Retv
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.145 TBL_CHECKLIST_MODULE

Table Name : tbl_CheckList_module_DATE				
Table Description : Information of checklist module date				
Column Name	Data Type	PK	Mandatory	Column Description
CLModuleID	Int	Y	Y	Checklist Module ID
CLTemplateID	Int	N	Y	Checklist Template ID
CLModuleName	Nvarchar(100)	N	N	Checklist Module Name
CLModuleCategory	Nvarchar(100)	N	N	Checklist Module Category

CLModuleDescEng	Nvarchar(500)	N	N	Checklist Module Description Eng
CLModuleDescChi	Nvarchar(500)	N	N	Checklist Module Description Chi
CLModuleType	Nvarchar(50)	N	N	Checklist Module Type
CLModuleHasPart	Char(1)	N	N	Checklist Module Has Part
CLModuleHasHead	Char(1)	N	N	Checklist Module Has Head
CLModuleSeq	Int	N	N	Checklist Module Sequence
EffectiveDate	Date	N	N	Effective Date
EndDate	Date	N	N	End Date

4.146 TBL_CHILLERCOMPRESSORTYPE

Table Name : tbl_ChillerCompressorType				
Table Description : Information of chiller compressor type				
Column Name	Data Type	PK	Mandatory	Column Description
val	Nvarchar(50)	N	N	Value

4.147 TBL_CHILLERTYPE

Table Name : tbl_ChillerType				
Table Description : Information of chiller type				
Column Name	Data Type	PK	Mandatory	Column Description
val	Nvarchar(50)	N	N	Value

4.148 TBL_CL_ANS_CONFIG

Table Name : tbl_CL_Ans_config				
Table Description : Information of CL ans config				
Column Name	Data Type	PK	Mandatory	Column Description
AID	Int	Y	Y	A ID
QID	Int	N	N	Qes ID
AType	Nvarchar(10)	N	N	A Type
ATitle	Nvarchar(500)	N	N	A Title
Aorder	Int	N	N	A Order
AorderCol	Int	N	N	A Order Column
RadioButName	Nvarchar(100)	N	N	Radio Button Name
TextLen	Int	N	N	Text Length
offset	Int	N	N	Offset
defaultVal	Nvarchar(1000)	N	N	Default Value

4.149 TBL_CL_ANS_TYPE

Table Name : tbl_CL_Ans_Type				
Table Description : Information of CL ans type				
Column Name	Data Type	PK	Mandatory	Column Description
AType	Nvarchar(10)	N	N	A Type

Desc	Nvarchar(100)	N	N	Description
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4.150 TBL_CL_QES_CONFIG

Table Name : tbl_CL_Qes_config				
Table Description : Information of CL qes config				
Column Name	Data Type	PK	Mandatory	Column Description
QID	Int	Y	Y	Qes ID
Title	Nvarchar(500)	N	N	Title
CLTemplateID	Int	N	N	Checklist Template ID
Qorder	Int	N	N	Qes Order
AddBR	Int	N	N	Add BR

4.151 TBL_COOR_REGISTER

Table Name : tbl_COOR_register				
Table Description : Information of COCR register				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
COORNO	Nvarchar(MAX)	N	N	COOR Number
issuedate	Date	N	N	Issue Date
expiredate	Date	N	N	Expire Date
BECEdition	Varchar(30)	N	N	BEC Edition
CaseNo	Nvarchar(20)	N	N	Case Number
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
REARegNo	Varchar(25)	N	N	REA Registration Number
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
Status	Int	N	N	Status
BuildingID	Varchar(50)	N	N	Building ID

4.152 TBL_COMMENTCOOR

Table Name : tbl_commentCOOR				
Table Description : Information of comment COCR				
Column Name	Data Type	PK	Mandatory	Column Description
CommentID	Int	Y	Y	Comment ID
SubmissionID	Int	N	Y	Submission ID
CommentBy	Nvarchar(50)	N	N	Comment By
CommentIssueDate	Date	N	Y	Comment Issue Date
CommentRemarks	Nvarchar(1024)	N	N	Comment Remarks
ReplyDate	Date	N	N	Reply Date
ReplyRemarks	Nvarchar(1024)	N	N	Reply Remarks
CreateDate	Date	N	Y	Create Date

CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.153 TBL_COMMENTEA

Table Name : tbl_commentEA				
Table Description : Information of comment EA				
Column Name	Data Type	PK	Mandatory	Column Description
CommentID	Int	Y	Y	Comment ID
SubmissionID	Int	N	Y	Submission ID
CommentBy	Nvarchar(50)	N	N	Comment By
CommentIssueDate	Date	N	Y	Comment Issue Date
CommentRemarks	Nvarchar(1024)	N	N	Comment Remarks
ReplyDate	Date	N	N	Reply Date
ReplyRemarks	Nvarchar(1024)	N	N	Reply Remarks
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.154 TBL_COMMENTFOC

Table Name : tbl_commentFOC				
Table Description : Information of comment FOC				
Column Name	Data Type	PK	Mandatory	Column Description
CommentID	Int	Y	Y	Comment ID
SubmissionID	Int	N	Y	Submission ID
CommentBy	Nvarchar(50)	N	N	Comment By
CommentIssueDate	Date	N	Y	Comment Issue Date
CommentRemarks	Nvarchar(1024)	N	N	Comment Remarks
ReplyDate	Date	N	N	Reply Date
ReplyRemarks	Nvarchar(1024)	N	N	Reply Remarks
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.155 TBL_COMMENTREA

Table Name : tbl_commentREA				
Table Description : Information of comment REA				
Column Name	Data Type	PK	Mandatory	Column Description
CommentID	Int	N	Y	Comment ID
SubmissionID	Int	N	Y	Submission ID
CommentBy	Nvarchar(50)	N	N	Comment By
CommentIssueDate	Date	N	Y	Comment Issue Date

CommentRemarks	Nvarchar(1024)	N	N	Comment Remarks
ReplyDate	Date	N	N	Reply Date
ReplyRemarks	Nvarchar(1024)	N	N	Reply Remarks
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.156 TBL_COMMON_PHARSE

Table Name : tbl_common_pharse				
Table Description : Information of common pharse				
Column Name	Data Type	PK	Mandatory	Column Description
UsageID	Nvarchar(50)	N	N	Usage ID
pharse	Nvarchar(MAX)	N	N	Pharse

4.157 TBL_DISTRICT

Table Name : tbl_district				
Table Description : Information of district				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	N	N	ID
DISTRICT_CD	Varchar(10)	N	N	District Code
ENAME	Varchar(255)	N	N	Eng Name
CNAME	Nvarchar(255)	N	N	Chi Name
SCNAME	Nvarchar(255)	N	N	Simplified Chi Name
AREA_CD	Int	N	N	Area Code
remark	Nvarchar(255)	N	N	Remark
MODIFY_DT	Date	N	N	Modify Date

4.158 TBL_DOCCATEGORY

Table Name : tbl_DocCategory				
Table Description : Information of document category				
Column Name	Data Type	PK	Mandatory	Column Description
DocCatCode	Varchar(10)	N	Y	Document Category Code
EngCatDesc	Nvarchar(50)	N	Y	Eng Category Description
ChiCatDesc	Nvarchar(50)	N	N	Chi Category Description

4.159 TBL_DOCPATH

Table Name : tbl_DocPath				
Table Description : Information of document path				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	N	Y	ID
dirlevel	Int	N	N	Directory Level
sbmCategory	Varchar(10)	N	N	Submission Category

sbmTypeID	Int	N	N	Submission Type ID
path	Varchar(255)	N	N	Path

4.160 TBL_ELICENCE

Table Name : tbl_ELICENCE				
Table Description : Information of E-Licence				
Column Name	Data Type	PK	Mandatory	Column Description
ID	int	Y	Y	ID
LEK	Nvarchar(50)	N	N	LEK
LICENCE_TYPE	Nvarchar(20)	N	N	Licence Type
QR_CODE	Varbinary(MAX)	N	N	QR Code
REG_NO	Nvarchar(50)	N	N	Registration Number
ELICENCE_CSV_ID	Int	N	N	Elicence CSV ID
IS_EMAIL_SENT	Char(1)	N	N	Is Email Sent
EMAIL_SEND_DATE	Date	N	N	Email Send Date
FILE_NAME	Nvarchar(4000)	N	N	File Name
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.161 TBL_ELICENCE_CSV

Table Name : tbl_ELICENCE_CSV				
Table Description : Information of E-Licence CSV				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
ACTION	Nvarchar(20)	N	N	Action
CSV_CONTENT	Varbinary(MAX)	N	N	CSV Content
TXID	Nvarchar(200)	N	N	TXID
CODE	Nvarchar(10)	N	N	Code
CODE_DETAIL	Nvarchar(10)	N	N	Code Detail
POLLING_KEY	Nvarchar(200)	N	N	Polling Key
RETURN_CSV_CONTENT	Varbinary(MAX)	N	N	Return CSV Content
RETURN_CODE	Nvarchar(10)	N	N	Return Code
RETURN_CODE_DETAIL	Nvarchar(10)	N	N	Return Code Detail
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.162 TBL_ENERGY_AUDIT

Table Name : tbl_energy_audit				
Table Description : Information of energy audit				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
Submission_Type	Int	N	N	Submission Type
caseno	Nvarchar(20)	N	N	Case Number
buildID	Int	N	N	Build ID
EUI	Nvarchar(50)	N	N	EUI
Subject_Engineer	Nvarchar(50)	N	N	Subject Engineer
Subject_Inspector	Nvarchar(50)	N	N	Subject Inspector
REA_Name	Nvarchar(50)	N	N	REA Name
REA_RegNo	Nvarchar(50)	N	N	REA Registration Number
exem_DT_application	Date	N	N	Exempt Date - Application
exem_DT_Ack	Date	N	N	Exempt Date - Acknowledge
exem_DT_Comm1	Date	N	N	Exempt Date - Comment 1
exem_DT_Comm2	Date	N	N	Exempt Date - Comment 2
exem_DT_Reject	Date	N	N	Exempt Date - Reject
exem_DT_approval	Date	N	N	Exempt Date - Approval
DT_EAReport	Date	N	N	Date - EA Report
DT_EAFormExpire	Date	N	N	Date - EA Form Expire
DT_Ack	Date	N	N	Date - Acknowledge
ScrnChkl_prepareby	Nvarchar(50)	N	N	Scrn Checklist - Prepare By
ScrnChkl_prepareDT	Date	N	N	Scrn Checklist - Prepare Date
ScrnChkl_Reviewby	Nvarchar(50)	N	N	Scrn Checklist - Review By
ScrnChkl_ReviewDT	Date	N	N	Scrn Checklist - Review Date
DT_CloseFile	Date	N	N	Date - Close File
DTAuditStart	Date	N	N	Date - Audit Start
DTBillRefStart	Date	N	N	Date - Bill Reference Start
DTBillRefEnd	Date	N	N	Date - Bill Reference End
DTFormIssue	Date	N	N	Date - Form Issue
BuildingUsage	Nvarchar(256)	N	N	Building Usage
OPDate	Date	N	N	OP Date
AreaCommon	Number	N	N	Area Common
AreaInternFloor	Number	N	N	Area Intern Floor
NumFloorRemarks	Nvarchar(256)	N	N	Number of Floor Remarks
NumHoursOpPerDay	Number	N	N	Number of Hours Op Per Day
DaysOperation	Nvarchar(256)	N	N	Days Operation
InstallCapACC	Number	N	N	Install Cap ACC
InstallCapWCC	Number	N	N	Install Cap WCC
InstallCapUAC	Number	N	N	Install Cap UAC
InstallCapWP	Number	N	N	Install Cap WP
InstallCapCT	Number	N	N	Install Cap CT
InstallCapAHU	Number	N	N	Install Cap AHU

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InstallCapMF	Number	N	N	Install Cap MF
TotLightPower	Number	N	N	Total Light Power
First12MthTotalEC	Number	N	N	First 12 Months Total EC
First12MthTotalECRef	Number	N	N	First 12 Months Total EC Reference
First12MthECAC	Number	N	N	First 12 Months EC AC
First12MthECLG	Number	N	N	First 12 Months EC LG
First12MthECLE	Number	N	N	First 12 Months EC LE
First12MthECOth	Number	N	N	First 12 Months EC Other
PercentECPerUnit	Number	N	N	Percent EC Per Unit
TotPowerRateLift	Number	N	N	Total Power Rate Lift
TotPowerRateEscal	Number	N	N	Total Power Rate Escal
TotPowerRateOth	Number	N	N	Total Power Rate Other
NumEMOCatI	Int	N	N	Number of EMO Category I
NumEMOCatII	Int	N	N	Number of EMO Category II
NumEMOCatIII	Int	N	N	Number of EMO Category III
Remarks	Nvarchar(1024)	N	N	Remarks
StatusCode	Char(10)	N	N	Status Code
LastClarifyDate	Date	N	N	Last Clarify Date
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
DTAuditEnd	Date	N	N	Date - Audit End
OPYear	Int	N	N	OP Year
OPMonth	Int	N	N	OP Month
OPDay	Int	N	N	OP Day
DateExempReceived	Date	N	N	Date Exempt Received
EXTENSION_DESC	Nvarchar(3000)	N	N	Extension Description
AdvisoryletterIssueDate	Date	N	N	Advisory Letter Issue Date
S29_IssueDate	Date	N	N	S29 Issue Date
S29_Issued	Int	N	N	S29 Issued
S29_Remarks	Nvarchar(MAX)	N	N	S29 Remarks
IN_IssueDate	Date	N	N	IN Issue Date
IN_ExpiryDate	Date	N	N	IN Expiry Date
IN_ReferenceNo	Nvarchar(MAX)	N	N	IN Reference Number
IN_Remarks	Nvarchar(MAX)	N	N	IN Remarks
InstallCapVRV	Number	N	N	Install Cap VRV
InstallCapWPChilled	Number	N	N	Install Cap WP Chilled
InstallCapWPCondensing	Number	N	N	Install Cap WP Condensing
InstallRadiator	Number	N	N	Install Radiator

4.163 TBL_EPAYMENT

Table Name : tbl_EPAYMENT

Table Description : Information of E-Payment				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
division_code	Nvarchar(20)	N	Y	Division Code
form_code	Nvarchar(60)	N	Y	Form Code
app_no	Nvarchar(10)	N	Y	Application Number
status	Nvarchar(1)	N	Y	Status
status_detail_code	Nvarchar(20)	N	Y	Status Detail Code
status_detail_description	Nvarchar(400)	N	Y	Status Detail Description
pay_ref_no	Nvarchar(40)	N	Y	Pay Reference Number
receipt_no	Nvarchar(120)	N	N	Receipt Number
payment_handle_dt	Date	N	N	Payment Handle Date
amount	Number	N	N	Amount
error_code	Nvarchar(4)	N	N	Error Code
error_message	Nvarchar(400)	N	N	Error Message
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.164 TBL_EXCEL_IMPORT_OUTPUT_FIELD

Table Name : tbl_excel_import_output_field				
Table Description : Information of Excel import output field				
Column Name	Data Type	PK	Mandatory	Column Description
OutputID	Nvarchar(50)	N	N	Output ID
fieldname	Nvarchar(100)	N	N	Field Name
excelcolname	Nvarchar(100)	N	N	Excel Column Name
excelcolorder	Int	N	N	Excel Colorder

4.165 TBL_EXCEL_TABLE_FLD

Table Name : tbl_excel_table_fld				
Table Description : Information of Excel table field				
Column Name	Data Type	PK	Mandatory	Column Description
excetableName	Nvarchar(50)	N	N	Excel Table Name
excelfieldName	Nvarchar(50)	N	N	Excel Field Name
tableName	Nvarchar(50)	N	N	Table Name
tablefieldName	Nvarchar(50)	N	N	Table Field Name
toption	Nchar(10)	N	N	T Option

4.166 TBL_FORMTYPE

Table Name : tbl_FormType				
Table Description : Information of form type				
Column Name	Data Type	PK	Mandatory	Column Description
FormId	Int	N	Y	Form ID

FormDesc	Nvarchar(50)	N	N	Form Description
FormTable	Nvarchar(50)	N	N	Form Table
FormName	Nvarchar(256)	N	N	Form Name

4.167 TBL_FULL_ADDR

Table Name : tbl_full_addr				
Table Description : Information of full address				
Column Name	Data Type	PK	Mandatory	Column Description
BuildID	Int	Y	Y	Building ID
ST_ENG_NM	Nvarchar(1000)	N	N	Street Eng Name
ST_CHI_NM	Nvarchar(1000)	N	N	Street Chi Name

4.168 TBL_FUNC

Table Name : tbl_func				
Table Description : Information of function				
Column Name	Data Type	PK	Mandatory	Column Description
funcid	Int	N	Y	Function ID
funcDesc	Nvarchar(50)	N	N	Function Description

4.169 TBL_GOV_BLDG_MAP

Table Name : tbl_Gov_Bldg_Map				
Table Description : Information of government building map				
Column Name	Data Type	PK	Mandatory	Column Description
PartyEngName	Nvarchar(256)	N	N	Party Eng Name
RoleID	Int	N	N	Role ID
BLD_TY	Int	N	N	Building Type

4.170 TBL_HOLIDAY

Table Name : tbl_Holiday				
Table Description : Information of holiday				
Column Name	Data Type	PK	Mandatory	Column Description
HolidayDate	Date	N	Y	Holiday Date
HolidayDesc	Nvarchar(1024)	N	N	Holiday Description
HolidayInd	Int	N	Y	Holiday Ind
CreateDate	Date	N	Y	Create Date
CreateBy	Char(10)	N	Y	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Char(10)	N	N	Update By

4.171 TBL_IMPROVEMENT_NOTICE

Table Name : tbl_Improvement_Note				
Table Description : Information of improvement notice				

Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
LetterID	Int	N	N	Letter ID
SbmCategory	Varchar(10)	N	N	Submission Category
SourceID	Int	N	N	Source ID
InstallAirConditioning	Char(1)	N	N	Install Air Conditioning
InstallElectrical	Char(1)	N	N	Install Electrical
InstallEscalator	Char(1)	N	N	Install Escalator
InstallLift	Char(1)	N	N	Install Lift
InstallLighting	Char(1)	N	N	Install Lighting

4.172 TBL_INBOX

Table Name : tbl_inbox				
Table Description : Information of inbox				
Column Name	Data Type	PK	Mandatory	Column Description
InboxID	Int	Y	Y	Inbox ID
InboxCategory	Varchar(10)	N	Y	Inbox Category
InboxTypeID	Int	N	Y	Inbox Type ID
SourceID	Int	N	Y	Source ID
ReceivedDate	Date	N	N	Received Date
EngBuildingName	Varchar(255)	N	N	Eng Building Name
BuildingID	Int	N	N	Building ID
CaseNo	Nvarchar(23)	N	N	Case Number
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
StatusCode	Char(10)	N	Y	Status Code
HandlingOfficer	Nvarchar(50)	N	N	Handling Officer
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
AssignmentID	Int	N	N	Assignment ID
isCleanSub	Bit	N	N	Is Clean Sub

4.173 TBL_INPUTCTRL_LOGIC

Table Name : tbl_InputCtrl_Logic				
Table Description : Information of input control logic				
Column Name	Data Type	PK	Mandatory	Column Description
AID	Int	N	Y	A ID
Avalue	Nvarchar(1000)	N	N	A Value
ACTION	Nvarchar(10)	N	N	Action
TAID	Int	N	N	TA ID
TAValue	Nvarchar(1000)	N	N	TA Value

4.174 TBL_INSPECTION

Table Name : tbl_Inspection				
Table Description : Information of inspection				
Column Name	Data Type	PK	Mandatory	Column Description
InspectionID	Int	Y	Y	Inspection ID
InspTypeID	Int	N	Y	Inspection Type ID
SbmCategory	Varchar(10)	N	N	Submission Category
SubmissionID	Int	N	N	Submission ID
ScheduledDate	Date	N	N	Scheduled Date
BuildingID	Int	N	N	Building ID
BECEdition	Varchar(30)	N	N	BEC Edition
CaseNo	Nvarchar(20)	N	N	Case Number
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
ActualDate	Date	N	N	Actual Date
StatusCode	Char(10)	N	Y	Status Code
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
WorkLocation	Nvarchar(MAX)	N	N	Work Location

4.175 TBL_INSPECTIONRESULTS

Table Name : tbl_InspectionResults				
Table Description : Information of inspection results				
Column Name	Data Type	PK	Mandatory	Column Description
ResultID	Int	Y	Y	Result ID
InspectionID	Int	N	Y	Inspection ID
PreparedBy	Nvarchar(50)	N	N	Prepared By
PreparedDate	Date	N	N	Prepared Date
ResultRemarks	Nvarchar(1024)	N	N	Result Remarks
ReviewBy	Nvarchar(50)	N	N	Review By
ReviewDate	Date	N	N	Review Date
ReviewRemarks	Nvarchar(1024)	N	N	Review Remarks
REARegNo	Varchar(25)	N	N	REA Registration Number
BuildingOwnerID	Int	N	N	Building Owner ID
PropertyMgtID	Int	N	N	Property Management ID
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.176 TBL_LABEL

Table Name : tbl_label	
Table Description : Information of label	

Column Name	Data Type	PK	Mandatory	Column Description
LB_ID	Int	Y	Y	Label ID
TaskCategory	Varchar(10)	N	N	Task Category
SubmissionID	Int	N	N	Submission ID
caseno	Nvarchar(23)	N	N	Case Number
LB_content	Nvarchar(500)	N	N	Label Content
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
PrintedDate	Date	N	N	Printed Date
PrintedBy	Nvarchar(50)	N	N	Printed By
BuildingID	Int	N	N	Building ID

4.177 TBL LETTER

Table Name : tbl_Letter				
Table Description : Information of letter				
Column Name	Data Type	PK	Mandatory	Column Description
LetterID	Int	Y	Y	Letter ID
BatchID	Int	N	N	Batch ID
LetterTypeID	Int	N	N	Letter Type ID
BuildingID	Int	N	N	Building ID
IssueDate	Date	N	N	Issue Date
IssueBy	Nvarchar(50)	N	N	Issue By
ResponsibleOrganizationPartyID	Int	N	N	Responsible Organization Party ID
remarks	Nvarchar(1000)	N	N	Remarks
HKPostDelivery	Nvarchar(20)	N	N	HK Post Delivery
IsSentSucc	Int	N	N	Is Sent Success
GenDocDate	Date	N	N	Generate Document Date
FilePath	Nvarchar(255)	N	N	File Path
FileName	Nvarchar(255)	N	N	File Name
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
LetterContentTemplateID	Int	N	N	Letter Content Template ID
LetterDate	Date	N	N	Letter Date
LetterBy	Nvarchar(50)	N	N	Letter By
ActionDate	Date	N	N	Action Date
ActionBy	Nvarchar(50)	N	N	Action By
remarksStatus	Nvarchar(1000)	N	N	Remarks Status
ChannelFax	Char(1)	N	N	Channel Fax
ChannelEmail	Char(1)	N	N	Channel Email
ChannelPost	Char(1)	N	N	Channel Post
StatusCodeFuture	Char(10)	N	N	Status Code Future

4.178 TBL LETTERCONTENT

Table Name : tbl_LetterContent				
Table Description : Information of letter content				
Column Name	Data Type	PK	Mandatory	Column Description
LetterContentID	Int	N	Y	Letter Content ID
LetterID	Int	N	N	Letter ID
LetterValueType	Nchar(100)	N	N	Letter Value Type
Message_01	Nvarchar(MAX)	N	N	Message 01
Message_02	Nvarchar(MAX)	N	N	Message 02
Message_03	Nvarchar(MAX)	N	N	Message 03
Message_04	Nvarchar(MAX)	N	N	Message 04
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.179 TBL LETTERCONTENTTEMPLATE

Table Name : tbl_LetterContentTemplate				
Table Description : Information of letter content template				
Column Name	Data Type	PK	Mandatory	Column Description
LetterContentTemplateID	Int	Y	Y	Letter Content Template ID
LetterTypeID	Int	N	N	Letter Type ID
ContentTemplateName	Nvarchar(100)	N	N	Content Template Name
ContentTemplateEng	Nvarchar(MAX)	N	N	Content Template Eng
ContentTemplateChi	Nvarchar(MAX)	N	N	Content Template Chi
Remarks	Nvarchar(1024)	N	N	Remarks
AType	Nvarchar(50)	N	N	A Type
Editable	Char(1)	N	N	Editable
StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.180 TBL LETTERINFO

Table Name : tbl_LetterInfo				
Table Description : Information of letter information				
Column Name	Data Type	PK	Mandatory	Column Description
LetterInfoID	Int	N	Y	Letter Information ID
LetterID	Int	N	N	Letter ID
SubmissionID	Int	N	N	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category
SbmTypeID	Int	N	N	Submission Type ID

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StatusCode	Char(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.181 TBL LETTERTEMPLATE

Table Name : tbl_LetterTemplate				
Table Description : Information of letter template				
Column Name	Data Type	PK	Mandatory	Column Description
LetterTempleteID	Int	N	Y	Letter Template ID
EngTypeDesc	Nvarchar(50)	N	Y	Eng Type Description
ChiTypeDesc	Nvarchar(50)	N	N	Chi Type Description
Path	Nvarchar(1000)	N	N	Path

4.182 TBL LETTERTYPE

Table Name : tbl_LetterType				
Table Description : Information of letter type				
Column Name	Data Type	PK	Mandatory	Column Description
LetterTypeID	Int	N	Y	Letter Type ID
EngTypeDesc	Nvarchar(50)	N	N	Eng Type Description
ChiTypeDesc	Nvarchar(50)	N	N	Chi Type Description
SbmCategory	Varchar(10)	N	N	Submission Category
SbmTypeID	Int	N	N	Submission Type ID
FileNameFormat	Nvarchar(50)	N	N	File Name Format
LetterTemplete	Nvarchar(50)	N	N	Letter Templete
SbmTypeIDs	Char(50)	N	N	Submission Type IDs

4.183 TBL LOG

Table Name : tbl_LOG				
Table Description : Information of log				
Column Name	Data Type	PK	Mandatory	Column Description
LogID	Int	N	Y	Log ID
LogType	Nvarchar(50)	N	N	Log Type
ModuleName	Nvarchar(100)	N	N	Module Name
FuncName	Nvarchar(100)	N	N	Function Name
Msg	Nvarchar(MAX)	N	N	Message
Remark	Nvarchar(MAX)	N	N	Remark
LogUser	Nvarchar(100)	N	N	Log User
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By

4.184 TBL MAJORSPACETYPE

Table Name : tbl_MajorSpaceType				
Table Description : Information of major space type				
Column Name	Data Type	PK	Mandatory	Column Description
val	Nvarchar(10)	N	N	Value
desc	Nvarchar(1000)	N	N	Description

4.185 TBL_PARTY

Table Name : tbl_Party				
Table Description : Information of party				
Column Name	Data Type	PK	Mandatory	Column Description
PartyID	Int	Y	Y	Party ID
PartyType	Char(1)	N	Y	Party Type
EngName	Nvarchar(256)	N	N	Eng Name
ChiName	Nvarchar(256)	N	N	Chi Name
Salutation	Char(10)	N	N	Salutation
RepresentID	Int	N	N	Represent ID
RepPosition	Nvarchar(256)	N	N	Represent Position
CorrAddr	Nvarchar(1024)	N	N	Corresponding Address
PhoneNo	Char(50)	N	N	Phone Number
FaxNo	Char(50)	N	N	Fax Number
EmailAddress	Char(50)	N	N	Email Address
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Corresponding Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Corresponding Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Corresponding Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Corresponding Address Building
CORRES_ADDR_START_NO	Int	N	N	Corresponding Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Corresponding Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Corresponding Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Corresponding Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Corresponding Address Area Code

CORRES_ADDR_LANG	Char(1)	N	N	Corresponding Address Language
REPRESEN_TITLE_ID	Int	N	N	Represent Title ID (Mr./Mrs./Miss)

4.186 TBL_PARTY_ADDITIONAL_CONTACT

Table Name : tbl_Party_Additional_Contact				
Table Description : Information of party additionl contact				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
PartyID	Int	N	N	Party ID
CorrAddr	Nvarchar(1024)	N	N	Corresponding Address
PhoneNo	Char(50)	N	N	Phone Number
FaxNo	Char(50)	N	N	Fax Number
EmailAddress	Char(50)	N	N	Email Address
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Corresponding Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Corresponding Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Corresponding Address Block
CORRES_ADDR_BLDG	Nvarchar(255)	N	N	Corresponding Address Building
CORRES_ADDR_START_NO	Int	N	N	Corresponding Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Corresponding Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Corresponding Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Corresponding Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Corresponding Address Area Code
CORRES_ADDR_LANG	Char(1)	N	N	Corresponding Address Language

4.187 TBL_PARTY_ROLE

Table Name : tbl_party_role				
Table Description : Information of party role				
Column Name	Data Type	PK	Mandatory	Column Description
RoleID	Int	Y	Y	Role ID
EngDesc	Nvarchar(100)	N	N	Eng Description
ChiDesc	Nvarchar(100)	N	N	Chi Description

PGroup	Nvarchar(10)	N	N	Party Group
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4.188 TBL_PROCESSACTION

Table Name : tbl_ProcessAction				
Table Description : Information of process action				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
Category	Varchar(10)	N	N	Category
SubmissionID	Int	N	N	Submission ID
PaCode	Nchar(10)	N	N	Pa Code
StatusCode	Nchar(10)	N	N	Status Code
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
ActionState	Nvarchar(20)	N	N	Action State
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By

4.189 TBL_PROCESSACTION_CONFIG

Table Name : tbl_ProcessAction_Config				
Table Description : Information of process action config				
Column Name	Data Type	PK	Mandatory	Column Description
PaCode	Nchar(10)	Y	Y	Pa Code
StatusCode	Nchar(10)	N	N	Status Code
ActionDesc	Nvarchar(200)	N	N	Action Description
Action	Nvarchar(200)	N	N	Action

4.190 TBL_PROCESSSTATUS

Table Name : tbl_ProcessStatus				
Table Description : Information of process status				
Column Name	Data Type	PK	Mandatory	Column Description
StatusCode	Char(10)	N	Y	Status Code
EngStatusDesc	Nvarchar(50)	N	Y	Eng Status Description
ChiStatusDesc	Nvarchar(50)	N	N	Chi Status Description
ProcessCategory	Varchar(10)	N	N	Process Category
ProcessOrder	Int	N	N	Process Order
NextStatus	Nvarchar(255)	N	N	Next Status
InstructionMsg	Nvarchar(1024)	N	N	Instruction Message
Role	Nvarchar(255)	N	N	Role

4.191 TBL_REAREGISTER

Table Name : tbl_REARegister				
Table Description : Information of REA register				
Column Name	Data Type	PK	Mandatory	Column Description

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REARegNo	Varchar(25)	N	Y	REA Registration Number
EngName	Varchar(256)	N	N	Eng Name
ChiName	Nvarchar(256)	N	N	Chi Name
RegDate	Date	N	N	Registration Date
ExpiryDate	Date	N	N	Expiry Date
ContactTel	Varchar(50)	N	N	Contact Tel
EmailAddr	Nvarchar(256)	N	N	Email Addr
EngRemarks	Nvarchar(256)	N	N	Eng Remarks
ChiRemarks	Nvarchar(256)	N	N	Chi Remarks
Status	Int	N	N	Status
DisplayEmail	Char(1)	N	N	Display Email
DisplayContact	Char(1)	N	N	Display Contact
EmailAddrNotify	Nvarchar(256)	N	N	Email Address Notify
CreateDate	Date	N	N	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
CaseNo	Nvarchar(50)	N	N	Case Number
RegDateFirst	Date	N	N	Registration Date First
ExpiryDateFirst	Date	N	N	Expiry Date First
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)
DATE_OF_BIRTH	Date	N	N	Date of Birth
ADDR_ST	Nvarchar(300)	N	N	Address Street
COMP_NAME	Nvarchar(300)	N	N	Company Name
COMP_ADDR_ST	Nvarchar(300)	N	N	Company Address Street
COMP_POST	Nvarchar(300)	N	N	Company Post
OFFICE_TEL_NO	Nvarchar(50)	N	N	Office Telephone Number
FAX_NO	Nvarchar(50)	N	N	Fax Number
HKID	Varbinary(MAX)	N	N	HKID

4.192 TBL_Reminder

Table Name : tbl_reminder				
Table Description : Information of reminder				
Column Name	Data Type	PK	Mandatory	Column Description
id	Int	Y	Y	ID
mailFrom	Nvarchar(1024)	N	N	Mail From
mailTo	Nvarchar(1024)	N	N	Mail To
header	Nvarchar(1024)	N	N	Header
message	Nvarchar(1024)	N	N	Message
senddate	Date	N	N	Send Date
outputeml	Nvarchar(MAX)	N	N	Output Email

4.193 TBL_Reminder_Attachment

Table Name : tbl_reminder_attachment
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Table Description : Information of reminder attachment

Column Name	Data Type	PK	Mandatory	Column Description
ReminderID	Int	N	N	Reminder ID
FileName	Nvarchar(2000)	N	N	File Name

4.194 TBL_REPORT_1_REA

Table Name : tbl_report_1_REA				
Table Description : Information of report 1 REA				
Column Name	Data Type	PK	Mandatory	Column Description
ReportID	Int	Y	Y	Report ID
AppGen	Number	N	N	Application Generate
AppGenNPO	Number	N	N	Application Generate NPO
AppPO	Number	N	N	Application PO
BLDGSer	Number	N	N	Building Search
BLDGSerA	Number	N	N	Building Search A
CalBLDGSerA	Number	N	N	Calculate Building Search A
CalEA1CHANGEA_CalEA3CHA NGE	Number	N	N	Calculate EA1 Change A Calculate EA3 Change A
CalEA1NewA_CalEA3Ne wA	Number	N	N	Calculate EA1 New A Calculate EA3 New A
CalEA1RENEWA_CalEA 3RENEWA	Number	N	N	Calculate EA1 Renew A Calculate EA3 Renew A
CalEleA	Number	N	N	Calculate Ele A
CalEnvA	Number	N	N	Calculate Env A
CalHKIEA	Number	N	N	Calculate HKIE A
CalMechA	Number	N	N	Calculate Mech A
CalOtherA	Number	N	N	Calculate Other A
CalRegGen	Number	N	N	Calculate Registration Generate
CalRegGenPO	Number	N	N	Calculate Registration Generate PO
CalRegPO	Number	N	N	Calculate Registration PO
CalRPEA	Number	N	N	Calculate RPEA
CalRRAA	Number	N	N	Calculate RRAA
CutOffDate	Date	N	N	Cut Off Date
EA1CHANGE_EA3CHA NGE	Number	N	N	EA1 Change EA3 Change
EA1CHANGEA_EA3CH ANGEA	Number	N	N	EA1 Change A EA3 Change A
EA1New_EA3New	Number	N	N	EA1 New EA3 New
EA1NewA_EA3NewA	Number	N	N	EA1New A EA3 New A
EA1RENEW_EA3RENE W	Number	N	N	EA1 Renew EA3 Renew
EA1RENEWA_EA3REN EWA	Number	N	N	EA1 Renew A EA3 Renew A
Ele	Number	N	N	Ele
EleA	Number	N	N	Ele A

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Env	Number	N	N	Env
EnvA	Number	N	N	Env A
FinBLDGSerA	Number	N	N	Final Building Search A
FinEA1CHANGEA_FinE A3CHANGEA	Number	N	N	Final EA1 Change A Final EA3 Change A
FinEA1NewA_FinEA3Ne wA	Number	N	N	Final EA1 New A Final EA3 New A
FinEA1RENEWA_FinEA 3RENEWA	Number	N	N	Final EA1 Renew A Final EA3 Renew A
FinEleA	Number	N	N	Final Ele A
FinEnvA	Number	N	N	Final Env A
FinHKIEA	Number	N	N	Final HKIE A
FinMechA	Number	N	N	Final Mech A
FinOtherA	Number	N	N	Final Other A
FinRegGen	Number	N	N	Final Registration Generate
FinRegGenPO	Number	N	N	Final Registration Generate PO
FinRegPO	Number	N	N	Final Registration PO
FinRPEA	Number	N	N	Final RPEA
FinRRAA	Number	N	N	Final RRAA
finyear	Number	N	N	Final Year
finyearEnd	Number	N	N	Final Year End
Gendate	Date	N	N	Gendate
HKIE	Number	N	N	HKIE
HKIEA	Number	N	N	HKIE A
HKIEnRPE	Number	N	N	HKIE and RPE
Mech	Number	N	N	Mech
MechA	Number	N	N	Mech A
Other	Number	N	N	Other
OtherA	Number	N	N	Other A
PGen	Number	N	N	P Generate
PPO	Number	N	N	P PO
RegGen	Number	N	N	Registration Generate
RegGenPO	Number	N	N	Registration Generate PO
RegPO	Number	N	N	Registration PO
Removed	Number	N	N	Removed
RPE	Number	N	N	RPE
RPEA	Number	N	N	RPE A
RRA	Number	N	N	RRA
RRAA	Number	N	N	RRA A
T-A	Number	N	N	T-A
T-B	Number	N	N	T-B
T-C	Number	N	N	T-C
T-D	Number	N	N	T-D
T-E	Number	N	N	T-E
T-F	Number	N	N	T-F
T-G	Number	N	N	T-G
T-H	Number	N	N	T-H

Withdraw	Number	N	N	Withdraw
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4.195 TBL_REPORT_CONFIG

Table Name : tbl_report_config				
Table Description : Information of report config				
Column Name	Data Type	PK	Mandatory	Column Description
ReportTypeID	Int	N	Y	Report Type ID
Category	Varchar(10)	N	N	Category
Desc	Nvarchar(2000)	N	N	Description
isOnLineReport	Char(1)	N	N	Is On Line Report

4.196 TBL_REPORT_PARA_CONFIG

Table Name : tbl_report_para_config				
Table Description : Information of report parameter config				
Column Name	Data Type	PK	Mandatory	Column Description
ReportTypeID	Int	N	Y	Report Type ID
ParaName	Nvarchar(100)	N	N	Paramater Name
tsql	Nvarchar(2000)	N	N	T SQL
Desc	Nvarchar(2000)	N	N	Description
val	Nvarchar(2000)	N	N	Value
paratype	Char(1)	N	N	Parameter Type

4.197 TBL_REQUEST_RESPONSE_LOGGING

Table Name : tbl_REQUEST_RESPONSE_LOGGING				
Table Description : Information of request response logging				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
REQUEST_HEADER	Varchar(MAX)	N	N	Request Header
REQUEST_CONTENT	Varchar(MAX)	N	N	Request Content
RESPONSE_HEADER	Varchar(MAX)	N	N	Response Header
RESPONSE_CONTENT	Varchar(MAX)	N	N	Response Content
CREATE_BY	Nvarchar(50)	N	N	Create By
CREATE_DATE	Date	N	N	Create Date
ERROR_MSG	Varchar(MAX)	N	N	Error Message
RESOURCE_URL	Varchar(MAX)	N	N	Resource URL

4.198 TBL_RGINSPELTYPE

Table Name : tbl_RGInspSelType				
Table Description : Information of RG inspect sel type				
Column Name	Data Type	PK	Mandatory	Column Description
STID	Int	Y	Y	ST ID
Name	Nvarchar(100)	N	N	Name
Status	Nvarchar(1)	N	N	Status

INSPTYPE	Nvarchar(50)	N	N	Inspect Type
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
Desc	Nvarchar(3000)	N	N	Description
tsql	Nvarchar(4000)	N	N	T SQL

4.199 TBL_RGINSPSELTYPE_ITEM

Table Name : tbl_RGInspSelType_Item				
Table Description : Information of RG inspect sel type item				
Column Name	Data Type	PK	Mandatory	Column Description
STID	Int	N	Y	ST ID
Type	Nvarchar(10)	N	N	Type
value	Nvarchar(1000)	N	N	Value

4.200 TBL_SBM_ADDITIONINFOEEET

Table Name : tbl_sbm_AdditionInfoEEET				
Table Description : Information of submission addition information EEET				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	N	Y	ID
SubmissionID	Int	N	N	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category
LOC_ENAME	Nvarchar(255)	N	N	Location Eng Name
LOC_CNAME	Nvarchar(255)	N	N	Location Chi Name
LOC_FLAT	Nvarchar(50)	N	N	Location Flat
LOC_FLOOR	Nvarchar(50)	N	N	Location Floor
LOC_BLOCK	Nvarchar(50)	N	N	Location Block
LOC_DESC	Nvarchar(255)	N	N	Location Description
EXTENSION_DESC	Nvarchar(3000)	N	N	Extension Description

4.201 TBL_SBM_ADDITIONINFOEEEX

Table Name : tbl_sbm_AdditionInfoEEEX				
Table Description : Information of submission addition information EEEX				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category
LOC_ENAME	Nvarchar(255)	N	N	Location Eng Name
LOC_CNAME	Nvarchar(255)	N	N	Location Chi Name
LOC_FLAT	Nvarchar(50)	N	N	Location Flat
LOC_FLOOR	Nvarchar(50)	N	N	Location Floor
LOC_BLOCK	Nvarchar(50)	N	N	Location Block
LOC_DESC	Nvarchar(255)	N	N	Location Description

IS_500	Char(1)	N	N	Is 500
IS_400A	Char(1)	N	N	Is 400A
IS_350KW	Char(1)	N	N	Is 350kW
IS_MOTOR	Char(1)	N	N	Is Motor

4.202 TBL_SBM_ADDITIONINFOEEEX_EXEMPT

Table Name : tbl_sbm_AdditionInfoEEEX_EXEMPT				
Table Description : Information of submission addition information EEEX exempt				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
SbmCategory	Varchar(10)	N	N	Submission Category
DETAILS	Nvarchar(1000)	N	N	Details
BECEdition	Varchar(30)	N	N	BEC Edition
CODE_EXEMPTION	Nvarchar(200)	N	N	Code Exemption
isLighting	Char(1)	N	N	Is Lighting
isAirCon	Char(1)	N	N	Is Air Conditioner
isElectrical	Char(1)	N	N	Is Electrical
isLift	Char(1)	N	N	Is Lift
isEscalator	Char(1)	N	N	Is Escalator
IS_EXEMPTION_HERITAGE	Char(1)	N	N	Is Exemption Heritage
IS_EXEMPTION_TECH	Char(1)	N	N	Is Exemption Technology
IS_EXEMPTION_OPER	Char(1)	N	N	Is Exemption Operate

4.203 TBL_SBM_COOR

Table Name : tbl_sbm_COOR				
Table Description : Information of COCR submission				
Column Name	Data Type	PK	Mandatory	Column Description
SubmissionID	Int	Y	Y	Submission ID
SubmissionType	Int	N	Y	Submission Type
ReceviedDate	Date	N	N	Recevied Date
BuildingID	Int	N	N	Building ID
BECEdition	Varchar(30)	N	N	BEC Edition
DeveloperID	Int	N	N	Developer ID
DevDeclareDate	Date	N	N	Developer Declare Date
OwnerID	Int	N	N	Owner ID
OwnerDeclareDate	Date	N	N	Owner Declare Date
REARegNo	Varchar(25)	N	N	REA Registration Number
READeclareDate	Date	N	N	REA Declare Date
CategoryCode	Char(10)	N	N	Category Code
ConsentDate	Date	N	N	Consent Date
ConsentRef	Varchar(50)	N	N	Consent Reference
CommenceDate	Date	N	N	Commence Date
OPDate	Date	N	N	OP Date

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OPRef	Char(10)	N	N	OP Reference
COCRRegNo	Varchar(25)	N	N	COCR Registration Number
CaseNo	Nvarchar(20)	N	N	Case Number
eSubmissionRef	Char(50)	N	N	eSubmission Reference
eSubmissionDate	Date	N	N	eSubmission Date
StatusCode	Char(10)	N	Y	Status Code
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
AckDate	Date	N	N	Acknowledge Date
ScreenBy	Nvarchar(50)	N	N	Screen By
ScreenDate	Date	N	N	Screen Date
ReviewBy	Nvarchar(50)	N	N	Review By
ReviewDate	Date	N	N	Review Date
DT_CloseFile	Date	N	N	Close File Date
COCRRegDate	Date	N	N	COCR Registration Date
LastClarifyDate	Date	N	N	Last Clarify Date
OPYear	Int	N	N	OP Year
OPMonth	Int	N	N	OP Month
OPDay	Int	N	N	OP Day
DateExempReceived	Date	N	N	Date Exempt Received
DateReject	Date	N	N	Date Reject
DateApproval	Date	N	N	Date Approval
ReminderletterIssueDate COCR1	Date	N	N	Reminder Letter Issue Date COCR 1
ReminderletterIssueDate COCR2	Date	N	N	Reminder Letter Issue Date COCR 2
IN_IssueDate	Date	N	N	IN Issue Date
IN_ExpiryDate	Date	N	N	IN Expiry Date
IN_ReferenceNo	Nvarchar(MAX)	N	N	IN Reference Number
IN_Remarks	Nvarchar(MAX)	N	N	IN Remarks
COCR_IssueDate	Date	N	N	COCR Issue Date
COCR_ExpiryDate	Date	N	N	COCR Expiry Date
COCR_CertNo	Nvarchar(MAX)	N	N	COCR Certificate Number
AreaInternFloor	Number	N	N	Area Intern Floor
GfA_NonDomestic	Number	N	N	GfA Non Domestic
GfA_Domestic	Number	N	N	GfA Domestic
CarparkNo	Int	N	N	Car park Number
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
CORRES_TEL_NO	Nvarchar(20)	N	N	Corresponding Telephone Number
CORRES_EMAIL_ADD R	Nvarchar(100)	N	N	Corresponding Email Address

4.204 TBL_SBM_COOR_ADDITIONINFOEE1

Table Name : tbl_sbm_COOR_AdditionInfoEE1				
Table Description : Information of COCR submission additional information EE1				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WO_RK_MAPTYPE	Char(1)	N	N	Consent Building Work Map Type
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOC_NO	Varchar(50)	N	N	Consent Document Number
COMMENCE_DATE_TYPE	Char(1)	N	N	Commence Date Type
COMMENCE_DATE	Date	N	N	Commence Date
OCCUPATION_DATE	Date	N	N	Occupation Date
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
isDECORATIVELIGHTING	Char(1)	N	N	Is Decorative Lighting
REA_INSPECT_DATE	Date	N	N	REA Inspect Date

4.205 TBL_SBM_COOR_ADDITIONINFOEE2

Table Name : tbl_sbm_COOR_AdditionInfoEE2				
Table Description : Information of COCR submission additional information EE2				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
REA_INSPECT_DATE	Date	N	N	REA Inspect Date
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB

STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DATE	Date	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
isDECORATIVELIGHTING	Char(1)	N	N	Is Decorative Lighting

4.206 TBL_SBM_COOR_ADDITIONINFOEE3

Table Name : tbl_sbm_COOR_AddtioInfoEE3				
Table Description : Information of COCR submission additional information EE3				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
REA_INSPECT_DATE	Date	N	N	REA Inspect Date
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_OCCP_APPROVAL	Char(1)	N	N	Checklist OCCP Approval
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
isDECORATIVELIGHTING	Char(1)	N	N	Is Decorative Lighting

4.207 TBL_SBM_COOR_ADDITIONINFOEE3_COOR

Table Name : tbl_sbm_COOR_AddtioInfoEE3_COOR				
Table Description : Information of COCR submission additional information EE3 COCR				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID

COCR_REG_NO	Nvarchar(20)	N	N	COCR Registration Number
COCR_EXPIRY_DATE	Nvarchar(20)	N	N	COCR Expiry Date

4.208 TBL_SBM_COOR_ADDITIONINFOEE3_FOC

Table Name : tbl_sbm_COOR_AddtioInfoEE3_FOC				
Table Description : Information of COCR submission additional information EE3 FOC				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
FOC_REG_NO	Nvarchar(20)	N	N	FOC Registration Number
FOC_ISSUE_DATE	Date	N	N	FOC Issue Date
BECEdition	Nvarchar(50)	N	N	BEC Edition
isLighting	Nvarchar(50)	N	N	Is Lighting
isAirCon	Nvarchar(50)	N	N	Is Air Conditioner
isElectrical	Date	N	N	Is Electrical
isLift	Nvarchar(50)	N	N	Is Lift
isEscalator	Nvarchar(50)	N	N	Is Escalator
isDeleted	Nvarchar(50)	N	N	Is Deleted

4.209 TBL_SBM_COOR_ADDITIONINFOEE7

Table Name : tbl_sbm_COOR_AddtioInfoEE7				
Table Description : Information of COCR submission additional information EE7				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
REF_NO	Varchar(25)	N	N	Reference Number
LOC_ENAME	Nvarchar(255)	N	N	Location Eng Name
LOC_CNAME	Nvarchar(255)	N	N	Location Chi Name
LOC_FLAT	Nvarchar(50)	N	N	Location Flat
LOC_FLOOR	Nvarchar(50)	N	N	Location Floor
LOC_BLOCK	Nvarchar(50)	N	N	Location Block
LOC_DESC	Nvarchar(255)	N	N	Location Description
IS_BRC	Char(1)	N	N	Is BRC
IS_HKID	Char(1)	N	N	Is HKID
IS_LAND_REGISTER	Char(1)	N	N	Is Land Register
IS_INC_OWNER_CERT	Char(1)	N	N	Is INC Owner Certificare
IS_TENANT_AUTH	Char(1)	N	N	Is Tenant Auth

4.210 TBL_SBMEA_ADDITIONINFOEE7

Table Name : tbl_sbMEA_AddtioInfoEE7				
Table Description : Information of EA submission additional information EE7				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID

SubmissionID	Int	N	N	Submission ID
REF_NO	Varchar(25)	N	N	Reference Number
LOC_ENAME	Nvarchar(255)	N	N	Location Eng Name
LOC_CNAME	Nvarchar(255)	N	N	Location Chi Name
LOC_FLAT	Nvarchar(50)	N	N	Location Flat
LOC_FLOOR	Nvarchar(50)	N	N	Location Floor
LOC_BLOCK	Nvarchar(50)	N	N	Location Block
LOC_DESC	Nvarchar(255)	N	N	Location Description
IS_BRC	Char(1)	N	N	Is BRC
IS_HKID	Char(1)	N	N	Is HKID
IS_LAND_REGISTER	Char(1)	N	N	Is Land Register
IS_INC_OWNER_CERTIFICATE	Char(1)	N	N	Is INC Owner Certificare
IS_TENANT_AUTH	Char(1)	N	N	Is Tenant Auth

4.211 TBL_SBMFOC

Table Name : tbl_sbmFOC				
Table Description : Information of FOC submission				
Column Name	Data Type	PK	Mandatory	Column Description
SubmissionID	Int	Y	Y	Submission ID
SubmissionType	Int	N	Y	Submission Type
ReceivedDate	Date	N	N	Received Date
IssueDate	Date	N	N	Issue Date
BuildingID	Int	N	N	Building ID
BECEdition	Varchar(30)	N	N	BEC Edition
CaseNo	Nvarchar(20)	N	N	Case Number
PartyID	Int	N	N	Party ID
REARegNo	Varchar(25)	N	N	REA Registration Number
eSubmissionRef	Char(1)	N	N	eSubmission Reference
eSubmissionDate	Date	N	N	eSubmission Date
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
AckDate	Date	N	N	Acknowledge Date
ScreenBy	Nvarchar(50)	N	N	Screen By
ScreenDate	Date	N	N	Screen Date
ReviewBy	Nvarchar(50)	N	N	Review By
ReviewDate	Date	N	N	Review Date
StatusCode	Char(10)	N	Y	Status Code
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
DT_CloseFile	Date	N	N	Close File Date
LastClarifyDate	Date	N	N	Last Clarify Date
REA_INSPECT_DATE	Date	N	N	REA Inspect Date
DateExemptReceived	Date	N	N	Date Exempt Received

DateReject	Date	N	N	Date Reject
DateApproval	Date	N	N	Date Approval
ReminderletterIssueDate	Date	N	N	Reminder Letter Issue Date
IN_IssueDate	Date	N	N	IN Issue Date
IN_ExpiryDate	Date	N	N	IN Expiry Date
IN_ReferenceNo	Nvarchar(MAX)	N	N	IN Reference Number
IN_Remarks	Nvarchar(MAX)	N	N	IN Remarks
SpaceMajorType_Light	Nvarchar(MAX)	N	N	Space Major Type Light
LiftNo	Int	N	N	Lift Number
LiftPower	Number	N	N	Lift Power
EscalatorNo	Int	N	N	Escalator Number
EscalatorPower	Number	N	N	Escalator Power
isWholesaleConversion_IndustrialBldg	Char(1)	N	N	Is Wholesale Conversion Industrial Building
needDocCheck	Char(1)	N	N	Need Document Check
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
CORRES_TEL_NO	Nvarchar(20)	N	N	Corresponding Telephone Number
CORRES_EMAIL_ADD_R	Nvarchar(20)	N	N	Corresponding Email Address

4.212 TBL_SBMFOC_ADDTIONINFO

Table Name : tbl_sbmFOC_AddtioInfo				
Table Description : Information of FOC submission additional information				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
LOC_ENAME	Nvarchar(255)	N	N	Location Eng Name
LOC_CNAME	Nvarchar(255)	N	N	Location Chi Name
LOC_FLAT	Nvarchar(50)	N	N	Location Flat
LOC_FLOOR	Nvarchar(50)	N	N	Location Floor
LOC_BLOCK	Nvarchar(50)	N	N	Location Block
LOC_DESC	Nvarchar(255)	N	N	Location Description
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date

4.213 TBL_SBMFOC_ADDTIONINFOEE7

Table Name : tbl_sbmFOC_AddtInfoEE7				
Table Description : Information of FOC submission additional information EE7				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SubmissionID	Int	N	N	Submission ID
FOC_NO	Varchar(25)	N	N	FOC Number
LOC_ENAME	Nvarchar(255)	N	N	Location Eng Name
LOC_CNAME	Nvarchar(255)	N	N	Location Chi Name
LOC_FLAT	Nvarchar(50)	N	N	Location Flat
LOC_FLOOR	Nvarchar(50)	N	N	Location Floor
LOC_BLOCK	Nvarchar(50)	N	N	Location Block
LOC_DESC	Nvarchar(255)	N	N	Location Description
IS_BRC	Char(1)	N	N	Is BRC
IS_HKID	Char(1)	N	N	Is HKID
IS_LAND_REGISTER	Char(1)	N	N	Is Land Register
IS_INC_OWNER_CERTIFICATE	Char(1)	N	N	Is INC Owner Certificare
IS_TENANT_AUTH	Char(1)	N	N	Is Tenant Auth

4.214 TBL_SBMFOCMAJORWORKS

Table Name : tbl_sbmFOCMajorWorks				
Table Description : Information of FOC submission major works				
Column Name	Data Type	PK	Mandatory	Column Description
WorkID	Int	Y	Y	Work ID
WorkLocation	Nvarchar(256)	N	N	Work Location
IsCommonArea	Char(1)	N	N	Is Common Area
IsUnit	Char(1)	N	N	Is Unit
WorkArea	Number	N	N	Work Area
isLighting	Char(1)	N	N	Is Lighting
isAirCon	Char(1)	N	N	Is Air Conditioner
isElectrical	Char(1)	N	N	Is Electrical
isLift	Char(1)	N	N	Is Lift
isEscalator	Char(1)	N	N	Is Escalator
CommenceDate	Date	N	N	Commence Date
CompletionDate	Date	N	N	Completion Date
SubmissionID	Int	N	N	Submission ID
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
ChillerType	Nvarchar(MAX)	N	N	Chiller Type
ChillerCoP	Number	N	N	Chiller CoP
ChillerNo	Int	N	N	Chiller Number
ChillerCompressorType	Nvarchar(MAX)	N	N	Chiller Compressor Type

CoolingCapacity	Number	N	N	Cooling Capacity
isCBSI	Char(1)	N	N	Is CBSI
isDECORATIVELIGHTING	Char(1)	N	N	Is Decorative Lighting

4.215 TBL_SBMREA

Table Name : tbl_sbmREA				
Table Description : Information of REA submission				
Column Name	Data Type	PK	Mandatory	Column Description
SubmissionID	Int	Y	Y	Submission ID
SubmissionType	Int	N	Y	Submission Type
ReceivedDate	Date	N	N	Received Date
IssueDate	Date	N	N	Issue Date
SubjectEngineer	Nvarchar(50)	N	N	Subject Engineer
SubjectInspector	Nvarchar(50)	N	N	Subject Inspector
AckDate	Date	N	N	Acknowledge Date
ScreenBy	Nvarchar(50)	N	N	Screen By
ScreenDate	Date	N	N	Screen Date
ReviewBy	Nvarchar(50)	N	N	Review By
ReviewDate	Date	N	N	Review Date
StatusCode	Char(10)	N	Y	Status Code
CreateDate	Date	N	Y	Create Date
CreateBy	Nvarchar(50)	N	N	Create By
UpdateDate	Date	N	N	Update Date
UpdateBy	Nvarchar(50)	N	N	Update By
HandleBy	Nvarchar(50)	N	N	Handle By
DateToBSIDCI	Date	N	N	Date To BSI DCI
IssueDateDCI	Date	N	N	Issue Date DCI
LetterDateDCI	Date	N	N	Letter Date DCI
AgreeToDisTel	Char(1)	N	N	Agree To Dis Telephone Number
AgreeToDisEmail	Char(1)	N	N	Agree To Dis Email
regNo	Nvarchar(20)	N	N	Registration Number
status	Nvarchar(20)	N	N	Status
receiptDate	Date	N	N	Receipt Date
vd_mech	Char(1)	N	N	Vd Mech
vd_building	Char(1)	N	N	Vd Building
vd_environment	Char(1)	N	N	Vd Environment
vd_electrical	Char(1)	N	N	Vd Electrical
vq_rpe	Char(1)	N	N	Vq RPE
vq_hkie	Char(1)	N	N	Vq HKIE
vq_rra	Char(1)	N	N	Vq RRA
vq_others	Char(1)	N	N	Vq Others
vq_remarks	Nvarchar(200)	N	N	Vq Remarks
practicalExpA	Char(1)	N	N	Practical Experience A
practicalExpB	Char(1)	N	N	Practical Experience B

practicalExpC	Char(1)	N	N	Practical Experience C
wdDate	Date	N	N	Wd Date
wdReasonA	Char(1)	N	N	Wd Reason A
wdReasonB	Char(1)	N	N	Wd Reason B
wdRemark	Nvarchar(200)	N	N	Wd Remark
remark	Nvarchar(200)	N	N	Remark
trade	Nvarchar(10)	N	N	Trade
REAEngName	Varchar(256)	N	N	REA Eng Name
CommentDate1	Date	N	N	Comment Date 1
LetterDate	Date	N	N	Letter Date
ApplicationNo	Nvarchar(20)	N	N	Application Number
RegDateFirst	Date	N	N	Registration Date First
EXPIRY_DATE	Date	N	N	Expiry Date

4.216 TBL_SBMTYPE

Table Name : tbl_SbmType				
Table Description : Information of submission type				
Column Name	Data Type	PK	Mandatory	Column Description
SbmTypeID	Int	N	Y	Submission Type ID
EngTypeDesc	Nvarchar(50)	N	Y	Eng Type Description
ChiTypeDesc	Nvarchar(50)	N	N	Chi Type Description
SbmCategory	Varchar(10)	N	Y	Submission Category

4.217 TBL_SBMTYPE_ADDITIONALINFO

Table Name : tbl_SbmType_additionalInfo				
Table Description : Information of submission type additional information				
Column Name	Data Type	PK	Mandatory	Column Description
SbmTypeID	Int	N	Y	Submission Type ID
Parameter	Nvarchar(1000)	N	Y	Parameter
Val	Nvarchar(1000)	N	N	Value

4.218 TBL_SECURITY

Table Name : tbl_security				
Table Description : Information of security				
Column Name	Data Type	PK	Mandatory	Column Description
userid	Nvarchar(50)	N	N	User ID
funcid	Int	N	N	Function ID

4.219 TBLSEQUENCENUM

Table Name : tbl_sequenceNum				
Table Description : Information of sequence number				
Column Name	Data Type	PK	Mandatory	Column Description
sequenceName	Nchar(10)	N	N	Sequence Name

sequenceNum	Int	N	N	Sequence Number
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4.220 TBL_SUBMISSIONID_PARTY_INFO

Table Name : tbl_SubmissionID_Party_Info				
Table Description : Information of submission ID party information				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
SbmCategory	Varchar(4)	N	N	Submission Category
SubmissionID	Int	N	N	Submission ID
PartyID	Int	N	N	Party ID
RoleID	Int	N	N	Role ID

4.221 TBL_SYNC_APPLICATION_ATTACHMENT

Table Name : tbl_sync_application_attachment				
Table Description : Information of application attachment				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPNO	Nvarchar(40)	N	N	Application Number
ATTPATH	Nvarchar(256)	N	N	Attachment Path
TYPE	Nvarchar(10)	N	N	Type
REMARK	Nvarchar(1000)	N	N	Remark
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.222 TBL_SYNC_BEEO_FORMEA1

Table Name : tbl_sync_BEEO_FORMEA1				
Table Description : Information of BEEO form EA1 application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
APPLICATION_TYPE	Nvarchar(20)	N	N	Application Type
REG_NO	Nvarchar(20)	N	N	REA Registration Number
EXPIRY_DATE	Date	N	N	Expiry Date
ENG_NAME	Nvarchar(100)	N	N	English Name
CHI_NAME	Nvarchar(100)	N	N	Chinese Name
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)
DATE_OF_BIRTH	Date	N	N	Date of Birth
HKID	Nvarchar(30)	N	N	HKID
TRAVEL_DOC_NO	Nvarchar(30)	N	N	Travel Document Number
ADDR_LANG	Char(1)	N	N	Address Language
ADDR_FLAT	Nvarchar(50)	N	N	Address Flat
ADDR_FLOOR	Nvarchar(50)	N	N	Address Floor
ADDR_BLOCK	Nvarchar(50)	N	N	Address Block

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ADDR_BLG	Nvarchar(300)	N	N	Address Building
ADDR_ST	Nvarchar(300)	N	N	Address Street
ADDR_DISTRICT	Nvarchar(3)	N	N	Address District
ADDR_AREA_ID	Int	N	N	Address Area ID
COMP_NAME	Nvarchar(300)	N	N	Company Name
COMP_ADDR_LANG	Char(1)	N	N	Company Address Language
COMP_ADDR_FLAT	Nvarchar(50)	N	N	Company Address Flat
COMP_ADDR_FLOOR	Nvarchar(50)	N	N	Company Address Floor
COMP_ADDR_BLOCK	Nvarchar(50)	N	N	Company Address Block
COMP_ADDR_BLG	Nvarchar(300)	N	N	Company Address Building
COMP_ADDR_ST	Nvarchar(300)	N	N	Company Address Street
COMP_ADDR_DISTRICT	Nvarchar(3)	N	N	Company Address District
COMP_ADDR_AREA_ID	Int	N	N	Company Address Area ID
COMP_POST	Nvarchar(300)	N	N	Company Post
EMAIL_ADDR	Nvarchar(100)	N	N	Email Address
TEL_NO	Nvarchar(20)	N	N	Telephone Number
FAX_NO	Nvarchar(20)	N	N	Fax Number
OFFICE_TEL_NO	Nvarchar(20)	N	N	Office Telephone Number
QUAL_RE	Char(1)	N	N	Qualification – Registered Engineer
QUAL_RE_DATE	Date	N	N	Qualification – Registered Engineer: Date of Qualified
QUAL_RE_NO	Nvarchar(50)	N	N	Qualification – Registered Engineer: Membership Number
QUAL_RE_BSS	Char(1)	N	N	Qualification – Registered Engineer: Building Services
QUAL_RE_ELL	Char(1)	N	N	Qualification – Registered Engineer: Electrical
QUAL_RE_ENV	Char(1)	N	N	Qualification – Registered Engineer: Environmental
QUAL_RE_MCL	Char(1)	N	N	Qualification – Registered Engineer: Mechanical
QUAL_HKIE	Char(1)	N	N	Qualification – Hong Kong Institution of Engineers
QUAL_HKIE_DATE	Date	N	N	Qualification – HKIE: Date of Qualified
QUAL_HKIE_NO	Nvarchar(50)	N	N	Qualification – HKIE: Membership Number
QUAL_HKIE_BSS	Char(1)	N	N	Qualification – HKIE: Building Services
QUAL_HKIE_ELL	Char(1)	N	N	Qualification – HKIE: Electrical
QUAL_HKIE_ENV	Char(1)	N	N	Qualification – HKIE: Environmental

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QUAL_HKIE_MCL	Char(1)	N	N	Qualification – HKIE: Mechanical
QUAL_EQV	Char(1)	N	N	Qualification – Equivalent qualification recognized by HKIE
QUAL_EQV_DATE	Date	N	N	Qualification – Equivalent qualification: Date of Qualified
QUAL_EQV_NO	Nvarchar(50)	N	N	Qualification – Equivalent qualification: Membership Number
QUAL_EQV_BSS	Char(1)	N	N	Qualification – Equivalent qualification: Building Services
QUAL_EQV_ELL	Char(1)	N	N	Qualification – Equivalent qualification: Electrical
QUAL_EQV_ENV	Char(1)	N	N	Qualification – Equivalent qualification: Environmental
QUAL_EQV_MCL	Char(1)	N	N	Qualification – Equivalent qualification: Mechanical
QUAL_EQV_MEMBER_SHIP	Nvarchar(300)	N	N	Qualification – Equivalent qualification: Professional Membership
DECLARE_KNOWLEDGE	Char(1)	N	N	Declaration of having the knowledge required
DECLARE_CONVICTED_STATUS	Char(1)	N	N	Declaration of convicted status
DECLARE_HAVEBEEN_CONVICTED	Char(1)	N	N	Declaration of have been convicted or not
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of correctness of information stated
INTERVIEW_SCHEDULE	Date	N	N	Interview Schedule
INTERVIEW_LAST_EDITED_BY	Nvarchar(50)	N	N	Interview Last Edited By
QUAL_OTHER	Char(1)	N	N	Qualification – Other
QUAL_OTHER_TEXT	Nvarchar(300)	N	N	Qualification – Other: Details
CHG_NAME	Char(1)	N	N	Change Name
CHG_ADDR	Char(1)	N	N	Change Address
CHG_QUAL	Char(1)	N	N	Change Qualification
CHKLIST_EXP	Char(1)	N	N	Checklist - Experience
CHKLIST_QUAL	Char(1)	N	N	Checklist - Qualification
CHKLIST_SUBST	Char(1)	N	N	Checklist – Substantiate Document
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status

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submission_id	Int	N	N	Submission ID
ID	Int	Y	Y	ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
ADDR_START_NO	Int	N	N	Address Start Street No
ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Address Start Street Alpha
ADDR_END_NO	Int	N	N	Address End Street No
ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Address End Street Alpha
COMP_ADDR_START_NO	Int	N	N	Company Address Start Street No
COMP_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Company Address Start Street Alpha
COMP_ADDR_END_NO	Int	N	N	Company Address End Street No
COMP_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Company Address End Street Alpha
CancelReason	Nvarchar(MAX)	N	N	Cancel Reason

4.223 TBL_SYNC_BEEO_FORMEA1_EXP

Table Name : tbl_sync_BEEO_FORMEA1_EXP				
Table Description : Information of BEEO form EA1 application - experience				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
EXP_FROM	Date	N	N	Experience From Date
EXP_TO	Date	N	N	Experience To Date
POST	Nvarchar(100)	N	N	Post
COMP_NAME	Nvarchar(300)	N	N	Company Name
DESCRIPTION	Nvarchar(1000)	N	N	Description
SEQ	Int	N	N	Sequence
ORIGINAL_NAME	Nvarchar(300)	N	N	Original Name
ID	Int	Y	Y	ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.224 TBL_SYNC_BEEO_FORMEA1_SUBSTANTIATE

Table Name : tbl_sync_BEEO_FORMEA1_SUBSTANTIATE				
Table Description : Information of BEEO form EA1 application - substantiate				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number

DESCRIPTION	Nvarchar(300)	N	N	Description
SEQ	Int	N	N	Sequence
ORIGINAL_NAME	Nvarchar(300)	N	N	Original Name
ID	Int	Y	Y	ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.225 TBL_SYNC_BEEO_FORMEA2

Table Name : tbl_sync_BEEO_FORMEA2				
Table Description : Information of BEEO form EA2 application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
DUPLICATE_NO	Int	N	N	Duplicate Number
REG_NO	Nvarchar(20)	N	N	REA Registration Number
HKID	Nvarchar(30)	N	N	HKID
ENG_NAME	Nvarchar(100)	N	N	English Name
CHI_NAME	Nvarchar(100)	N	N	Chinese Name
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)
ADDR_LANG	Char(1)	N	N	Address Language
ADDR_FLAT	Nvarchar(50)	N	N	Address Flat
ADDR_FLOOR	Nvarchar(50)	N	N	Address Floor
ADDR_BLOCK	Nvarchar(50)	N	N	Address Block
ADDR_BLG	Nvarchar(300)	N	N	Address Building
ADDR_ST	Nvarchar(300)	N	N	Address Street
ADDR_DISTRICT	Nvarchar(300)	N	N	Address District
ADDR_AREA_ID	Int	N	N	Address Area ID
TEL_NO	Nvarchar(20)	N	N	Telephone Number
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID

4.226 TBL_SYNC_BEEO_FORMEA3

Table Name : tbl_sync_BEEO_FORMEA3				
Table Description : Information of BEEO form EA3 application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
APPLICATION_TYPE	Nvarchar(20)	N	N	Application Type
REG_NO	Nvarchar(20)	N	N	REA Registration Number
CHG_NAME	Char(1)	N	N	Change Name
CHG_ADDR	Char(1)	N	N	Change Address
ENG_NAME	Nvarchar(100)	N	N	English Name
CHI_NAME	Nvarchar(100)	N	N	Chinese Name
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)

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DATE_OF_BIRTH	Date	N	N	Date of Birth
HKID	Nvarchar(30)	N	N	HKID
ADDR_LANG	Char(1)	N	N	Address Language
ADDR_FLAT	Nvarchar(50)	N	N	Address Flat
ADDR_FLOOR	Nvarchar(50)	N	N	Address Floor
ADDR_BLOCK	Nvarchar(50)	N	N	Address Block
ADDR_BLG	Nvarchar(300)	N	N	Address Building
ADDR_ST	Nvarchar(300)	N	N	Address Street
ADDR_DISTRICT	Nvarchar(3)	N	N	Address District
ADDR_AREA_ID	Int	N	N	Address Area ID
COMP_NAME	Nvarchar(300)	N	N	Company Name
COMP_ADDR_SAME	Char(1)	N	N	Company Address Same
COMP_ADDR_LANG	Char(1)	N	N	Company Address Language
COMP_ADDR_FLAT	Nvarchar(50)	N	N	Company Address Flat
COMP_ADDR_FLOOR	Nvarchar(50)	N	N	Company Address Floor
COMP_ADDR_BLOCK	Nvarchar(50)	N	N	Company Address Block
COMP_ADDR_BLG	Nvarchar(300)	N	N	Company Address Building
COMP_ADDR_ST	Nvarchar(300)	N	N	Company Address Street
COMP_ADDR_DISTRICT	Nvarchar(3)	N	N	Company Address District
COMP_ADDR_AREA_ID	Int	N	N	Company Address Area ID
COMP_POST	Nvarchar(300)	N	N	Company Post
EMAIL_ADDR	Nvarchar(100)	N	N	Email Address
TEL_NO	Nvarchar(20)	N	N	Telephone Number
FAX_NO	Nvarchar(20)	N	N	Fax Number
OFFICE_TEL_NO	Nvarchar(20)	N	N	Office Telephone Number
DECLARE_CONVICTED_STATUS	Char(1)	N	N	Declaration of convicted status
DECLARE_HAVEBEE_N_CONVICTED	Char(1)	N	N	Declaration of have been convicted or not
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of correctness of information stated
NOMI_NAME	Nvarchar(100)	N	N	Nominator Name
NOMI_RANK	Nvarchar(100)	N	N	Nominator Rank
NOMI_POST	Nvarchar(300)	N	N	Nominator Post
NOMI_DEPT	Nvarchar(300)	N	N	Nominator Department
NOMI_TEL	Nvarchar(20)	N	N	Nominator Telephone Number
ID	Int	Y	Y	ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
ADDR_START_NO	Int	N	N	Address Start Street No
ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Address Start Street Alpha

ADDR_END_NO	Int	N	N	Address End Street No
ADDR_END_NO_ALP HA	Nvarchar(10)	N	N	Address End Street Alpha
COMP_ADDR_START _NO	Int	N	N	Company Address Start Street No
COMP_ADDR_START _NO_ALPHA	Nvarchar(10)	N	N	Company Address Start Street Alpha
COMP_ADDR_END_N O	Int	N	N	Company Address End Street No
COMP_ADDR_END_N O_ALPHA	Nvarchar(10)	N	N	Company Address End Street Alpha
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID
CancelReason	Nvarchar(MAX)	N	N	Cancel Reason

4.227 TBL_SYNC_BEEO_FORMEE1

Table Name : tbl_sync_BEEO_FORMEE1				
Table Description : Information of BEEO form EE1 application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Start Street Number
START_NO_ALPHA	Nvarchar(10)	N	N	Start Street Alpha
END_NO	Int	N	N	End Street Number
END_NO_ALPHA	Nvarchar(10)	N	N	End Street Alpha
ST_ENAME	Nvarchar(255)	N	N	Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Street Chi Name
DISTRICT_CD	Nvarchar(3)	N	N	District Code
AREA_CD	Int	N	N	Area Code
LOT_NO	Nvarchar(200)	N	N	Lot Number
COMP_BEC_EDITION	Nvarchar(30)	N	N	Company BEC Edition
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LAN G	Char(1)	N	N	Corresponding Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Corresponding Address Flat
CORRES_ADDR_FLO OR	Nvarchar(50)	N	N	Corresponding Address Floor

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CORRES_ADDR_BLO CK	Nvarchar(50)	N	N	Corresponding Address Block
CORRES_ADDR_BLD G	Nvarchar(255)	N	N	Corresponding Address Building
CORRES_ADDR_STAR T_NO	Int	N	N	Corresponding Address Start Street Number
CORRES_ADDR_STAR T_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address Start Street Alpha
CORRES_ADDR_END_ NO	Int	N	N	Corresponding Address End Street Number
CORRES_ADDR_END_ NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Corresponding Address Street
CORRES_ADDR_DIST RICT_CD	Nvarchar(3)	N	N	Corresponding Address District Code
CORRES_ADDR_ARE A_CD	Int	N	N	Corresponding Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Corresponding Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Corresponding Fax Number
CORRES_EMAIL_ADD R	Nvarchar(100)	N	N	Corresponding Email Address
BEC_EDITION	Nvarchar(10)	N	N	BEC Edition
REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_N O	Int	N	N	REA Address Start Street Number
REA_ADDR_START_N O_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO _ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRIC T_CD	Nvarchar(3)	N	N	REA Address District Code
REA_ADDR_AREA_C D	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number

REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
CancelReason	Nvarchar(MAX)	N	N	Cancel Reason

4.228 TBL_SYNC_BEEO_FORMEE1_EESU

Table Name : tbl_sync_BEEO_FORMEE1_EESU				
Table Description : Information of BEEO form EE1 EESU application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SEQ	Int	N	N	Sequence
PARENT_FORM	Nvarchar(20)	N	N	Parent From
BLDG_TYPE	Int	N	N	Building Type
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type Other
DATE_OF_DECLARATION_BY_REA	Date	N	N	Date of Declaration by REA
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
SUPERSEDE_PREVIOUS_FORM	Char(1)	N	N	Supersede Previous From
DATE_OF_DECLARATION_BY_REA_IN_PREVIOUS_FORM	Date	N	N	Date of Declaration by REA in Previous Form
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WORK_MAPTYPE	Char(1)	N	N	Consent Building Work Map Type
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOCUMENT_TYPE	Char(1)	N	N	Consent Document Number Type
CONSENT_DOC_NO	Nvarchar(20)	N	N	Consent Document Number
COMMENCE_DATE_TYPE	Char(1)	N	N	Commence Date Type

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COMMENCE_DATE	Nvarchar(10)	N	N	Commence Date
OCCUPATION_DATE	Nvarchar(10)	N	N	Occupation Date
CONSET_BLDG_ARE_A	Number	N	N	Consent Building Area
STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DATE	Nvarchar(10)	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
CHKLIST_OCCP_APP_ROVAL	Char(1)	N	N	Checklist OCCP Approval
DECLARE_INFO_CORRECT1	Char(1)	N	N	Declaration of Information Correct 1
DECLARE_INFO_CORRECT2	Char(1)	N	N	Declaration of Information Correct 2
DECLARE_INFO_CORRECT3	Char(1)	N	N	Declaration of Information Correct 3
DECLARE_INFO_CORRECT4	Char(1)	N	N	Declaration of Information Correct 4
DECLARE_INFO_CORRECT5	Char(1)	N	N	Declaration of Information Correct 5
ORGANIZATION_ENAME	Nvarchar(255)	N	N	Organization Eng Name
ORGANIZATION_CNAME	Nvarchar(255)	N	N	Organization Chi Name
ORGANIZATION_RES_ENAME	Nvarchar(255)	N	N	Organization Responding Person Eng Name
ORGANIZATION_RES_CNAME	Nvarchar(255)	N	N	Organization Responding Person Chi Name
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.229 TBL_SYNC_BEEO_FORMEE2

Table Name : tbl_sync_BEEO_FORMEE2				
Table Description : Information of BEEO form EE2 application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPLICATION_NO	Nvarchar(20)	N	N	Application Number

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BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Start Street Number
START_NO_ALPHA	Nvarchar(10)	N	N	Start Street Alpha
END_NO	Int	N	N	End Street Number
END_NO_ALPHA	Nvarchar(10)	N	N	End Street Alpha
ST_ENAME	Nvarchar(255)	N	N	Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Street Chi Name
DISTRICT_CD	Nvarchar(3)	N	N	District Code
AREA_CD	Int	N	N	Area Code
LOT_NO	Nvarchar(200)	N	N	Lot Number
COMP_BEC_EDITION	Nvarchar(30)	N	N	Company BEC Edition
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANG	Char(1)	N	N	Corresponding Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Corresponding Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Corresponding Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Corresponding Address Block
CORRES_ADDR_BUILDING	Nvarchar(255)	N	N	Corresponding Address Building
CORRES_ADDR_START_NO	Int	N	N	Corresponding Address Start Street Number
CORRES_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Corresponding Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Corresponding Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Corresponding Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(3)	N	N	Corresponding Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Corresponding Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Corresponding Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Corresponding Fax Number
CORRES_EMAIL_ADDRESS	Nvarchar(100)	N	N	Corresponding Email Address
INSPECT_DATE	Date	N	N	Inspect Date

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REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_NO	Int	N	N	REA Address Start Street Number
REA_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(3)	N	N	REA Address District Code
REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
CancelReason	Nvarchar(MAX)	N	N	Cancel Reason

4.230 TBL_SYNC_BEEO_FORMEE2_EESU

Table Name : tbl_sync_BEEO_FORMEE2_EESU				
Table Description : Information of BEEO form EE2 EESU application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	N	Y	ID
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SEQ	Int	N	N	Sequence
PARENT_FORM	Nvarchar(20)	N	N	Parent Form

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BLDG_TYPE	Int	N	N	Building Type
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type Other
DATE_OF_DECLARATION_BY_REA	Date	N	N	Date of Declaration by REA
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
SUPERSEDE_PREVIOUS_FORM	Char(1)	N	N	Supersede Previous From
DATE_OF_DECLARATION_BY_REA_IN_PREVIOUS_FORM	Date	N	N	Date of Declaration by REA in Previous Form
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
CONSENT_BLDG_WORK_MAPTYPE	Char(1)	N	N	Consent Building Work Map Type
CONSENT_ISSUE_DATE	Date	N	N	Consent Issue Date
CONSENT_DOC_NO	Nvarchar(20)	N	N	Consent Document Number
COMMENCE_DATE_TYPE	Char(1)	N	N	Commence Date Type
COMMENCE_DATE	Nvarchar(10)	N	N	Commence Date
OCCUPATION_DATE	Nvarchar(10)	N	N	Occupation Date
CONSET_BLDG_AREA	Number	N	N	Consent Building Area
STAGE_ONE_NO	Nvarchar(20)	N	N	Stage One Number
OCCU_APPROVAL_DATE	Nvarchar(10)	N	N	OCCU Approval Date
OCCU_APPROVAL_NO	Nvarchar(20)	N	N	OCCU Approval Number
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
CHKLIST_CONSENT	Char(1)	N	N	Checklist Consent
CHKLIST_LOC_MAP	Char(1)	N	N	Checklist Location Map
CHKLIST_OCCP_APPROVAL	Char(1)	N	N	Checklist OCCP Approval
DECLARE_INFO_CORRECT1	Char(1)	N	N	Declaration of Information Correct 1
DECLARE_INFO_CORRECT2	Char(1)	N	N	Declaration of Information Correct 2
DECLARE_INFO_CORRECT3	Char(1)	N	N	Declaration of Information Correct 3
DECLARE_INFO_CORRECT4	Char(1)	N	N	Declaration of Information Correct 4

DECLARE_INFO_CORRECT5	Char(1)	N	N	Declaration of Information Correct 5
ORGANIZATION_ENAME	Nvarchar(255)	N	N	Organization Eng Name
ORGANIZATION_CNAME	Nvarchar(255)	N	N	Organization Chi Name
ORGANIZATION_RESPERSON_ENAME	Nvarchar(255)	N	N	Organization Responding Person Eng Name
ORGANIZATION_RESPERSON_CNAME	Nvarchar(255)	N	N	Organization Responding Person Chi Name
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.231 TBL_SYNC_BEEO_FORMEE3

Table Name : tbl_sync_BEEO_FORMEE3				
Table Description : Information of BEEO form EE3 application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
category	Varchar(10)	N	N	Category
APPLICATION_NO	Varchar(20)	N	N	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(3)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
COCR_REG_NO	Nvarchar(20)	N	N	COCR Registration Number
COMP_BEC_EDITION	Nvarchar(30)	N	N	Company BEC Edition
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANGUAGE	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat

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CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BUILDING	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_ST_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_ST_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_STREET	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(3)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDRESS	Nvarchar(100)	N	N	Correspondence Email Address
BEC_EDITION	Nvarchar(10)	N	N	BEC Edition
BEC_DATE	Date	N	Y	BEC Date
REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor
REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BUILDING	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_NO	Int	N	N	REA Address Start Street Number
REA_ADDR_START_NO_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_STREET	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(3)	N	N	REA Address District Code

REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	Y	REA Expiry Date
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
status_code	Char(10)	N	N	Status Code
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
CancelReason	Nvarchar(MAX)	N	N	Cancel Reason

4.232 TBL_SYNC_BEEO_FORMEE3_EESU

Table Name : tbl_sync_BEEO_FORMEE3_EESU				
Table Description : Information of BEEO form EE3 EESU application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	N	Y	ID
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_TYPE	Int	N	N	Building Type
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type Other
DATE_OF_DECLARATION_BY_REA	Date	N	N	Date of Declaration by REA
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
SUPERSEDE_PREVIOUS_FORM	Char(1)	N	N	Supersede Previous From
DATE_OF_DECLARATION_BY_REA_IN_PREVIOUS_FORM	Date	N	N	Date of Declaration by REA in Previous Form
PARENT_FORM	Nvarchar(20)	N	Y	Parent From
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG

ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
OWNER_SIGN_DATE	Date	N	N	Owner Sign Date
REA_SIGN_DATE	Date	N	N	REA Sign Date
status_code	Char(10)	N	N	Status Code
ORGANIZATION_ENAME	Nvarchar(255)	N	N	Organization Eng Name
ORGANIZATION_CNAME	Nvarchar(255)	N	N	Organization Chi Name
ORGANIZATION_RES_ENAME	Nvarchar(255)	N	N	Organization Responding Person Eng Name
ORGANIZATION_RES_CNAME	Nvarchar(255)	N	N	Organization Responding Person Chi Name
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.233 TBL_SYNC_BEEO_FORMEE3_EESU_COOR

Table Name : tbl_sync_BEEO_FORMEE3_EESU_COOR				
Table Description : Information of BEEO form EE3 EESU COCR application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
APPLICATION_NO	Varchar(20)	N	N	Application Number
SUB_SEQ	Int	N	Y	Sub Sequence
REG_NO	Nvarchar(20)	N	N	Registration Number
EXPIRY_DATE	Date	N	N	Expiry Date
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.234 TBL_SYNC_BEEO_FORMEE3_EESU_FOC

Table Name : tbl_sync_BEEO_FORMEE3_EESU_FOC				
Table Description : Information of BEEO form EE3 EESU FOC application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
submission_id	Int	N	N	Submission ID
category	Varchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence

APPLICATION_NO	Varchar(20)	N	N	Application Number
SUB_SEQ	Int	N	Y	Sub Sequence
REF_NO	Nvarchar(20)	N	N	Reference Number
ISSUE_DATE	Date	N	N	Issue Date
BEC_EDITION	Nvarchar(20)	N	N	BEC Edition
IS_TYPE_LG	Char(1)	N	N	Is type LG
IS_TYPE_AC	Char(1)	N	N	Is type AC
IS_TYPE_EL	Char(1)	N	N	Is type EL
IS_TYPE_LE	Char(1)	N	N	Is type LE
status_code	Char(10)	N	N	Status Code
CreateBy	Nvarchar(50)	N	N	Create By
CreateDate	Date	N	N	Create Date
UpdateBy	Nvarchar(50)	N	N	Update By
UpdateDate	Date	N	N	Update Date

4.235 TBL_SYNC_BEEO_FORMEE4

Table Name : tbl_sync_BEEO_FORMEE4				
Table Description : Information of BEEO form EE4 application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPLICATION_NO	Varchar(20)	N	Y	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(3)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
IS_OWNER_COMMON_AREA	Char(1)	N	N	Is Owner Common Area
IS_OWNER_CENTRAL_BS	Char(1)	N	N	Is Owner Central BS
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPIER_UNIT	Char(1)	N	N	Is Occupier Unit
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit

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RESPON_TITLE_ID	Int	N	N	Response Person Title ID (Mr./Mrs./Miss)
RESPON_ENAME	Nvarchar(256)	N	N	Response Person Eng Name
RESPON_CNAME	Nvarchar(256)	N	N	Response Person Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANGUAGE	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BUILDING	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_STREET_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_STREET_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_STREET_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_STREET_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_STREET	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CODE	Nvarchar(3)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CODE	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDRESS	Nvarchar(100)	N	N	Correspondence Email Address
BEC_EDITION	Nvarchar(10)	N	N	BEC Edition
INSPECT_DATE	Date	N	N	Inspect Date
REA_TITLE_ID	Int	N	N	REA Title ID (Mr./Mrs./Miss)
REA_ENAME	Nvarchar(256)	N	N	REA Eng Name
REA_CNAME	Nvarchar(256)	N	N	REA Chi Name
REA_ADDR_LANG	Char(1)	N	N	REA Address Language
REA_ADDR_FLAT	Nvarchar(50)	N	N	REA Address Flat
REA_ADDR_FLOOR	Nvarchar(50)	N	N	REA Address Floor

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REA_ADDR_BLOCK	Nvarchar(50)	N	N	REA Address Block
REA_ADDR_BLDG	Nvarchar(255)	N	N	REA Address Building
REA_ADDR_START_N_O	Int	N	N	REA Address Start Street Number
REA_ADDR_START_N_O_ALPHA	Nvarchar(10)	N	N	REA Address Start Street Alpha
REA_ADDR_END_NO	Int	N	N	REA Address End Street Number
REA_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	REA Address End Street Alpha
REA_ADDR_ST	Nvarchar(255)	N	N	REA Address Street
REA_ADDR_DISTRICT_CD	Nvarchar(3)	N	N	REA Address District Code
REA_ADDR_AREA_CD	Int	N	N	REA Address Area Code
REA_TEL_NO	Nvarchar(20)	N	N	REA Telephone Number
REA_FAX_NO	Nvarchar(20)	N	N	REA Fax Number
REA_EMAIL_ADDR	Nvarchar(100)	N	N	REA Email Address
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
REA_EXPIRY_DATE	Date	N	N	REA Expiry Date
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date
CancelReason	Nvarchar(MAX)	N	N	Cancel Reason

4.236 TBL_SYNC_BEEO_FORMEE4_EESU

Table Name : tbl_sync_BEEO_FORMEE4_EESU				
Table Description : Information of BEEO form EE4 EESU application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SEQ	Int	N	N	Sequence
PARENT_FORM	Nvarchar(20)	N	N	Parent From
BLDG_TYPE	Int	N	N	Building Type
BLDG_TYPE_OTHER	Nvarchar(255)	N	N	Building Type Other
DATE_OF_DECLARATION_BY_REA	Date	N	N	Date of Declaration by REA
PREV_SUB_NO	Nvarchar(100)	N	N	Previous Sub Number
SUPERSEDE_PREVIOUS_FROM_US_FORM	Char(1)	N	N	Supersede Previous From

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DATE_OF_DECLARATION_BY_REA_IN_PREVIOUS_FORM	Date	N	N	Date of Declaration by REA in Previous Form
ENCLOSE_EEEL	Char(1)	N	N	Enclose EEEL
ENCLOSE_EELG	Char(1)	N	N	Enclose EELG
ENCLOSE_EEAC	Char(1)	N	N	Enclose EEAC
ENCLOSE_EELE	Char(1)	N	N	Enclose EELE
ENCLOSE_EEPB	Char(1)	N	N	Enclose EEPB
EXEMPT_GRANT	Char(1)	N	N	Exempt Grant
EXEMPT_REF_NO	Nvarchar(20)	N	N	Exempt Reference Number
EXEMPT_DATE	Date	N	N	Exempt Date
EXEMPT_INSTALLATIONS	Nvarchar(300)	N	N	Exempt Installations
DECLARE_INFO_CORRECT1	Char(1)	N	N	Declaration of Information Correct 1
DECLARE_INFO_CORRECT2	Char(1)	N	N	Declaration of Information Correct 2
DECLARE_INFO_CORRECT3	Char(1)	N	N	Declaration of Information Correct 3
DECLARE_INFO_CORRECT4	Char(1)	N	N	Declaration of Information Correct 4
DECLARE_INFO_CORRECT5	Char(1)	N	N	Declaration of Information Correct 5
ORGANIZATION_ENAME	Nvarchar(255)	N	N	Organization Eng Name
ORGANIZATION_CNAME	Nvarchar(255)	N	N	Organization Chi Name
ORGANIZATION_RES_ENAME	Nvarchar(255)	N	N	Organization Responding Person Eng Name
ORGANIZATION_RES_CNAME	Nvarchar(255)	N	N	Organization Responding Person Chi Name
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.237 TBL_SYNC_BEEO_FORMEE4_EESU_WORK

Table Name : tbl_sync_BEEO_FORMEE4_EESU_WORK				
Table Description : Information of BEEO form EE4 EESU work application				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SEQ	Int	N	N	Sequence
SUB_SEQ	Int	N	N	Sub Sequence
WORK_LOC	Nvarchar(1024)	N	N	Work Location
COMMON_AREA	Char(1)	N	N	Common Area
UNIT	Char(1)	N	N	Unit

WORK_AREA	Number	N	N	Work Area
IS_TYPE_LG	Char(1)	N	N	Is Type LG
IS_TYPE_AC	Char(1)	N	N	Is Type AC
IS_TYPE_EL	Char(1)	N	N	Is Type EL
IS_TYPE_LE	Char(1)	N	N	Is Type LE
COMPLETE_DATE	Date	N	N	Complete Date
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.238 TBL_SYNC_BEEO_FORMEE5

Table Name : tbl_sync_BEEO_FORMEE5				
Table Description : Information of BEEO form EE5 application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
REA_NAME	Nvarchar(256)	N	N	REA Name
REA_REG_NO	Nvarchar(20)	N	N	REA Registration Number
EA_DATE	Date	N	N	EA Date
EA_EXPIRE_DATE	Date	N	N	EA Expire Date
EUI_MJ	Nvarchar(50)	N	N	EUI MJ
EUI_KWH	Nvarchar(50)	N	N	EUI KWH
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID

4.239 TBL_SYNC_BEEO_FORMEE7

Table Name : tbl_sync_BEEO_FORMEE7				
Table Description : Information of BEEO form EE7 application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number

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CATEGORY	Nvarchar(10)	N	N	Category
COCR_NO	Varchar(25)	N	N	COCR Number
FOC_NO	Varchar(25)	N	N	FOC Number
EAF_NO	Varchar(25)	N	N	EAF Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code
AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
IS_DEVELOPER	Char(1)	N	N	Is Developer
IS_OWNER_BUILDING	Char(1)	N	N	Is Owner Building
IS_INC_OWNER	Char(1)	N	N	Is INC Owner
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPIER_UNIT	Char(1)	N	N	Is Occupier Unit
COMP_ENAME	Nvarchar(256)	N	N	Company Eng Name
COMP_CNAME	Nvarchar(256)	N	N	Company Chi Name
CONTACT_TITLE_ID	Int	N	N	Contact Person Title ID (Mr./Mrs./Miss)
CONTACT_ENAME	Nvarchar(256)	N	N	Contact Person Eng Name
CONTACT_CNAME	Nvarchar(256)	N	N	Contact Person Chi Name
CONTACT_POST	Nvarchar(256)	N	N	Contact Person Post
CORRES_ADDR_LANGUAGE	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BUILDING	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_NO	Int	N	N	Correspondence Address Start Street Number

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CORRES_ADDR_STAR_T_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADDRESS	Nvarchar(100)	N	N	Correspondence Email Address
IS_LAND_REGISTER	Char(1)	N	N	Is Land Registered
IS_INC_OWNER_CERTIFICATE	Char(1)	N	N	Is INC Owner Certificate
IS_TENANT_AUTH	Char(1)	N	N	Is Tenant Authenticate
IS_BRC	Char(1)	N	N	Is BRC
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of Information Correct
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
submission_id	Int	N	N	Submission ID

4.240 TBL_SYNC_BEEO_FORMEEET

Table Name : tbl_sync_BEEO_FORMEEET				
Table Description : Information of BEEO form EEET application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
CATEGORY	Nvarchar(10)	N	N	Category
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code

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AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
EXTENSION_DESC	Nvarchar(3000)	N	N	Extension Description
IS_DEVELOPER	Char(1)	N	N	Is Developer
IS_OWNER_BUILDING	Char(1)	N	N	Is Owner Building
IS_INC_OWNER	Char(1)	N	N	Is INC Owner
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPLIER_UNIT	Char(1)	N	N	Is Occupier Unit
APPLICANT_ENAME	N	N	N	Applicant Eng Name
APPLICANT_CNAME	N	N	N	Applicant Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANGUAGE	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BUILDING	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_ST_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_ST_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_ST_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_ST_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code
CORRES_ADDR_AREA_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number

CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADD_R	Nvarchar(100)	N	N	Correspondence Email Address
DECLARE_INFO_CORRECT	Char(1)	N	N	Declaration of Information Correct
FORMSTATUS	Int	N	N	Form Status
SEQ	Int	N	N	Sequence
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status
SUBMISSION_ID	Int	N	N	Submission ID

4.241 TBL_SYNC_BEEO_FORMEEET_DOCUMENT

Table Name : tbl_sync_BEEO_FORMEEET_DOCUMENT				
Table Description : Information of BEEO form EEET document application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Nvarchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
SUB_SEQ	Int	N	N	Sub Sequence
DOCDTAILS	Nvarchar(1000)	N	N	Document Details
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.242 TBL_SYNC_BEEO_FORMEEEX

Table Name : tbl_sync_BEEO_FORMEEEX				
Table Description : Information of BEEO form EEEEX application				
Column Name	Data Type	PK	Mandatory	Column Description
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Nvarchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
BLDG_ENAME	Nvarchar(255)	N	N	Building Eng Name
BLDG_CNAME	Nvarchar(255)	N	N	Building Chi Name
START_NO	Int	N	N	Building Street Start Number
START_NO_ALPHA	Nvarchar(10)	N	N	Building Street Start Alpha
END_NO	Int	N	N	Building Street End Number
END_NO_ALPHA	Nvarchar(10)	N	N	Building Street End Alpha
ST_ENAME	Nvarchar(255)	N	N	Building Street Eng Name
ST_CNAME	Nvarchar(255)	N	N	Building Street Chi Name
DISTRICT_CD	Nvarchar(20)	N	N	Building District Code

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AREA_CD	Int	N	N	Building Area Code
LOC_ENAME	Nvarchar(255)	N	N	LOC Eng Name
LOC_CNAME	Nvarchar(255)	N	N	LOC Chi Name
LOC_FLAT	Nvarchar(50)	N	N	LOC Flat
LOC_FLOOR	Nvarchar(50)	N	N	LOC Floor
LOC_BLOCK	Nvarchar(50)	N	N	LOC Block
LOC_DESC	Nvarchar(255)	N	N	LOC Description
IS_500	Char(1)	N	N	Is 500
IS_400A	Char(1)	N	N	Is 400A
IS_350KW	Char(1)	N	N	Is 350kW
IS_MOTOR	Char(1)	N	N	Is Motor
DECLARE_ENAME	Nvarchar(256)	N	N	Declare Eng Name
DECLARE_CNAME	Nvarchar(256)	N	N	Declare Chi Name
IS_DEVELOPER	Char(1)	N	N	Is Developer
IS_OWNER_UNIT	Char(1)	N	N	Is Owner Unit
IS_TENANT_UNIT	Char(1)	N	N	Is Tenant Unit
IS_OCCUPIER_UNIT	Char(1)	N	N	Is Occupier Unit
RESPON_TITLE_ID	Int	N	N	Response Person Title ID (Mr./Mrs./Miss)
RESPON_ENAME	Nvarchar(256)	N	N	Response Person Eng Name
RESPON_CNAME	Nvarchar(256)	N	N	Response Person Chi Name
REPRESEN_TITLE_ID	Int	N	N	Representative Title ID (Mr./Mrs./Miss)
REPRESEN_ENAME	Nvarchar(256)	N	N	Representative Eng Name
REPRESEN_CNAME	Nvarchar(256)	N	N	Representative Chi Name
REPRESEN_POST	Nvarchar(256)	N	N	Representative Post
CORRES_ADDR_LANGUAGE	Char(1)	N	N	Correspondence Address Language
CORRES_ADDR_FLAT	Nvarchar(50)	N	N	Correspondence Address Flat
CORRES_ADDR_FLOOR	Nvarchar(50)	N	N	Correspondence Address Floor
CORRES_ADDR_BLOCK	Nvarchar(50)	N	N	Correspondence Address Block
CORRES_ADDR_BUILDING	Nvarchar(255)	N	N	Correspondence Address Building
CORRES_ADDR_START_ST_NO	Int	N	N	Correspondence Address Start Street Number
CORRES_ADDR_START_ST_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address Start Street Alpha
CORRES_ADDR_END_NO	Int	N	N	Correspondence Address End Street Number
CORRES_ADDR_END_NO_ALPHA	Nvarchar(10)	N	N	Correspondence Address End Street Alpha
CORRES_ADDR_ST	Nvarchar(255)	N	N	Correspondence Address Street
CORRES_ADDR_DISTRICT_CD	Nvarchar(20)	N	N	Correspondence Address District Code

CORRES_ADDR_ARE_A_CD	Int	N	N	Correspondence Address Area Code
CORRES_TEL_NO	Nvarchar(20)	N	N	Correspondence Telephone Number
CORRES_FAX_NO	Nvarchar(20)	N	N	Correspondence Fax Number
CORRES_EMAIL_ADD_R	Nvarchar(100)	N	N	Correspondence Email Address
CORRES_SIGN_DATE	Date	N	N	Correspondence Sign Date
FORMSTATUS	Int	N	N	Form Status
FORWARDUSERID	Nvarchar(40)	N	N	Forward User ID
STATUS_CODE	Char(10)	N	N	Status Code
CREATEDATE	Date	N	N	Create Date
CREATEBY	Nvarchar(50)	N	N	Create By
UPDATEDATE	Date	N	N	Update Date
UPDATEBY	Nvarchar(50)	N	N	Update By
RECEIVE_DATE	Date	N	N	Receive Date
WBRS_STATUS	Nvarchar(20)	N	N	WBRS Status

4.243 TBL_SYNC_BEEO_FORMEEEX_DOCUMENT

Table Name : tbl_sync_BEEO_FORMEEEX_DOCUMENT				
Table Description : Information of BEEO form EEEEX document application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Nvarchar(10)	N	N	Category
SEQ	Int	N	N	Sequence
SUB_SEQ	Int	N	N	Sub Sequence
DOCDETAILS	Nvarchar(1000)	N	N	Document Details
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.244 TBL_SYNC_BEEO_FORMEEEX_EXEMPTION

Table Name : tbl_sync_BEEO_FORMEEEX_EXEMPTION				
Table Description : Information of BEEO form EEEEX exemption application				
Column Name	Data Type	PK	Mandatory	Column Description
APPLICATION_NO	Nvarchar(20)	N	N	Application Number
SUBMISSION_ID	Int	N	N	Submission ID
CATEGORY	Nvarchar(10)	N	N	Category
SEQ	Int	N	Y	Sequence
SUB_SEQ	Int	N	Y	Sub-Sequence
IS_TYPE_LG	Char(1)	N	N	Is type LG
IS_TYPE_AC	Char(1)	N	N	Is type AC

IS_TYPE_EL	Char(1)	N	N	Is type EL
IS_TYPE_LE	Char(1)	N	N	Is type LE
IS_EXEMPTION_HERITAGE	Char(1)	N	N	Is Exemption Heritage
IS_EXEMPTION_TECH	Char(1)	N	N	Is Exemption Tech
IS_EXEMPTION_OPER	Char(1)	N	N	Is Exemption Oper
DETAILS	Nvarchar(1000)	N	N	Details
BEC_EDITION	Nvarchar(20)	N	N	BEC Edition
CODE_EXEMPTION	Nvarchar(200)	N	N	Code Exemption
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.245 TBL_SYS_PARAM

Table Name : tbl_SYS_PARAM				
Table Description : Information of system parameters				
Column Name	Data Type	PK	Mandatory	Column Description
ID	Int	Y	Y	ID
NAME	Nvarchar(100)	N	Y	Name
VALUE1	Nvarchar(100)	N	N	Value 1
VALUE2	Nvarchar(100)	N	N	Value 2
VALUE3	Nvarchar(100)	N	N	Value 3
REMARK	Nvarchar(200)	N	N	Remark
STATUS	Nchar(10)	N	N	Status
CREATEBY	Nvarchar(50)	N	N	Create By
CREATEDATE	Date	N	N	Create Date
UPDATEBY	Nvarchar(50)	N	N	Update By
UPDATEDATE	Date	N	N	Update Date

4.246 TBL_TMP_BUILDING

Table Name : tbl_tmp_building				
Table Description : Information of tmp building				
Column Name	Data Type	PK	Mandatory	Column Description
Item	Number	N	N	Item
File No	Nvarchar(255)	N	N	File No
Letter Date	Date	N	N	Letter Date
English Building Name	Nvarchar(255)	N	N	English Building Name
Chinese Building Name	Nvarchar(255)	N	N	Chinese Building Name
Address (English)	Nvarchar(255)	N	N	Address (English)
District	Nvarchar(255)	N	N	District
Region	Nvarchar(255)	N	N	Region
Address (Chinese)	Nvarchar(255)	N	N	Address (Chinese)
Remarks	Nvarchar(255)	N	N	Remarks

4.247 TBL_USER

Table Name : tbl_user				
Table Description : Information of user				
Column Name	Data Type	PK	Mandatory	Column Description
userid	Nvarchar(50)	N	N	User ID
eng_name	Nvarchar(255)	N	N	Eng Name
chi_name	Nvarchar(255)	N	N	Chi Name
post	Nvarchar(50)	N	N	Post
rankID	Nvarchar(10)	N	N	Rank ID
actinguserid	Nvarchar(50)	N	N	Acting User ID
emailaddr	Nvarchar(50)	N	N	Email Address
password	Varbinary(MAX)	N	N	Password
tel	Varchar(30)	N	N	Telephone Number
TITLE_ID	Int	N	N	Title ID (Mr./Mrs./Miss)

4.248 TMP

Table Name : tmp				
Table Description : Information of tmp				
Column Name	Data Type	PK	Mandatory	Column Description
aid	Int	N	N	A ID
ecaseno	Nvarchar(50)	N	N	E Case Number
bid	Int	N	N	B ID
bname	Nvarchar(MAX)	N	N	B Name
eaid	Int	N	N	EA ID
caseno	Nvarchar(50)	N	N	Case Number

4.249 TMP_BUILDUSAGE_TRANSFORM

Table Name : TMP_buildusage_TRANSFORM				
Table Description : Information of tmp building usage transform				
Column Name	Data Type	PK	Mandatory	Column Description
EAid	Int	N	N	EA ID
buildusage	Nvarchar(256)	N	N	Build Usage
outbuildusage	Nvarchar(256)	N	N	Out Building Usage
remark	Nvarchar(256)	N	N	Remark

4.250 TMP_RPT

Table Name : tmp_rpt				
Table Description : Information of tmp report				
Column Name	Data Type	PK	Mandatory	Column Description
buildID	Int	N	N	Building ID
ExcelBuildCode	Int	N	N	Excel Building Code
buildName	Nvarchar(MAX)	N	N	Building Name
CbuildName	Nvarchar(MAX)	N	N	Chi Building Name

4.251 TMP1

Table Name : tmp1				
Table Description : Information of tmp 1				
Column Name	Data Type	PK	Mandatory	Column Description
aid	Int	N	N	A ID
caseno	Nvarchar(50)	N	N	Case Number

4.252 TMPCASENO

Table Name : tmpcaseno				
Table Description : Information of tmp case number				
Column Name	Data Type	PK	Mandatory	Column Description
caseno	Nvarchar(MAX)	N	N	Case Number

4.253 TOP500

Table Name : Top500				
Table Description : Information of top 500 records				
Column Name	Data Type	PK	Mandatory	Column Description
File No	Nvarchar(255)	N	N	File No
Building Name	Nvarchar(255)	N	N	Building Name
Address	Nvarchar(255)	N	N	Address
Geo-reference_(To be provided by ITD)	Nvarchar(255)	N	N	Geo-reference (To be provided by ITD)

4.254 WORK_ALL_BLDGPOLY`1

Table Name : WORK_ALL_BLDGPOLY`1				
Table Description : Information of work all building poly				
Column Name	Data Type	PK	Mandatory	Column Description
GEO_REF	Varchar(10)	N	N	GEO Reference
BLDG_NAME	Varchar(255)	N	N	Building Name
CBLDG_NAME	Nvarchar(255)	N	N	Chi Building Name
SHNO	Number	N	N	Start Street Number
SHNO_ALPH	Varchar(3)	N	N	Start Street Alpha
EHNO	Number	N	N	End Street Number
EHNO_ALPH	Varchar(3)	N	N	End Street Alpha
ADDR_TYPE	Varchar(1)	N	N	Address Type
ST_NAME	Varchar(255)	N	N	Street Name
CST_NAME	Nvarchar(255)	N	N	Chi Street Name
ST_CODE	Number	N	N	Street Code
SITE_CODE	Number	N	N	Site Code
SHEET_CODE	Varchar(9)	N	N	Sheet Code
SHEET_LINE_NO	Number	N	N	Sheet Line Number
FULL_SHEET_CODE	Varchar(9)	N	N	Full Sheet Code

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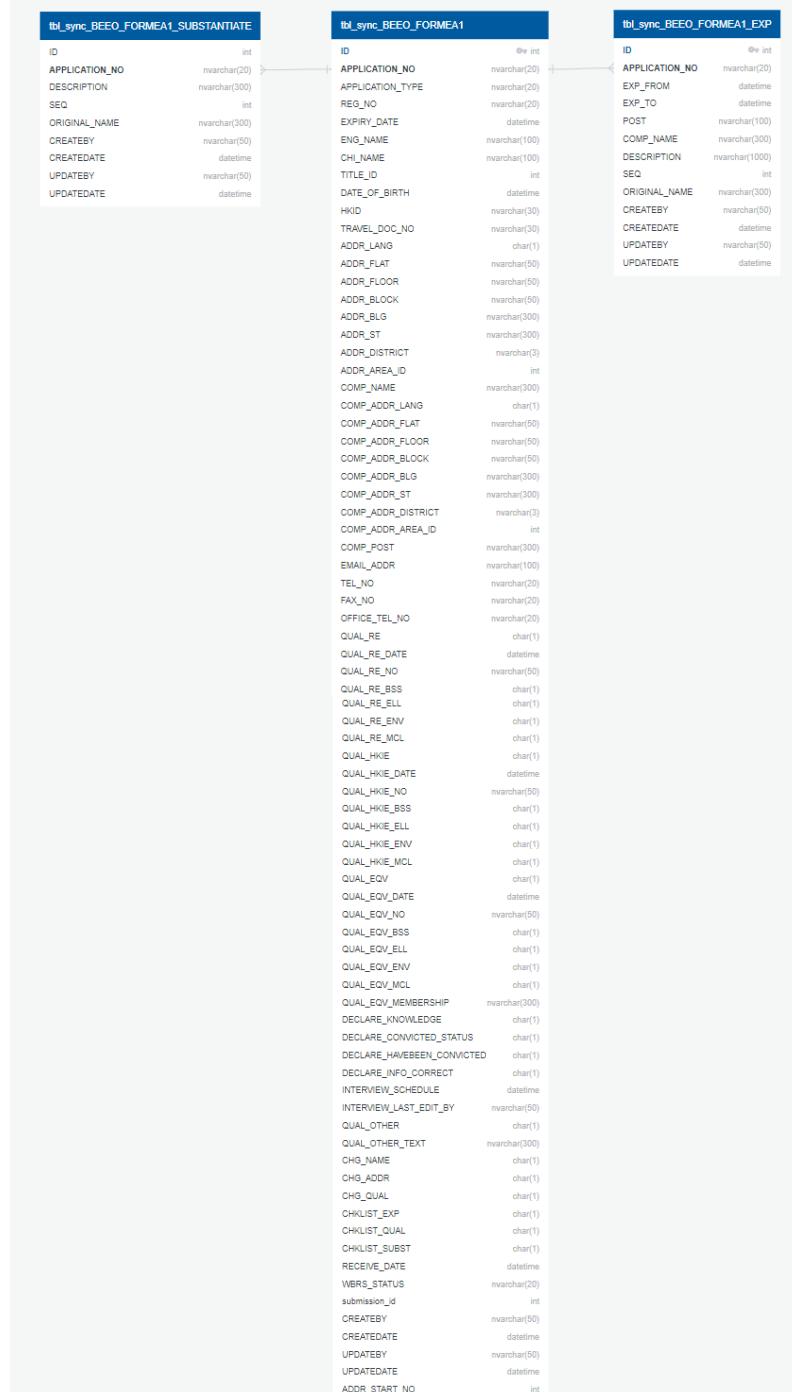
LABEL_PT_X	Varchar(21)	N	N	Label Point X
LABEL_PT_Y	Varchar(21)	N	N	Label Point Y
SUBDISTRICT	Nvarchar(20)	N	N	Sub District
DISTRICT	Nvarchar(20)	N	N	District
CLASS	Nvarchar(20)	N	N	Class
TYPE	Nvarchar(20)	N	N	Type
SUBTYPE	Nvarchar(20)	N	N	Sub Type
FLAG	Nvarchar(20)	N	N	Flag
FORMATED_SHEET_CODE	Nvarchar(20)	N	N	Formatted Sheet Code
D_LABEL_POINT_X	Number	N	N	D Label Point X
D_LABEL_POINT_Y	Number	N	N	D Label Point Y
BUILDING_ORDER	Number	N	N	Building Order
WKB_GEOMETRY	Varchar(20)	N	N	Wkb Geometry
REGION	Nvarchar(20)	N	N	Region
INCLUDE_FLAG	Nvarchar(20)	N	N	Include Flag
REC_TYPE	Nvarchar(20)	N	N	REC Type
REC_SUBTYPE	Nvarchar(20)	N	N	REC Sub Type
INDEXED	Nvarchar(20)	N	N	Indexed
BGEO_REF	Nvarchar(20)	N	N	B GEO Reference
EORS_BLDG_ID	Nvarchar(20)	N	N	EORS Building ID
IID	Number	N	Y	IID
SITE_ADDRESS	Nvarchar(255)	N	N	Site Address
SITE_NAME	Varchar(255)	N	N	Site Name
CSITE_NAME	Nvarchar(255)	N	N	Chi Site Name
P_STATUS	Nvarchar(20)	N	N	P Status
BATCH_ID	Nvarchar(20)	N	N	Batch ID
BATCH_DESCRIPTION	Nvarchar(20)	N	N	Batch Description
BATCH_DATE	Date	N	N	Batch Date
WALKED	Nvarchar(20)	N	N	Walked
ON_CLIENT_HARD_DISK	Nvarchar(20)	N	N	On Client Hard Disk
HOUSE_RANGE	Nvarchar(20)	N	N	House Range

5 ENTITY RELATIONSHIP DIAGRAM

The relationship among tables are shown in the following Entity-Relationship Diagram (ERD).

The Entity Relationship Diagram for DMS are as follows:

Form EA1 Application related tables:



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ADDR_START_NO_ALPHA	nvarchar(10)
ADDR_END_NO	int
ADDR_ENO_NO_ALPHA	nvarchar(10)
COMP_ADDR_START_NO	int
COMP_ADDR_START_NO_ALPHA	nvarchar(10)
COMP_ADDR_END_NO	int
COMP_ADDR_END_NO_ALPHA	nvarchar(10)
CancelReason	nvarchar(max)

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Form EE1 Application related tables:

tbl_sync_BEEO_FORMEE1		tbl_sync_BEEO_FORMEE1_EESU	
ID	0# int	ID	0# int
APPLICATION_NO	nvarchar(20)	APPLICATION_NO	nvarchar(20)
BLDGENAME	nvarchar(255)	SEQ	int
BLDG_CNAME	nvarchar(255)	PARENT_FORM	nvarchar(20)
START_NO	int	BLDG_TYPE	int
START_NO_ALPHA	nvarchar(10)	BLDG_TYPE_OTHER	nvarchar(255)
END_NO	int	DATE_OF_DECLARATION_BYREA	date
END_NO_ALPHA	nvarchar(10)	PREV_SUB_NO	nvarchar(100)
STENAME	nvarchar(255)	SUPERSEDE_PREVIOUS_FORM	char(1)
ST_CNAME	nvarchar(255)	DATE_OF_DECLARATION_BYREA_IN_PREVIOUS_FORM	date
DISTRICT_CD	nvarchar(3)	ENCLOSE_EEEL	char(1)
AREA_CD	int	ENCLOSE_EELG	char(1)
LOT_NO	nvarchar(200)	ENCLOSE_EEAC	char(1)
COMP_BEG_EDITION	nvarchar(30)	ENCLOSE_EELE	char(1)
COMPENAME	nvarchar(256)	ENCLOSE_EEPB	char(1)
COMP_CNAME	nvarchar(256)	CONSENT_BLDG_WORK_MAPTYPE	char(1)
REPRESEN_TITLE_ID	int	CONSENT_ISSUE_DATE	date
REPRESENENAME	nvarchar(256)	CONSENT_DOCUMENT_NO_TYPE	char(1)
REPRESEN_CNAME	nvarchar(256)	CONSENT_DOC_NO	nvarchar(20)
REPRESEN_POST	nvarchar(256)	COMMENCE_DATE_TYPE	char(1)
CORRES_ADDR_LANG	char(1)	COMMENCE_DATE	nvarchar(10)
CORRES_ADDR_FLAT	nvarchar(50)	OCCUPATION_DATE	nvarchar(10)
CORRES_ADDR_FLOOR	nvarchar(50)	CONSET_BLDG_AREA	decimal
CORRES_ADDR_BLOCK	nvarchar(50)	STAGE_ONE_NO	nvarchar(20)
CORRES_ADDR_BLDG	nvarchar(255)	OCCU_APPROVAL_DATE	nvarchar(10)
CORRES_ADDR_START_NO	int	OCCU_APPROVAL_NO	nvarchar(20)
CORRES_ADDR_START_NO_ALPHA	nvarchar(10)	EXEMPT_GRANT	char(1)
CORRES_ADDR_END_NO	int	EXEMPT_REF_NO	nvarchar(20)
CORRES_ADDR_END_NO_ALPHA	nvarchar(10)	EXEMPT_DATE	date
CORRES_ADDR_ST	nvarchar(255)	EXEMPT_INSTALLATIONS	nvarchar(300)
CORRES_ADDR_DISTRICT_CD	nvarchar(3)	CHKLIST_CONSENT	char(1)
CORRES_ADDR_AREA_CD	int	CHKLIST_LOC_MAP	char(1)
CORRES_TEL_NO	nvarchar(20)	CHKLIST_OCCP_APPROVAL	char(1)
CORRES_FAX_NO	nvarchar(20)	DECLARE_INFO_CORRECT1	char(1)
CORRES_EMAIL_ADDR	nvarchar(100)	DECLARE_INFO_CORRECT2	char(1)
BEC_EDITION	nvarchar(10)	DECLARE_INFO_CORRECT3	char(1)
REA_TITLE_ID	int	DECLARE_INFO_CORRECT4	char(1)
REAENAME	nvarchar(256)	DECLARE_INFO_CORRECT5	char(1)
REA_CNAME	nvarchar(256)	ORGANIZATIONENAME	nvarchar(255)
REAADDR_LANG	char(1)	ORGANIZATIONCNAME	nvarchar(255)
REAADDR_FLAT	nvarchar(50)	ORGANIZATIONRESENAME	nvarchar(255)
REAADDR_FLOOR	nvarchar(50)	ORGANIZATIONRES_CNAME	nvarchar(255)
REAADDR_BLOCK	nvarchar(50)	CREATEBY	nvarchar(50)
REAADDR_BLDG	nvarchar(255)	CREATEDATE	datetime
REAADDR_START_NO	int	UPDATEBY	nvarchar(50)
REAADDR_START_NO_ALPHA	nvarchar(10)	UPDATEDATE	datetime
REAADDR_END_NO	int		
REAADDR_END_NO_ALPHA	nvarchar(10)		
REAADDR_ST	nvarchar(255)		
REAADDR_DISTRICT_CD	nvarchar(3)		
REAADDR_AREA_CD	int		
REA_TEL_NO	nvarchar(20)		
REA_FAX_NO	nvarchar(20)		
REA_EMAIL_ADDR	nvarchar(100)		
REA_REG_NO	nvarchar(20)		
REA_EXPIRY_DATE	date		
FORMSTATUS	int		
SEQ	int		
FORWARDUSERID	nvarchar(40)		
RECEIVE_DATE	date		
WBRS_STATUS	nvarchar(20)		
submission_id	int		
CREATEBY	nvarchar(50)		
CREATEDATE	datetime		
UPDATEBY	nvarchar(50)		
UPDATEDATE	datetime		
CancelReason	nvarchar(max)		

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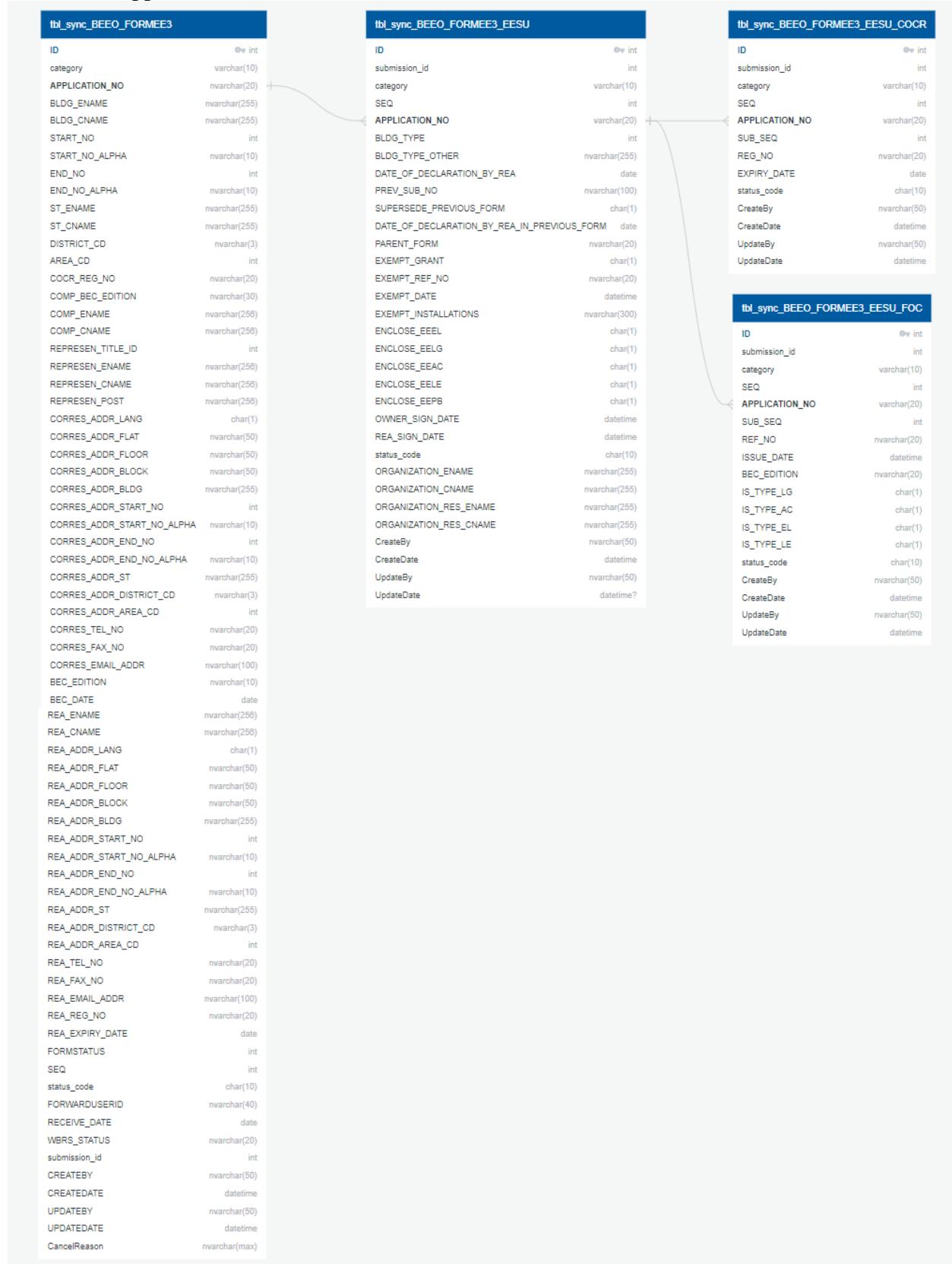
Form EE2 Application related tables:

tbl_sync_BEEO_FORMEE2		tbl_sync_BEEO_FORMEE2_EESU	
ID	0# int	ID	0# int
APPLICATION_NO	nvarchar(20)	APPLICATION_NO	nvarchar(20)
BLDGENAME	nvarchar(255)	SEQ	int
BLDG_CNAME	nvarchar(255)	PARENT_FORM	nvarchar(20)
START_NO	int	BLDG_TYPE	int
START_NO_ALPHA	nvarchar(10)	BLDG_TYPE_OTHER	nvarchar(255)
END_NO	int	DATE_OF_DECLARATION_BY_REA	date
END_NO_ALPHA	nvarchar(10)	PREV_SUB_NO	nvarchar(100)
STENAME	nvarchar(255)	SUPERSEDE_PREVIOUS_FORM	char(1)
ST_CNAME	nvarchar(255)	DATE_OF_DECLARATION_BY_REA_IN_PREVIOUS_FORM	date
DISTRICT_CD	nvarchar(3)	ENCLOSE_EEEL	char(1)
AREA_CD	int	ENCLOSE_EELG	char(1)
LOT_NO	nvarchar(200)	ENCLOSE_EEAC	char(1)
COMP_BEC_EDITION	nvarchar(30)	ENCLOSE_EELE	char(1)
COMPENAME	nvarchar(256)	ENCLOSE_EEPB	char(1)
COMP_CNAME	nvarchar(256)	CONSENT_BLDG_WORK_MAPTYPE	char(1)
REPRESNTITLE_ID	int	CONSENT_ISSUE_DATE	date
REPRESENENAME	nvarchar(256)	CONSENT_DOC_NO	nvarchar(20)
REPRESENCNAME	nvarchar(256)	COMMENCE_DATE_TYPE	char(1)
REPRESEN_POST	nvarchar(256)	COMMENCE_DATE	nvarchar(10)
CORRES_ADDR_LANG	char(1)	OCCUPATION_DATE	nvarchar(10)
CORRES_ADDR_FLAT	nvarchar(50)	CONSET_BLDG_AREA	decimal
CORRES_ADDR_FLOOR	nvarchar(50)	STAGE_ONE_NO	nvarchar(20)
CORRES_ADDR_BLOCK	nvarchar(50)	OCCU_APPROVAL_DATE	nvarchar(10)
CORRES_ADDR_BLDG	nvarchar(255)	OCCU_APPROVAL_NO	nvarchar(20)
CORRES_ADDR_START_NO	int	EXEMPT_GRANT	char(1)
CORRES_ADDR_START_NO_ALPHA	nvarchar(10)	EXEMPT_REF_NO	nvarchar(20)
CORRES_ADDR_END_NO	int	EXEMPT_DATE	date
CORRES_ADDR_END_NO_ALPHA	nvarchar(10)	EXEMPT_INSTALLATIONS	nvarchar(300)
CORRES_ADDR_ST	nvarchar(255)	CHKLIST_CONSENT	char(1)
CORRES_ADDR_DISTRICT_CD	nvarchar(3)	CHKLIST_LOC_MAP	char(1)
CORRES_ADDR_AREA_CD	int	CHKLIST_OCCP_APPROVAL	char(1)
CORRES_TEL_NO	nvarchar(20)	DECLARE_INFO_CORRECT1	char(1)
CORRES_FAX_NO	nvarchar(20)	DECLARE_INFO_CORRECT2	char(1)
CORRES_EMAIL_ADDR	nvarchar(100)	DECLARE_INFO_CORRECT3	char(1)
INSPECT_DATE	date	DECLARE_INFO_CORRECT4	char(1)
REA_TITLE_ID	int	DECLARE_INFO_CORRECT5	char(1)
REAENAME	nvarchar(256)	ORGANIZATIONENAME	nvarchar(256)
REACNAME	nvarchar(256)	ORGANIZATIONCNAME	nvarchar(255)
REAADDR_LANG	char(1)	ORGANIZATIONRESENAME	nvarchar(255)
REAADDR_FLAT	nvarchar(50)	ORGANIZATIONRES_CNAME	nvarchar(255)
REAADDR_FLOOR	nvarchar(50)	CREATEBY	nvarchar(50)
REAADDR_BLOCK	nvarchar(50)	CREATEDATE	datetime
REAADDR_BLDG	nvarchar(255)	UPDATEBY	nvarchar(50)
REAADDR_START_NO	int	UPDATEDATE	datetime?
REAADDR_START_NO_ALPHA	nvarchar(10)		
REAADDR_END_NO	int		
REAADDR_END_NO_ALPHA	nvarchar(10)		
REAADDR_ST	nvarchar(255)		
REAADDR_DISTRICT_CD	nvarchar(3)		
REAADDR_AREA_CD	int		
REA_TEL_NO	nvarchar(20)		
REA_FAX_NO	nvarchar(20)		
REA_EMAIL_ADDR	nvarchar(100)		
REA_REG_NO	nvarchar(20)		
REA_EXPIRY_DATE	date		
FORMSTATUS	int		
SEQ	int		
FORWARDUSERID	nvarchar(40)		
RECEIVE_DATE	date		
WBRS_STATUS	nvarchar(20)		
submission_id	int		
CREATEBY	nvarchar(50)		
CREATEDATE	datetime		
UPDATEBY	nvarchar(50)		
UPDATEDATE	datetime		
CancelReason	nvarchar(max)		

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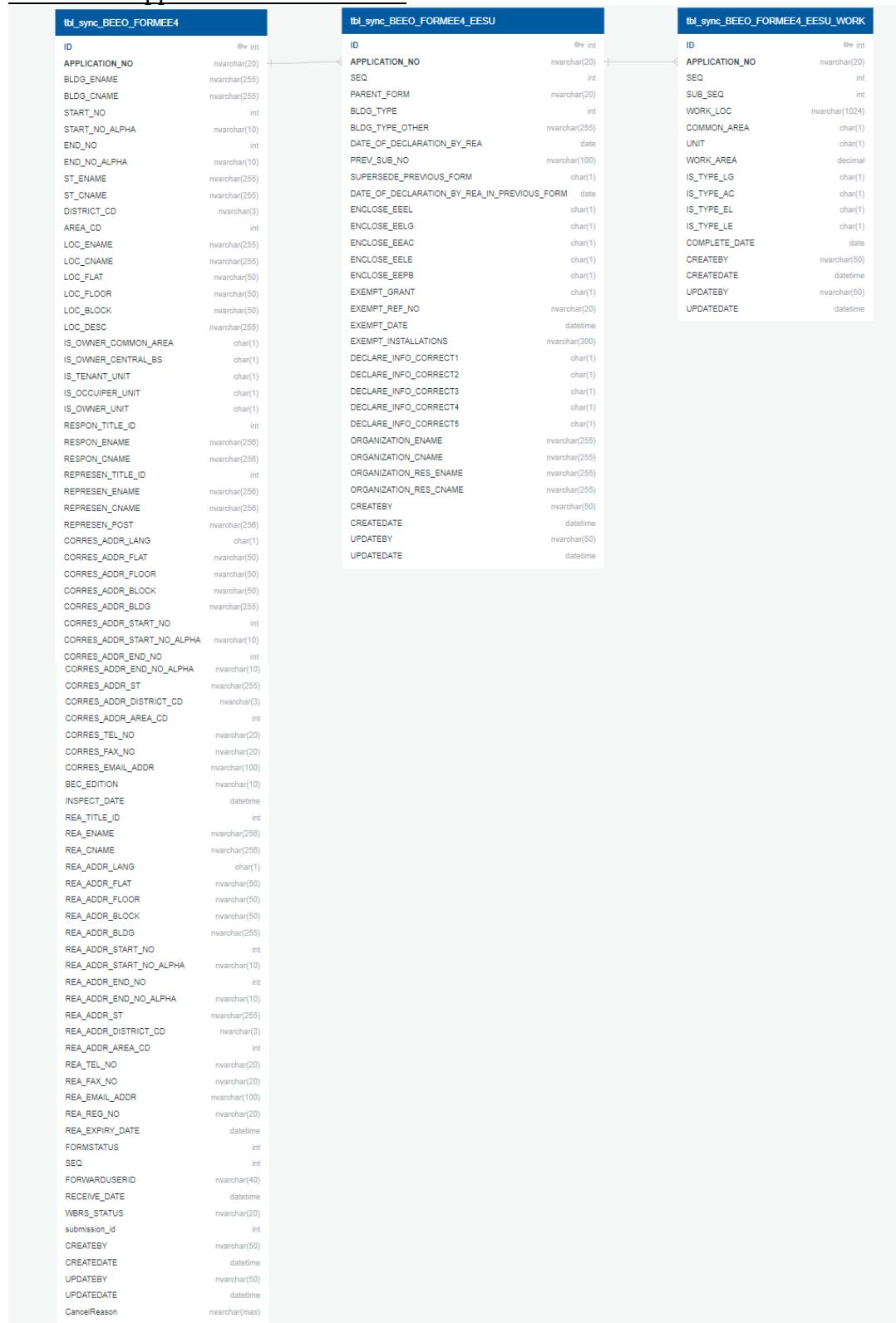
**DATA MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
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Form EE3 Application related tables:

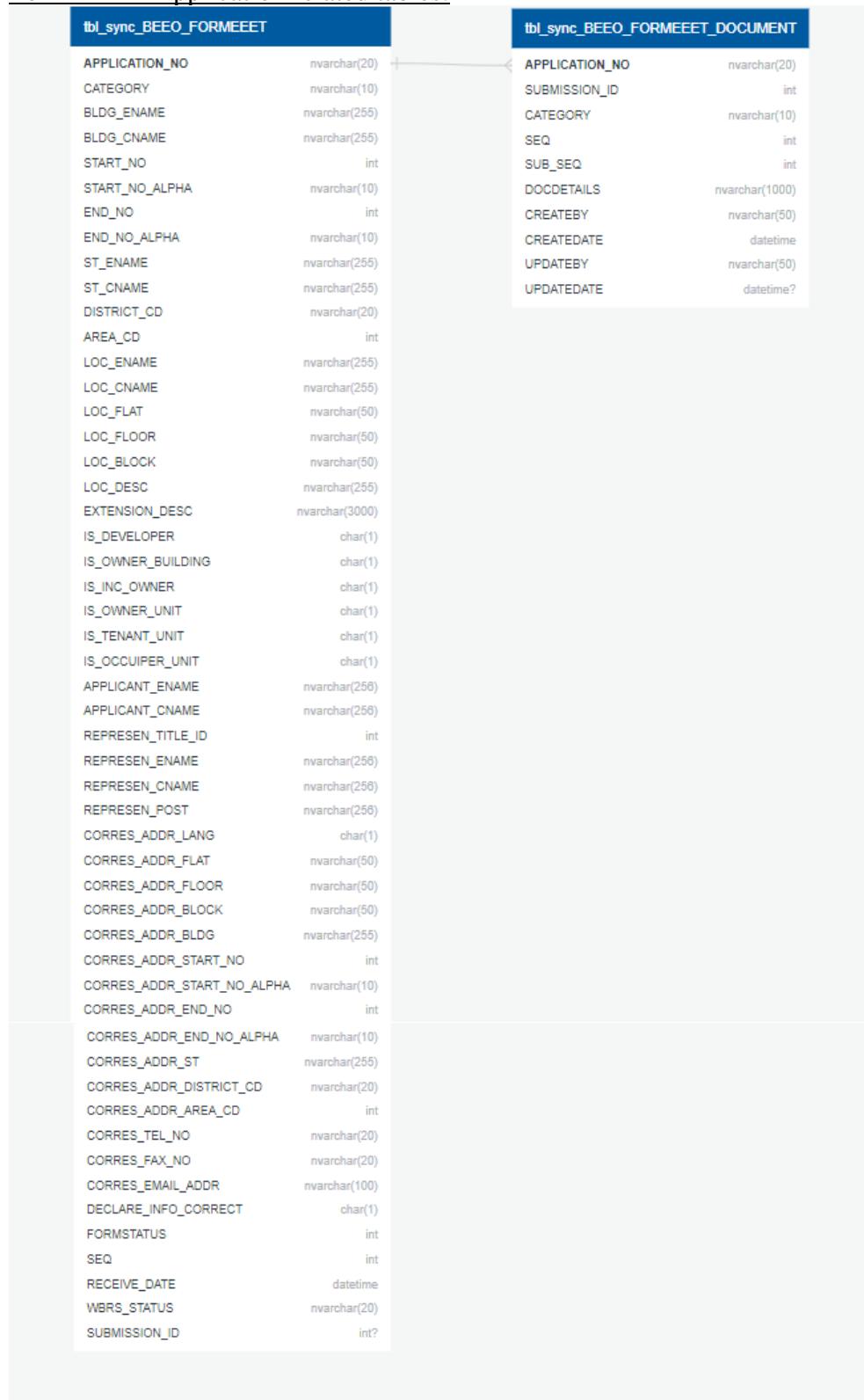


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Form EE4 Application related tables:



Form EEET Application related tables:



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Form EEEEX Application related tables:

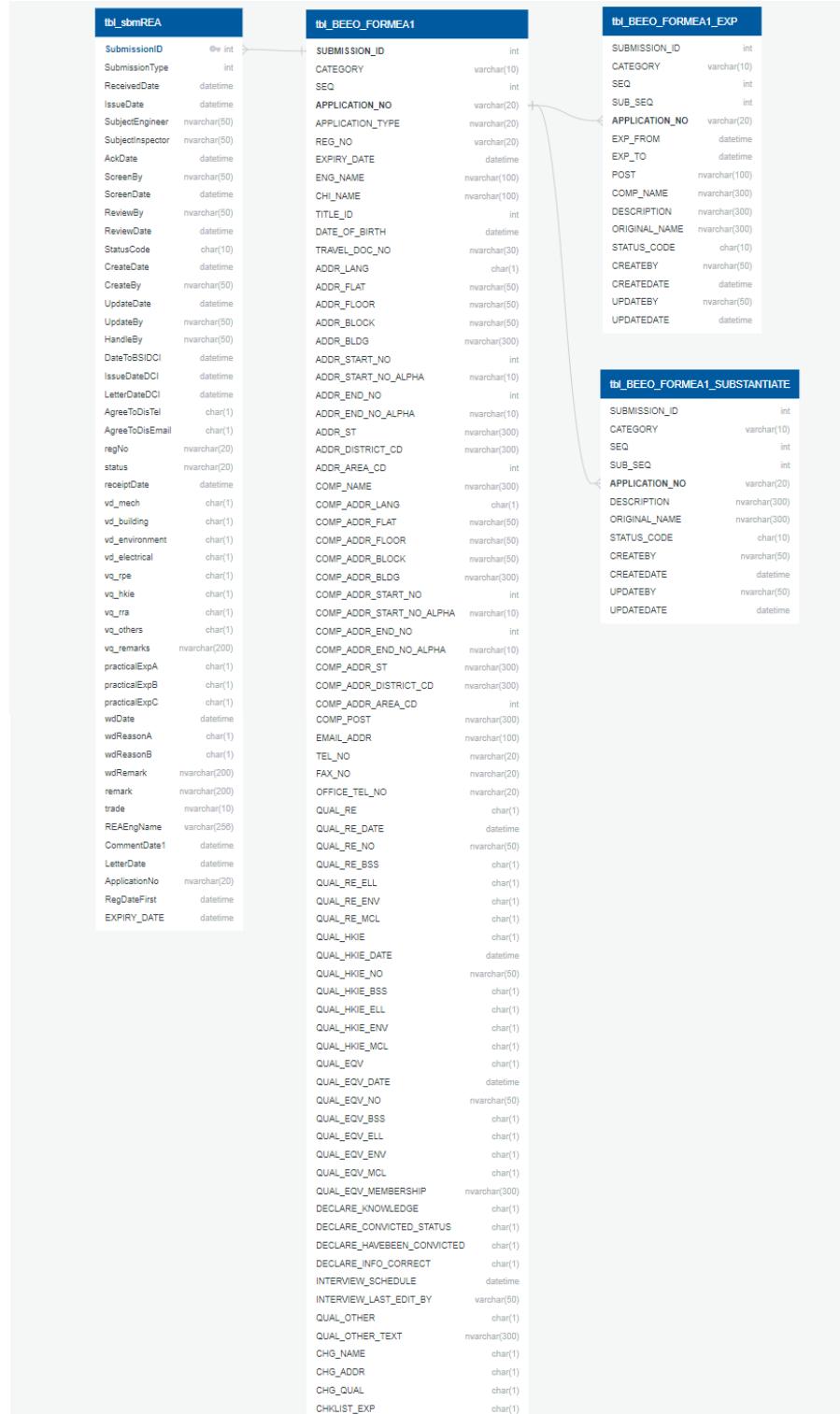
The diagram illustrates the relationship between three database tables:

- tbl_sync_BEEO_FORMEEEX**: This table contains numerous fields such as SUBMISSION_ID, CATEGORY, SEQ, APPLICATION_NO, BLDG_ENAME, BLDG_CNAME, START_NO, START_NO_ALPHA, END_NO, END_NO_ALPHA, ST_ENAME, ST_CNAME, DISTRICT_CD, AREA_CD, LOC_ENAME, LOC_CNAME, LOC_FLAT, LOC_FLOOR, LOC_BLOCK, LOC_DESC, IS_500, IS_400A, IS_350KW, IS_MOTOR, DECLARE_ENAME, DECLARE_CNAME, IS_DEVELOPER, IS_OWNER_UNIT, IS_TENANT_UNIT, IS_OCCUPIER_UNIT, RESPON_TITLE_ID, RESPON_ENAME, RESPON_CNAME, REPRESN_TITLE_ID, REPRESN_ENAME, REPRESN_CNAME, REPRESN_POST, CORRES_ADDR_LANG, CORRES_ADDR_FLAT, CORRES_ADDR_FLOOR, CORRES_ADDR_BLOCK, CORRES_ADDR_BLDG, CORRES_ADDR_START_NO, CORRES_ADDR_START_NO_ALPHA, CORRES_ADDR_END_NO, CORRES_ADDR_END_NO_ALPHA, CORRES_ADDR_ST, CORRES_ADDR_DISTRICT_CD, CORRES_ADDR_AREA_CD, CORRES_TEL_NO, CORRES_FAX_NO, CORRES_EMAIL_ADDR, CORRES_SIGN_DATE, FORMSTATUS, FORWARDUSERID, STATUS_CODE, CREATEDATE, CREATEBY, UPDATEDATE, UPDATEBY, RECEIVE_DATE, and WBRS_STATUS.
- tbl_sync_BEEO_FORMEEEX_DOCUMENT**: This table contains fields such as APPLICATION_NO, SUBMISSION_ID, CATEGORY, SEQ, SUB_SEQ, DOCDETAILS, CREATEBY, CREATEDATE, UPDATEBY, and UPDATEDATE.
- tbl_sync_BEEO_FORMEEEX_EXEMPTION**: This table contains fields such as APPLICATION_NO, SUBMISSION_ID, CATEGORY, SEQ, SUB_SEQ, IS_TYPE_LG, IS_TYPE_AC, IS_TYPE_EL, IS_TYPE_LE, IS_EXEMPTION_HERITAGE, IS_EXEMPTION_TECH, IS_EXEMPTION_OPER, DETAILS, BEC_EDITION, CODE_EXEMPTION, CREATEBY, CREATEDATE, UPDATEBY, and UPDATEDATE.

A primary key constraint is defined on the combination of APPLICATION_NO and SUBMISSION_ID across both the first two tables. A foreign key constraint is defined on the APPLICATION_NO field of the third table, pointing to the APPLICATION_NO field of the second table.

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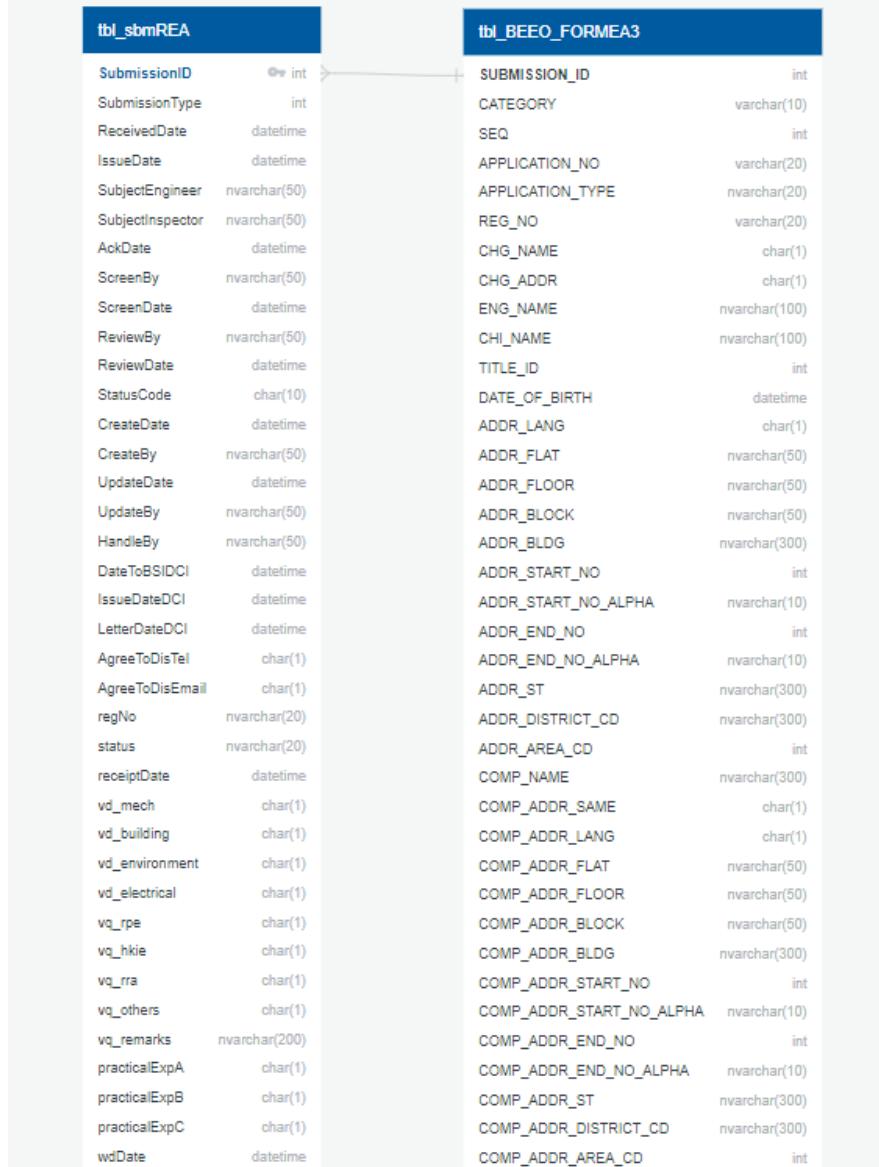
Form EA1 Case related tables:



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CHKLST_QUAL	char(1)
CHKLST_SUBST	char(1)
SIGN_DATE	datetime
STATUS_CODE	char(10)
FORMSTATUS	int
CREATEBY	nvarchar(50)
CREATEDATE	datetime
UPDATEBY	nvarchar(50)
UPDATEDATE	datetime
substantiate_desc	nvarchar(200)
HKID	varbinary(max)?

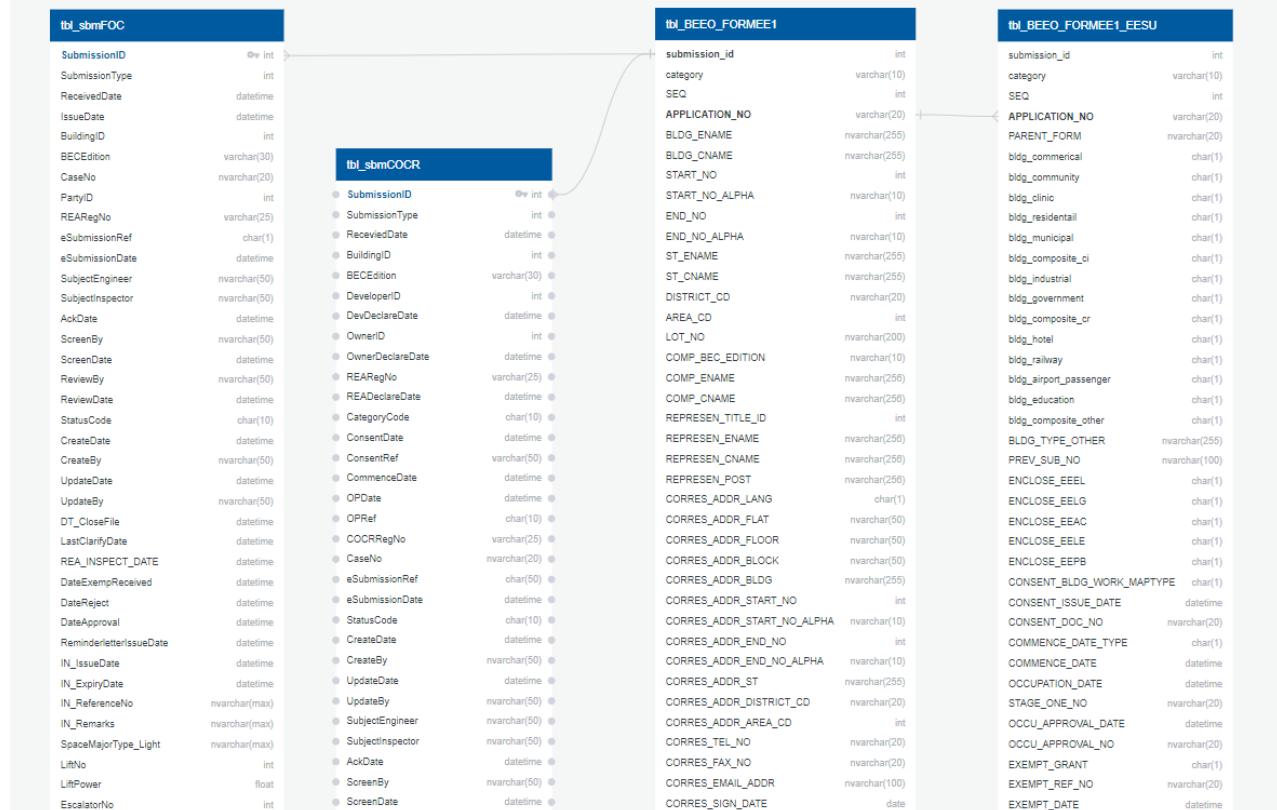
Form EA3 Case related tables:



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wdReasonA	char(1)	COMP_POST	nvarchar(300)
wdReasonB	char(1)	EMAIL_ADDR	nvarchar(100)
wdRemark	nvarchar(200)	TEL_NO	nvarchar(20)
remark	nvarchar(200)	FAX_NO	nvarchar(20)
trade	nvarchar(10)	OFFICE_TEL_NO	nvarchar(20)
REAEEngName	varchar(256)	DECLARE_CONVICTED_STATUS	char(1)
CommentDate1	datetime	DECLARE_HAVEBEEN_CONVICTED	char(1)
LetterDate	datetime	DECLARE_INFO_CORRECT	char(1)
ApplicationNo	nvarchar(20)	NOMI_NAME	nvarchar(100)
RegDateFirst	datetime	NOMI_RANK	nvarchar(100)
EXPIRY_DATE	datetime	NOMI_POST	nvarchar(300)
		NOMI_DEPT	nvarchar(300)
		NOMI_TEL	nvarchar(20)
		SIGN_DATE	datetime
		FORMSTATUS	int
		STATUS_CODE	char(10)
		CREATEBY	nvarchar(50)
		CREATEDATE	datetime
		UPDATEBY	nvarchar(50)
		UPDATEDATE	datetime
		HKID	varbinary(max)
		EXPIRY_DATE	datetime

Form EE1 Case related tables:

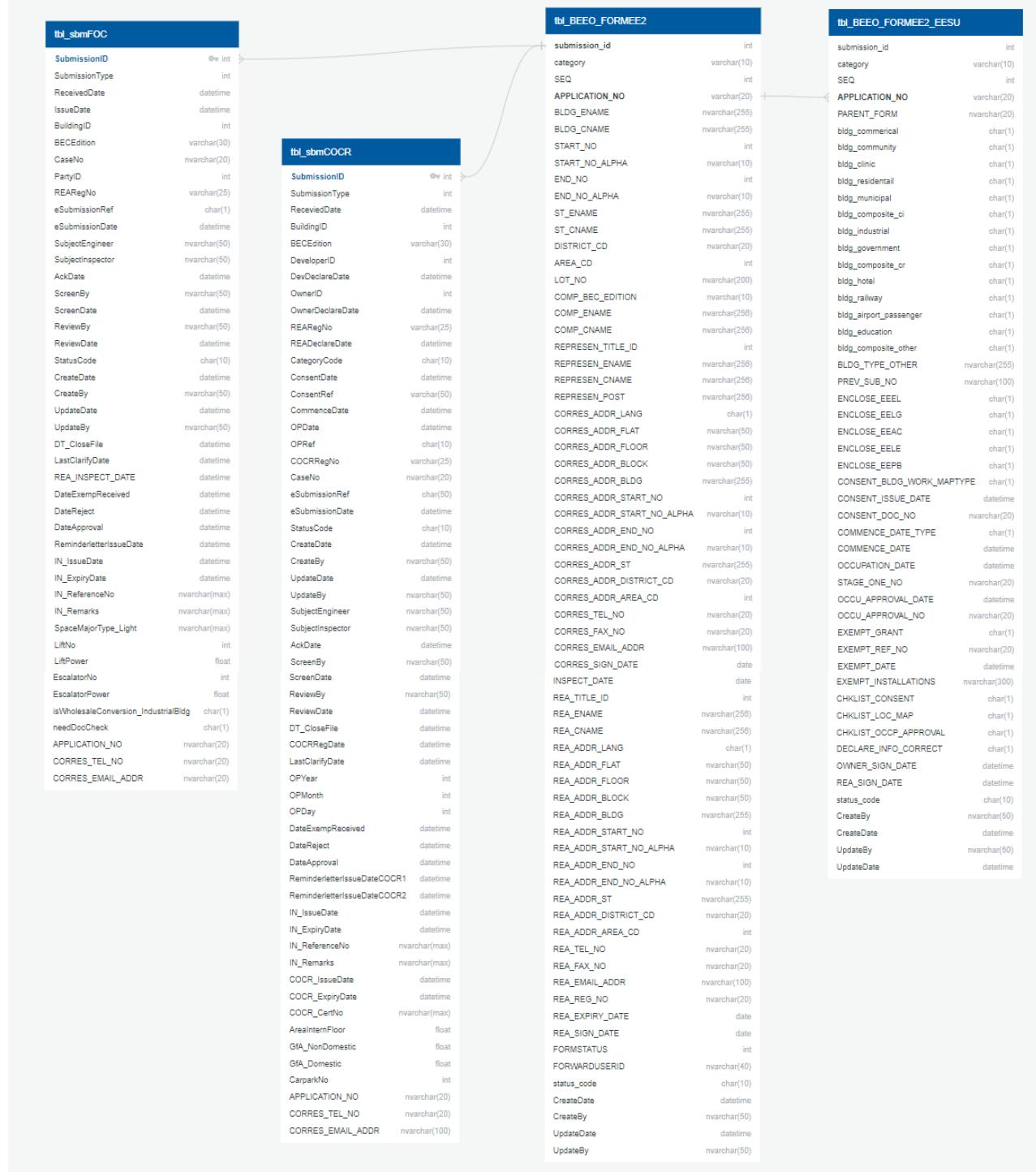


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EscalatorPower	float	ReviewBy	nvarchar(50)	BE_C_EDITION	nvarchar(10)	EXEMPT_INSTALLATIONS	nvarchar(300)
isWholesaleConversion_IndustrialBldg	char(1)	ReviewDate	datetime	REA_TITLE_ID	int	CHKLIST_CONSENT	char(1)
needDocCheck	char(1)	DT_CloseFile	datetime	REA_E_NAME	nvarchar(256)	CHKLIST_LOC_MAP	char(1)
APPLICATION_NO	nvarchar(20)	COCRRegDate	datetime	REA_CNAME	nvarchar(256)	CHKLIST_OCCP_APPROVAL	char(1)
CORRES_TEL_NO	nvarchar(20)	LastClarifyDate	datetime	REA_ADDR_LANG	char(1)	DECLARE_INFO_CORRECT	char(1)
CORRES_EMAIL_ADDR	nvarchar(20)	OPYear	int	REA_ADDR_FLAT	nvarchar(50)	OWNER_SIGN_DATE	datetime
		OPMonth	int	REA_ADDR_FLOOR	nvarchar(50)	REA_SIGN_DATE	datetime
		OPDay	int	REA_ADDR_BLOCK	nvarchar(50)	status_code	char(10)
		DateExemptReceived	datetime	REA_ADDR_BLDG	nvarchar(256)	CreateBy	nvarchar(50)
		DateReject	datetime	REA_ADDR_START_NO	int	CreateDate	datetime
		DateApproval	datetime	REA_ADDR_START_NO_ALPHA	nvarchar(10)	UpdateBy	nvarchar(50)
		ReminderLetterIssueDateCOCR1	datetime	REA_ADDR_END_NO	int	UpdateDate	datetime
		ReminderLetterIssueDateCOCR2	datetime	REA_ADDR_END_NO_ALPHA	nvarchar(10)		
		IN_IssueDate	datetime	REA_ADDR_ST	nvarchar(255)		
		IN_ExpiryDate	datetime	REA_ADDR_DISTRICT_CD	nvarchar(20)		
		IN_ReferenceNo	nvarchar(max)	REA_ADDR_AREA_CD	int		
		IN_Remarks	nvarchar(max)	REA_TEL_NO	nvarchar(20)		
		COCR_IssueDate	datetime	REA_FAX_NO	nvarchar(20)		
		COCR_ExpiryDate	datetime	REA_EMAIL_ADDR	nvarchar(100)		
		COCR_CertNo	nvarchar(max)	REA_REG_NO	nvarchar(20)		
		AreaInteriorFloor	float	REA_EXPIRY_DATE	date		
		GIA_NonDomestic	float	REA_SIGN_DATE	date		
		GIA_Domestic	float	FORMSTATUS	int		
		CarparkNo	int	FORWARDUSERID	nvarchar(40)		
		APPLICATION_NO	nvarchar(20)	CreateDate	datetime		
		CORRES_TEL_NO	nvarchar(20)	CreateBy	nvarchar(50)		
		CORRES_EMAIL_ADDR	nvarchar(100)	UpdateDate	datetime		
				UpdateBy	nvarchar(50)		
				status_code	char(10)		

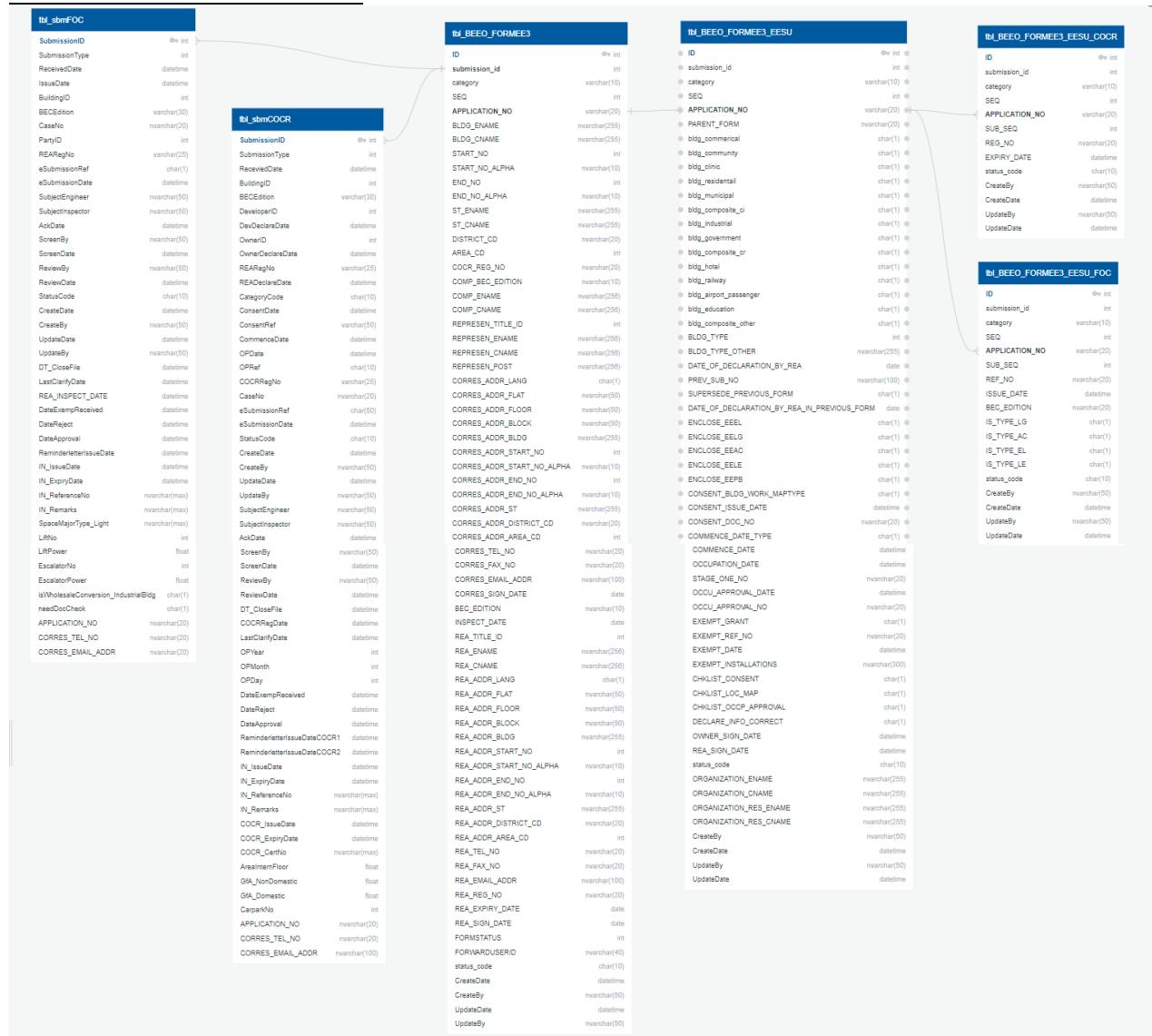
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Form EE2 Case related tables:



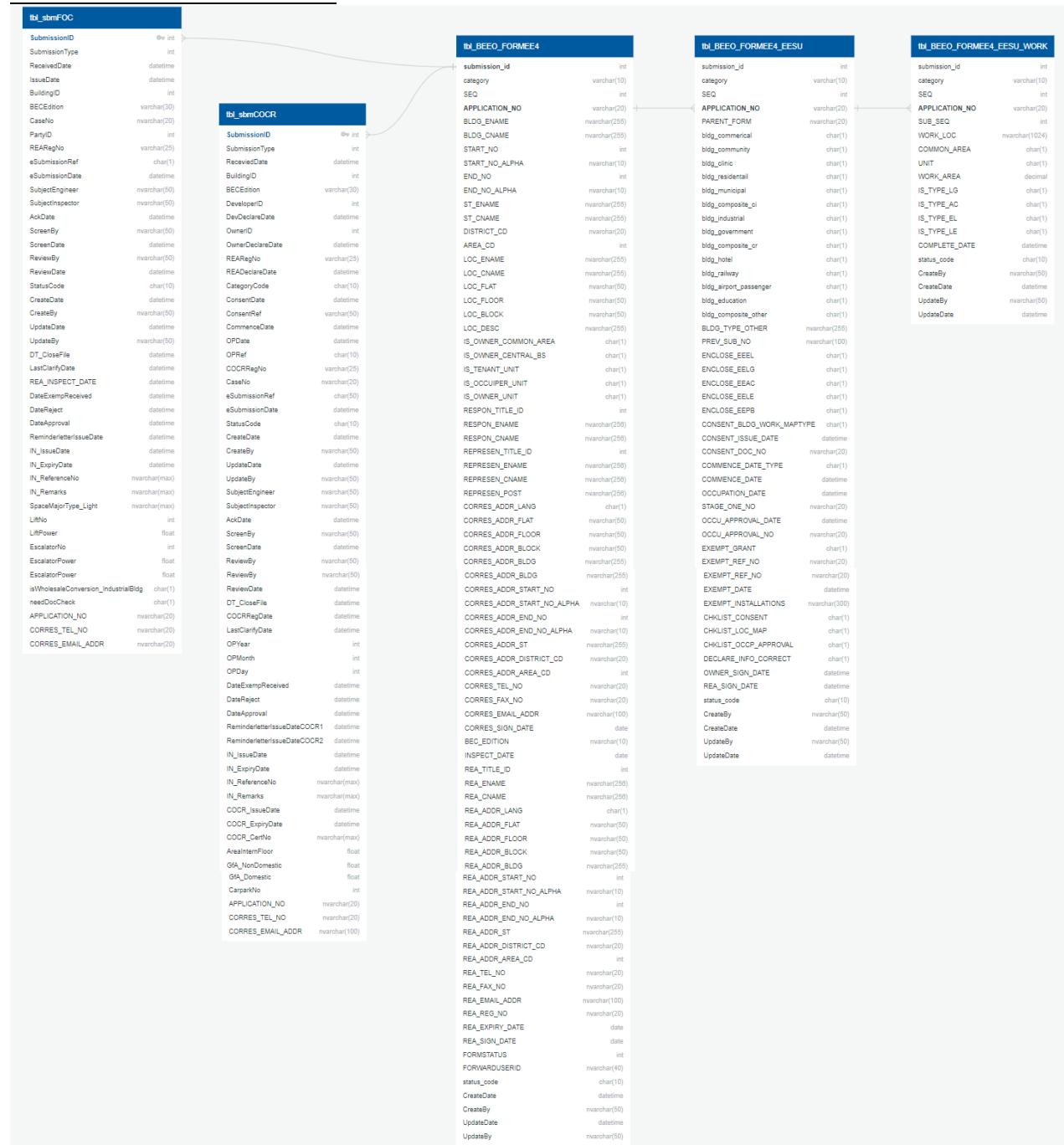
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Form EE3 Case related tables:



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Form EE4 Case related tables:



Registered REA related tables:

tbl_sbREA		tbl_REGRegister	
SubmissionID	int	REARegNo	varchar(25)
SubmissionType	int	EngName	varchar(256)
ReceivedDate	datetime	ChiName	nvarchar(256)
IssueDate	datetime	RegDate	datetime
SubjectEngineer	nvarchar(50)	ExpiryDate	datetime
SubjectInspector	nvarchar(50)	ContactTel	varchar(50)
AckDate	datetime	EmailAddr	nvarchar(256)
ScreenBy	nvarchar(50)	EngRemarks	nvarchar(256)
ScreenDate	datetime	ChiRemarks	nvarchar(256)
ReviewBy	nvarchar(50)	Status	int
ReviewDate	datetime	DisplayEmail	char(1)
StatusCode	char(10)	DisplayContact	char(1)
CreateDate	datetime	EmailAddrNotify	nvarchar(256)
CreateBy	nvarchar(50)	CreateDate	datetime
UpdateDate	datetime	CreateBy	nvarchar(50)
UpdateBy	nvarchar(50)	UpdateDate	datetime
HandleBy	nvarchar(50)	UpdateBy	nvarchar(50)
DateToBSIDCI	datetime	CaseNo	nvarchar(50)
IssueDateDCI	datetime	RegDateFirst	datetime
LetterDateDCI	datetime	ExpiryDateFirst	datetime
AgreeToDisTel	char(1)	TITLE_ID	int
AgreeToDisEmail	char(1)	DATE_OF_BIRTH	datetime
regNo	nvarchar(20)	ADDR_ST	nvarchar(300)
status	nvarchar(20)	COMP_NAME	nvarchar(300)
receiptDate	datetime	COMP_ADDR_ST	nvarchar(300)
vd_mech	char(1)	COMP_POST	nvarchar(300)
vd_building	char(1)	OFFICE_TEL_NO	nvarchar(50)
vd_environment	char(1)	FAX_NO	nvarchar(50)
vd_electrical	char(1)	HKID	varbinary(max)
vq_rpe	char(1)		
vq_hkie	char(1)		
vq_rra	char(1)		
vq_others	char(1)		
vq_remarks	nvarchar(200)		
practicalExpA	char(1)		
practicalExpB	char(1)		
practicalExpC	char(1)		
wdDate	datetime		
wdReasonA	char(1)		
wdReasonB	char(1)		
wdRemark	nvarchar(200)		
remark	nvarchar(200)		
trade	nvarchar(10)		
REAEngName	varchar(256)		
CommentDate1	datetime		
LetterDate	datetime		
ApplicationNo	nvarchar(20)		
RegDateFirst	datetime		
EXPIRY_DATE	datetime		

Registered COCR related tables:

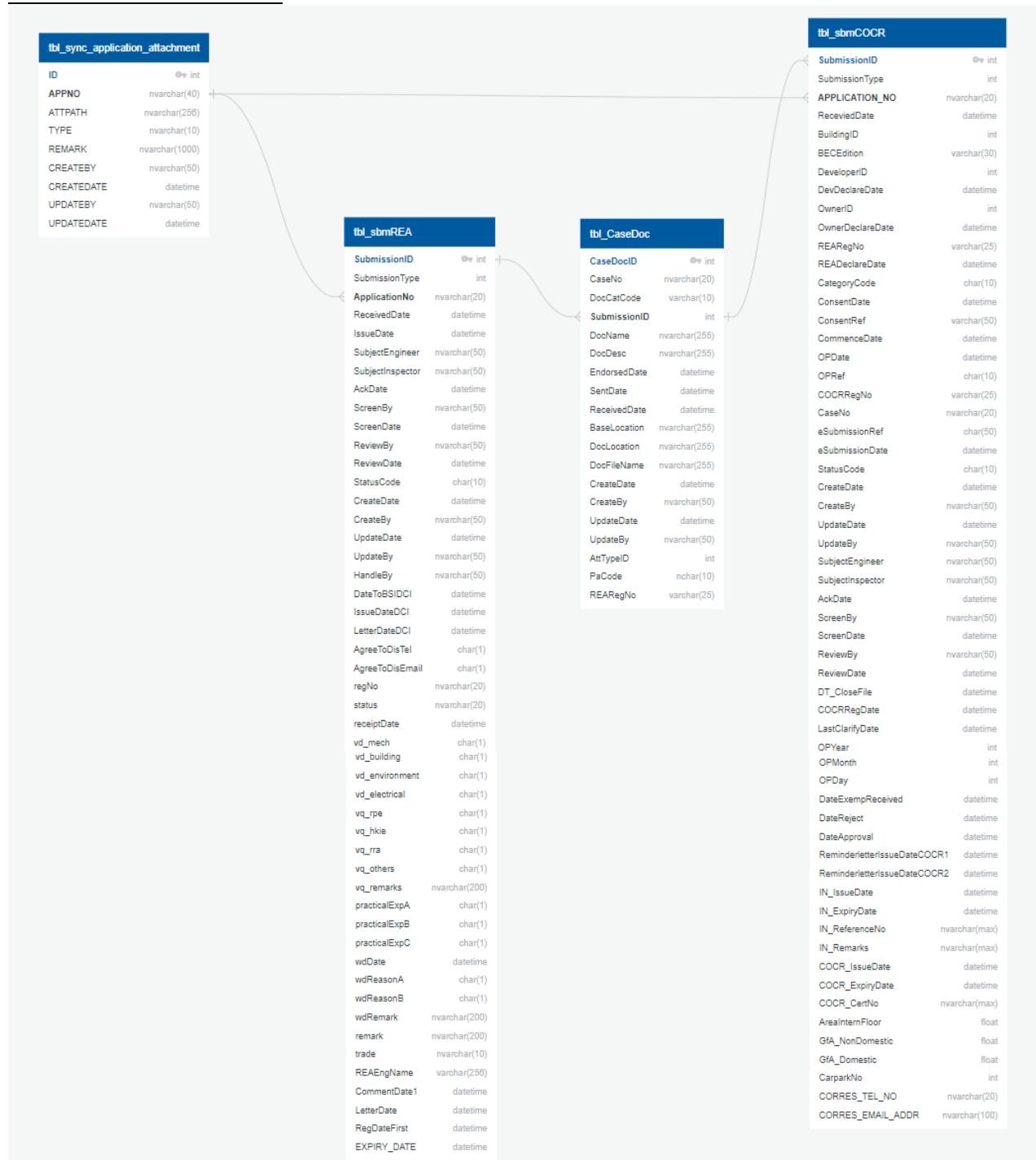
tbl_sbmcocr		tbl_COCR_register	
SubmissionID	@@ int	ID	@@ int
SubmissionType	int	SubmissionID	int
ReceivedDate	datetime	COCRNO	nvarchar(max)
BuildingID	int	issuedate	datetime
BECEdition	varchar(30)	expiredate	datetime
DeveloperID	int	BECEdition	varchar(30)
DevDeclareDate	datetime	CaseNo	nvarchar(20)
OwnerID	int	SubjectEngineer	nvarchar(50)
OwnerDeclareDate	datetime	REARRegNo	varchar(25)
REARRegNo	varchar(25)	CreateDate	datetime
READeclareDate	datetime	CreateBy	nvarchar(50)
CategoryCode	char(10)	UpdateDate	datetime
ConsentDate	datetime	UpdateBy	nvarchar(50)
ConsentRef	varchar(50)	Status	int
CommenceDate	datetime	BuildingID	varchar(50)
OPDate	datetime		
OPRef	char(10)		
COCRRegNo	varchar(25)		
CaseNo	nvarchar(20)		
eSubmissionRef	char(50)		
eSubmissionDate	datetime		
StatusCode	char(10)		
CreateDate	datetime		
CreateBy	nvarchar(50)		
UpdateDate	datetime		
UpdateBy	nvarchar(50)		
SubjectEngineer	nvarchar(50)		
SubjectInspector	nvarchar(50)		
AckDate	datetime		
ScreenBy	nvarchar(50)		
ScreenDate	datetime		
ReviewBy	nvarchar(50)		
ReviewDate	datetime		
DT_CloseFile	datetime		
COCRRegDate	datetime		
LastClarifyDate	datetime		
OPYear	int		
OPMonth	int		

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OPDay	int
DateExempReceived	datetime
DateReject	datetime
DateApproval	datetime
ReminderletterIssueDateCOCR1	datetime
ReminderletterIssueDateCOCR2	datetime
IN_IssueDate	datetime
IN_ExpiryDate	datetime
IN_ReferenceNo	nvarchar(max)
IN_Remarks	nvarchar(max)
COCR_IssueDate	datetime
COCR_ExpiryDate	datetime
COCR_CertNo	nvarchar(max)
ArealInternFloor	float
GfA_NonDomestic	float
GfA_Domestic	float
CarparkNo	int
APPLICATION_NO	nvarchar(20)
CORRES_TEL_NO	nvarchar(20)
CORRES_EMAIL_ADDR	nvarchar(100)

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Attachment related tables:



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6 STORED PROCEDURES/FUNCTION/VIEW

6.1 STORED PROCEDURES

Item No.	Stored Procedure
1.	BatchRDC
2.	BatchRDC_GenINSP
3.	CALLWEBSERVICE
4.	ChkReseedAfterImport
5.	clearAllData
6.	clone_building
7.	Copy_COCR_detail
8.	Copy_FOC_detail
9.	Correct_BEC
10.	deleteCheckListTemplate
11.	EXECSQL
12.	GenCaseNum
13.	GenREACaseNum
14.	GenSequenceNo
15.	GET_CNT
16.	GET_lettle_EnergyAudit
17.	GETBLIDENTITY
18.	GETBLDINFO_CNT
19.	GETINBOX
20.	GETINBOX_N_WORKLOC
21.	GETSEARCHVIEW
22.	getView
23.	getViewBySql
24.	getViewBySql_cnt
25.	GETVWSEARCHCASE
26.	GETVWSEARCHCASE_N_BLDG
27.	LetterReGeneration
28.	setActingUser
29.	SetBringUpAsRead
30.	SetCaseNoAndMaster
31.	sp_GetGlobalVariableValue
32.	SP_IL_IMPORT_APP_CREATE
33.	SP_IL_IMPORT_APP_UPDATE
34.	SP_IL_IMPORT_APP_VIEW
35.	sp_SetGlobalVariableValue
36.	sp_UpdateLetterError
37.	StopLetterGeneration
38.	SYNC_WBRS_FORMEA1
39.	TransferFocAckLetter
40.	UpdateBringUp_PendingToEffective
41.	UpdateGenLetterBatchJobStatusCode

42.	UpdateLabelContent
43.	UpdateLastRun_BringUpConfig

6.2 FUNCTION

Item No.	Function Name
1.	DateRange
2.	fn_letter_ImprovementNotice_getBP
3.	chi_address
4.	chi_address2
5.	chi_addressWithFlatNo
6.	ConcatWorkLoaction
7.	Decrypt
8.	EnclFormNum
9.	Encrypt
10.	eng_address
11.	eng_address2
12.	eng_address3
13.	eng_addressWithFlatNo
14.	fnFormatDate
15.	fnMoneyToChiMoney
16.	fnNumToChiBigNum
17.	fnNumToChiNum
18.	formOPDATEstr
19.	genFocInstallTypeDesc
20.	genFocLoc
21.	genInspLoc
22.	GenReferralNo
23.	getIsNeedDocCheck
24.	getRDCBatchDate
25.	getRDCBatchID
26.	getREAName
27.	getREAName_from_REAForm
28.	getREANO
29.	getStreetNo
30.	InitCap
31.	isGov_Bldg
32.	isWorkInstallation
33.	REAAddress
34.	REAbecoCount
35.	REACoAddress
36.	REACoName
37.	REAName
38.	REANameChi
39.	REATitle
40.	UDF_ParseNumericChars

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6.3 VIEW

Item No.	View Name
1.	Holiday_v
2.	tmp_buildingimport_output
3.	tmp_rpt_24
4.	vw_ActionLogReport
5.	vw_assignment_and_information
6.	vw_assignment_with_bldg
7.	vw_BaseList
8.	vw_BatchJobWithStatus
9.	vw_BEEO_FORMEE4_EESU_WORK
10.	vw_BEEOForm
11.	vw_BG_INSP_1
12.	vw_bldg_with_IN
13.	vw_BringUp_For_Inbox
14.	vw_Building_Group_map
15.	vw_CheckList
16.	vw_COCR
17.	vw_COCR_register
18.	vw_DaysPerInspection
19.	vw_EA1
20.	vw_EA3
21.	vw_EAFOC_counter_check
22.	vw_EEEX
23.	vw_energy_audit
24.	vw_excel_cocr_to_BEEOwebsite
25.	vw_excel_ea_to_BEEOwebsite
26.	vw_excel_foc_to_BEEOwebsite
27.	vw_FOC
28.	vw_foc_ackletter
29.	vw_FOC_FirstWorkLOC
30.	vw_GBldg_With_INSP_in_RandomGen
31.	vw_general_checklist
32.	vw_Gov_Bldg
33.	vw_Improvement_Note
34.	vw_IN
35.	vw_inbox
36.	vw_inbox_N_workloc
37.	vw_inspection
38.	vw_letter_AdvisoryLetter
39.	vw_letter_ImprovementNotice
40.	vw_Letter_Main
41.	vw_Letter_Main_WithStatus
42.	vw_letterWithStatus
43.	vw_little_EnergyAudit
44.	vw_party

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Item No.	View Name
45.	vw_party_BeoForm
46.	vw_PartyOrgEntity
47.	vw_ProcessStatus_submissionType_31_REAAPPLY
48.	vw_RDCAssign
49.	vw_REA
50.	vw_REABeoCntNReceivedDate
51.	vw_REASubmission
52.	vw_report_48_REA
53.	vw_report_49_REA
54.	vw_RGenInsp
55.	vw_RGENINSP_baselst
56.	vw_RGENINSP_baselst_sub
57.	vw_RGENINSP_baselst_with_ext_info
58.	vw_RGENINSP_baselst_with_ext_info2
59.	vw_RGENINSP_exclude_bldglist
60.	vw_rpt_13
61.	vw_rpt_14
62.	vw_rpt_16
63.	vw_rpt_18
64.	vw_rpt_2
65.	vw_rpt_24
66.	vw_rpt_25
67.	vw_rpt_27
68.	vw_rpt_28
69.	vw_rpt_28_with_cbsi
70.	vw_rpt_29
71.	vw_rpt_3
72.	vw_rpt_39
73.	vw_rpt_4
74.	vw_rpt_42
75.	vw_rpt_43
76.	vw_rpt_5
77.	vw_rpt_6
78.	vw_rpt_cocr_1
79.	vw_rpt_cocr_2
80.	vw_rpt_cocr_3
81.	vw_rpt_cocr_4
82.	vw_rpt_cocr_online
83.	vw_rpt_ea_1
84.	vw_rpt_ea_2
85.	vw_rpt_ea_3
86.	vw_rpt_ea_4
87.	vw_rpt_ea_online
88.	vw_rpt_foc_1
89.	vw_rpt_foc_2
90.	vw_rpt_foc_3

**DATA MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY
ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**

Item No.	View Name
91.	vw_rpt_foc_4
92.	vw_rpt_foc_online
93.	vw_rpt_IN
94.	vw_rpt_insp_1
95.	vw_rpt_insp_2
96.	vw_rpt_insp_3
97.	vw_rpt_insp_4
98.	vw_rpt_insp_online
99.	vw_rpt_REA_1
100.	vw_sbm_rea
101.	vw_Sbmission_Party_Info
102.	vw_searchcase
103.	vw_searchcase2
104.	vw_searchcase2_N_bldg
105.	vw_statistic_SbTypeID_ProOrder
106.	vw_statistic_SbTypeID_ProOrder_2
107.	vw_statistic_SbTypeID_ProOrder_3
108.	vw_statistic_SbTypeID_ProOrder_4
109.	vw_summary
110.	vw_summaryByState
111.	vw_summaryByStateINSP
112.	vw_summaryByStateNByTypeID
113.	vw_summaryCaseAssign
114.	vw_summaryDaysPerInspection
115.	vw_summaryINSP
116.	vw_summaryOutstandingAll
117.	vw_summaryStatistic
118.	vw_summaryStatisticINSP
119.	vw_summaryStatisticINSP_EA
120.	vw_summaryStatisticINSP_FOC
121.	vw_summaryStatisticINSP_RC
122.	vw_summaryStatisticINSP_RS
123.	vw_summaryStatisticINSP_Visit
124.	vw_summaryTotalandOutstandingAll
125.	vw_tbl_building
126.	vw_WBRS_Form
127.	vw_WBRS_Form_REA
128.	vwBLDENTITY
129.	vwBLDENTITY_for_excel
130.	vwBLDENTITYwithLetterIssueDate
131.	vwBLDENTITYwithLetterIssueDateCOCR
132.	vwBLDENTITYwithLetterIssueDateEA
133.	vwBLDENTITYwithLetterIssueDateFOC

7 APPENDIX

NIL

- End of Document -

APPLICATION OPERATION MANUAL

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



Version: 0.1

July 2022

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APPLICATION OPERATION MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL
SERVICES DEPARTMENT (EMSD)

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Date: _____

APPLICATION OPERATION MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL
SERVICES DEPARTMENT (EMSD)

Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	Draft Version	All	0.1	06/07/2022

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1. Purpose

The purpose of this manual is to:

provide relevant information on the various functions of Data Management System for Buildings Energy Efficiency Ordinance (DMS-BEEO)

serve as a guideline for the operating staff on the application implemented; and

document the instructions of all the work to be performed by the operating staff in running the application system, and the operation procedures for job preparation and restart.

2. Scope

This document defines the operation procedure for (DMS-BEEO). It should be reference for all operation staff involved in (DMS-BEEO) operation.

3. Reference

Documentation Standards for Implementation Phase (S8)

4. Definitions and Conventions

4.1 Definitions

DMS	Data Management System
DB	MS SQL Database
Rptserv	MS SQL Report Server
LN	Lotus Notes
EA	Energy Audit
FOC	Form of Compliance
COCR	Certificate of Compliance Registration
INSP	Inspection
REA	Registered Energy Auditor

4.2 Conventions

NIL

5. System Description

5.1 System Overview

The DMS consists of the following module, jobs or applications:

- BEEO Web Application
- Mobile Inspection
- BJ_GenBringUpAndReminder
- BJ_GenReport
- BJ_Checklist_MobileList
- BJ_LetterAction
- BJ_SendElicenceEmail
- BJ_SendReminder
- MS SQL jobs
- MS SQL Report Subscription

5.1.1 BEEO Web Application

This module is a web application located on IIS. It is the main core part of the system which manages the information of assignment, buildings, referrals and summons, the submission for EA, FOC, COCR, REA and Inspection. It also includes generation of letters, checklist, improvement notices and reports. It manages the workflow of the submission, sending reminders and bring ups to user. In addition, it facilitates batch generation of letters, random selection of buildings. For more details, please refer to “*DMS-BEEO User Guide.doc*”.

The application is located in application server *c\$\csudemo*

5.1.2 Mobile Inspection

To be completed by Amy

5.2 Job Description

5.2.1 BJ_GenBringUpAndReminder

This job generates report reminders, case specified reminders and user-defined (UD) reminders periodically. It also generate the base list for process “random selection of building list”

The job is an exe program located in application server
c\$\BJ_GenBringUpAndReminder\bin\Release\
BJ_GenBringUpAndReminder.exe

The configuration of bring up is stored in table *tbl_BringUp_config* in the database.

Case specified reminders which generated when required situation occur.
The job check the situation once daily.

Bring Up Type ID	Description	Enable
BG-COCR-13	buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines (i.e. 3 months after the day on which the declaration is received) have already expired	No
BG-COCR-14	buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in N7 month(s) (where N7 should be configurable)	No
BG-COCR-15	(Send Once) buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in 1 month	Yes
BG-COCR-16	(Send Once) buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in 2 weeks	Yes
BG-COCR-17	(Send Once) Building with the anticipated occupation approval date due for preparation of stage 2 submission	Yes
BG-EA-4	buildings with energy audit forms already expired but still without valid energy audit forms in force	No

BG-EA-5	buildings with energy audit forms which are currently in force are to be expired in N2 month(s) (where N2 should be configurable)	No
BG-INSP-1	buildings to be inspected in N9 month(s)	No

Report reminders consist of monthly and weekly type. For monthly type, when the day configured on the month come, this kind of reminder will be generated. For weekly type, when the day (1-7) configured in a week come, the reminder and the report (excel format) will be generated

Bring Up Type ID	Description	Enable
RPT-COCR-13	Weekly report of buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines (i.e. 3 months after the day on which the declaration is received) have already expired	Yes
RPT-COCR-14	Monthly report of buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in N7 month(s)	Yes
RPT-COCR-32	Monthly report of Received COCR Stage One Declaration which are not closed 6 months after received	Yes
RPT-COCR-33	Monthly report of Received COCR Stage Two Declaration which are not closed 6 months after received	Yes
RPT-EA-2	Weekly report of buildings without energy audit form received but first energy audit deadlines have already expired (i.e. 10 years after the building is first issued with a Certificate of Compliance Registration or pursuant to schedule 5 of the Ordinance)	Yes
RPT-EA-3	Monthly report of buildings without energy audit form received but first energy audit deadlines will be expired in N1 month(s)	Yes
RPT-EA-30	Monthly report of Received Energy Audit Form which are not closed 6 months after received	Yes
RPT-EA-4	Weekly report of buildings with energy audit forms already expired but still	Yes

	without valid energy audit forms in force	
RPT-EA-5	Monthly report of buildings with energy audit forms which are currently in force are to be expired in N2 month(s)	Yes
RPT-FOC-31	Monthly report of Received FOC which are not closed 6 months after received	Yes
RPT-INSP-16	Weekly report of buildings to be inspected in N9 month(s)	Yes

User-defined (UD) reminders – the job checks for effective UD bring up and generate the corresponding reminder.

Bring Up Type ID	Description	Enable
UD	User Defined reminder	Yes

5.2.2 BJ_GenReport

This job runs on the end of weekdays each week to generates reports and excel file. The job will email them to target users. The excel file was used for import to WBRS manually.

"BEEO Register & List.xls" – for WBRS import.
"BEEO Statistics Report.xls"

The job is an exe program located in application server
c\$\BJ_GenReport\bin\Release\ BJ_GenReport.exe

5.2.3 BJ_Checklist_MobileList

To be completed by Amy

5.2.4 BJ_LetterAction

To be completed by Amy

5.2.5 BJ_SendLicenceEmail

This job creates E-licence and send email with E-licence as attachment to the applicant and inform related parties after “Payment Received Date” + N days (Configurable).

The job is an exe program located in application server
c\$\BJ_SendLicenceEmail\bin\Release\ BJ_SendLicenceEmail.exe

The schedule of job is **TBC**.

5.2.6 BJ_SendReminder

This job creates emails for the reminders generated and sends them to target user through LN.

The job is an exe program located in application server
c\$\BJ_SendReminder\bin\Release\ BJ_SendReminder.exe

5.2.7 MS SQL jobs

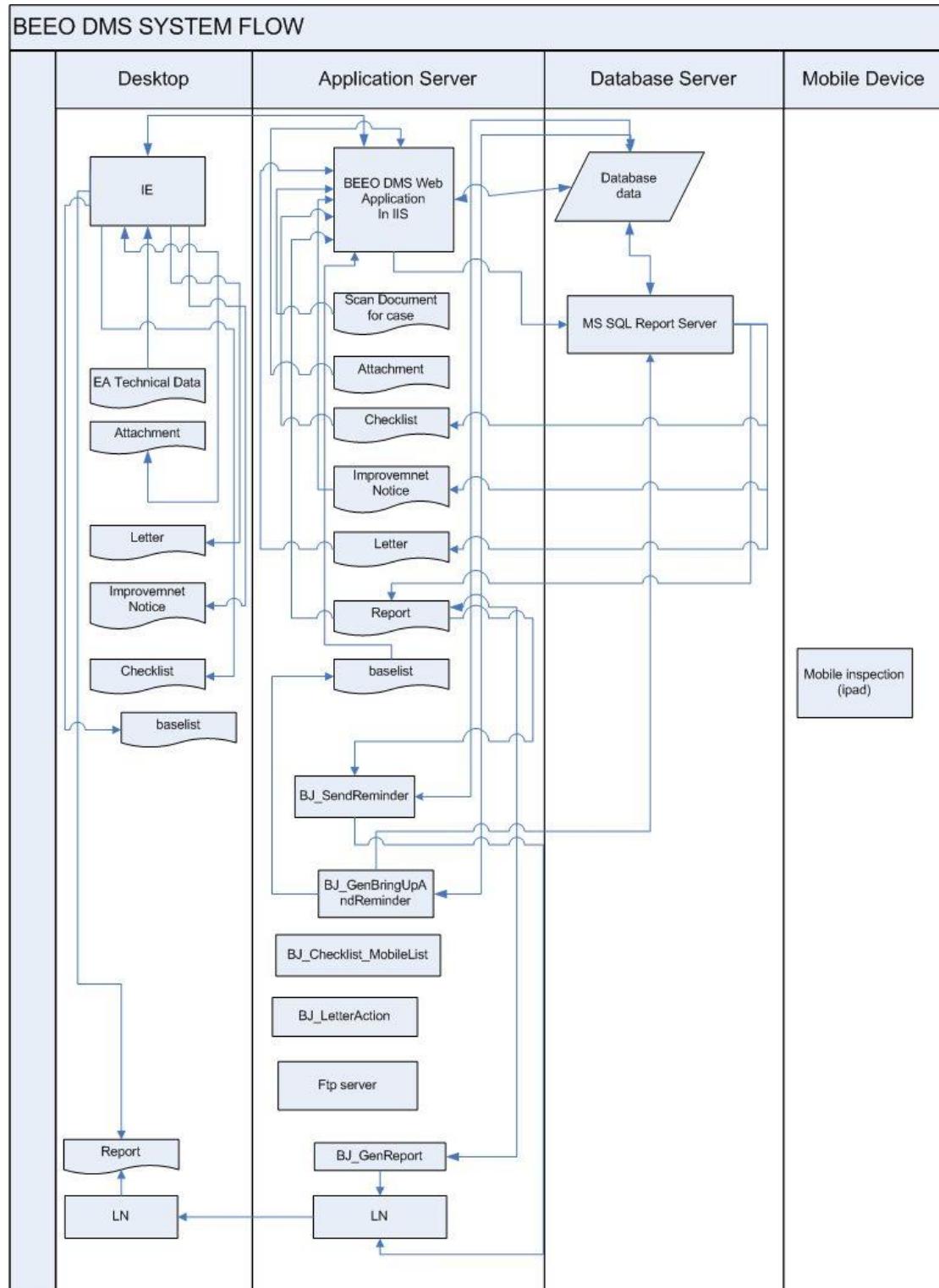
The following jobs are stored in mssql server and are run by mssql agents.

- *backupbeeo.Subplan_1*
This job backup database
- *HandlingPendingBringUp*
This job set pending bring up to effective state if bring up time reach.
- *Letter_Advisory_letter*
To be completed by Amy
- *UPDATEBATCHSTATUS*
This job update batch job (batch generation of letter) status

5.2.8 MS SQL Report Subscriptions

To be completed by Amy

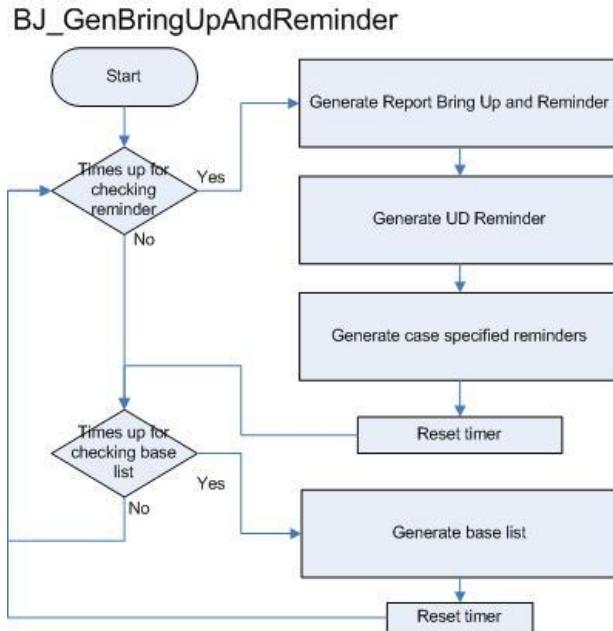
5.3 System Flow



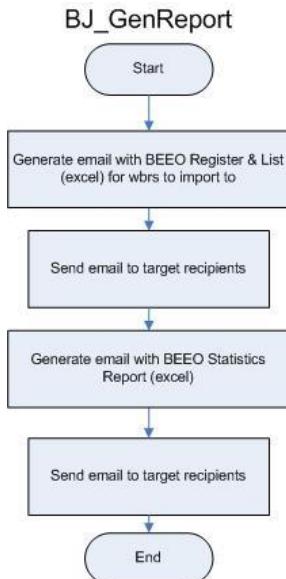
the BJ_Checklist_MobileList, BJ_LetterAction, ftp and Mobile Inspection on this diagram are not complete. Amy please modify beeo.vsd file and send me back

5.4 Job Run Flow

5.4.1 BJ_GenBringUpAndReminder



5.4.2 BJ_GenReport



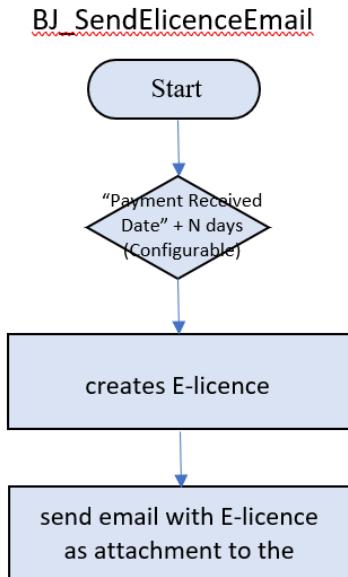
5.4.3 BJ_Checklist_MobileList

To be completed by Amy

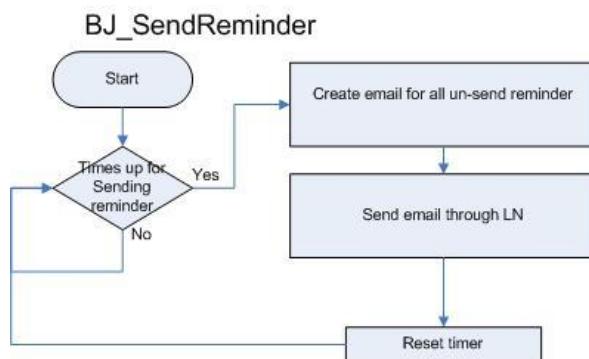
5.4.4 BJ_LetterAction

To be completed by Amy

5.4.5 BJ_SendElicenceEmail



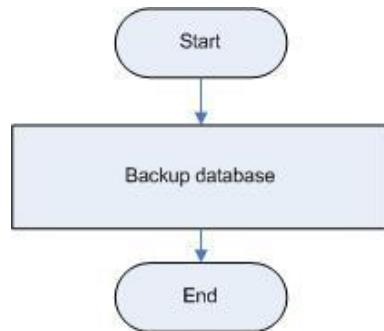
5.4.6 BJ_SendReminder



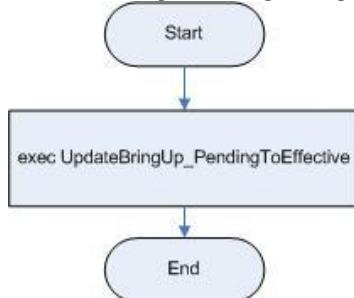
5.4.7 MS SQL jobs

The following jobs are run by mssql agent.

- *backupbeeo.Subplan_1*



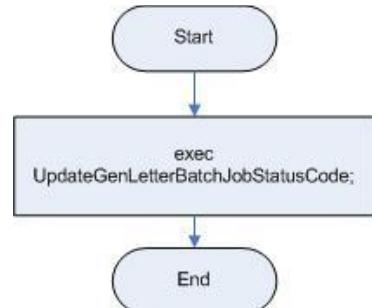
- *HandlingPendingBringUp*



- *Letter_Advisory_letter*

To be completed by Amy

- *UPDATEBATCHSTATUS*



5.4.8 MS SQL Report Subscriptions

To be completed by Amy

5.5 Summary of program description

Program/Job	Description
BEEO Web Application	the main core part of the system which manages the information of assignment, buildings, referrals and summons, the submission for EA, FOC, COCR, REA and Inspection. It also includes generation of letters, checklist, improvement notices and reports. It manages the workflow of the submission, sending reminders and bring ups to user. In addition, it facilitates batch generation of letters, random selection of buildings
Mobile Inspection	
BJ_GenBringUpAndReminder	generates report reminders, case specified reminders and user-defined (UD) reminders periodically. It also generate the base list for process “random selection of building list”
BJ_GenReport	generates reports and excel file: “BEEO Register & List.xls” – for WBRS import. “BEEO Statistics Report.xls”
BJ_Checklist_MobileList	
BJ_LetterAction	
BJ_SendElicenceEmail	After “Payment Received Date” + N days (Configurable), send email with E-licence as attachment to the applicant and inform related parties
BJ_SendReminder	creates emails for the reminders generated and sends them to target user through LN
backupbeeo.Subplan_1	backup database
HandlingPendingBringUp	set pending bring up to effective state if bring up time reach
Letter_Advisory_letter	
UPDATEBATCHSTATUS	update batch job (batch generation of letter) status

To be completed by Amy

6. System output reports

Report type ID	Category	Description	is Online Report
1	REA	Statistics and Summary	Yes
2	EA	Weekly report of buildings without energy audit form received but first energy audit deadlines have already expired (i.e. 10 years after the building is first issued with a Certificate of Compliance Registration or pursuant to schedule 5 of the Ordinance)	
3	EA	Monthly report of buildings without energy audit form received but first energy audit deadlines will be expired in N1 month(s)	
4	EA	Weekly report of buildings with energy audit forms already expired but still without valid energy audit forms in force	
5	EA	Monthly report of buildings with energy audit forms which are currently in force are to be expired in N2 month(s)	
6	FOC	Weekly report of completed major retrofitting works without FOC received but the (anticipated) deadlines (i.e. 2 months after the anticipated/actual completion date of major retrofitting works) have already expired	
7	FOC	Monthly report of completed major retrofitting works without FOC received and the (anticipated) deadlines will be expired in N3 month(s)	
8	FOC	Monthly report of major retrofitting works without FOC received and the works are anticipated to be completed in N4 month(s)	
9	COCR	Weekly report of buildings without stage one declaration received but the deadlines (i.e. 2 months after the day on which the consent to the commencement of building works for the superstructure construction of the building is given) have already expired	
10	COCR	Monthly report of buildings without stage one declaration received but the deadlines are to be expired in N5 month(s)	
11	COCR	Weekly report of buildings without stage two declaration received but the (anticipated) deadlines (i.e. 4 months after the day on which the	

		(anticipated) occupation approval is issued in respect of the building) have already expired	
12	COCR	Monthly report of buildings without stage two declaration received but the (anticipated) deadlines are to be expired in N6 month(s)	
13	COCR	Weekly report of buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines (i.e. 3 months after the day on which the declaration is received) have already expired	
14	COCR	Monthly report of buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in N7 month(s)	
15	COCR	Weekly report of buildings with COCR already expired but not yet renewed	
16	INSP	Weekly report of buildings to be inspected in N9 month(s)	
17	IN	Weekly report of buildings with issued IN not yet rectified and the deadlines for rectification have already expired	
18	IN	Monthly report of buildings with issued IN not yet rectified and the deadlines for rectification are to be expired in N10 month(s)	
19	REA	List of REA Register	Yes
20	REA	List of Issued / Renewed REA Certificate per Reporting Period	Yes
21	REA	List of REA to be expired within 12 months / 6 months / 3 months	Yes
22	INSP	List of Buildings being inspected in past 12 months / 6 months / 3 months	Yes
23	INSP	List of Buildings to be inspected in next 12 months / 6 months / 3 months	Yes
24	COCR	List of Received COCR Stage One Declaration per Reporting Period	Yes
25	COCR	List of Received COCR Stage Two Declaration per Reporting Period	Yes
26	COCR	List of Received COCR Renewal per Reporting Period	Yes
27	EA	List of Received Applications for EA Exemptions per Reporting Period	Yes
29	FOC	List of Received FOC per Reporting Period	Yes

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28	EA	List of Received Energy Audit Form per Reporting Period	Yes
30	EA	List of Received Energy Audit Form which are not closed 6 months after received	
31	FOC	List of Received FOC which are not closed 6 months after received	
32	COCR	List of Received COCR Stage One Declaration which are not closed 6 months after received	
33	COCR	List of Received COCR Stage Two Declaration which are not closed 6 months after received	

7. System Media Inputs and Outputs

Please refer to COPM document.

8. Operations description

This section should describe the Operation schedule and service hours of the Application System.

8.1 On-line Schedule

This system provides online service in 7 x 24 basis

8.2 Backup Schedule

Please refer to COPM document

8.3 Ad-hoc Schedule

Nil.

9. Run job specification

9.1 BJ_GenBringUpAndReminder

Function

This job generates report reminders, case specified reminders and user-defined (UD) reminders periodically. It also generate the base list for process “random selection of building list”

Estimate Run Time: run continuously

Parameters:

In application server c\$\|BJ_GenBringUpAndReminder\bin\Release\
BJ_GenBringUpAndReminder.exe.config

Variable Name	Description	mins
checkingIntevalinMins	The time interval for checking reminders to be generated	30
checkingGenBaseListExcelIntevalinMins	The time interval for checking base list to be generated	20

Requirement/Limitation: Database started

Program Schedule: run continuously

Restart Procedure: In case of system error, simply restart the program.

Output Listings: Bringups, reminders, baselist.

9.2 BJ_GenReport

Function

This job runs on the end of weekdays each week to generates reports and excel file. The job will email them to target users. The excel file was used for import to WBRS manually.

Estimate Run Time: 10 mins – 20 mins

Parameters:

In application server c\$\|BJ_GenReport\bin\Release\
BJ_GenReport.exe.config

Variable Name	Description
mailaddr	Recipients

Requirement/Limitation: Database and Lotus Notes client need to be started.

Program Schedule: run on weekday end

Restart Procedure: In case of system error, simply restart the program.

Output Listings:

Email with "BEEO Register & List.xls" – for WBRS import.

Email with "BEEO Statistics Report.xls"

The above excel file is generated in *c:\beeo\bj_GenReport*

9.3 BJ_Checklist_MobileList

To be completed by Amy

9.4 BJ_LetterAction

To be completed by Amy

9.5 BJ_SendElicenceEmail

Function

This job creates E-licence and send email with E-licence as attachment to the applicant and inform related parties after “Payment Received Date” + N days (Configurable).

Estimate Run Time: run continuously

Parameters:

In application server *c\$\BJ_SendElicenceEmail\bin\Release\BJ_SendElicenceEmail.exe.config*

Variable Name	Description
Id	E-licence ID
Lek	LEK
LicenceType	Licence Type
ElicencePdf	The PDF file of the E-licence
RegNo	REA Registration Number of Applicant
Email	Email Address of Applicant

Requirement/Limitation: Database started

Program Schedule: run continuously

Restart Procedure: In case of system error, simply restart the program.

Output Listings: Email with E-licence attachment

9.6 BJ_SendReminder

This job creates emails for the reminders generated and sends them to target user through LN.

The job is an exe program located in application server
c\$\|BJ_SendReminder\bin\Release\| BJ_SendReminder.exe

Function

This job creates emails for the reminders generated and sends them to target user through LN.

Estimate Run Time: run continuously

Parameters:

In application server c\$\|BJ_SendReminder\bin\Release\| BJ_SendReminder.exe.config

Variable Name	Description	mins
reminderIntevalinMins	The time interval for sending reminders	1

Requirement/Limitation: Database and Lotus Notes client need to be started.

Program Schedule: run continuously

Restart Procedure: In case of system error, simply restart the program.

Output Listings: Email reminders

9.7 MS SQL jobs

- *backupbeeo.Subplan_1*

Function: backup database

Estimate Run Time: 1-10 mins (depends on database size)

Parameters: Nil

Requirement/Limitation: mssql server and mssql agents started

Program Schedule: run at 11:00 pm daily

Restart Procedure: In case of system error, simply restart the job

Output Listings: backup database file

(in c\$\|beeoddbbackup\BEEOMDS on database server.)

- *HandlingPendingBringUp*

Function:

Set pending bring up to effective state if bring up time reach

Estimate Run Time: depends on database size

Parameters: Nil

Requirement/Limitation: mssql server and mssql agents started

Program Schedule: run every 15 mins

Restart Procedure: In case of system error, simply restart the job

Output Listings: Nil

- *Letter_Advisory_letter*
To be completed by Amy

- *UPDATEBATCHSTATUS*

Function:

Update batch job (batch generation of letter) status

Estimate Run Time: depends on database size

Parameters: Nil

Requirement/Limitation: mssql server and mssql agents started

Program Schedule: run every 24 mins

Restart Procedure: In case of system error, simply restart the job

Output Listings: Nil

9.8 MS SQL Report Subscriptions

To be completed by Amy

10. Error handling

Error happens in the BEEO-DMS operation is classified as critical and non-critical. Unless otherwise specified in the Section 9: Run Job Specification that it will affect the on-line service on the next day or immediate on-line service, all jobs are considered non-critical.

10.1 Critical Errors Handling

When there is an abnormal end in running job, users should refer to the Section 9: Run Job Specification, and follow the procedures to prepare for restart or recovery.

If a critical job fails to recover, users should contact in-house Support Staff of the Application for advice. Also, to record all information about job failure, such as time and date, error message code and content, relevant data and actions performed for further investigation.

10.2 Non-critical Errors Handling

All jobs are considered non-critical unless otherwise specified. All non-critical jobs should be restart/recover using the restart/recovery procedures in the corresponding sub-section of the Section 9: Run Job Specification. If the procedures fail on job restart/recovery, users should contact in-house Support Staff to follow up the issues.

10.3 Contact Points

User Support
ITMU

Office Hours
2808 3929

- End of Document -

USER PROCEDURE MANUAL

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



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EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND
MECHANICAL SERVICES DEPARTMENT (EMSD)**

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Automated Systems (HK) Ltd. Electrical and Mechanical Services
[Project Manager] Department [EE/ITD/3]

Date: _____ Date: _____

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND
MECHANICAL SERVICES DEPARTMENT (EMSD)

Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
1	Draft Version	All	0.1	06/07/2022

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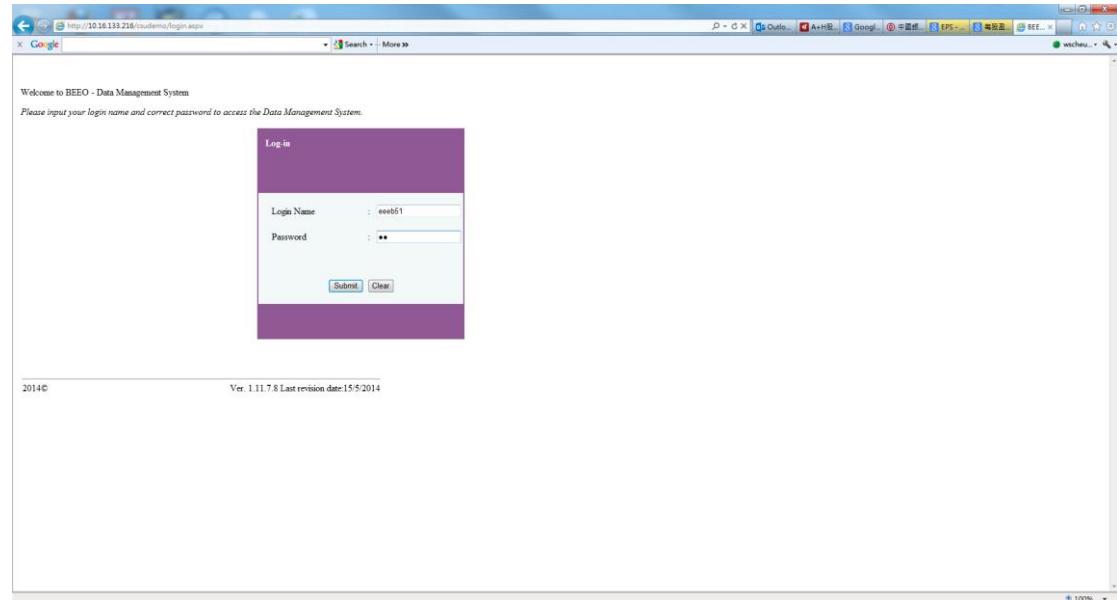
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1. Login to the system

System Url

Development site	http://10.16.133.216/csudemo/login.aspx
UAT site	http://10.16.133.213/csudemo/login.aspx
Production site	http://10.16.133.214/csudemo/login.aspx



Input Login Name, Password and press [Submit]
After Login, the Home page is Inbox Page

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2. Inbox Page

Inbox Page Contain 4 parts

- Inbox Statistics
- Bring Up
- New Assignment Received
- Works in progress

Data Management System (BEOO) - Inbox (E/EEB7/1)												User:E/EEB7/1			
Inbox Statistics															
Current Status	Energy Audit			Form of Compliance			Certificate of Compliance Registration					REA			
	Submission	Exemption	Duplicate	Submission	Extension	Exemption	Duplicate	Stage 1 Declaration Form	Stage 2 Declaration Form	Extension	Exemption	Duplicate	Registration as REA	Duplicate	Registration of Public Officer
Initial Screening Outstanding	103	1		126		3		34							
Initial Screening Completed															
File Closed	102	1		129				60						1	
Total:	205	2		255		3		94						1	
Inspection															
Current Status	Energy Audit			Form of Compliance			Visit		Route Sampling		Report & Complaint				
	Energy Audit	Form of Compliance	Visit	Route Sampling	Report & Complaint										
Inspection Conducted							1								
Inspection Planned but Still Outstanding							3	4							
Inspection Report Completed							3	1	1						
Total:							6	6	1						
Bring Up															
Case File No.	Bring Up Message					Generated Date & Time			Initiated By						
	BEOO DMS Case Status Change - File No:					9/5/2014 14:19:52	E/EEB7/1								
EMSD/EEO/BC/34-01323	BEOO DMS Assignment No 3681					7/5/2014 9:58:08	STO/EEB2								
EMSD/EEO/BC/34-01216	BEOO DMS Assignment No 3657					3/3/2014 9:23:54	E/EEB5/1								
EMSD/EEO/BC/34-00634	BEOO DMS Assignment No 3650					3/3/2014 9:23:54	E/EEB5/1								
New Assignment Received															
Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name/REA Name			Street Name				
								Building Name/REA Name	Street Name	Address	City	Region	Country		
3644	E/EEB7/1	BSU/EEB7/1	E/EEB7/1	E/EEB7/1	27/2/2014 13:57:00	COCR		Low Rise Residential R3, Proposed Residential/Commercial Development at TCTL 36							
3470	E/EEB7/1	toeobps91	E/EEB7/1	SE/EEB5	10/2/2014 13:25:29	EA		Youth Square (Commercial Proportion)							
3476	E/EEB7/1	toeobps91	E/EEB7/1	SE/EEB5	10/2/2014 13:18:20	EA		Hua Fu Commercial Building							
3267	E/EEB7/1	toeobps91	E/EEB7/1	SE/EEB7	13/1/2014 11:27:48	COCR		Utility Building (KMB Yuen Long Depot)							
3266	E/EEB7/1	toeobps91	E/EEB7/1	SE/EEB7	13/1/2014 11:26:30	COCR		Office Building (KMB Yuen Long Depot)							
3265	E/EEB7/1	toeobps91	E/EEB7/1	SE/EEB7	13/1/2014 11:25:18	COCR		Proposed Residential Development at Kau To Shan							
2607	E/EEB7/1	toeobps91	E/EEB7/1	SE/EEB5	21/10/2013 14:39:24	FOC		Kornhill							
1023	E/EEB7/1	BSU/EEB7/1	E/EEB7/1	SE/EEB5	20/6/2013 13:05:26	FOC		Yuet Bor House							
Assignment No.															
Create Work Record															
Works in progress															
Filter															
File No. (Assignment No.)	Building Name/REA Name		Submission Type		Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date			
	Building Name/REA Name	Street Name	Address	City									Region		
EMSD/EEO/BC/34-01958 (1109)	Hing Tin Shopping Centre		EA-Energy Audit Form		27/6/2013	E/EEB7/1	BSU/EEB7/1	General Checking in progress	E/EEB7/1	322	BSU/EEB7/1	9/5/2014 16:09:07			
EMSD/EEO/BC/34-01216 (3657)	Knutsford Commercial Building		INSP-Energy Audit Inspection		3/3/2014	E/EEB7/1	toeobps91	Inspection under Arrangement	E/EEB7/1	73	E/EEB5/1	3/3/2014 9:23:54			
EMSD/EEO/BC/34-00634 (3657)	AT TOWER		INSP-Energy Audit Inspection		3/3/2014	E/EEB7/1	BSU/EEB7/1	Inspection under Arrangement	E/EEB7/1	73	E/EEB5/1	3/3/2014 9:23:54			
EMSD/EEO/BC/34-03969 (1033)	Wai Tsuen Sports Centre		FOC-Form of Compliance		11/6/2013	E/EEB7/1	BSU/EEB7/1	General Checking in progress	E/EEB7/1	338	BSU/EEB7/1	7/2/2014 16:01:49			
EMSD/EEO/BC/34-01258	Fu Kwai House		FOC-Form of Compliance		31/1/2013	E/EEB7/1	BSU/EEB7/1	General Checking in progress	E/EEB7/1	469	BSU/EEB7/1	7/2/2014 16:01:49			

Click + or – may show or hidden the corresponding parts

Data Management System (BEOO) - Inbox (E/EEB5/1)												User:E/EEB5/1
+ Inbox Statistics												
- Bring Up												
Case File No.	Bring Up Message											
	BEOO DMS Assignment No 3749											

Filter can set criteria for filtering the case shown in “Works in progress”

Data Management System (BEOO) - Inbox (E/EEB5/1)												User:E/EEB5/1
- Works in progress												
Filter												
File No. (Assignment No.)	Building Name/REA Name				Submission Type			Received Date	Subject Engineer	BSI/TO		
	Building Name/REA Name	Street Name	Address	City	Region	Submission Type	Received Date					Subject Engineer
EMSD/EEO/BC/19/01/06123 (3749)	CHAN Siu Man				REA-Duplicate of Certificate of Registration			21/5/2014	E/EEB5/1	BSI/EEB/P5		
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2				FOC-Form of Compliance			15/5/2014	E/EEB5/1	BSI/EEB7/1		
FMSD/FFO/BC/34-02332	..				INSP-Form of Compliance			

3. Assignment

3.1 Create Assignment

1. Login in a STO account
2. Assignment->Assign Job



Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:STO/EEB2

Data Management System (BEOO) - Inbox (STO/EEB2)

+ Inbox Search - Assign REA WBRs record

- Bring Up
- New Assignment Received

- Works in progress

Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:STO/EEB2

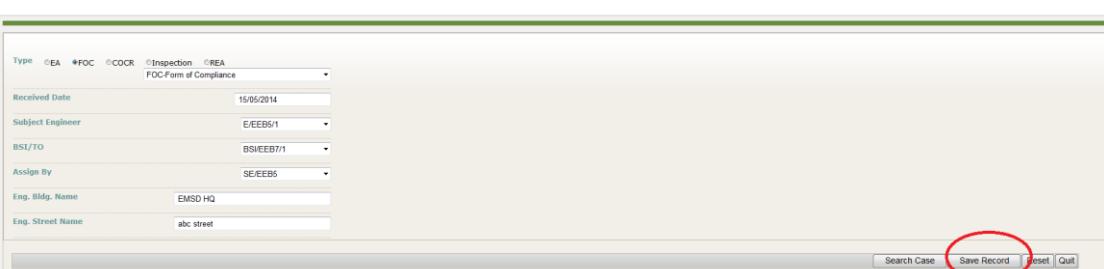
Data Management System (BEOO) - Assignment

Works Statistics

User	In Progress/ Closed/ Total	Energy Audit	Form of Compliance	Certificate of Compliance Registration	Inspection	REA
BSI/EEB/PSB/3	2/ 4/ 6	0/ 3/ 3	0/ 0/ 0	2/ 1/ 3	0/ 0/ 0	0/ 0/ 0
BSI/EEB/5/1	186/ 270/ 456	36/ 52/ 88	95/ 113/ 208	35/ 26/ 61	12/ 78/ 90	8/ 1/ 9
BSI/EEB/5/2	165/ 270/ 435	43/ 58/ 101	97/ 98/ 195	21/ 36/ 57	4/ 77/ 81	0/ 1/ 1
BSI/EEB/7/1	296/ 176/ 472	58/ 33/ 91	146/ 47/ 193	53/ 14/ 67	34/ 80/ 114	5/ 2/ 7
BSI/EEB/7/2	5/ 0/ 5	3/ 0/ 3	0/ 0/ 0	1/ 0/ 1	1/ 0/ 1	0/ 0/ 0
bsieebps/91	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0
E/EEB/4/5	264/ 11/ 275	264/ 11/ 275	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0
E/EEB/5/1	731/ 754/ 1485	342/ 293/ 635	313/ 175/ 488	51/ 59/ 110	17/ 225/ 242	8/ 2/ 10
E/EEB/5/2	1048/ 390/ 1438	506/ 152/ 658	447/ 183/ 630	58/ 49/ 107	36/ 5/ 41	1/ 1/ 2
E/EEB/7/1	345/ 298/ 643	155/ 103/ 258	131/ 129/ 260	51/ 60/ 111	8/ 5/ 13	0/ 1/ 1
TC/EEB/3	445/ 161/ 606	352/ 86/ 438	78/ 55/ 133	9/ 20/ 29	5/ 0/ 5	1/ 0/ 1
toebbps/92	645/ 326/ 971	315/ 232/ 547	303/ 67/ 370	24/ 27/ 51	3/ 0/ 3	0/ 0/ 0
toebbps/91	646/ 245/ 891	459/ 94/ 553	170/ 107/ 277	15/ 44/ 59	2/ 0/ 2	0/ 0/ 0

Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name	Street Name	REA Name
3715	E/EEB/5/2	BSI/EEB/7/1	E/EEB/5/2	SE/EEB5	8/5/2014 16:20:08	FOC				
3713	E/EEB/5/2	BSI/EEB/7/1	E/EEB/5/2	SE/EEB5	8/5/2014 15:41:29	EA				
3603	E/EEB/5/1	toebbps/92	E/EEB/5/1	SE/EEB5	24/3/2014 13:59:26	EA	Cambon Court			

3. Click Add Assignment



Type EA FOC COCR Inspection REA
FOC-Form of Compliance

Received Date: 15/05/2014

Subject Engineer: E/EEB/5/1

BSI/TO: BSI/EEB/7/1

Assign By: SE/EEB5

Eng. Bldg. Name: EMSD HQ

Eng. Street Name: abc street

Search Case Save Record Reset Quit

4. Input Details and then click Save Record
(Note: For REA Type Assignment, only BSI can be selected)

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The screenshot shows a confirmation dialog box titled "網頁訊息" (Web Message) with the message "Assignment No.3732 Saved". Below the message is a blue "確定" (Confirm) button. The background shows the main application interface with a navigation bar at the top and a table titled "Works Statistics" below it.

User	In Progress/ Closed/ Total	Energy Audit	Form of Compliance	Certificate of Compliance Registration	Inspection	REA
BSI/EEB/PS9/3	2/ 4/ 6	0/ 3/ 3	0/ 0/ 0	2/ 1/ 3	0/ 0/ 0	0/ 0/ 0
BSI/EEB/5/1	186/ 270/ 456	36/ 52/ 88	95/ 113/ 208	35/ 26/ 61	12/ 78/ 90	8/ 1/ 9
BSI/EEB/5/2	165/ 270/ 435	43/ 58/ 101	97/ 98/ 195	21/ 36/ 57	4/ 77/ 81	0/ 1/ 1
BSI/EEB/7/1	297/ 176/ 473	58/ 33/ 91	147/ 47/ 194	53/ 14/ 67	34/ 80/ 114	5/ 2/ 7
BSI/EEB/7/2	5/ 0/ 5	3/ 0/ 3	0/ 0/ 0	1/ 0/ 1	1/ 0/ 1	0/ 0/ 0
bsieebps91	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0
E/EEB/4/5	Add Assignment	264/ 11/ 275	264/ 11/ 275	0/ 0/ 0	0/ 0/ 0	0/ 0/ 0
E/EEB/5/1	Add Assignment	732/ 754/ 1486	342/ 293/ 635	314/ 175/ 489	51/ 59/ 110	17/ 225/ 242
E/EEB/5/2	Add Assignment	1048/ 390/ 1438	506/ 152/ 658	447/ 183/ 630	58/ 49/ 107	36/ 5/ 41
E/EEB/7/1	Add Assignment	345/ 298/ 643	155/ 103/ 258	131/ 129/ 260	51/ 60/ 111	8/ 5/ 13
TO/EEB/3		445/ 161/ 606	352/ 86/ 438	78/ 55/ 133	9/ 20/ 29	5/ 0/ 5
toeeb3ps92		645/ 326/ 971	315/ 232/ 547	303/ 67/ 370	24/ 27/ 51	3/ 0/ 3
toeebgs91		646/ 245/ 891	459/ 94/ 553	170/ 107/ 277	15/ 44/ 59	2/ 0/ 2

Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name	Street Name	REA Name
3732	E/EEB/5/1	BSI/EEB/7/1	E/EEB/5/1	SE/EEB5	15/5/2014 16:57:30	FOC		EMSD HQ	abc street	
3715	E/EEB/5/2	BSI/EEB/7/1	E/EEB/5/2	SE/EEB5	8/5/2014 16:20:08	FOC				
3713	E/EEB/5/2	BSI/EEB/7/1	E/EEB/5/2	SE/EEB5	8/5/2014 15:41:29	EA				

Assignment Created

The new assignment will be also shown in inbox of Subject Engineer and BSI

The screenshot shows the inbox for Subject Engineer E/EEB/5/1. The newly created assignment (Assignment No. 3732) is highlighted with a red box. The inbox table has columns: Assignment No., Subject Engineer, BSI/TO, Action Officer, Assign By, Assign Date, Category, File No., Building Name/REA Name, and Street Name.

Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name/REA Name	Street Name
3734	E/EEB/5/1	BSI/EEB/5/2	E/EEB/5/1	SE/EEB5	20/5/2014 9:27:20	COCR	EMSD/EEO/BC/34-00123	Chong Hing Square	Nathan Road
3733	E/EEB/5/1	BSI/EEB/5/2	E/EEB/5/1	SE/EEB5	15/5/2014 17:26:57	COCR	EMSD/EEO/BC/34-00123	Chong Hing Square	Nathan Road
3732	E/EEB/5/1	BSI/EEB/7/1	E/EEB/5/1	SE/EEB5	15/5/2014 16:57:30	FOC		EMSD HQ	abc street
3631	E/EEB/5/1	BSI/EEB/5/1	E/EEB/5/1	SE/EEB5	27/2/2014 13:31:06	FOC		CHOI WAH HOUSE (BLOCK 5)	

3.2 Create Assignment With File No Selected

From Step 3.1 (1 to 3)

The screenshot shows the "Create Assignment" form. At the bottom right, there is a row of buttons: "Search Case", "Save Record", "Reset", and "Quit". The "Search Case" button is circled in red.

1. Click Search Case

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2. Search previous case

Data Management System (BEEO) - Search Case (EA,FOR,COCR,INSP)

File No.	EMSD/EEO/BC/34- 123	Assignment No.	
Eng. Bldg. Name		Eng. Street Name	
Chi. Bldg. Name		Chi. Street Name	
Lot No.		Building Type	
<input type="button" value="Search"/> <input type="button" value="Back to create assignment"/>			

Input Search Criteria and click Search

3. Select previous case

Data Management System (BEEO) - Search Case (EA,FOR,COCR,INSP)

Bldg. Name	Address	Submission Type	Subject Engineer	BSI/TO	Building Type	File No.	Assignment No.	Assign By	Assign Date	Status	Received Date	Work Location
Chong Hing Square 利興廣場	Chong Hing Square, 593-601 Nathan Road 漁歌連593-601號 利興廣場	INSP-Visit	E/EEBS/1	BSI/EEBS/2	Commercial	EMSD/EEO/BC/34-00123	819	SE/EEBS	17/6/2013 17:59:13	Closed	26/10/2012	
Chong Hing Square 利興廣場	Chong Hing Square, 593-601 Nathan Road 漁歌連593-601號 利興廣場	EA-Energy Audit Form	E/EEBS/2	toeepbs91	Commercial	EMSD/EEO/BC/34-00123	2406	SE/EEBS	2/10/2013 14:11:58	General Checking in progress	26/09/2013	

If record found, click on the row will select the Subject Engineer, BSI/TO, and Building for the assignment

Click on the case preferred.

4. The File No, Engineer and BSI for the new assignment will be set as the previous case

Type: EA FOC COCR Inspection REA

Received Date:

Subject Engineer	E/EEBS/1
BSI/TO	BSI/EEBS/2
Assign By	SE/EEBS
Eng. Bldg. Name	Chong Hing Square
Eng. Street Name	Nathan Road
File No.	EMSD/EEO/BC/34-00123

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5. Input Type, Received Date and Click Save Record



3.3 Create Assignment and Task from WBRs Record

1. Login in a STO account
2. Assignment->Assign WBRs Job

List of WBRs records (Click on the Application No can view detail of the record)

Select to Assign	Submission Type	Application No.	SEQ	Building Name	Building Address	Receive Date	Status	
<input type="checkbox"/>		L13000055	1	231321	321321, Admiralty, Hong Kong	27/03/2014	0	
<input type="checkbox"/>		EE1	13000058	1	1111	2222, Chai Wan, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000060	1	54354	54354, Central, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000063	2	321312	3213, Lammer Island, New Territories	27/03/2014	0
<input type="checkbox"/>		EE1	13000065	1	01	3033-41044 05 07, Yuen Long, New Territories	27/03/2014	0
<input type="checkbox"/>		EE1	13000068	2	876	87-87 878 8787, Lam Tin, Kowloon	27/03/2014	0
<input type="checkbox"/>		EE1	13000073	1	ABC's building	1-9 EFG's street, Tai Hang, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	14000001	1	ABC5 building	1-9 EFG's street, Tai Hang, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000053	1	111	222, Chai Wan, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000054	1	1111	2222, Causeway Bay, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000056	1	3213	3213, Causeway Bay, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000059	1	321321	321321, Central, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	13000061	2	56654	6546, Causeway Bay, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE1	14000002	1	ABC5 building	1-9 EFG's street, Tai Hang, Hong Kong	27/03/2014	0
<input type="checkbox"/>		EE2	14000094	2	654654	56 654 6, Chai Wan, Hong Kong	05/05/2014	0
<input type="checkbox"/>		EE2	13000062	2	654654	0-0 65464 , Lei King, Kowloon	15/04/2014	0
<input type="checkbox"/>		EE2	13000064	2	98797	0-0 98797 , Tin Shui Wai, New Territories	15/04/2014	0
<input type="checkbox"/>		EE2	13000070	1	Abc	1-0 Df , Chai Wan, Hong Kong	15/04/2014	0
<input type="checkbox"/>		EE4	140000105	1	Building Name(English)	18-2b Street Name(English) , Aberdeen, Hong Kong	05/05/2014	0
<input type="checkbox"/>		EE4	13000015	4	01		15/04/2014	0
<input type="checkbox"/>		EE4	13000016	1	11		15/04/2014	0
<input type="checkbox"/>		EE4	13000017	1	99		15/04/2014	0

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Application No.	L130000062	SEQ	2
Building Name(English)	654654		
Building Name(Chinese)			
Address of Proposed Building			
Street No.	Start No.: 0	Alpha	
	End No.: 0	Alpha	
Street	English	65464	
	Chinese		
District	Lai King	Area	Kowloon
Lot No			
Developer			
BEC Edition	2013		
Company Name (English)			
Company Name (Chinese)			
Salution	0	Position	
Name(English)		Name(Chinese)	
Correspondence Address			
	Room/Flat	Floor	Block
Building			
Street No.	Start No.: 0	Alpha	
	End No.: 0	Alpha	
Street (English)			

3. Select WBRS records and create assignment.

EE4	L130000050	1	1	2A-22B 3 , Kennedy Town, Hong Kong	15/04/2014	0
EE4	L130000052	1	01	11.1-21.2 02 , Causeway Bay, Hong Kong	15/04/2014	0
EE4	L140000029	1	1	3-4 S , Aberdeen, Hong Kong	15/04/2014	0
EE4	L140000055	1	Building Name(English)	3a-4A Street Name(English) , Causeway Bay, Hong Kong	15/04/2014	0
EE4	L140000070	1	Building Name(English)	3a-4A Street Name(English) , Causeway Bay, Hong Kong	15/04/2014	0
EE4	L140000072	1	Building Name(English)	1a-2b Street Name(English) , Aberdeen, Hong Kong	15/04/2014	0
EE7	L1300010/4	1	302	30430A-30530B 306 , Admiralty	20/04/2014	0
EE7	L130001075	1	402	40440A-40540B 406 , Admiralty	20/04/2014	0

Assign selected submission to:

Engineer: E/EEBS/1

Inspector: BSI/EEB7/2

Check WBRS records, select Engineer and Inspector. Then Click Assign.

4. Task Created and shown in the inbox of Subject Engineer and Subject BSI

Assignment No. <input type="button" value="Create Work Record"/>										
- Works in progress <input type="button" value="Filter"/>										
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
(3735)		FOC-Form of Compliance	20/5/2014	E/EEBS/1	BSI/EEB7/2	General Checking in progress	E/EEBS/1	0	STO/EEB2	20/5/2014 10:15:04
EMSD/EEO/BC/19/01/06	Chan Tai Man	REA-Registration as Registered Energy Assessor	13/5/2014	E/EEBS/1	BSI/EEB7/1	General Checking in progress	E/EEBS/1	7	E/EEBS/1	13/5/2014 14:40:26
EMSD/EEO/BC/19/01/06	CHAN Man Man	REA-Registration as Registered Energy Assessor	8/5/2014	E/EEBS/1	BSI/EEBS/1	General Checking in	E/EEBS/1	12	E/EEBS/1	13/5/2014 13:24:41

3.4 Create Assignment and Task from REA WBRS Record

1. Login in a STO account
2. Assignment->Assign REA WBRS Job
3. Remaining would be the same as in section 3.3

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4. Case - EA, FOC, COCR, INSP and REA

4.1 Create Case from Assignment

Login as Engineer or BSI

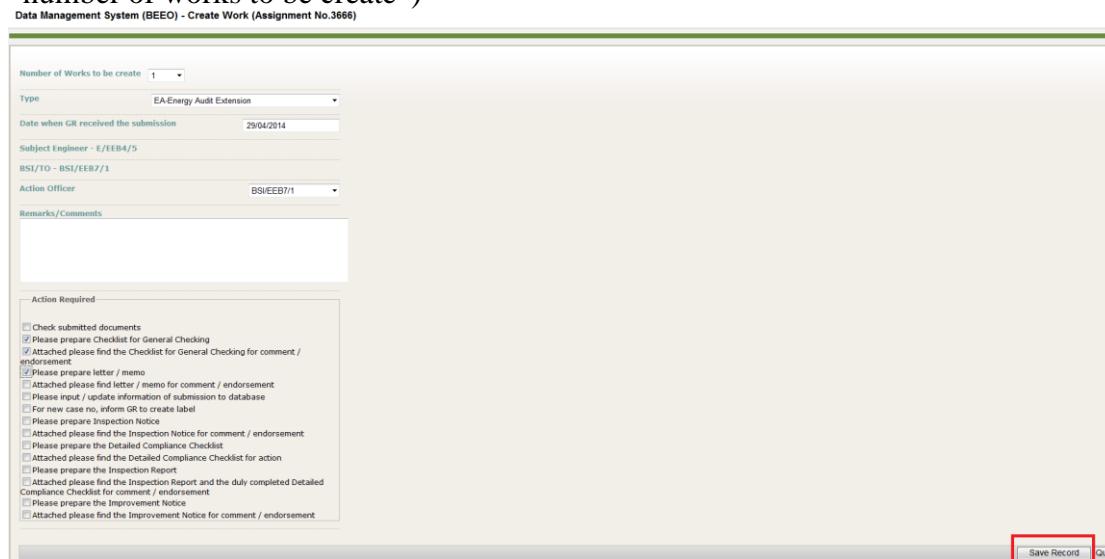
In Inbox, Click on the new Assignment Received



Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name/REA Name	Street Name
3732	E/EEB5/1	BSI/EEB7/1	E/EEB5/1	SE/EEB5	15/5/2014 16:57:30	FOC		EMSD HQ	abc street
3715	E/EEB5/2	BSI/EEB7/1	E/EEB5/2	SE/EEB5	8/5/2014 16:20:08	FOC			
3713	E/EEB5/2	BSI/EEB7/1	E/EEB5/2	SE/EEB5	8/5/2014 15:41:29	EA			
3666	E/EEB4/5	BSI/EEB7/1	E/EEB4/5	SE/EEB5	29/4/2014 14:14:02	EA		EMSD HQ	Kai Shing Street
3644	E/EEB7/1	BSI/EEB7/1	E/EEB7/1	SE/EEB7	27/2/2014 13:57:00	COCR		Low Rise Residential R3, Proposed Residential/Commercial Development at TCTL 36	
3643	E/EEB7/1	BSI/EEB7/1	E/EEB7/1	SE/EEB5	27/2/2014 13:55:49	COCR		Low Rise Residential R2, Proposed Residential/Commercial Development at TCTL 36	

In Create Work Page, check the action required, input Type , received date , select Action Officer and then click save record.

(Note:for create more than 1 task for one assignment, change the option “number of works to be create”)



Number of Works to be create 1

Type EA-Energy Audit Extension

Date when GR received the submission 29/04/2014

Subject Engineer - E/EEB4/5

BSI/TO - BSI/EEB7/1

Action Officer BSI/EEB7/1

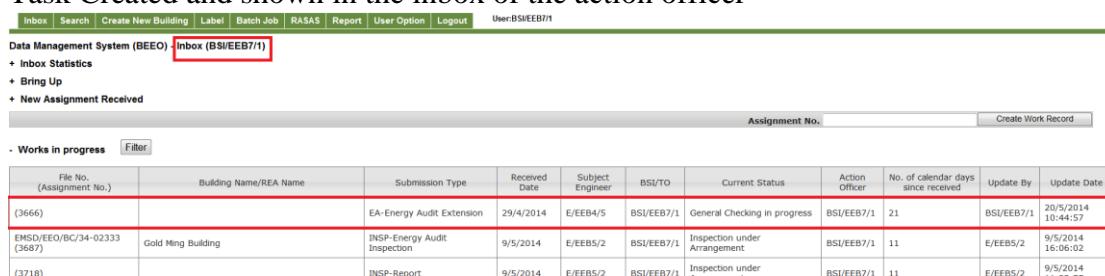
Remarks/Comments

Action Required

- Check submitted documents
- Attached please find the Checklist for General Checking / endorsement
- Please prepare letter / memo for comment / endorsement
- Attached please find letter / memo for comment / endorsement
- Please input / update information of submission to database
- For new case no, inform GR to create label
- Please prepare Inspection Notice
- Attached please find the Inspection Notice for comment / endorsement
- Please prepare the Detailed Compliance Checklist
- Attached please find the Detailed Compliance Checklist for action
- Please prepare the Improvement Notice
- Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement
- Please prepare the Improvement Notice
- Attached please find the Improvement Notice for comment / endorsement

Save Record Quilt

Task Created and shown in the inbox of the action officer



Assignment No.	File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
(3666)			EA-Energy Audit Extension	29/4/2014	E/EEB4/5	BSI/EEB7/1	General Checking in progress	BSI/EEB7/1	21	BSI/EEB7/1	20/5/2014 10:44:57
EMSD/EO/BC/34-20333 (3687)	Gold Ming Building		INSP-Energy Audit Inspection	9/5/2014	E/EEB5/2	BSI/EEB7/1	Inspection under Arrangement	BSI/EEB7/1	11	E/EEB5/2	9/5/2014 10:06:02
(3718)			INSP-Report	9/5/2014	E/EEB5/2	BSI/EEB7/1	Inspection under	BSI/EEB7/1	11	E/EEB5/2	9/5/2014

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4.2 View Submission Page

In Inbox, Click on the task under “Works in Progress” will go the submission page

Data Management System (BEOO) - Work (Assignment No.3666)																																																																																			
Assignment ID - 3666																																																																																			
File No. (Assignment No.)		Building Name/REA Name		Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer																																																																										
(3666)				EA-Energy Audit Extension	29/4/2014	E/EEB4/5	BSI/EEB7/1	General Checking in progress	BSI/EEB7/1																																																																										
EMSD/EEO/BC/34-02333 (3687)		Gold Ming Building		INSP-Energy Audit Inspection	9/5/2014	E/EEB5/2	BSI/EEB7/1	Inspection under Arrangement	BSI/EEB7/1																																																																										
(3718)				INSP-Report	9/5/2014	E/EEB5/2	BSI/EEB7/1	Inspection under	BSI/EEB7/1																																																																										
Status - General Checking in progress																																																																																			
Date when GR received the submission - 29/04/2014																																																																																			
Subject Engineer - E/EEB4/5																																																																																			
BSI/TO - BSI/EEB7/1																																																																																			
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<table border="1"> <tr> <td colspan="2">Attachment</td> <td>Add attachment</td> <td>Template</td> </tr> <tr> <td colspan="2">Instrument Notice</td> <td colspan="8"><input type="checkbox"/> Letter List</td> </tr> <tr> <td colspan="2"></td> <td colspan="8"><input type="checkbox"/> Check List</td> </tr> <tr> <td colspan="2"></td> <td colspan="8"><input type="checkbox"/> Technical Data Sheet</td> </tr> <tr> <td colspan="2">Action Required</td> <td colspan="8"> <input type="checkbox"/> Check submitted documents <input checked="" type="checkbox"/> Please prepare Checklist for General Checking <input checked="" type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement <input checked="" type="checkbox"/> Please prepare letter / memo <input type="checkbox"/> Attached please find letter / memo for comment / endorsement <input type="checkbox"/> Please input / update information of submission to database <input type="checkbox"/> For new case no, inform GR to create label <input type="checkbox"/> Please prepare Inspection Notice <input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement <input type="checkbox"/> Please prepare the Detailed Compliance Checklist <input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action <input type="checkbox"/> Please prepare the Inspection Report <input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement <input type="checkbox"/> Please prepare the Improvement Notice <input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement </td> </tr> <tr> <td colspan="2"></td> <td colspan="8"><input type="checkbox"/> Completed</td> </tr> <tr> <td colspan="2"></td> <td colspan="8"><input type="checkbox"/> attach</td> </tr> <tr> <td colspan="10">Save Action</td> </tr> </table>										Attachment		Add attachment	Template	Instrument Notice		<input type="checkbox"/> Letter List										<input type="checkbox"/> Check List										<input type="checkbox"/> Technical Data Sheet								Action Required		<input type="checkbox"/> Check submitted documents <input checked="" type="checkbox"/> Please prepare Checklist for General Checking <input checked="" type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement <input checked="" type="checkbox"/> Please prepare letter / memo <input type="checkbox"/> Attached please find letter / memo for comment / endorsement <input type="checkbox"/> Please input / update information of submission to database <input type="checkbox"/> For new case no, inform GR to create label <input type="checkbox"/> Please prepare Inspection Notice <input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement <input type="checkbox"/> Please prepare the Detailed Compliance Checklist <input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action <input type="checkbox"/> Please prepare the Inspection Report <input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement <input type="checkbox"/> Please prepare the Improvement Notice <input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement										<input type="checkbox"/> Completed										<input type="checkbox"/> attach								Save Action									
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<input type="button" value="Bring Up Management"/> <input type="button" value="Submit to E/EEB4/5"/> <input type="button" value="Select Building"/> <input type="button" value="Close"/>																																																																																			

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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4.3 Select Building for Submission

In Submission page, Click Select Building
(Only for submission without Building assigned)

Assignment ID - 3666
Type - EA-Energy Audit Extension
ID: 1800 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 29/04/2014
Subject Engineer - E/EEB4/5
BSI/TO - BSI/EEB7/1
Action Officer - BSI/EEB7/1

Action	Completed
<input type="checkbox"/> Check submitted documents	<input type="checkbox"/>
<input checked="" type="checkbox"/> Please prepare Checklist for General Checking	<input type="checkbox"/>
<input checked="" type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement	<input type="checkbox"/>
<input checked="" type="checkbox"/> Please prepare letter / memo	<input type="checkbox"/>
<input type="checkbox"/> Attached please find letter / memo for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please input / update information of submission to database	<input type="checkbox"/>
<input type="checkbox"/> For new case no, inform GR to create label	<input type="checkbox"/>
<input type="checkbox"/> Please prepare Inspection Notice	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please prepare the Detailed Compliance Checklist	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action	<input type="checkbox"/>
<input type="checkbox"/> Please prepare the Inspection Report	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please prepare the Improvement Notice	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement	<input type="checkbox"/>

Log History Filter Action Report

User	Action	Remarks/Comments	Date
BSI/EEB7/1	Action Start	Please prepare letter / memo	20/5/2014 10:44:57
BSI/EEB7/1	Action Start	Attached please find the Checklist for General Checking for comment / endorsement	20/5/2014 10:44:57
BSI/EEB7/1	Action Start	Please prepare Checklist for General Checking	20/5/2014 10:44:57

Save Action

Bring Up Management Submit to E/EEB4/5 Select Building Close

Input the searching criteria and click search

Inbox Search Create New Building Label Batch Job RASAS Report User Option Logout User:BSI/EEB7/1

Data Management System (BEEO) - Search Building for Work

File No.	EMSD/EEO/BC/34-	Chi. Bldg. Name	
Eng. Bldg. Name	EMSD HQ	Chi. Street Name	
Eng. Street Name	Kai Shing Street	Lot No.	
Building Type		Group	

Search

If required building in the search result, click on the list. And Building will be assigned for the submission.

Inbox Search Create New Building Label Batch Job RASAS Report User Option Logout User:BSI/EEB7/1

Data Management System (BEEO) - Search Building for Work

File No.	EMSD/EEO/BC/34-	Chi. Bldg. Name	
Eng. Bldg. Name	EMSD HQ	Chi. Street Name	
Eng. Street Name	Kai Shing Street	Lot No.	
Building Type		Group	

Search

Create New Building for Work

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
EMSD HQ, Kai Shing Street	EMSD HQ				EMSD/EEO/BC/34-06068	

Prev Page: 1 Next

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4.4 Create Building for Submission

Go to Submission page (which without building assigned), Click select Building

Data Management System (BEEO) - Work (Assignment No.3715)

Assignment ID - 3715																																	
Type - FOC-Form of Compliance	<input type="button" value="Attachment"/> <input type="button" value="Add attachment"/> <input type="button" value="Template"/> <input type="button" value="Improvement Notice"/> <input type="button" value="Letter List"/> <input type="button" value="Check List"/> <input type="button" value="Technical Data Sheet"/>																																
ID: 1325 (Please Click to view Detail)																																	
Status - General Checking in progress																																	
Date when GR received the submission - 08/05/2014																																	
Subject Engineer - E/EEB5/2																																	
BSI/IO - BSI/EEB7/1																																	
Action Officer - BSI/EEB7/1																																	
<table border="1"> <thead> <tr> <th>Action Required</th> <th></th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> Check submitted documents</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Please prepare Checklist for General Checking</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare letter / memo</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find letter / memo for comment / endorsement</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please input / update information of submission to database</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> For new case no, inform GR to create label</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare Inspection Notice</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare the Detailed Compliance Checklist</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare the Inspection Report</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare the Improvement Notice</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Action Required		<input checked="" type="checkbox"/> Check submitted documents	<input type="checkbox"/>	<input checked="" type="checkbox"/> Please prepare Checklist for General Checking	<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Please prepare letter / memo	<input type="checkbox"/>	<input type="checkbox"/> Attached please find letter / memo for comment / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Please input / update information of submission to database	<input type="checkbox"/>	<input type="checkbox"/> For new case no, inform GR to create label	<input type="checkbox"/>	<input type="checkbox"/> Please prepare Inspection Notice	<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Please prepare the Detailed Compliance Checklist	<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action	<input type="checkbox"/>	<input type="checkbox"/> Please prepare the Inspection Report	<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Please prepare the Improvement Notice	<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement	<input type="checkbox"/>
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<input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement	<input type="checkbox"/>																																
<input type="button" value="Save Action"/>																																	

Input search criteria and then click search

Input search criteria and then click search

Inbox	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout	User:BSI/EEB7/1
Data Management System (BEEO) - Search Building for Work									
File No.	EMSD/EEO/BC/34-				Chi. Bldg. Name				
Eng. Bldg. Name	<input type="text" value="my building"/>				Chi. Street Name				
Eng. Street Name					Lot No.				
Building Type	<input type="button" value="Search"/>				Group	<input type="button" value="Search"/>			

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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Inbox | Search | Create New Building | Label | Batch Job | RASAS | Report | User Option | Logout | User:BSI/EEB7/1

Data Management System (BEOO) - Search Building for Work

File No.	EMSD/EEO/BC/34-	Chi. Bldg. Name	
Eng. Bldg. Name	my building	Chi. Street Name	
Eng. Street Name		Lot No.	
Building Type		Group	

No building record found, Create New Building for work?

Click for create new building

Input building detail and click “save building information” will create building record for the submission. (Remarks: if not input the File No, a new File No will be assigned)

Data Management System (BEOO) - Input Information of New Building for Work (Assignment No.3715)

Eng. Bldg. Name	(Not Provided)	File No.	EMSD/EEO/BC/34- (Input an existing File No. or click button to generate a File No. automatically)												
Chi. Bldg. Name	(Not Provided)	Assignment ID - 3715													
Eng. Street Name	abcd street	Type - FOC-Form of Compliance	ID-1325 (Please Click to view Detail)												
Chi. Street Name		Status - General Checking in progress	Date when GR received the submission - 08/05/2014												
Lot No.		Subject Engineer - E/EEB5/2	BSI/TO - BSI/EEB7/1												
Street Start No.	12	Action Officer - BSI/EEB7/1													
Street Start No Alpha.															
Street End No.	14														
Street End No Alpha.															
District	Lai King														
Building Type	Commercial														
Billing Group	<input type="button" value="Add to Building Group"/>														
Log History <input type="button" value="Filter"/> <input type="button" value="Action Report"/> <table border="1"> <thead> <tr> <th>User</th> <th>Action</th> <th>Remarks/Comments</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>BSI/EEB7/1</td> <td>Action Start</td> <td>Please prepare Checklist for General Checking</td> <td>20/5/2014 11:53:34</td> </tr> <tr> <td>BSI/EEB7/1</td> <td>Action Start</td> <td>Check submitted documents</td> <td>20/5/2014 11:53:34</td> </tr> </tbody> </table>				User	Action	Remarks/Comments	Date	BSI/EEB7/1	Action Start	Please prepare Checklist for General Checking	20/5/2014 11:53:34	BSI/EEB7/1	Action Start	Check submitted documents	20/5/2014 11:53:34
User	Action	Remarks/Comments	Date												
BSI/EEB7/1	Action Start	Please prepare Checklist for General Checking	20/5/2014 11:53:34												
BSI/EEB7/1	Action Start	Check submitted documents	20/5/2014 11:53:34												
<input type="button" value="Bring Up Management"/> <input type="button" value="Select Building"/> <input checked="" type="button" value="Save Building Information"/> <input type="button" value="Cancel"/>															

Inbox | Search | Create New Building | Label | Batch Job | RASAS | Report | User Option | Logout | User:BSI/EEB7/1

Data Management System (BEOO) - Work (Assignment No.3715)

Building Type - Commercial	my building, 12-14 abcd street , Lai King, Kowloon
File No. - EMSD/EEO/BC/34-06114	九龍新界12-14號

Assignment ID - 3715
 Type - FOC-Form of Compliance
 ID- 1325 (Please Click to view Detail)
 Status - General Checking in progress
 Date when GR received the submission - 08/05/2014
 Subject Engineer - E/EEB5/2
 BSI/TO - BSI/EEB7/1
 Action Officer - BSI/EEB7/1

Attachment	<input type="button" value="Add attachment"/> <input type="button" value="Template"/>
Improvement Notice	<input type="button" value="Create New Improvement Notice"/>
Letter List	<input type="button" value="Add Letter List"/>
Check List	<input type="button" value="Technical Data Sheet"/>
Add Technical Sheet attachment	
Action Required	Completed
<input checked="" type="checkbox"/> Check submitted documents	<input type="checkbox"/>
<input checked="" type="checkbox"/> Please prepare Checklist for General Checking	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please prepare letter / memo	<input type="checkbox"/>
<input type="checkbox"/> Attached please find letter / memo for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please input / update information of submission to database	<input type="checkbox"/>
<input type="checkbox"/> For never case no, inform GR to create label	<input type="checkbox"/>
<input type="checkbox"/> Please prepare Inspection Notice	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please prepare the Detailed Compliance Checklist	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action	<input type="checkbox"/>

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4.5 Change Action

(Note: Change Action only be done by subject Engineer, BSI, and Action Office of the Submission)

In Submission Page

Check the Required and Completed checkbox for the action and then click save action.

Data Management System (BEEO) - Work (Assignment No.3666)

Building Type - File No. - EMSD/EEO/BC/34-06068	EMSD HQ, Kai Shing Street																																																
<p>Assignment ID - 3666</p> <p>Type - EA-Energy Audit Extension</p> <p>ID: 1809 (Please Click to view Detail)</p> <p>Status - General Checking in progress</p> <p>Date when GR received the submission - 29/04/2014</p> <p>Subject Engineer - E/EEBA/5</p> <p>BSI/TO - BSI/EEB7/1</p> <p>Action Officer - BSI/EEB7/1</p>																																																	
<p>Attachment</p> <p>Add attachment Template</p> <p>Improvement Notice</p> <p>Create New Improvement Notice</p> <p>Letter List</p> <p>Add Letter List</p> <p>Check List</p> <p>Add Check List</p> <p>Technical Data Sheet</p> <p>Add Technical Sheet attachment</p>																																																	
<table border="1"> <thead> <tr> <th>Action</th> <th>Required</th> <th>Completed</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Check submitted documents</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Please prepare Checklist for General Checking</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Please prepare letter / memo</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find letter / memo for comment / endorsement</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Please input / update information of submission to database</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> For new case no, inform GR to create label</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare Inspection Notice</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare the Detailed Compliance Checklist</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare the Inspection Report</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Please prepare the Improvement Notice</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement</td> <td></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p style="text-align: right;">Save Action</p>		Action	Required	Completed	<input type="checkbox"/> Check submitted documents		<input type="checkbox"/>	<input checked="" type="checkbox"/> Please prepare Checklist for General Checking		<input type="checkbox"/>	<input checked="" type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement		<input type="checkbox"/>	<input checked="" type="checkbox"/> Please prepare letter / memo		<input type="checkbox"/>	<input type="checkbox"/> Attached please find letter / memo for comment / endorsement		<input type="checkbox"/>	<input checked="" type="checkbox"/> Please input / update information of submission to database		<input type="checkbox"/>	<input type="checkbox"/> For new case no, inform GR to create label		<input type="checkbox"/>	<input type="checkbox"/> Please prepare Inspection Notice		<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Inspection Notice for comment / endorsement		<input type="checkbox"/>	<input type="checkbox"/> Please prepare the Detailed Compliance Checklist		<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Detailed Compliance Checklist for action		<input type="checkbox"/>	<input type="checkbox"/> Please prepare the Inspection Report		<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Inspection Report and the duly completed Detailed Compliance Checklist for comment / endorsement		<input type="checkbox"/>	<input type="checkbox"/> Please prepare the Improvement Notice		<input type="checkbox"/>	<input type="checkbox"/> Attached please find the Improvement Notice for comment / endorsement		<input type="checkbox"/>
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4.6 Attachment for Submission

1. Add Attachment

In submission page, Click Add Attachment

Data Management System (BEEO) - Work (Assignment No.3666)

The screenshot shows a submission form for Assignment ID 3666. The 'Type' field is set to 'EA-Energy Audit Extension'. The 'Status' is 'General Checking in progress'. The 'Date when GR received the submission' is 29/04/2014. The 'Subject Engineer' is E/EEB4/5. The 'BSI/TO' is BSI/EEB7/1. The 'Action Officer' is BSI/EEB7/1. On the right, there is a sidebar with various buttons: 'Attachment' (highlighted with a red box), 'Template', 'Improvement Notice' (disabled), 'Create New Improvement Notice', 'Letter List', 'Add Letter List', 'Check List', 'Add Check List', 'Technical Data Sheet', and 'Add Technical Sheet attachment'. Below these are 'Action Required' checkboxes for 'Check submitted documents' (unchecked) and 'Please prepare Checklist for General Checking' (checked).

Click Upload file to select file

The screenshot shows the 'Add Attachment' page. It includes fields for 'Building Type' (EMSD HQ, Kai Shing Street) and 'File No.' (EMSD/EEO/BC/34-06068). A 'Document' tab is selected. Under 'Document - Add Record', there are fields for 'Document Category' (EA), 'Submission ID' (1809), 'Document Name' (empty input field), 'Type' (dropdown menu), and an 'Upload File' button (highlighted with an orange box). There is also a 'Scan Document' section.

Select type and then click attach to record and attachment will be added to the submission.

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AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Inbox | Search | Create New Building | Label | Batch Job | RASAS | Report | User Option | Logout | User:BSI/EEB7/1

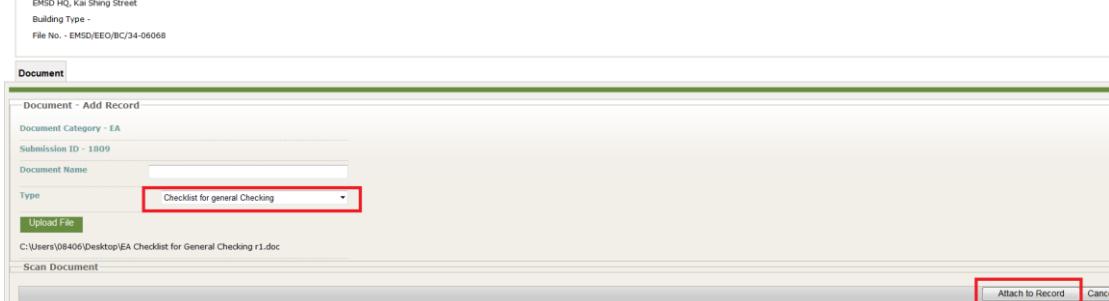
Data Management System (BEEO) - Add Attachment

EMSD HQ, Kai Shing Street
Building Type -
File No. - EMSD/EEO/BC/34-06068

Document

Document - Add Record
Document Category - EA
Submission ID - 1809
Document Name
Type **Checklist for general Checking**
Upload File
C:\Users\08406\Desktop\EA Checklist for General Checking r1.doc
Scan Document

Attach to Record **Cancel**



Inbox | Search | Create New Building | Label | Batch Job | RASAS | Report | User Option | Logout | User:BSI/EEB7/1

Data Management System (BEEO) - Work (Assignment No.3666)

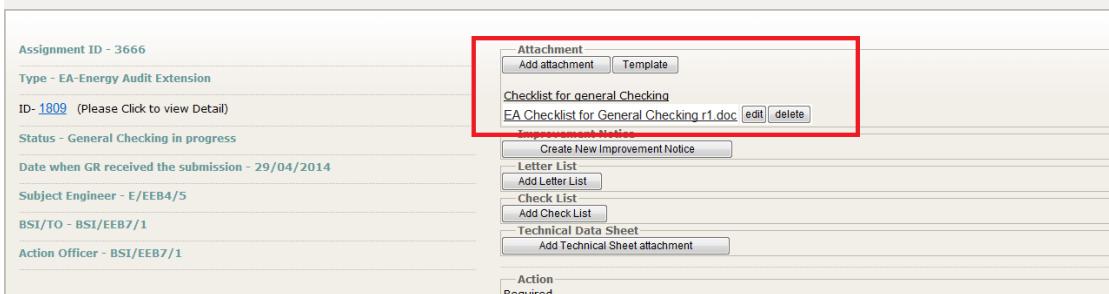
Building Type - EMSD HQ, Kai Shing Street
File No. - EMSD/EEO/BC/34-06068

Assignment ID - 3666
Type - EA-Energy Audit Extension
ID- **1809** (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 29/04/2014
Subject Engineer - E/EEB4/5
BSI/TO - BSI/EEB7/1
Action Officer - BSI/EEB7/1

Attachment
Add attachment **Template**
Checklist for general Checking
EA Checklist for General Checking r1.doc **edit** **delete**

Improvement Notice
Create New Improvement Notice
Letter List
Add Letter List
Check List
Add Check List
Technical Data Sheet
Add Technical Sheet attachment

Action
Required



2. Edit Attachment

In submission page, click on “edit” beside the attachment

Inbox | Search | Create New Building | Label | Batch Job | RASAS | Report | User Option | Logout | User:BSI/EEB7/1

Data Management System (BEEO) - Work (Assignment No.3666)

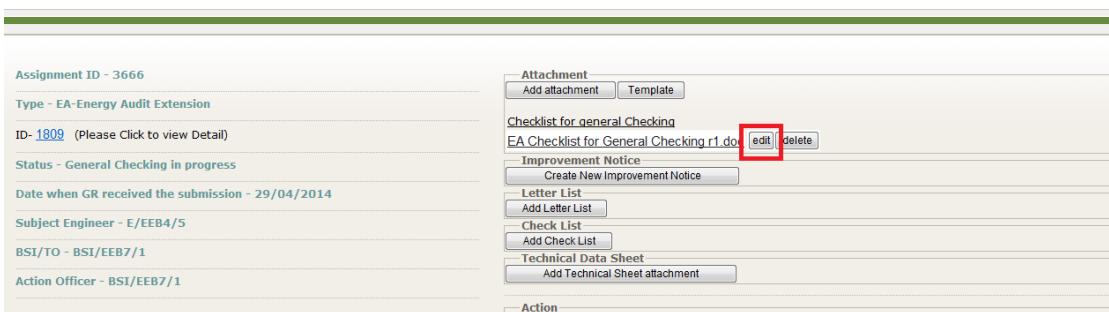
Building Type - EMSD HQ, Kai Shing Street
File No. - EMSD/EEO/BC/34-06068

Assignment ID - 3666
Type - EA-Energy Audit Extension
ID- **1809** (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 29/04/2014
Subject Engineer - E/EEB4/5
BSI/TO - BSI/EEB7/1
Action Officer - BSI/EEB7/1

Attachment
Add attachment **Template**
Checklist for general Checking
EA Checklist for General Checking r1.doc **edit** **delete**

Improvement Notice
Create New Improvement Notice
Letter List
Add Letter List
Check List
Add Check List
Technical Data Sheet
Add Technical Sheet attachment

Action
Required



Click on Upload File to upload your modified document and then Click Attach to Record. Your modified document will be upload and replace the old one.

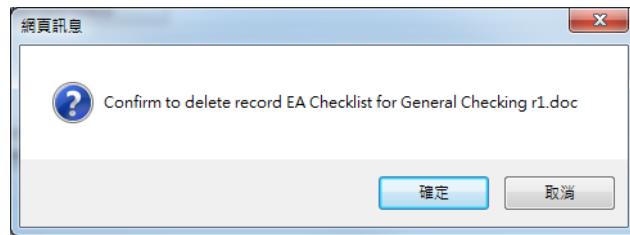
USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)

The screenshot shows a web-based application for managing building attachments. At the top, there's a navigation bar with links for Inbox, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout. The current user is identified as User:BSI/EEB7/1. Below the navigation is a header for "Data Management System (BEEO) - Attachment". The main area is titled "Document" and contains fields for Document Name (EA Checklist for General Checking r1.doc), Type (Checklist for general Checking), and a file input field labeled "Upload File" which has "EA Checklist for General Checking r1.doc" selected. There are "Attach to Record" and "Cancel" buttons at the bottom right.

3. Delete Attachment

In submission page, Click delete

The screenshot shows the "Work (Assignment No.3666)" section of the BEEO system. It displays basic information like Building Type (EMSD HQ, Kai Shing Street) and File No. (EMSD/EEO/BC/34-06068). Below this, the "Assignment ID - 3666" and "Type - EA-Energy Audit Extension" are listed. A detailed view of the assignment includes fields for ID (1809), Status (General Checking in progress), Date received (29/04/2014), and Subject Engineer (E/EEB4/5). On the right side, there are buttons for "Attachment" (Add attachment, Template), "Checklist for general Checking" (EA Checklist for General Checking r1.doc, with edit and delete buttons, the delete button is highlighted with a red box), "Improvement Notice" (Create New Improvement Notice), "Letter List" (Add Letter List), and "Check List".



Confirm will delete the attachment.

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)

4.7 Attachment for Action

For action allow add attachment, a “attach” button will be shown beside the action.

The screenshot shows the assignment details for Assignment ID 3715. In the 'Action' section, there is a 'Required' checkbox group with several options. To the right of this group is a 'Completed' section with checkboxes and an 'attach' button, which is highlighted with a red box.

Click on the attach button allow to add attachment

This screenshot shows the 'Add Attachment' page. It includes fields for 'Document Name', 'Type', and 'Upload File'. A file named 'C:\Users\08406\Desktop\FOC Checklist for General Checking r1.doc' is selected. At the bottom right, there is an 'Attach to Record' button, which is highlighted with a red box.

Upload file and click “attach to record” will add the attachment. And the action become a link to the uploaded attachment

The screenshot shows the assignment details again. The 'Completed' section now includes a link to the uploaded document ('FOC Checklist for General Checking r1.doc'), which is highlighted with a red box. The 'attach' button is also highlighted with a red box.

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ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

4.8 Submission Detail

In Submission page, Click the ID will go to the submission Detail page

Building Type - Commercial
File No. - EMSD/EO/BC/34-06114 my building, 12-14 abcd street , Lai King, Kowloon
九龍城12-14號

Type - FOC-Form of Compliance
Status - General Checking in progress
Date when GR received the submission - 08/05/2014
Subject Engineer - E/EEB5/2
BSI/TO - BSI/EEB7/1
Action Officer - BSI/EEB7/1

Attachment

Improvement Notice

Letter List

Check List

Action Required	Completed
<input checked="" type="checkbox"/> Check submitted documents	<input type="checkbox"/>
<input checked="" type="checkbox"/> Please prepare Checklist for General Checking	<input type="checkbox"/>
<input type="checkbox"/> Attached please find the Checklist for General Checking for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please prepare letter / memo	<input type="checkbox"/>
<input type="checkbox"/> Attached please find letter / memo for comment / endorsement	<input type="checkbox"/>
<input type="checkbox"/> Please input / update information of submission to database	<input type="checkbox"/>
<input type="checkbox"/> For new case no, inform GR to create label	<input type="checkbox"/>

Building Type - Commercial
File No. - EMSD/EO/BC/34-06114 my building, 12-14 abcd street , Lai King, Kowloon
九龍城12-14號

Type of Submission - FOC - Form of Compliance Record ID - 1325
Subject Engineer - E/EEB5/2 BSI/TO - BSI/EEB7/1 Action Officer - BSI/EEB7/1
Status - General Checking in progress

FOC - Record

Received Date (dd/mm/yyyy)	08/05/2014	B/E/C Edition	Review By
Issue Date (dd/mm/yyyy)		REA Inspect Date (dd/mm/yyyy)	Review Date (dd/mm/yyyy)
REA Reg. No.		Ack. Date (dd/mm/yyyy)	File Closure Date (dd/mm/yyyy) -
REA Name	CHAN Man Man	Screen By	Last Clarify Date (dd/mm/yyyy)
		Screen Date (dd/mm/yyyy)	

Information of Relevant Unit / Common Area

English Name	Room/Flat	Floor	Block
Chinese Name	Other Description		

Responsible Company/Person

Developer of the building	<input type="button" value="Add"/>
Major Work	<input type="button" value="Add Work Location"/>

Work Location Its Common Area Its Unit

Work Area	Commence Date (dd/mm/yyyy)
Installation Type <input type="checkbox"/> Lighting <input type="checkbox"/> Air-Conditioning <input type="checkbox"/> Electrical <input type="checkbox"/> Lift <input type="checkbox"/> Escalator	Completion Date (dd/mm/yyyy)
<input type="button" value="delete work location"/>	

Supplementary Information

Enclosed Technical Form
Form EE-EL Yes NA Form EE-LG Yes NA Form EE-AC Yes NA Form EE-LE Yes NA Form EE-PB Yes NA

Exemption previously granted by the Director under sections 15, 20 or 25 of this Ordinance for this work : Yes NA

Reference No. and date of the Director's exemption letter :
Reference No. _____ Date: _____

Installation(s) exempted : _____

Date for signature of the Developer/Owner/Responsible Person _____
Date for signature of Registered Energy Assessor _____

Comments & Re-submission

Edit the data and click save record will save the change.
Click Back to work will go back to submission page.
Click Quit will go to inbox.

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AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

4.9 Add Building Owner/Developer to Submission

In submission detail page, user can add Building Owner/Developer.

Data Management System (BEOO) - Work (Detail)

Building Type - Commercial
File No. - EMSD/BEOO/BC/34-06114 my building, 12-14 abc street , Lai King, Kowloon 九龍城12-14號

Type of Submission - FOC - Form of Compliance Record ID - 1325
Subject Engineer - E/EEB5/2 BSU/TO - BSU/EEB7/1 Action Officer - BSU/EEB7/1 Status - General Checking in progress

FOC - Record

Received Date (dd/mm/yyyy)	08/05/2014	BEC Edition	Review By
Issue Date (dd/mm/yyyy)		REA Inspect Date (dd/mm/yyyy)	Review Date (dd/mm/yyyy)
REA Reg. No.		Ack. Date (dd/mm/yyyy)	File Closure Date (dd/mm/yyyy) -
REA Name	CHAN Man Man	Screen By	Last Clarify Date (dd/mm/yyyy)
		Screen Date (dd/mm/yyyy)	

Information of Relevant Unit / Common Area

English Name	Room/Flat	Floor	Block
Chinese Name	Other Description		

Responsible Company/Person

Developer of the building **Add**

- Developer of the building
- Incorporated Owner of the building
- Occupier of the unit
- Owner of the building
- Owner of the relevant central building installation
- Owner of the relevant common area
- Owner of the unit
- Property Management Co.
- tenant of the unit

Work Area

Work Area	Commence Date (dd/mm/yyyy)
Installation Type	Completion Date (dd/mm/yyyy)
<input checked="" type="checkbox"/> Lighting	<input type="checkbox"/> Air-Conditioning
<input type="checkbox"/> Electrical	<input type="checkbox"/> Lift
<input type="checkbox"/> Escalator	

delete work location

Select the type of responsible company/person and then Click Add.

Data Management System (BEOO) - ADD Owner of the building

Type: Company Address: abc example co.

Search Person/Company

Address

Search

Input criteria and then click search

If required company find, click on it will add to the submission.
Otherwise click create new to create new company/person record.

Add Person/Company

Type: Company Address:

Mr. / Miss / Ms. (if applicable)

English Name: abc example co.

Chinese Name:

Mr. / Miss / Ms.

Represent Name: cheung tai man

Chi. Represent Name:

Address Language: English

Represent Position:

Save Record

Input detail for new record and click save.

Data Management System (BEOO) - Work (Detail)

Building Type - Commercial
File No. - EMSD/BEOO/BC/34-06114 my building, 12-14 abc street , Lai King, Kowloon 九龍城12-14號

Type of Submission - FOC - Form of Compliance Record ID - 1325
Subject Engineer - E/EEB5/2 BSU/TO - BSU/EEB7/1 Action Officer - BSU/EEB7/1 Status - General Checking in progress

FOC - Record

Received Date (dd/mm/yyyy)	08/05/2014	BEC Edition	Review By
Issue Date (dd/mm/yyyy)		REA Inspect Date (dd/mm/yyyy)	Review Date (dd/mm/yyyy)
REA Reg. No.		Ack. Date (dd/mm/yyyy)	File Closure Date (dd/mm/yyyy) -
REA Name	CHAN Man Man	Screen By	Last Clarify Date (dd/mm/yyyy)
		Screen Date (dd/mm/yyyy)	

Information of Relevant Unit / Common Area

English Name	Room/Flat	Floor	Block
Chinese Name	Other Description		

Responsible Company/Person

Developer of the building **Add**

Type - Company	Address: abc example co., 12-14 abc street , Lai King, Kowloon 九龍城12-14號	Phone No.: 23345678
English Name - abc example co.		Fax No.:
Chinese Name -		Email Address:
Represent Name - Mr. cheung tai man		Remove
Chi. Represent Name -		Edit
Represent Position -		

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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4.10 Select Subject Engineer (REA)

As REA type assignment only selected BSI/TO, after creating the REA task, the subject Engineer need to be assigned.

Data Management System (BEEO) - Work (Assignment No.3665)

File No. - EMSD/EEO/BC/19/01/06	Attachment Add attachment Template		
REA Name - abctest	Improvement Notice		
Assignment ID - 3665	Letter List Check List		
Type - REA-Registration as Registered Energy Assessor			
ID: 5 (Please Click to view Detail)	Action Required		
Status - General Checking in progress	Completed		
Date when GR received the submission - 24/04/2014	<input type="checkbox"/> Prepare Acknowledgement Letter <input checked="" type="checkbox"/> Check submitted documents <input type="checkbox"/> Prepare Checklist for General Checking <input checked="" type="checkbox"/> Attach Checklist for General Checking for comments / endorsement <input type="checkbox"/> Prepare Letter of Request for Supplementary Information <input type="checkbox"/> Inform GR of Request for Supplementary Information for comments / endorsement <input type="checkbox"/> Input / Update Information of application / submission <input type="checkbox"/> For new case no, inform GR to create label		
Subject Engineer -	<input type="checkbox"/>		
BSI/TO - BSI/EEB7/1	<input type="checkbox"/>		
Action Officer - BSI/EEB7/1	<input type="checkbox"/>		
Save Action			
Log History Filter Action Report			
User	Action	Remarks/Comments	Date
BSI/EEB7/1	Action Start	Attach Checklist for General Checking for comments / endorsement	24/4/2014 15:04:54
BSI/EEB7/1	Action Start	Check submitted documents	24/4/2014 15:04:54

Click Assignment Engineer

Data Management System (BEEO) - Work (Assignment No.3665)

Assign Subject Enginner

Subject Engineer	E/EEB5/1
<input type="button" value="Confirm"/> <input type="button" value="Cancel"/>	

Select Subject Engineer and click confirm

Inbox Search Create New Building Label Batch Job RASAS Report User Option Logout User:BSI/EEB7/1

Data Management System (BEOO) - Work (Assignment No.3665)

File No. - EMSD/EEO/BC/19/01/06	Attachment <input type="button" value="Add Attachment"/> <input type="button" value="Template"/>																		
REA Name - abcst	<input type="checkbox"/> Improvement Notice <input type="checkbox"/> Letter List <input type="checkbox"/> Check List																		
Assignment ID - 3665																			
Type - REA-Registration as Registered Energy Assessor																			
ID- 5 (Please Click to view Detail)																			
Status - General Checking in progress																			
Date when GR received the submission - 24/04/2014																			
Subject Engineer - E/EEBS/1																			
BSI/TO - BSI/EEB7/1																			
Action Officer - BSI/EIB7/1																			
<table border="1"> <thead> <tr> <th>Action Required</th> <th>Completed</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Prepare Acknowledgement Letter</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Check submitted documents</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Prepare Checklist for General Checking</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Attach Checklist for General Checking for comments / endorsement</td> <td><input type="checkbox"/> <input type="button" value="attach"/></td> </tr> <tr> <td><input type="checkbox"/> Prepare Letter of Request for Supplementary Information</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Attach Letter of Request for Supplementary Information for comments / endorsement</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> Input / Update Information of application / submission</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> For new case no, inform GR to create label</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <input type="button" value="Save Action"/>		Action Required	Completed	<input type="checkbox"/> Prepare Acknowledgement Letter	<input type="checkbox"/>	<input checked="" type="checkbox"/> Check submitted documents	<input type="checkbox"/>	<input type="checkbox"/> Prepare Checklist for General Checking	<input type="checkbox"/>	<input checked="" type="checkbox"/> Attach Checklist for General Checking for comments / endorsement	<input type="checkbox"/> <input type="button" value="attach"/>	<input type="checkbox"/> Prepare Letter of Request for Supplementary Information	<input type="checkbox"/>	<input type="checkbox"/> Attach Letter of Request for Supplementary Information for comments / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Input / Update Information of application / submission	<input type="checkbox"/>	<input type="checkbox"/> For new case no, inform GR to create label	<input type="checkbox"/>
Action Required	Completed																		
<input type="checkbox"/> Prepare Acknowledgement Letter	<input type="checkbox"/>																		
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<input type="checkbox"/> Attach Letter of Request for Supplementary Information for comments / endorsement	<input type="checkbox"/>																		
<input type="checkbox"/> Input / Update Information of application / submission	<input type="checkbox"/>																		
<input type="checkbox"/> For new case no, inform GR to create label	<input type="checkbox"/>																		

Log History		Filter	Action Report	
User	Action	Remarks/Comments		Date
BSI/EEB7/1	Action Start	Attach Checklist for General Checking for comments / endorsement		24/4/2014 15:04:54
BSI/EEB7/1	Action Start	Check submitted documents		24/4/2014 15:04:54

Engineer assigned.

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4.11 Change Action Officer

From BSI/TO to Engineer
If the action officer is BSI/TO, Click Submit to Engineer

File No. - EMSD/EEO/BC/19/01/06
REA Name - abctest
Assignment ID - 3665
Type - REA-Registration as Registered Energy Assessor
ID-5 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 24/04/2014
Subject Engineer - E/EEB5/1
BSI/TO - BSI/EEB7/1
Action Officer - BSI/EEB7/1

Attachment
Add attachment | Template
Improvement Notice
Letter List
Check List

Action Required
 Prepare Acknowledgement Letter
 Check submitted documents
 Prepare Checklist for General Checking
 Attach Checklist for General Checking for comments / endorsement
 Prepare Letter of Request for Supplementary Information
 Attach Letter of Request for Supplementary Information for comments / endorsement
 Input / Update Information of application / submission
 For new case no, inform GR to create label

Completed

attach

Save Action

User	Action	Remarks/Comments	Date
BSI/EEB7/1	Action Start	Attach Checklist for General Checking for comments / endorsement	24/4/2014 15:04:54
BSI/EEB7/1	Action Start	Check submitted documents	24/4/2014 15:04:54

Bring Up Management Submit to E/EEB5/1

File No. - EMSD/EEO/BC/19/01/06
REA Name - abctest
Assignment ID - 3665
Type - REA-Registration as Registered Energy Assessor
ID-5 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 24/04/2014
Subject Engineer - E/EEB5/1
BSI/TO - BSI/EEB7/1
Next Action Officer - E/EEB5/1

Remarks/Comments

Confirm Cancel

Click confirm will change the action officer to engineer

File No. - EMSD/EEO/BC/19/01/06
REA Name - abctest
Assignment ID - 3665
Type - REA-Registration as Registered Energy Assessor
ID-5 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 24/04/2014
Subject Engineer - E/EEB5/1
BSI/TO - BSI/EEB7/1
Action Officer - E/EEB5/1

Attachment
Add attachment | Template
Improvement Notice
Letter List
Check List

Action Required
 Prepare Acknowledgement Letter
 Check submitted documents
 Prepare Checklist for General Checking
 Attach Checklist for General Checking for comments / endorsement
 Prepare Letter of Request for Supplementary Information
 Attach Letter of Request for Supplementary Information for comments / endorsement
 Input / Update Information of application / submission
 For new case no, inform GR to create label

Completed

attach

Save Action

User	Action	Remarks/Comments	Date
BSI/EEB7/1	Action Start	Attach Checklist for General Checking for comments / endorsement	24/4/2014 15:04:54
BSI/EEB7/1	Action Start	Check submitted documents	24/4/2014 15:04:54

Bring Up Management Last action officer for review Proceed Close Cancel

From Engineer to BSI/TO

If the action officer is Engineer, click "last action officer for review"

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Data Management System (BEEO) - Work (Assignment No.3665)																															
<p>File No. - EMSD/EEO/BC/19/01/06 REA Name - abctest Assignment ID - 3665</p> <p>Type - REA-Registration as Registered Energy Assessor ID- 5 (Please Click to view Detail) Status - General Checking in progress Date when GR received the submission - 24/04/2014 Subject Engineer - E/EEBS/1 BSI/TO - BSI/EEB7/1 Action Officer - E/EEBS/1</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Action Required</th> <th style="text-align: left; padding: 5px;">Completed</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><input type="checkbox"/> Prepare Acknowledgement Letter</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input checked="" type="checkbox"/> Check submitted documents</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Prepare Checklist for General Checking</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input checked="" type="checkbox"/> Attach Checklist for General Checking for comments / endorsement</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Attach Letter of Request for Supplementary Information</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Attach Letter of Request for Supplementary Information for comments / endorsement</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Input/ Update Information of application / submission</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> For new case no, inform GR to create label</td> <td style="padding: 5px;"><input type="checkbox"/></td> </tr> </tbody> </table> <p style="text-align: right; margin-top: -10px;"><input type="button" value="Save Action"/></p> <p>Log History <input type="button" value="Filter"/> <input type="button" value="Action Report"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 5px;">User</th> <th style="text-align: center; padding: 5px;">Action</th> <th style="text-align: center; padding: 5px;">Remarks/Comments</th> <th style="text-align: center; padding: 5px;">Date</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">BSI/EEB7/1</td> <td style="padding: 5px;">Action Start</td> <td style="padding: 5px;">Attach Checklist for General Checking for comments / endorsement</td> <td style="padding: 5px;">24/4/2014 15:04:54</td> </tr> <tr> <td style="padding: 5px;">BSI/EEB7/1</td> <td style="padding: 5px;">Action Start</td> <td style="padding: 5px;">Check submitted documents</td> <td style="padding: 5px;">24/4/2014 15:04:54</td> </tr> </tbody> </table> <p style="text-align: right; margin-top: -10px;"><input type="button" value="Bring Up Management"/> Last action officer for review <input type="button" value="Proceed"/> <input type="button" value="Close"/> <input type="button" value="Cancel"/></p>		Action Required	Completed	<input type="checkbox"/> Prepare Acknowledgement Letter	<input type="checkbox"/>	<input checked="" type="checkbox"/> Check submitted documents	<input type="checkbox"/>	<input type="checkbox"/> Prepare Checklist for General Checking	<input type="checkbox"/>	<input checked="" type="checkbox"/> Attach Checklist for General Checking for comments / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Attach Letter of Request for Supplementary Information	<input type="checkbox"/>	<input type="checkbox"/> Attach Letter of Request for Supplementary Information for comments / endorsement	<input type="checkbox"/>	<input type="checkbox"/> Input/ Update Information of application / submission	<input type="checkbox"/>	<input type="checkbox"/> For new case no, inform GR to create label	<input type="checkbox"/>	User	Action	Remarks/Comments	Date	BSI/EEB7/1	Action Start	Attach Checklist for General Checking for comments / endorsement	24/4/2014 15:04:54	BSI/EEB7/1	Action Start	Check submitted documents	24/4/2014 15:04:54
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Data Management System (BEEO) - Work (Assignment No.3665)																															
<p>Change Action Officer</p> <p>File No. - EMSD/EEO/BC/19/01/06 REA Name - abctest Assignment ID - 3665</p> <p>Type - REA-Registration as Registered Energy Assessor ID- 5 (Please Click to view Detail) Status - General Checking in progress Date when GR received the submission - 24/04/2014 Subject Engineer - E/EEBS/1 BSI/TO - BSI/EEB7/1 Next Action Officer - BSI/EEB7/1</p> <p style="text-align: right; margin-top: -10px;"><input type="button" value="Confirm"/> <input type="button" value="Cancel"/></p>																															

Click confirm will change the action officer to last action officer
(i.e. BSI/TO)

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4.12 Close a Submission

Action officer has the right to close the submission

Data Management System (BEEO) - Work (Assignment No.3656)

Building Type - Commercial File No. - EMSD/ECO/BC/34-00491	WORKINGBERG COMMERCIAL BUILDING, 41-47 MARBLE ROAD 馬頭圍41-47號 營業地點大廈																
<p>Assignment ID - 3656 Type - INSP-Energy Audit Inspection ID: 266 (Please Click to view Detail) Status - Inspection under Arrangement Scheduled Date of Inspection - 04/04/2014 Subject Engineer - E/EEBS/1 BSI/TO - toeebs3ps92 Action Officer - E/EEBS/1 Related Submission: EA-Energy Audit Form-1780</p> <p>Attachment <input type="button" value="Add attachment"/> <input type="button" value="Template"/> <input type="button" value="Create New Improvement Notice"/> <input type="button" value="Letter List"/> <input type="button" value="Add Letter List"/> <input type="button" value="Check List"/> <input type="button" value="Add Check List"/></p> <p>Inspection Compliance Checklist for EA 20140303 <input type="button" value="Del"/> <input type="button" value="Gen"/> <input type="button" value="Ref"/> Inspection Compliance Checklist for EA 20140303 <input type="button" value="Del"/> <input type="button" value="Gen"/> <input type="button" value="Ref"/></p> <p>Action Required <input checked="" type="checkbox"/> Arrange inspection <input checked="" type="checkbox"/> Attach Detailed Compliance Checklist for action by Inspector <input type="button" value="Attach"/> <input type="button" value="Save Action"/></p> <p>Log History <input type="button" value="Filter"/> <input type="button" value="Action Report"/></p> <table border="1"><thead><tr><th>User</th><th>Action</th><th>Remarks/Comments</th><th>Date</th></tr></thead><tbody><tr><td>E/EEBS/1</td><td>Action Completed</td><td>Arrange inspection</td><td>30/4/2014 10:47:07</td></tr><tr><td>E/EEBS/1</td><td>Action Start</td><td>Arrange inspection</td><td>3/3/2014 9:23:54</td></tr><tr><td>E/EEBS/1</td><td>Action Start</td><td>Attach Detailed Compliance Checklist for action by Inspector</td><td>3/3/2014 9:23:54</td></tr></tbody></table> <p align="right"><input type="button" value="Bring Up Management"/> <input type="button" value="Last action officer for review"/> <input type="button" value="Proceed"/> <input type="button" value="Close"/> <input type="button" value="Cancel"/></p>		User	Action	Remarks/Comments	Date	E/EEBS/1	Action Completed	Arrange inspection	30/4/2014 10:47:07	E/EEBS/1	Action Start	Arrange inspection	3/3/2014 9:23:54	E/EEBS/1	Action Start	Attach Detailed Compliance Checklist for action by Inspector	3/3/2014 9:23:54
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E/EEBS/1	Action Start	Arrange inspection	3/3/2014 9:23:54														
E/EEBS/1	Action Start	Attach Detailed Compliance Checklist for action by Inspector	3/3/2014 9:23:54														

Click Close

Data Management System (BEEO) - Work (Assignment No.3656)

Building Type - Commercial File No. - EMSD/ECO/BC/34-00491	WORKINGBERG COMMERCIAL BUILDING, 41-47 MARBLE ROAD 馬頭圍41-47號 營業地點大廈
<p>Close the work Assignment ID - 3656 Type - INSP-Energy Audit Inspection ID: 266 (Please Click to view Detail) Status - Inspection under Arrangement Scheduled Date of Inspection - 04/04/2014 Subject Engineer - E/EEBS/1 BSI/TO - toeebs3ps92 Related Submission: EA-Energy Audit Form-1780</p> <p>Close Stage <input type="button" value="INSP-Close case"/></p> <p>Remarks/Comments <input type="text"/></p> <p align="right"><input type="button" value="Confirm"/> <input type="button" value="Cancel"/></p>	

Click confirm

The submission will change to close status and will not be shown in inbox.

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)

4.13 Close REA

For submission type of “Registration as Registered Energy Assessor” or “Registration of Public Officer”, when set submission to status “Closed (Approved)”, If it is a new application. A new REA record will be created for this application.

Data Management System (BEOO) - Work (Detail)

Type of Submission - REA - Registration of Public Officer	BSI/TO - BSI/EEB7/1
Case No. - EMSD/EEO/BC/19/01/06131	Action Officer - BSI/EEB7/1
Subject Engineer - E/EEB5/1	Status - General Checking in progress

REA - Record

Received Date (dd/mm/yyyy) 22/05/2014	Review By
REA Reg. No. EA009990	Review Date (dd/mm/yyyy)
REA Name	Handled By
Issue Date (dd/mm/yyyy)	Date To BSI for DCI(dd/mm/yyyy)
Ack. Date (dd/mm/yyyy)	Issue Date of DCI(dd/mm/yyyy)
Screen By	Letter return Date of DCI (dd/mm/yyyy)
Screen Date (dd/mm/yyyy)	Receipt Date (dd/mm/yyyy)
Agree to disclosure of Email <input checked="" type="checkbox"/>	Agree to disclosure of Tel. no <input type="checkbox"/>
Practical Experience A <input type="checkbox"/>	Practical Experience B <input type="checkbox"/>
Practical Experience C <input type="checkbox"/>	Withdrawn Date (dd/mm/yyyy)
Withdrawn Reason A <input type="checkbox"/>	Withdrawn Reason B <input type="checkbox"/>
Withdrawn Remark	Remark
Status	Trade

Form Detail

Application No: 3752-24

Please read the “Notes to this form” attached and complete all the items in block letters.
To the Director of Electrical & Mechanical Services :

I hereby apply for the following (Please tick in the appropriate box(s)) : -

For new applicant only

New Application for Registration as a Registered Energy Assessor

For current Registered Energy Assessor

Registration No.: <input type="text"/>	Name <input type="checkbox"/>
<input type="radio"/> Change or Particulars	Correspondence Address <input type="checkbox"/>

Section A

Name (surname first): English rename e Chinese reabane c	Mr. <input checked="" type="checkbox"/> Miss <input type="checkbox"/> Ms. <input type="checkbox"/>	Date of Birth: 22/05/2014	
HKID b8660833	Flat	Floor	Block
Building	Start Street No.:	Alpha:	
Correspondence Address: End Street No.:	Alpha:		
Email:			

Data Management System (BEOO) - Work (Assignment No.3752)

File No.: EMSD/EEO/BC/19/01/06131	Attachment <input type="checkbox"/> Template <input type="checkbox"/>
REA Name:	Improvement Notice <input type="checkbox"/>
Assignment ID: 3752	Letter <input type="checkbox"/> Check List <input type="checkbox"/>
Type: REA-Registration of Public Officer	Action Required <input checked="" type="checkbox"/>
ID-24 (Please Click to view Detail)	Prepared <input checked="" type="checkbox"/> Approved/Acknowledgement Letter <input type="checkbox"/> Check submitted documents <input type="checkbox"/> Prepare Checklist for General Checking <input type="checkbox"/> Attach Checklist for General Checking for comments / endorsement <input type="checkbox"/> Prepare Letter of Request for Supplementary Information <input type="checkbox"/> Check if the letter is ready for submission <input type="checkbox"/> Endorsement <input type="checkbox"/> Input / Update Information of application / submission <input type="checkbox"/> For new case no, inform OR to create label <input type="checkbox"/>
Status: General Checking in progress	Completed <input type="checkbox"/>
Date when GR received the submission - 22/05/2014	
Subject Engineer - E/EEB5/1	
BSI/TO - BSI/EEB7/1	
Action Officer - BSI/EEB7/1	

Log History

User: BSI/EEB7/1	Action: Action Start	Remarks/Comments: Prepare Acknowledgement Letter	Date: 22/05/2014 11:23:23
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Action Buttons

-
-
-

Data Management System (BEOO) - Work (Assignment No.3752)

Close the work	Close Stage: REA-Closed (Approved) <input type="button" value="Change"/>
File No.: EMSD/EEO/BC/19/01/06131	Close Date (dd/mm/yyyy): 22/05/2014
REA Name:	Remarks: Close date can not be modified after close
Assignment ID: 3752	
Type: REA-Registration of Public Officer	
ID-24 (Please Click to view Detail)	
Status: General Checking in progress	
Date when GR received the submission - 22/05/2014	
Subject Engineer - E/EEB5/1	
BSI/TO - BSI/EEB7/1	

Buttons

-
-

After confirm close (Approved), A REA record created.

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Data Management System (BEOO) Edit REA

REA Registered No:	6A00999G	English Name:	rename e
Chinese Name:	reabane c	Status:	Enable
Registered Date:	22/5/2014	Expiry Date:	22/5/2024
Contact Telephone:		Email Address:	
Display Contact Telephone:	<input type="checkbox"/>	Display Email Address:	<input type="checkbox"/>
English Remarks:			
Chinese Remarks:			

Procedure to view detail of REA can be find in section 5.

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4.14 Cancel a Submission

Only Engineer Action Officer has right to cancel a submission.

Assignment ID - 3698
Type - INSP-Energy Audit Inspection
ID- 265 (Please Click to view Detail)
Status - Inspection under Arrangement
Scheduled Date of Inspection -
Subject Engineer - E/EEBS/2
BSI/TO - BSI/EEBS/1
Action Officer - E/EEBS/2
Related Submission:
EA-Energy Audit Form-1134

Action Required

<input checked="" type="checkbox"/> Arrange inspection	Completed
<input checked="" type="checkbox"/> Attach Detailed Compliance Checklist for action by Inspector	<input type="checkbox"/> attach

Save Action

Log History Filter Action Report

User	Action	Remarks/Comments	Date
E/EEBS/2	Action Start	Attach Detailed Compliance Checklist for action by Inspector	8/5/2014 9:16:52
E/EEBS/2	Action Start	Arrange inspection	8/5/2014 9:16:52

Bring Up Management Last action officer for review Proceed Close **Cancel**

Click cancel

Assignment ID - 3698
Type - INSP-Energy Audit Inspection
ID- 265 (Please Click to view Detail)
Status - Inspection under Arrangement
Scheduled Date of Inspection -
Subject Engineer - E/EEBS/2
BSI/TO - BSI/EEBS/1
Related Submission:
EA-Energy Audit Form-1134

Remarks/Comments

Confirm **Cancel**

Click Confirm

The submission will change to cancel status.

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

4.15 Change Status

Only Action Officer (Subject Engineer or Senior Engineer) has right to change status.

The screenshot shows the 'Data Management System (BEOO) - Work (Assignment No.3661)' interface. At the top, it displays 'Building Type - Educational' and 'File No. - EMSD/EEO/BC/34-01185'. Below this, there's a toolbar with buttons like 'Add attachment', 'Template', 'Improvement Notice', 'Create New Improvement Notice', 'Letter List', 'Print List', 'Check List', and 'Add Check List'. The main form area contains fields for 'Assignment ID - 3661', 'Type - INSP-COCR Inspection', 'ID- 272 (Please Click to view Detail)', 'Status - Inspection under Arrangement', 'Scheduled Date of Inspection', 'Subject Engineer - E/EEBS/1', 'BSI/TO - TO/EEBS', 'Action Officer - E/EEBS/1', and 'Related Submission: COCR-Stage Two Declaration-292'. On the right, there's a 'Completed' section with checkboxes for 'Arrange inspection' and 'Attach Detailed Compliance Checklist for action by Inspector'. Below this is a 'Save Action' button. The 'Log History' section shows two entries: 'E/EEBS/1 Action Start Attach Detailed Compliance Checklist for action by Inspector 29/4/2014 14:39:56' and 'E/EEBS/1 Action Start Arrange inspection 29/4/2014 14:39:56'. At the bottom right of the main form, there are buttons for 'Bring Up Management', 'Last action officer for review', and a red-bordered 'Proceed' button. Other buttons like 'Close' and 'Cancel' are also present.

Click Proceed

The screenshot shows a 'Transit To Next Stage' dialog box. It includes fields for 'Assignment ID - 3661', 'Type - INSP-COCR Inspection', 'ID- 272 (Please Click to view Detail)', 'Status - Inspection under Arrangement', 'Scheduled Date of Inspection', 'Subject Engineer - E/EEBS/1', 'BSI/TO - TO/EEBS', and 'Related Submission: COCR-Stage Two Declaration-292'. In the center, there's a 'Next Action Officer' dropdown set to 'TO/EEBS' and a 'Next Stage' dropdown set to 'INSP-Schedule Date/Time of Inspection'. Below these are several checkboxes for 'Next Stage Action': 'Schedule Date/Time of inspection', 'Prepare Inspection Notice', 'Attach Inspection Notice for comments / endorsement', and 'Input / Update Information of inspection'. At the bottom right, there are 'Remarks/Comments' and 'Confirm' and 'Cancel' buttons. A red box highlights the 'Confirm' button.

After confirm, the status of the submission will change to the next stage and the action officer will change to next action officer. And the next stage required action will be set too.

Status Flow

EA	FOC	COCR	INSP	REA
General Checking in progress	General Checking in progress	General Checking in progress	Inspection under Arrangement	General Checking in progress
Closed	Closed	Closed	Date/Time for inspection under Schedule	Recommend for Accepted registration/ Recommend for Reject registration
			Inspection Scheduled / To be carried out	(if Accepted) Issue Certificate
			Inspection conducted / Results under preparation	Closed
			Inspection Result under Endorsement	
			Closed	

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4.16 Endorsement by Senior Engineer

In status need endorsement from Senior Engineer.
SE login as an action officer

User:SE/EEBS

Data Management System (BEOO) - Work (Assignment No.3724)

File No. - EMSD/EEO/BC/19/01/06
REA Name - Chan Tai Man
Assignment ID - 3724
Type - REA-Registration as Registered Energy Assessor
[ID: 17 \(Please Click to view Detail\)](#)
Status - Recommend for Accepted registration
Date when GR received the submission - 13/05/2014
Subject Engineer - E/EEBS/1
BSI/TO - BSI/EEB7/1
Action Officer - SE/EEBS

Attachment

Improvement Notice

Action
 Recommend for acceptance of registration

Log History

User	Action	Remarks/Comments	Date
E/EEBS/1	Action Start	Recommend for acceptance of registration	20/5/2014 16:29:11
E/EEBS/1	Action Start	Attach Letter of Request for Supplementary Information for comments / endorsement	13/5/2014 14:40:26
E/EEBS/1	Action Start	Input / Update Information of application / submission	13/5/2014 14:40:26
E/EEBS/1	Action Start	For new case no, inform GR to create label	13/5/2014 14:40:26
E/EEBS/1	Action Start	Prepare Acknowledgement Letter	13/5/2014 14:40:26
E/EEBS/1	Action Start	Check submitted documents	13/5/2014 14:40:26
E/EEBS/1	Action Start	Prepare Checklist for General Checking	13/5/2014 14:40:26
E/EEBS/1	Action Start	Attach Checklist for General Checking for comments / endorsement	13/5/2014 14:40:26
E/EEBS/1	Action Start	Prepare Letter of Request for Supplementary Information	13/5/2014 14:40:26

WBR3 Record Bring Up Management Last action officer for review

Click Endorse

User:SE/EEBS

Data Management System (BEOO) - Work (Assignment No.3724)

File No. - EMSD/EEO/BC/19/01/06
REA Name - Chan Tai Man
Assignment ID - 3724
Type - REA-Registration as Registered Energy Assessor
[ID: 17 \(Please Click to view Detail\)](#)
Status - Recommend for Accepted registration
Date when GR received the submission - 13/05/2014
Subject Engineer - E/EEBS/1
BSI/TO - BSI/EEB7/1

Transit To Next Stage

Next Action Officer

Next Stage

Next Stage Action
 Prepare confirmation letter and registration certificate

Remarks/Comments

WBR3 Record

Click confirm

The submission will change to next status and pass to next action officer.

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4.17 Log History

Log history is located in submission page.

Data Management System (BEOO) - Work (Assignment No.1120)

Building Type - Government
File No. - EMSD/EEO/BC/24-01961
Sai Kung Government Office Building, 34 Chan Man Street , Sai Kung, New Territories
新界西貢政府辦公室34號 賽馬新界

Assignment ID - 1120
Type - INSP-Form of Compliance (FOC) Inspection
ID: [223](#) (Please Click to view Detail)
Status - Inspection under Arrangement
Scheduled Date of Inspection -
Subject Engineer - E/EEBS/1
BSI/TO - BSI/EEB7/1
Action Officer - E/EEBS/1
Related Submission:
[FOC-Form of Compliance-507](#)

Action Required
 Arrange inspection
 Attach Detailed Compliance Checklist for action by Inspector

Completed
 Attach Detailed Compliance Checklist for action by Inspector

Attachment
[Add attachment](#) [Template](#)
[Create New Improvement Notice](#)
[Letter List](#)
[Add Letter List](#)
[1786_Letter_Acknowledgement_20140430102435.doc \(Created\)](#) [Action](#) [Edit](#) [EditInfo](#) [Copy](#)
[1786_Letter_Acknowledgement_20140430101850.doc \(Saved\)](#) [Action](#) [Edit](#) [EditInfo](#) [Copy](#)
[Check List](#)
[Add Check List](#)
[Inspection Compliance Checklist for COOC/FOC_20140428](#) [Del](#) [Gen](#) [Rev](#)
['達成行動方案申請' - 檔案 + 完成由工程處諮詢部於2014年4月28日上傳](#) [Del](#)

Save Action

Log History [Filter](#) [Action Report](#)

User	Action	Remarks/Comments	Date
E/EEBS/1	Action Start	Attach Detailed Compliance Checklist for action by Inspector	29/4/2014 14:41:02
E/EEBS/1	Action Start	Arrange inspection	29/4/2014 14:41:02

Bring Up Management Last action officer for review Proceed Close Cancel

Click Filter can filter different kind of logs

Click Action Report will show the action summary

Action Log

Process	Has Uploaded Document (Yes/No)	Action Date/Time	Performed By	Complete Date/Time	Completed By
Arrange inspection	No	29/4/2014 14:41:02	E/EEBS/1		
Attach Detailed Compliance Checklist for action by Inspector	No	29/4/2014 14:41:02	E/EEBS/1		

Print

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4.18 Create Submission from Used Assignment

Login as Engineer and BSI/TO

In Inbox page, input the used assignment no. and click create work record

Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name/REA Name	Street Name
3734	E/EEBS/1	BSI/EEBS/2	E/EEBS/1	SE/EEBS	20/5/2014 9:27:20	COCR	EMSD/EEO/BC/34-00123	Chong Hing Square	Nathan Road
3733	E/EEBS/1	BSI/EEBS/2	E/EEBS/1	SE/EEBS	15/5/2014 17:26:57	COCR	EMSD/EEO/BC/34-00123	Chong Hing Square	Nathan Road
3645	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 14:13:39	FOC		Library, 2/F Red Zone at Amenities Building, City University of Hong Kong	
3624	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 11:44:11	FOC		Kam Chung Factory Building	
3623	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 11:42:21	FOC		Golden Sunflower Industrial Building	
3621	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 11:35:39	FOC		Shek Wu Hui Municipal Services Building	
3619	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 11:28:10	FOC		Mult-storey Car Park, Wah Fu (II) Estate	
3618	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 11:26:23	FOC		DCH Commercial Centre	
3617	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 11:24:12	FOC		S/F Citicorp Centre	
3615	E/EEBS/1	BSI/EEBS/2	E/EEBS/1	SE/EEBS	27/2/2014 11:18:17	FOC		CATHAY PACIFIC CITY	
3607	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	27/2/2014 10:09:15	FOC		Granville Garden	
3589	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	21/2/2014 13:54:35	FOC		Kai Him Lau	
3588	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	21/2/2014 13:53:01	FOC		Kai Hang Lau	
3587	E/EEBS/2	BSI/EEBS/2	E/EEBS/2	SE/EEBS	21/2/2014 13:49:23	FOC		Kai Min Lau	
3584	E/EEBS/1	BSI/EEBS/2	E/EEBS/1	SE/EEBS	21/2/2014 13:27:08	FOC		B Commercial Tower	
3583	E/EEBS/1	BSI/EEBS/2	E/EEBS/1	SE/EEBS	21/2/2014 13:22:25	FOC		Sino Favour Centre	

Assignment No. 3592

Data Management System (BEOO) - Create Work (Assignment No.3592)

Number of Works to be create	1
Type	(dropdown)
Date when GR received the submission	(dropdown)
Subject Engineer - E/EEBS/2	
BSI/TO - BSI/EEBS/2	
Action Officer	BSI/EEBS/2
Remarks/Comments	(text area)
Action Required	(text area)

Save Record

The system will go to the Create Work page.

And the remaining will be the same as in section 4.1

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4.19 Create Inspection from EA, FOC, COCR Submission

Login as Engineer.

In Submission page, click create inspection

Data Management System (BEOO) - Work (Assignment No.1313)

Building Type - Composite (commercial & residential)
File No. - EMSD/BEOO/BC/24-01773
Proposed Residential Development at 186-198 Fuk Wing Street, Kowloon, 186-198 Fuk Wing Street , Sham Shui Po, Kowloon

Assignment ID - 1313
Type - COCR Stage One Declaration
ID - 168 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 02/08/2013
Subject Engineer - E/EERS/1
BSU/TO - toeeb3ps92
Action Officer - E/EERS/1

Action
Required
Completed
 Prepare Acknowledgement Letter to Developer
 Attach submitted documents
 Please prepare Checklist for General Checking
 Attached please find the Checklist for General Checking for comment / endorsement
 Please prepare letter / memo
 Attached please find letter / memo for comment / endorsement
 Please read / update information of submission to database
 For new case no, when to create label
 Save Action

If Inspection required for detail checking Creating Inspection Creating Inspection

Log History

User	Action	Remarks/Comments	Date
toeeb3ps92	Action Completed	Attach Checklist for General Checking for comments / endorsement	5/9/2013 11:55:20
toeeb3ps92	Action Completed	Input / Update Information of application / endorsement	5/9/2013 11:55:20
toeeb3ps92	Action Completed	Prepare Acknowledgement Letter to Developer	5/9/2013 11:55:20

Data Management System (BEOO) - Work (Assignment No.1313)

Building Type - Composite (commercial & residential)
File No. - EMSD/BEOO/BC/24-01773
Proposed Residential Development at 186-198 Fuk Wing Street, Kowloon, 186-198 Fuk Wing Street , Sham Shui Po, Kowloon

Assignment ID - 1313
Type - COCR Stage One Declaration
ID - 168 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 02/08/2013
Subject Engineer - E/EERS/1
BSU/TO - toeeb3ps92

Create Assignment for Inspection
Subject Engineer
BSU/TO
Confirm Create

Click confirm will create an inspection

The submission will change to status “Pending for Inspection”
Which will not be shown in the inbox.

Data Management System (BEOO) - Work (Assignment No.1313)

Building Type - Composite (commercial & residential)
File No. - EMSD/BEOO/BC/24-01773
Proposed Residential Development at 186-198 Fuk Wing Street, Kowloon, 186-198 Fuk Wing Street , Sham Shui Po, Kowloon

Assignment ID - 1313
Type - COCR Stage One Declaration
ID - 168 (Please Click to view Detail)
Status - Pending for Inspection
Date when GR received the submission - 02/08/2013
Subject Engineer - E/EERS/1
BSU/TO - toeeb3ps92
Action Officer - E/EERS/1
Related Inspection:
INS-P-COCR Inspection-308

Action
Attachment

Log History

User	Action	Remarks/Comments	Date
toeeb3ps92	Action Completed	Attach Checklist for General Checking for comments / endorsement	5/9/2013 11:55:20

When the inspection closed. The submission will change back to status “General Checking in progress” and show in the inbox again.

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4.20 Related Inspection/Submission

For Inspection:

If it is related to a submission, a link will be shown in the submission page.

Data Management System (BEOO) - Work (Assignment No.3667)

Building Type - File No. - EMSD/EEO/BC/34-06068	EMSD HQ, Kai Shing Street												
<hr/>													
Assignment ID - 3667 Type - INSPI-Energy Audit Inspection ID-296 (Please Click to view Detail) Status - Inspection under Arrangement Scheduled Date of Inspection - Subject Engineer - E/EEBS/1 BSI/TO - BSI/EEB/1 Action Officer - E/EEBS/1													
Attachment <input type="button" value="Add attachment"/> <input type="button" value="Template"/> <input type="button" value="Improvement Notice"/> <input type="button" value="Create New Improvement Notice"/> <input type="button" value="Letter List"/> <input type="button" value="Add Letter List"/> <input type="button" value="Check List"/> <input type="button" value="Add Check List"/> <input type="button" value="Technical Data Sheet"/> <input type="button" value="Add Technical Sheet attachment"/>													
Related Submission: EA-Energy Audit Extension-1901													
Action Required <input checked="" type="checkbox"/> Arrange inspection <input checked="" type="checkbox"/> Attach Detailed Compliance Checklist for action by Inspector													
Completed <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> attach <input type="button" value="Save Action"/>													
Log History <input type="button" value="Filter"/> <input type="button" value="Action Report"/> <table border="1"><thead><tr><th>User</th><th>Action</th><th>Remarks/Comments</th><th>Date</th></tr></thead><tbody><tr><td>E/EEBS/1</td><td>Action Start</td><td>Attach Detailed Compliance Checklist for action by Inspector</td><td>9/5/2014 16:19:15</td></tr><tr><td>E/EEBS/1</td><td>Action Start</td><td>Arrange inspection</td><td>9/5/2014 16:19:15</td></tr></tbody></table>		User	Action	Remarks/Comments	Date	E/EEBS/1	Action Start	Attach Detailed Compliance Checklist for action by Inspector	9/5/2014 16:19:15	E/EEBS/1	Action Start	Arrange inspection	9/5/2014 16:19:15
User	Action	Remarks/Comments	Date										
E/EEBS/1	Action Start	Attach Detailed Compliance Checklist for action by Inspector	9/5/2014 16:19:15										
E/EEBS/1	Action Start	Arrange inspection	9/5/2014 16:19:15										
<input type="button" value="Bring Up Management"/> <input type="button" value="Last action officer for review"/> <input type="button" value="Proceed"/> <input type="button" value="Close"/> <input type="button" value="Cancel"/>													

Click on the link will go into the submission.

Data Management System (BEOO) - Work (Assignment No.3667)

Building Type - File No. - EMSD/EEO/BC/34-06068	EMSD HQ, Kai Shing Street				
<hr/>					
Assignment ID - 3667 Type - EA-Energy Audit Extension ID-1901 (Please Click to view Detail) Status - Pending for Inspection Date when GR received the submission - 29/04/2014 Subject Engineer - E/EEBS/1 BSI/TO - BSI/EEB/1 Action Officer - BSI/EEB/1					
Related Inspection: INSPI-Energy Audit Inspection-296					
Action					
Log History <input type="button" value="Filter"/> <input type="button" value="Action Report"/> <table border="1"><thead><tr><th>User</th><th>Action</th><th>Remarks/Comments</th><th>Date</th></tr></thead></table>		User	Action	Remarks/Comments	Date
User	Action	Remarks/Comments	Date		
<input type="button" value="Bring Up Management"/>					

For the submission, it also has the link point to its related Inspection.

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4.21 View WBRS Record

If the submission is created from WBRS Record (Refer to section 3.4), the submission page will contain a button “WBRS Record”. Click on the button will show the original WBRS Record.

Data Management System (BEOO) - Work (Assignment No.3736)

File No. - EMSD/EEO/BC/19/01/06	Attachment	Add attachment	Template
REA Name - CHAN Siu Man	Improvement Notice		
Assignment ID - 3736	Letter List		
Type - REA-Duplicate of Certificate of Registration	Check List		
ID- 19 (Please Click to view Detail)	Action	Completed	
Status - General Checking in progress	Required		
Date when GR received the submission - 21/05/2014	Prepare Acknowledgement Letter	<input type="checkbox"/>	
Subject Engineer - E/EEBS/1	Check submitted documents	<input type="checkbox"/>	
BSI/TO - BSI/EEB2/1	Prepare Checklist for General Checking	<input type="checkbox"/>	
Action Officer - E/EEBS/1	Attach Checklist for General Checking for comments / endorsement	<input type="checkbox"/>	attach
	Prepare Letter of Request for Supplementary Information	<input type="checkbox"/>	
	Check Letter of Request for Supplementary Information for comments / endorsement	<input type="checkbox"/>	attach
	Input / Update Information of application / submission	<input type="checkbox"/>	
	For new case no, inform GR to create label	<input type="checkbox"/>	
Save Action			
Log History Filter Action Report			
User	Action	Remarks/Comments	
STO/EEB2	Action Start	Input / Update Information of application / submission	
STO/EEB2	Action Start	For new case no, inform GR to create label	
STO/EEB2	Action Start	Attach Letter of Request for Supplementary Information for comments / endorsement	
STO/EEB2	Action Start	Prepare Letter of Request for Supplementary Information	
STO/EEB2	Action Start	Prepare Checklist for General Checking	
STO/EEB2	Action Start	Attach Checklist for General Checking for comments / endorsement	
STO/EEB2	Action Start	Check submitted documents	
STO/EEB2	Action Start	Prepare Acknowledgement Letter	
WBRS Record Bring Up Management Last action officer for review Proceed Close Cancel			

Click on the button will show the original WBRS Record.

Data Management System (BEOO) WBRS - REA2

Application No	L120000186	Receive Date	22/4/2014 11:20:44
No. of Duplicate	1		
Personal Details			
HKID	J222229	Registration No.	EX00004G
Name (English)	Mr. CHAN Siu Man	Name (Chinese)	先生
Correspondence Address	Flat A	Floor	12
	Building TESTING BUILDING		Block 3
Street	TESTING STREET		
District	MONG KOK	Region	Kowloon
Contact Phone	12312312		

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4.22 Searching Case

For search EA, FOC, COCR, INSP

Click Search->Search Case (EA,FOC,COCR,INSP)

User: E/EEB5/1

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout																				
Data Management System																													
+ Inbox Statistics - Bring Up																													
<table border="1"> <tr> <td>Case File No.</td> <td>BEEO DMS Case Status Change - File No:</td> </tr> <tr> <td>EMSD/EEO/BC/34-0118</td> <td>BEEO DMS Case Status Change - File No:</td> </tr> <tr> <td>EMSD/EEO/BC/34-00491</td> <td>BEEO DMS Case Status Change - File No: EMSD/EEO/BC/34-00491</td> </tr> <tr> <td></td> <td>BEEO DMS Assignment No 3735</td> </tr> <tr> <td>EMSD/EEO/BC/34-00123</td> <td>BEEO DMS Assignment No 3734</td> </tr> </table>										Case File No.	BEEO DMS Case Status Change - File No:	EMSD/EEO/BC/34-0118	BEEO DMS Case Status Change - File No:	EMSD/EEO/BC/34-00491	BEEO DMS Case Status Change - File No: EMSD/EEO/BC/34-00491		BEEO DMS Assignment No 3735	EMSD/EEO/BC/34-00123	BEEO DMS Assignment No 3734										
Case File No.	BEEO DMS Case Status Change - File No:																												
EMSD/EEO/BC/34-0118	BEEO DMS Case Status Change - File No:																												
EMSD/EEO/BC/34-00491	BEEO DMS Case Status Change - File No: EMSD/EEO/BC/34-00491																												
	BEEO DMS Assignment No 3735																												
EMSD/EEO/BC/34-00123	BEEO DMS Assignment No 3734																												
<table border="1"> <tr> <td>Search Building</td> <td>Search Case (REA)</td> <td>Search REA</td> <td>Search Letter</td> <td>Search Batch Job - Batch Letter Generation</td> <td>Search Batch Job - Random Generation of Building List</td> <td>Search Referral</td> <td>Search Summons</td> <td colspan="2">Bring Up Message</td> </tr> <tr> <td colspan="10">File No: File No: EMSD/EEO/BC/34- 3736</td> </tr> </table>										Search Building	Search Case (REA)	Search REA	Search Letter	Search Batch Job - Batch Letter Generation	Search Batch Job - Random Generation of Building List	Search Referral	Search Summons	Bring Up Message		File No: File No: EMSD/EEO/BC/34- 3736									
Search Building	Search Case (REA)	Search REA	Search Letter	Search Batch Job - Batch Letter Generation	Search Batch Job - Random Generation of Building List	Search Referral	Search Summons	Bring Up Message																					
File No: File No: EMSD/EEO/BC/34- 3736																													

Data Management System (BEEO) - Search Case (EA,FOC,COCR,INSP)

File No.	EMSD/EEO/BC/34-	Submission Type
Assignment No.		District
Eng. Bldg. Name		Status
Eng. Street Name		Received Date Range (dd/mm/yyyy)
Chi. Bldg. Name		Subject Engineer
Chi. Street Name		E/EEB5/1
Lot No.		BSI/TO
Building Type		
Search		

Input search criteria and click search

Bldg. Name	Address	Submission Type	Subject Engineer	BSI/TO	Building Type	File No.	Assignment No.	Assign By	Assign Date	Status	Received Date	Work Location
EA-Energy Audit Exemption	E/EEB5/1	BSI/EEB/PS9/3				3727	E/EEB5/1	13/5/2014 15:02:31	Closed	13/05/2014		
EA-Energy Audit Exemption	E/EEB5/1	BSI/EEB/PS9/3				3730	E/EEB5/1	13/5/2014 15:57:08	Closed	13/05/2014		
COCR-COCR Extension	E/EEB5/1	BSI/EEB5/1				3722	E/EEB5/1	13/5/2014 11:01:21	General Checking in progress	13/05/2014		
COCR-Stage One Declaration	E/EEB5/1	BSI/EEB5/1				3673	E/EEB5/1	2/5/2014 15:28:20	General Checking in progress	02/05/2014		
COCR-Stage One Declaration	E/EEB5/1	BSI/EEB5/1				3714	E/EEB5/1	8/5/2014 15:55:34	General Checking in progress	08/05/2014		
COCR-Stage Two Declaration	E/EEB5/1	BSI/EEB5/1				3674	E/EEB5/1	2/5/2014 15:34:06	General Checking in progress	02/05/2014		

Click on the search result will go to submission.

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Data Management System (BEEO) - Work (Assignment No.3722)

User	Action	Remarks/Comments	Date
E/EEB5/1	Action Start	Attached please find the Improvement Notice for comment / endorsement	13/5/2014 11:01:22
E/EEB5/1	Action Start	Please prepare the Improvement Notice	13/5/2014 11:01:22

For search REA case,
Click Search->Search Case(REA)

Generated Date & Time	Initiated By
21/5/2014 10:23:00	E/EEB5/1
21/5/2014 10:14:18	STO/EEB2
20/5/2014 16:33:18	SE/EEB5
20/5/2014 16:29:11	E/EEB5/1
20/5/2014 16:17:11	E/EEB5/1
20/5/2014 10:15:03	STO/EEB2
20/5/2014 9:27:21	STO/EEB2
19/5/2014 17:26:57	STO/EEB2
19/5/2014 16:57:31	STO/EEB2
13/5/2014 15:59:48	E/EEB5/1
13/5/2014 15:57:09	E/EEB5/1
13/5/2014 15:49:11	E/EEB5/1

Input Criteria and Click Search

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Data Management System (BEOO) - Search Case (REA)

File No.	EMSD/EEO/BC/19/01/	Submission Type						
Assignment No.		Status						
REA Name		Received Date Range (dd/mm/yyyy)						
		Subject Engineer	E/EEBS/1	Assign By	Assign Date	Status	Received Date	
		BSI/TO						
<input type="button" value="Search"/>								

REA Name	Submission Type	Subject Engineer	BSI/TO	File No	Assignment No	Assign By	Assign Date	Status	Received Date
abc	REA-Registration as Registered Energy Assessor	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3717	SE/EEBS	9/5/2014 11:03:56	General Checking in progress	09/05/2014
abctest	REA-Registration as Registered Energy Assessor	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3665	SE/EEBS	24/4/2014 15:04:11	General Checking in progress	24/04/2014
CHAN Man Man	REA-Registration as Registered Energy Assessor	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3707	E/EEBS/1	8/5/2014 10:25:15	General Checking in progress	08/05/2014
CHAN Siu Man	REA-Registration as Registered Energy Assessor	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3686	E/EEBS/1	7/5/2014 16:44:28	General Checking in progress	07/05/2014
CHAN Siu Man	REA-Registration as Registered Energy Assessor	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3708	E/EEBS/1	8/5/2014 10:31:46	General Checking in progress	08/05/2014
CHAN Siu Man	REA-Duplicate of Certificate of Registration	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3709	E/EEBS/1	8/5/2014 10:54:42	General Checking in progress	08/05/2014
CHAN Siu Man	REA-Duplicate of Certificate of Registration	E/EEBS/1	BSI/EEBS/1	EMSD/EEO/BC/19/01/06	3710	E/EEBS/1	8/5/2014 10:58:13	General Checking in progress	08/05/2014

Click on the search result will go to the submission

Data Management System (BEOO) - Work (Assignment No.3707)

File No. - EMSD/EEO/BC/19/01/06	Attachment																			
REA Name - CHAN Man Man	<input type="button" value="Add attachment"/> <input type="button" value="Template"/>																			
Assignment ID - 3707	<input type="checkbox"/> Improvement Notice <input type="checkbox"/> Letter List <input type="checkbox"/> Check List																			
Type - REA-Registration as Registered Energy Assessor																				
ID- Z (Please Click to view Detail)																				
Status - Closed (Approved)																				
Date when GR received the submission - 08/05/2014																				
Close Date (dd/mm/yyyy) -																				
Subject Engineer - E/EEBS/1																				
BSI/TO - BSI/EEBS/1																				
Action Officer - E/EEBS/1																				
<table border="1"> <tr> <td>Log History</td> <td><input type="button" value="Filter"/></td> <td><input type="button" value="Action Report"/></td> </tr> <tr> <td>User</td> <td>Action</td> <td>Remarks/Comments</td> <td>Date</td> </tr> <tr> <td>E/EEBS/1</td> <td>Action Start</td> <td>Recommend for acceptance of registration</td> <td>13/5/2014 11:13:03</td> </tr> <tr> <td>E/EEBS/1</td> <td>Action Start</td> <td>For new case no, inform GR to create label</td> <td>8/5/2014 10:25:16</td> </tr> <tr> <td>E/EEBS/1</td> <td>Action Start</td> <td>Input / Update Information of application / submission</td> <td>8/5/2014 10:25:16</td> </tr> </table>		Log History	<input type="button" value="Filter"/>	<input type="button" value="Action Report"/>	User	Action	Remarks/Comments	Date	E/EEBS/1	Action Start	Recommend for acceptance of registration	13/5/2014 11:13:03	E/EEBS/1	Action Start	For new case no, inform GR to create label	8/5/2014 10:25:16	E/EEBS/1	Action Start	Input / Update Information of application / submission	8/5/2014 10:25:16
Log History	<input type="button" value="Filter"/>	<input type="button" value="Action Report"/>																		
User	Action	Remarks/Comments	Date																	
E/EEBS/1	Action Start	Recommend for acceptance of registration	13/5/2014 11:13:03																	
E/EEBS/1	Action Start	For new case no, inform GR to create label	8/5/2014 10:25:16																	
E/EEBS/1	Action Start	Input / Update Information of application / submission	8/5/2014 10:25:16																	

4.23 Improvement Notice - Create

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case must has a building assigned.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Create New Improvement Notice" button in Improvement Notice Section



**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Enter relative information in Improvement Notice page

NewData Management System (BEEO) Improvement Notice

User can select the Recipient from drop down list if there are Responsible Company/Person information in this form.

Recipient	<input type="text" value="1676, Tai Shing Service Limited"/>	Add Recipient
Tesching Channel	<input checked="" type="checkbox"/> By Fax <input type="checkbox"/> By Email <input type="checkbox"/> By Post Post Rec. No.	

Or user can add one or more recipient information by click “Add Recipient” button and click “Delete” button to delete these recipient information

Recipient	<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <input type="text"/> Add Recipient </div> <div style="border: 1px solid #ccc; padding: 5px; position: relative;"> <div style="float: right; border: 1px solid red; border-radius: 50%; padding: 2px 5px; margin-right: 10px;">Delete</div> <div style="margin-right: 10px;">RecAddr</div> <div style="border: 1px solid #ccc; padding: 2px; width: 150px; height: 15px; overflow: hidden; vertical-align: middle;">1, testing raid</div> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">RecName</th> <th style="width: 90%;">RecValue</th> </tr> </thead> <tbody> <tr> <td>Chan Tai Ming</td> <td></td> </tr> </tbody> </table>	RecName	RecValue	Chan Tai Ming	
RecName	RecValue				
Chan Tai Ming					

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)

There are three template which user can select.

Template	Template
	Improvement Notice_sample_r2a
Template Parmaters	IN_fail to carry out energy audit_template_r2a
	IN_fail to exhibit energy audit_template

After user selected template, the template parameter should be filled

Template	Template												
	Improvement Notice_sample_r2a												
Template Parmaters	<table><tr><td>Business Reg. Cert. No.</td><td>Runs Business [Eng]</td><td>[Chi]</td></tr><tr><td>Assessor No.</td><td>Assessor Date</td><td>InspectedDate</td></tr><tr><td>Full-load efficiency [%]</td><td>dd/MM/yyyy</td><td>dd/MM/yyyy</td></tr><tr><td></td><td>Rated Output</td><td>Unit[Eng] Unit[Chi]</td></tr></table>	Business Reg. Cert. No.	Runs Business [Eng]	[Chi]	Assessor No.	Assessor Date	InspectedDate	Full-load efficiency [%]	dd/MM/yyyy	dd/MM/yyyy		Rated Output	Unit[Eng] Unit[Chi]
Business Reg. Cert. No.	Runs Business [Eng]	[Chi]											
Assessor No.	Assessor Date	InspectedDate											
Full-load efficiency [%]	dd/MM/yyyy	dd/MM/yyyy											
	Rated Output	Unit[Eng] Unit[Chi]											
	<input type="button" value="Load the Template"/>												
Template	Template												
	IN_fail to carry out energy audit_template_r2a												
Template Parmaters	<table><tr><td>Letter Ref.</td><td>Letter Date</td></tr><tr><td>Reply Date</td><td>dd/MM/yyyy</td></tr><tr><td></td><td>First Energy Audit Date</td></tr><tr><td></td><td>dd/MM/yyyy</td></tr></table>	Letter Ref.	Letter Date	Reply Date	dd/MM/yyyy		First Energy Audit Date		dd/MM/yyyy				
Letter Ref.	Letter Date												
Reply Date	dd/MM/yyyy												
	First Energy Audit Date												
	dd/MM/yyyy												
	<input type="button" value="Load the Template"/>												
Template	Template												
	IN_fail to exhibit energy audit_template												
Template Parmaters	<table><tr><td>Ref. No.</td><td>Registered Energy Assessor [Eng] [Chi]</td></tr><tr><td>Assessor Registration No.</td><td></td></tr><tr><td>Assessor Date</td><td>dd/MM/yyyy</td></tr><tr><td>Conducted Date</td><td>dd/MM/yyyy</td></tr></table>	Ref. No.	Registered Energy Assessor [Eng] [Chi]	Assessor Registration No.		Assessor Date	dd/MM/yyyy	Conducted Date	dd/MM/yyyy				
Ref. No.	Registered Energy Assessor [Eng] [Chi]												
Assessor Registration No.													
Assessor Date	dd/MM/yyyy												
Conducted Date	dd/MM/yyyy												
	<input type="button" value="Load the Template"/>												

Click “Load the Template” button when the related information was filled.
And then the template will be shown.



**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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User can modify the text if necessary. Click “Generate Letter” button to generate the letter

Here is the example of letter generated by Improvement Notice



6596_letter_ImprovementNotice_201

4.24 Improvement Notice - Edit

Login as Subject Officer Account

Inbox

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout	User:E/EEB5/1																						
Data Management System (BEOO) - Inbox (E/EEB5/1)																																
<ul style="list-style-type: none"> + Inbox Statistics + Bring Up + New Assignment Received 																																
<input type="button" value="Assignment No."/> <input type="button" value="Create Work Record"/>																																
<input type="button" value="- Works in progress"/> <input type="button" value="Filter"/>																																
<table border="1"> <thead> <tr> <th>File No. (Assignment No.)</th> <th>Building Name/REA Name</th> <th>Submission Type</th> <th>Received Date</th> <th>Subject Engineer</th> <th>BSI/TO</th> <th>Current Status</th> <th>Action Officer</th> <th>No. of calendar days since received</th> <th>Update By</th> <th>Update Date</th> </tr> </thead> <tbody> <tr> <td>EMSD/EEO/BC/19/01/06 (3665)</td> <td>abctest</td> <td>REA- Registration as Registered</td> <td>24/4/2014</td> <td>E/EEB5/1</td> <td>BSI/EEB7/1</td> <td>General Checking in</td> <td>E/EEB5/1</td> <td>26</td> <td>BSI/EEB7/1</td> <td>20/5/2014 16:01:00</td> </tr> </tbody> </table>											File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date	EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date																						
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00																						

Select a Case at "Work in progress" which case should has an improvement notice created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Edit" to edit the improvement Notice.

Improvement Notice

Create New Improvement Notice
1400_letter_ImprovementNotice_20140522143818.doc IN-0007 (Created)
<input type="button" value="Action"/> <input style="outline: 2px solid red;" type="button" value="Edit"/> <input type="button" value="EditInfo"/> <input type="button" value="Copy"/>

Improvement Notice screen will be shown for editing

Edit Data Management System (BEOO) Improvement Notice

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍躍頭路9號青山發電廠A廠行政大樓	
	<input type="button" value="Add Recipient"/> RecAddr 1, testing raid	
	RecName Chan Tai Ming	

After modified the Improvement Notice information, click 'Generate Letter' to re-generate the improvement Notice.

<input style="outline: 2px solid red;" type="button" value="Generate Letter"/> <input type="button" value="Back"/>
--

4.25 Improvement Notice - Copy

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case should has an improvement notice created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Copy" to copy the improvement Notice.

A new improvement Notice will be shown with new Notice Number. User can modify the copied improvement Notice content.

CopyData Management System (BEOO) Improvement Notice

After modified the Improvement Notice information, click 'Generate Letter' to generate the new improvement Notice.

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

4.26 Improvement Notice - EditInfo

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case should has an improvement notice created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "EditInfo" to edit the improvement Notice.

Improvement Notice Supplementary Information screen will be shown for editing

Data Management System (BEEO) Improvement Notice - Supplementary Information

Letter ID: 51 Letter No: IN-0007 Current Status: Created Future Status: -	Action Date: 22/05/2014 Action By: 22/5/2014 Issue Date: - Issue By:
Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門路石角龍躍街9號 青山發電廠A廠行政大樓
Recipient	Name NameChi Addr
Supplementary information	Issuing Channel: <input checked="" type="checkbox"/> By fax <input type="checkbox"/> By email <input type="checkbox"/> By Post Post Reg. No. <input type="checkbox"/> Installation: <input checked="" type="checkbox"/> Air Conditioning <input type="checkbox"/> Electrical <input type="checkbox"/> Escalator <input type="checkbox"/> Lift <input type="checkbox"/> Lighting
	<input type="button" value="Save"/> <input type="button" value="Back"/>

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

After modified the Supplementary Information, click 'Save' button to update the modified information.



4.27 Improvement Notice - Action

Login as Subject Officer Account

Inbox

The screenshot shows the 'Inbox' section of the Data Management System. At the top, there is a navigation bar with links: 'Assignment', 'Search', 'Create New Building', 'Label', 'Batch Job', 'RASAS', 'Report', 'User Option', and 'Logout'. The 'Inbox' link is highlighted with a red oval. To the right of the navigation bar, it says 'User:E/EEB5/1'. Below the navigation bar, the title 'Data Management System (BEEO) - Inbox (E/EEB5/1)' is displayed. There are three expandable sections: '+ Inbox Statistics', '+ Bring Up', and '+ New Assignment Received'. Under '+ Bring Up', there is a search bar labeled 'Assignment No.' and a 'Create Work Record' button. Below the search bar, there are two buttons: '- Works in progress' and 'Filter'. A table follows, with columns: File No. (Assignment No.), Building Name/REA Name, Submission Type, Received Date, Subject Engineer, BSI/TO, Current Status, Action Officer, No. of calendar days since received, Update By, and Update Date. One row is shown: EMSD/EEO/BC/19/01/06 (3665), abctest, REA-Registration as Registered, 24/4/2014, E/EEB5/1, BSI/EEB7/1, General Checking in, E/EEB5/1, 26, BSI/EEB7/1, 20/5/2014 16:01:00.

Select a Case at "Work in progress" which case should has an improvement notice created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Action" to make an action of improvement Notice.

The screenshot shows the 'Improvement Notice' creation page. At the top, it says 'Create New Improvement Notice'. Below that, there is a file path '1400_letter_ImprovementNotice_20140522143818.doc IN 0007 (Created)'. At the bottom right, there are four buttons: 'Action' (highlighted with a red oval), 'Edit', 'EditInfo', and 'Copy'.

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Action screen will be shown and the followings are the action which user can make an action in the improvement notice and related information should be filled.

Data Management System (BEEO) Improvement Notice - Action

Letter ID: 51 Letter No: IN-0007 Current Status: Created Future Status: -	Action Date: 22/05/2014 Action By: E/EEB5/1 Issue Date: - Issue By: -						
Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門路石角龍躍街9號 青山發電廠A廠行政大樓						
Recipient	<table border="1"><thead><tr><th>Name</th><th>NameChi</th><th>Addr</th></tr></thead><tbody><tr><td></td><td></td><td></td></tr></tbody></table>	Name	NameChi	Addr			
Name	NameChi	Addr					
Action	Action Date: dd/MM/yyyy Action Remark:						
	<input type="button" value="Issue"/> <input type="button" value="Cancel"/> <input type="button" value="Close"/> <input type="button" value="Withdrawn"/> <input type="button" value="Back"/>						

- **“Issue”**: User is required to input IN Issue Date. Once user confirms, the status of the improvement notice record would be automatically updated as “Issued”, which also represents that senior approval to issue the IN has already been obtained. If the input issue date is before today, the IN status will be changed to “Issued” after the button “Issue” is clicked; if the input issue date is today or after today, the IN status will be changed by a daily schedule job. The IN status will be changed to “Issued” only when the issue date is before the schedule job running date. The handling will be the same for Cancel Date and Close Date.
- **“Cancel”**: User is required to input IN Cancel Date and enter remarks (in free text) of the reason for cancellation. Once user confirms, the status of the improvement notice record would be automatically updated as “Cancelled”, which also represents that senior approval to cancel the IN has already been obtained.
- **“Close”**: User is required to enter remarks (in free text) of IN rectification that have been made by the IN recipient, IN rectification date and IN closure date. Once user confirms, the status of the improvement notice record would be automatically updated as “Closed”, which also represents that senior approval to close the IN has already been obtained.
- **“Withdraw”**: User is required to enter reasons (in free text) of IN withdrawal and date of withdrawal. Once user confirms, the status of the improvement notice record would be automatically updated as “Withdrawn”, which also represents that senior approval to withdraw the IN has already been obtained.

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

The action buttons would be enabled according to current status of the improvement notice and is documented as below:

IN Status	Triggered Action	Status Action	IN Modify?
New (Only displayed in IN input screen before IN record is actually creation)	IN creation	N/A	Yes
Created	After IN record is created	Issue Cancel	Yes
Issued	After “Issue” action is completed	Cancel Close Withdraw	No
Issued / Uploaded to Website	Under “Issued” status and after automatic generation of IN list for website upload	Cancel Close Withdraw	No
Cancelled	After “Cancel” action is completed	N/A	No
Closed	After “Close” action is completed	N/A	No
Closed / Removed from Website	Under “Closed” status and after automatic generation of IN list for website upload	N/A	No
Withdrawn	After “Withdraw” action is completed	N/A	No
Withdrawn / Removed from Website	Under “Withdrawn” status and after automatic generation of IN list for website upload	N/A	No

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Click either one button (“Issue” or “Cancel” or “Close” or “Withdrawn”) to make an action of improvement notice.

Issue

Cancel

Close

Withdrawn

4.28 Improvement Notice - Search

Login as Subject Officer Account

Search->Search Letter

The screenshot shows the BEEO system's search interface. On the left, there's a sidebar with 'Inbox Statistics' and 'Bring Up' sections. The main area has tabs for 'Search', 'Create New Building', 'Label', 'Batch Job', 'RASAS', 'Report', 'User Option', and 'Logout'. A user ID 'User:E/EEB5/1' is at the top right. A red circle highlights the 'Search Letter' option in the dropdown menu under the 'Search' tab. Below the menu, there's a search form with fields for 'Case File No.', 'Search Letter', 'Message', 'Generated Date & Time', and 'Initiated By'. Other options like 'Search Batch Job', 'Search Referral', and 'Search Summons' are also visible.

Select “Letter of Improvement Notice” in Letter/Report Type

Data Management System (BEEO) - Search Letter or Report

This screenshot shows the 'Letter/Report Type' search criteria section. It includes a dropdown menu where 'Letter of Improvement Notice' is selected, indicated by a blue background and white text. The dropdown is part of a larger search interface with other fields like 'Letter Situation' and 'Action Date Range'.

Enter relative information in search criteria section and then click “Search” button to search the result.

This screenshot shows a detailed search criteria section. It includes fields for 'Letter Situation', 'Issue Date Range', 'Letter Date Range', 'Issuing Channel' (with checkboxes for 'Any', 'By fax', 'By email', 'By Post'), 'Eng. Bldg. Name', 'Eng. Bldg. Street Name', 'Bldg. Region', 'Bldg. Type' (selected as 'Bldg. Type'), 'Bldg. Group' (selected as 'Bldg. Group'), 'Recipient Name', 'Letter Status' (selected as 'Improvement Letter Status'), 'Notice No.' (with input 'IN-'), 'Action Date Range', 'Letter By', 'Chi. Bldg. Name', 'Chi. Bldg. Street Name', 'Bldg. District', 'Lot No.', 'Submission Type', 'Recipient Address', and 'Installation' (checkboxes for 'Any', 'Air Conditioning', 'Electrical', 'Escalator', 'Lift', 'Lighting'). A red circle highlights the 'Search' button at the bottom.

User can click the record to go to the case directly.

This screenshot shows a table of search results. The columns include 'ID', 'Notice', 'Bldg Name Eng', 'Bldg Name Chi', 'Recip Name', 'Install', 'Channel', 'Report Date', 'Action Date', 'Status', and several icons. A red circle highlights the first row, which contains 'IN-6006', 'EMSD HQ2', 'MR. Chan', 'Air Conditioning, Post,' and other details. At the bottom, a note says 'You are viewing page 1 of 1'.

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)

Download the letter by click the circled icon

ID	Notice	Bldg Name Eng	Bldg Name Chi	Recip Name	Install	Channel	Report Date	Action Date	Status		
44	IN-0006	EMSD HQ2		MR. Chan	Air Conditioning, Post,		26/05/2014	22/05/2014	Is used		

You are viewing page 1 of 1

Make an action of improvement notice by click the circled icon

ID	Notice	Bldg Name Eng	Bldg Name Chi	Recip Name	Install	Channel	Report Date	Action Date	Status		
44	IN-0006	EMSD HQ2		MR. Chan	Air Conditioning, Post,		26/05/2014	22/05/2014	Is used		

You are viewing page 1 of 1

Edit the supplementary information of improvement notice by click the circled icon

ID	Notice	Bldg Name Eng	Bldg Name Chi	Recip Name	Install	Channel	Report Date	Action Date	Status		
44	IN-0006	EMSD HQ2		MR. Chan	Air Conditioning, Post,		26/05/2014	22/05/2014	Is used		

You are viewing page 1 of 1

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

4.29 General Checklist

Add Checklist:

In submission page, click add check list

Data Management System (BEEO) - Work (Assignment No.558)

Building Type - Commercial
File No. - EMSD/EEO/BC/34-00831 Siki Centre, 23 JARDINE'S BAZAAR
渣甸街23號 洗基商業中心

Assignment ID - 558
Type - EA-Energy Audit Form
ID: [183](#) (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 06/06/2013
Subject Engineer - E/EEBS/1
BSI/TO - BSI/EEBS/2
Action Officer - E/EEBS/1

Action Required
 Check submitted documents
 Please prepare Checklist for General Checking

Attachment
Add attachment | Template
Improvement Notice
Create New Improvement Notice
Letter List
Add Letter List
Check List
Add Check List (highlighted)
Technical Data Sheet
Add Technical Sheet attachment

Data Management System (BEEO) - Work (Assignment No.558)

Building Type - Commercial
File No. - EMSD/EEO/BC/34-00831 Siki Centre, 23 JARDINE'S BAZAAR
渣甸街23號 洗基商業中心

Assignment ID - 558
Type - EA-Energy Audit Form
ID: [183](#) (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 06/06/2013
Subject Engineer - E/EEBS/1
BSI/TO - BSI/EEBS/2
Action Officer - E/EEBS/1

Action Required
 Check submitted documents

Attachment
Add attachment | Template
Improvement Notice
Create New Improvement Notice
Letter List
Add Letter List
Check List
Select Template (highlighted)
Checklist for General Checking of Energy Audit Submission
Create | Cancel
Technical Data Sheet
Add Technical Sheet attachment

Select Template and then click create

Checklist for General Checking of Energy Audit Submission

Building Type - Commercial
File No. - EMSD/EEO/BC/34-00831 Siki Centre, 23 JARDINE'S BAZAAR
渣甸街23號 洗基商業中心

1. Energy Audit Form (Form EES)
1.1 Section A (General Information)
1.1.1 Is name of building provided?
 Yes No

Remarks

1.1.2 Is address of building provided?
 Yes No

Remarks

1.2 Section B (Declaration)
1.2.1 Are full name and registration number of REA provided and valid?
 Yes No

Remarks

1.2.2 Is completion date of energy audit filed in accordance with clause 8.1(m) of EAC 2012?
 Yes No

Remarks

1.2.3 Is completion date of energy audit within the period specified in Section 22 and schedule 5 of the Ordinance?
 Yes No

Fill in the form.

4.1.1 Is energy audit report submitted and duly completed?
 Yes No

Remarks

4.1.2 Is energy audit report reference no. provided in accordance with clause 8.1(m) of EAC 2012?
 Yes No

Remarks

Save Record (highlighted)

Click save

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Data Management System (BEEO) - Work (Assignment No.558)

Building Type - Commercial File No. - EMSD/EEO/BC/34-00831 Saki Centre, 23 JARDINE'S BAZAAR 金利來23號, 士基蘭中心

Assignment ID - 558
Type - EA-Energy Audit Form
ID- [103](#) (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission - 06/06/2013
Subject Engineer - E/EEBS/1
BSI/TO - BSI/EEBS/2
Action Officer - E/EEBS/1

Attachment
[Add attachment](#) [Template](#)
[Improvement Notice](#)
[Create New Improvement Notice](#)
[Letter List](#)
[Add Letter List](#)
[Check List](#)
[Add Check List](#)

[Checklist for General Checking of Energy Audit Submission_20100523.xls](#) [20100523.xls]
[Add Technical Sheet attachment](#)

Action Required
 Check submitted documents
 Please prepare Checklist for General Checking
 Attached please find the Checklist for General Checking for comment / endorsement
 Please prepare letter / memo
 Attached please find letter / memo for comment / endorsement
 Please input / update information of submission to database
 For new case no, inform GR to create label

Completed

[attach](#)

[Save Action](#)

If Inspection required for detail checking
[Creating Inspection](#)

For delete the check list, click Del

4.30 Add Technical Form - FOC - Lighting Installation - Primary

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



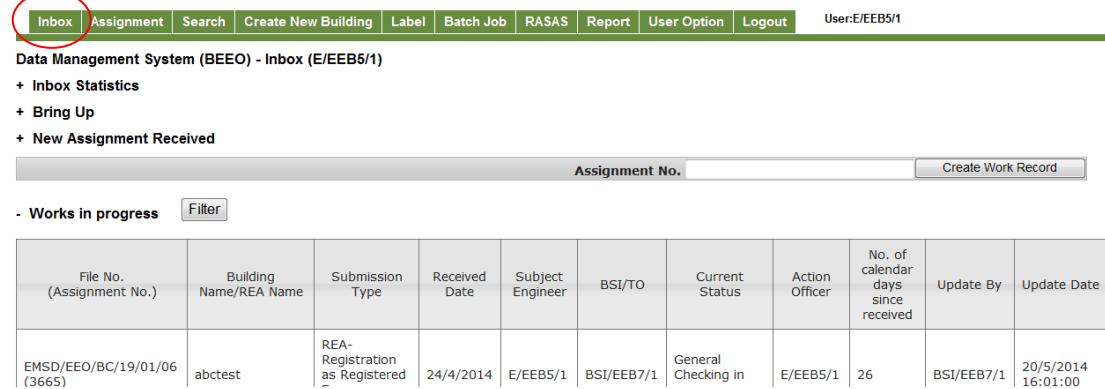
Select Type "Lighting Installation", "Primary" and Document Path. And then click “Attach to Record” to complete the data upload.

Form of Compliance Technical data upload	
Document Category - FOC	
Submission ID - 1326	
Type -	Lighting Installation
<input checked="" type="radio"/> Primary <input type="radio"/> Supplementary	
Document Name	Technical Forms\TEST\EE-LG(ENG) (Draft) v2_revised_TEST_PRIMARY_3.xls 瀏覽...
<input type="button" value="Attach to Record"/> <input type="button" value="Back"/>	

4.31 Add Technical Form - FOC - Lighting Installation - Supplementary

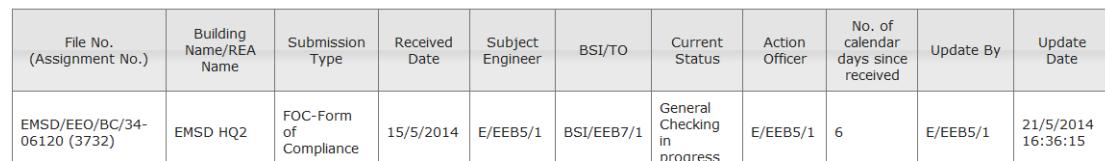
Login as Subject Officer Account

Inbox



Data Management System (BEOO) - Inbox (E/EEB5/1)											User:E/EEB5/1
+ Inbox Statistics + Bring Up + New Assignment Received											
Assignment No. Create Work Record											
- Works in progress Filter											
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date	
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00	

In “Work in progress” section, select a case which is 'Form of Compliance'.

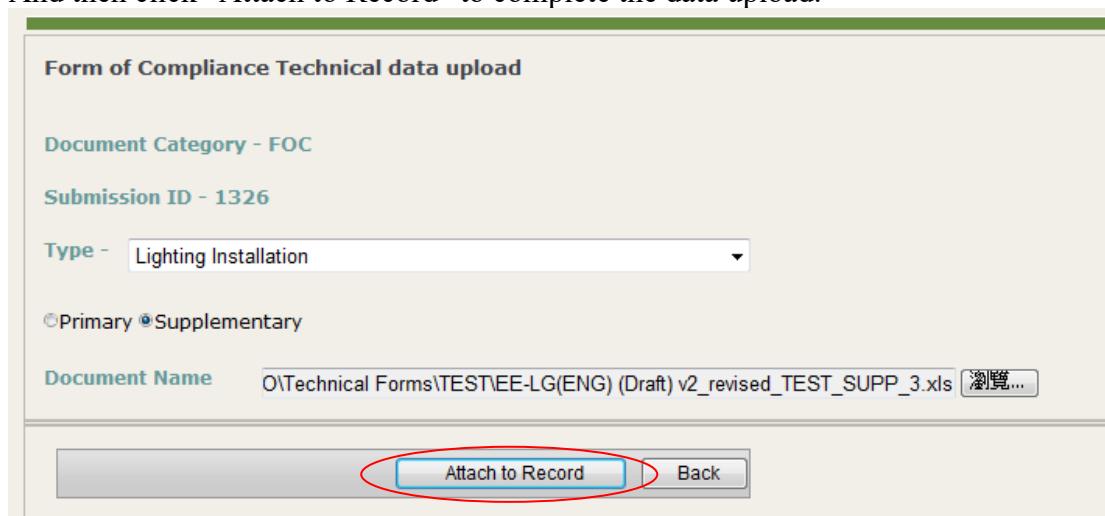


File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type "Lighting Installation", "Supplementary" and Document Path. And then click “Attach to Record” to complete the data upload.



Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type -

Primary Supplementary

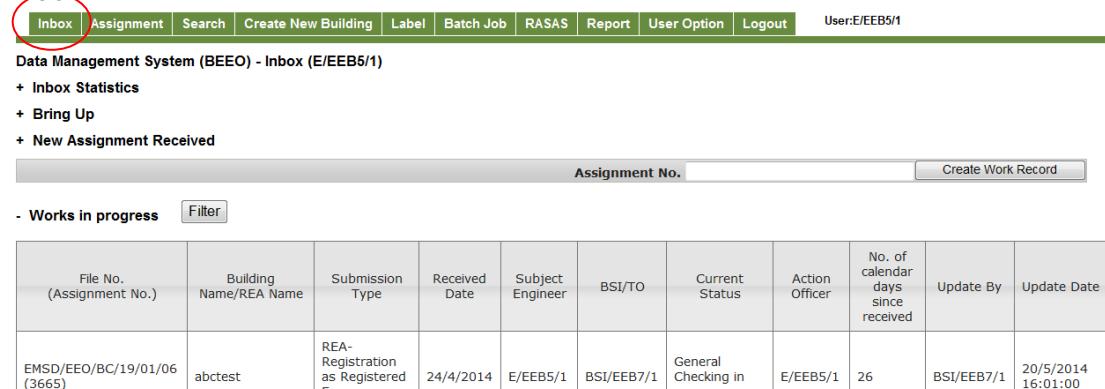
Document Name

4.32 Add Technical Form - FOC - Electrical Installation - Primary

Login as Subject Officer Account

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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Inbox

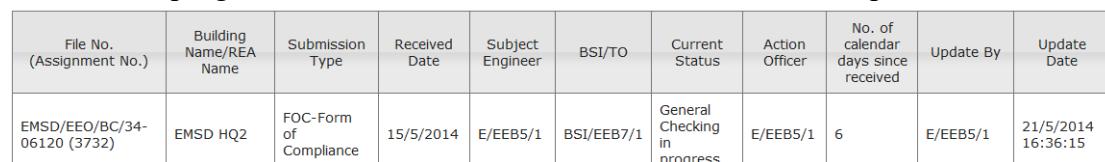


Data Management System (BEEO) - Inbox (E/EEB5/1)

- + Inbox Statistics
- + Bring Up
- + New Assignment Received

Assignment No.										Create Work Record
<input type="checkbox"/> Works in progress <input type="button" value="Filter"/>										
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

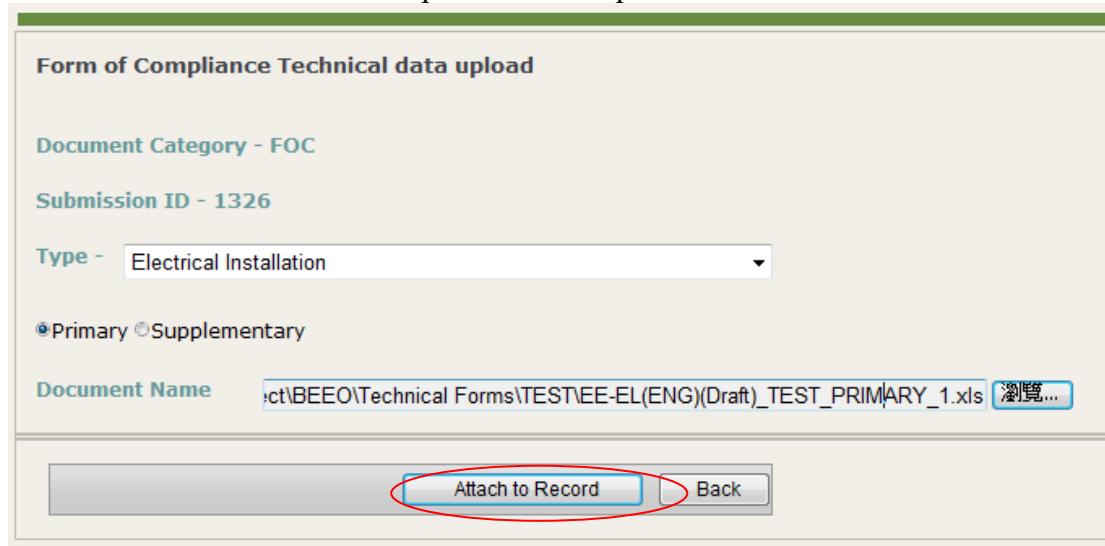


File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type "Electrical Installation", "Primary" and Document Path. And then click “Attach to Record” to complete the data upload.



Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type -

Primary Supplementary

Document Name :

4.33 Add Technical Form - FOC - Electrical Installation - Supplementary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type "Electrical Installation", "Supplementary" and Document Path. And then click “Attach to Record” to complete the data upload.

Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type - Electrical Installation

Primary Supplementary

Document Name project\BEEO\Technical Forms\TEST\EE-EL(ENG)(Draft)_TEST_SUPP_3.xls

4.34 Add Technical Form - FOC - Air Conditioning Installation - Primary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type “Air Conditioning Installation”, "Primary" and Document Path. And then click “Attach to Record” to complete the data upload.

4.35 Add Technical Form - FOC - Air Conditioning Installation - Supplementary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type “Air Conditioning Installation”, "Supplementary" and Document Path. And then click “Attach to Record” to complete the data upload.

Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type - Air Conditioning Installation

Primary Supplementary

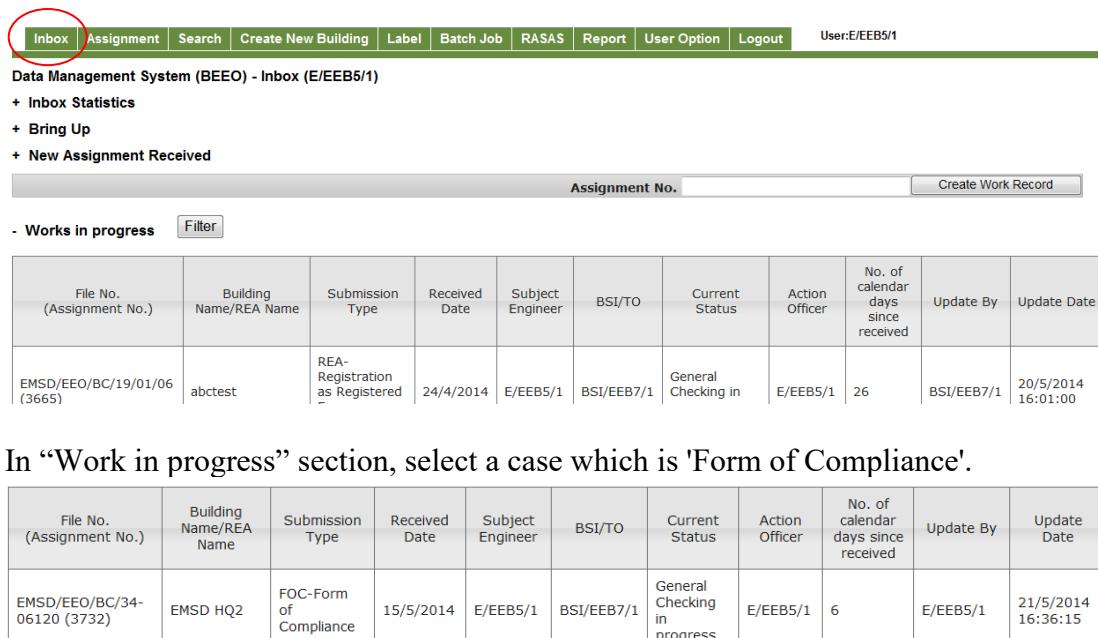
Document Name project\BEEO\Technical Forms\TEST\EE-AC(ENG)(Draft) v2_revised_TEST_F

4.36 Add Technical Form - FOC - Lift and Escalator Installation - Primary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**



The screenshot shows the 'Assignment' tab selected in the top navigation bar. Below it, a list of assignments is displayed. One assignment is highlighted with a red circle:

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

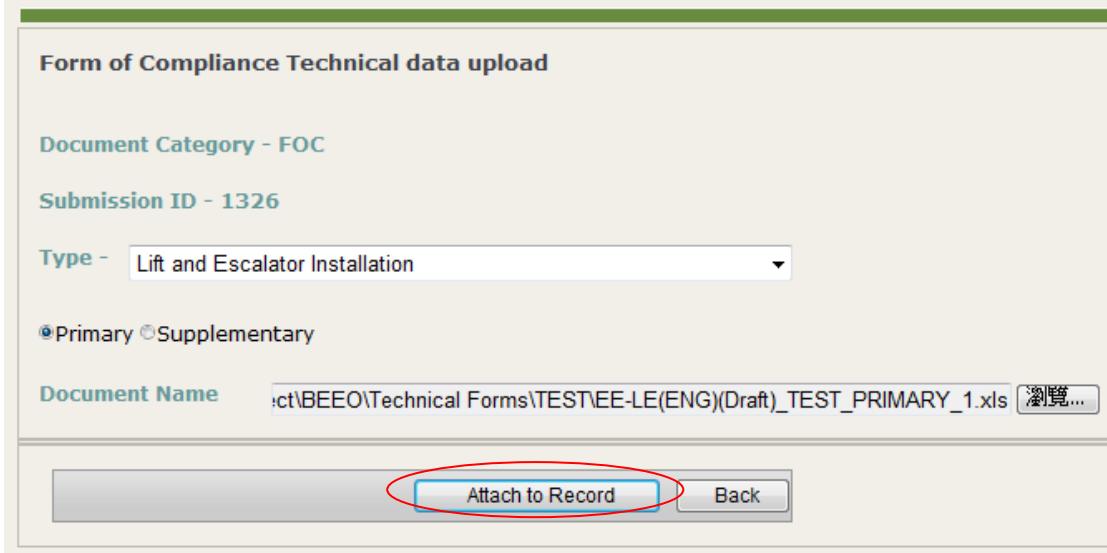
In "Work in progress" section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click "Add Technical Sheet Attachment" button in Technical Data Sheet Section



Select Type "Lift and Escalator Installation", "Primary" and Document Path. And then click "Attach to Record" to complete the data upload.



Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type - Lift and Escalator Installation

Primary Supplementary

Document Name: C:\BEEO\Technical Forms\TEST\EE-LE(ENG)(Draft)_TEST_PRIMARY_1.xls [瀏覽...]

Attach to Record **Back**

4.37 Add Technical Form - FOC - Lift and Escalator Installation - Supplementary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type “Lift and Escalator Installation”, "Supplementary" and Document Path. And then click “Attach to Record” to complete the data upload.

Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type - Lift and Escalator Installation

Primary Supplementary

Document Name D:\project\BEEO\Technical Forms\TEST\EE-LE(ENG)(Draft)_TEST_SUPP_2.xls

4.38 Add Technical Form - FOC - Performance-based Approach - Primary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Data Management System (BEEO) - Inbox (E/EEB5/1)

- + Inbox Statistics
- + Bring Up
- + New Assignment Received

Assignment No.										Create Work Record
<input type="checkbox"/> Works in progress Filter										
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type “Performance-based Approach”, "Primary" and Document Path. And then click “Attach to Record” to complete the data upload.

Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type -

Primary Supplementary

Document Name

4.39 Add Technical Form - FOC - Performance-based Approach - Supplementary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Data Management System (BEEO) - Inbox (E/EEB5/1)

- + Inbox Statistics
- + Bring Up
- + New Assignment Received

Assignment No.										Create Work Record	
- Works in progress		Filter									
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date	
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00	

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Type “Performance-based Approach”, "Supplementary" and Document Path. And then click “Attach to Record” to complete the data upload.

Form of Compliance Technical data upload

Document Category - FOC

Submission ID - 1326

Type -

Primary Supplementary

Document Name

4.40 Delete Technical Form - FOC - Supplementary

Login as Subject Officer Account

Inbox

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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The screenshot shows the 'Inbox' section of the Data Management System. At the top, there is a navigation bar with links: Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout. The user is logged in as 'User:E/EEB5/1'. Below the navigation bar, a message says 'Data Management System (BEEO) - Inbox (E/EEB5/1)' with options: '+ Inbox Statistics', '+ Bring Up', and '+ New Assignment Received'. A search bar labeled 'Assignment No.' and a 'Create Work Record' button are present. Under the heading '- Works in progress', there is a table with the following data:

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

The screenshot shows the 'Inbox' section of the Data Management System. The table from the previous screenshot is shown again, but the second row is highlighted to indicate it is selected. The file number is 'EMSD/EEO/BC/34-06120 (3732)' and the subject engineer is 'EMSD HQ2'. The submission type is 'FOC-Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

In Technical Data Sheet Section, click “Supplementary” button in the attachment record

The screenshot shows a 'Technical Data Sheet' dialog box. It contains a button 'Add Technical Sheet attachment' and a list of attachments: 'EE-LG(ENG) (Draft) v2_revised_TEST_PRIMARY_4.xls (21/5/2014 17:25:16)'. To the right of the list are two buttons: 'Delete' and 'Supplementary', with the 'Supplementary' button circled in red.

In Supplementary dialog box, click “Delete” button in the attachment record to delete the supplementary attachment.

The screenshot shows a 'Delete Supplementary attachment' dialog box. It displays the attachment 'EE-LG(ENG) (Draft) v2_revised_TEST_SUPP_3.xls (21/5/2014 17:25:36)' and a 'Delete' button, which is circled in red. At the bottom right of the dialog box is a 'Back' button.

4.41 Delete Technical Form - FOC - Primary

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Form of Compliance'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 06120 (3732)	EMSD HQ2	FOC-Form of Compliance	15/5/2014	E/EEB5/1	BSI/EEB7/1	General Checking in progress	E/EEB5/1	6	E/EEB5/1	21/5/2014 16:36:15

In Technical Data Sheet Section, click “Delete” button in the attachment record to delete the primary attachment.

Technical Data Sheet

4.42 Add Technical Form – Energy Audit Form

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Energy Audit Form'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click “Add Technical Sheet Attachment” button in Technical Data Sheet Section



Select Document Path. And then click “Attach to Record” to complete the data upload.

Form EE- EAes Technical data upload

Document Category - EA

Submission ID - 135

Document Name EO\Technical Forms\LATEST_FORM\EA_Form_testing_v2_revised_2014.xls

4.43 Delete Technical Form – Energy Audit Form

Login as Subject Officer Account

Inbox

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout	User:E/EEB5/1
Data Management System (BEEO) - Inbox (E/EEB5/1)										
+ Inbox Statistics										
+ Bring Up										
+ New Assignment Received										
<input type="text" value="Assignment No."/> <input type="button" value="Create Work Record"/>										
<input type="checkbox"/> - Works in progress <input type="button" value="Filter"/>										
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Energy Audit Form'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

In Technical Data Sheet Section, click “Delete” button in the attachment record to delete the attachment.

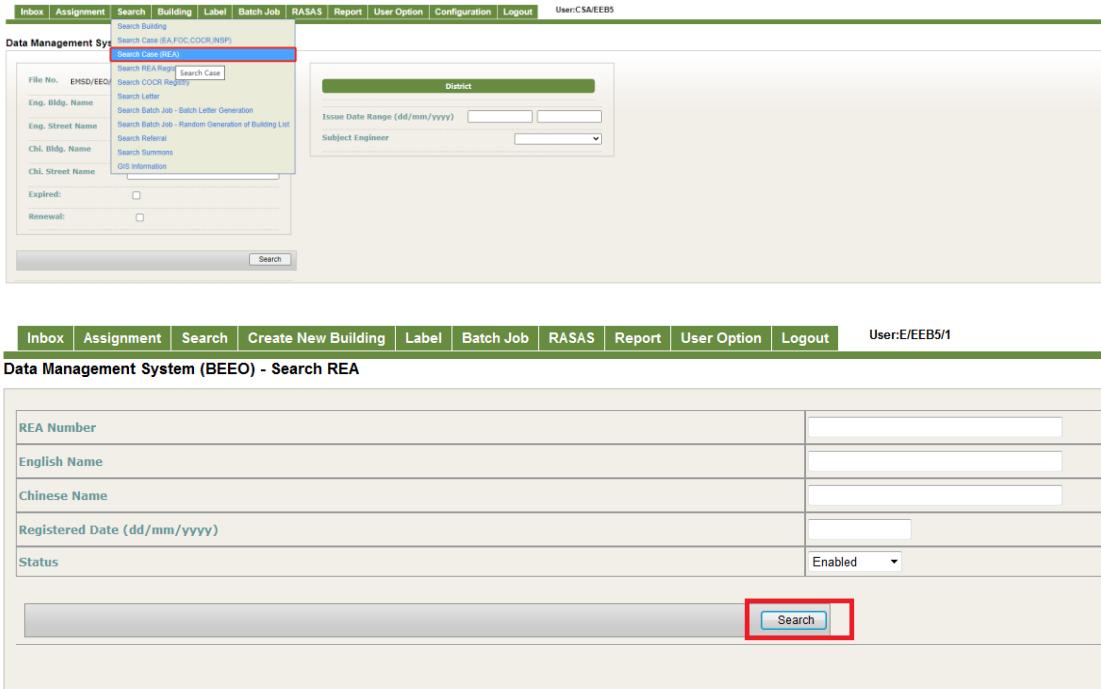
Technical Data Sheet

Add Technical Sheet attachment

S4.6-Building_531_EE-EAes-(V.1.2)-20131202-133003.xls
(21/5/2014 17:50:49)

5. REA

5.1 Search REA

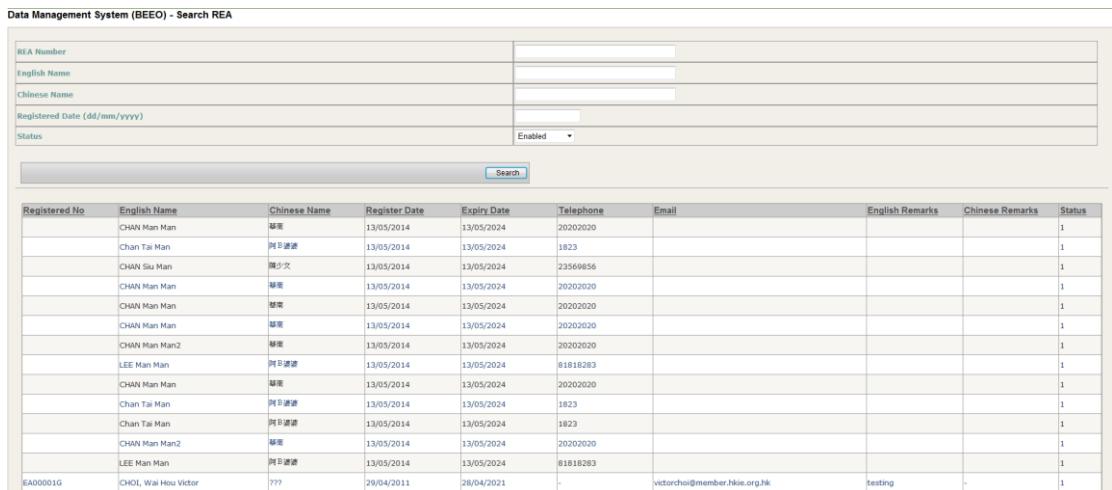


Data Management System (BEEO) - Search REA

REA Number	
English Name	
Chinese Name	
Registered Date (dd/mm/yyyy)	
Status	Enabled

Search

Input criteria and click search



Data Management System (BEEO) - Search REA

Registered No	English Name	Chinese Name	Register Date	Expiry Date	Telephone	Email	English Remarks	Chinese Remarks	Status
CHAN Man Man	CHAN Man Man	陳南	13/05/2014	13/05/2024	20202020				1
Chan Tai Man	Chan Tai Man	陳泰	13/05/2014	13/05/2024	1823				1
CHAN Siu Man	CHAN Siu Man	陳少文	13/05/2014	13/05/2024	23569856				1
CHAN Man Man	CHAN Man Man	陳南	13/05/2014	13/05/2024	20202020				1
CHAN Man Man	CHAN Man Man	陳南	13/05/2014	13/05/2024	20202020				1
CHAN Man Man	CHAN Man Man	陳南	13/05/2014	13/05/2024	20202020				1
CHAN Man Man2	CHAN Man Man2	陳南	13/03/2014	13/03/2024	20202020				1
LEE Man Man	LEE Man Man	李南	13/05/2014	13/05/2024	81818283				1
CHAN Man Man	CHAN Man Man	陳南	13/05/2014	13/05/2024	20202020				1
Chan Tai Man	Chan Tai Man	陳泰	13/05/2014	13/05/2024	1823				1
Chan Tai Man	Chan Tai Man	陳泰	13/05/2014	13/05/2024	1823				1
CHAN Man Man2	CHAN Man Man2	陳南	13/03/2014	13/03/2024	20202020				1
LEE Man Man	LEE Man Man	李南	13/05/2014	13/05/2024	81818283				1
EA000001G	CHOI, Wai Hou Victor	???	29/04/2011	29/04/2021		victorchoi@member.hkis.org.hk	testing		1

List of REA show, click on the REA can edit the REA detail

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Data Management System (BEEO) Edit REA

REA Registered No:	EA00002G	English Name:	CHN. Ronald Sydney
Chinese Name:	陳正暉	Status:	Enable
Registered Date:	29/4/2011	Expiry Date:	28/4/2021
Contact Telephone:		Email Address:	
Display Contact Telephone:	<input type="checkbox"/>	Display Email Address:	<input type="checkbox"/>
English Remarks:			
Chinese Remarks:			
<input type="button" value="Save"/> <input type="button" value="Cancel"/>			

Input Detail and click save will modify the REA.

6. COCR

6.1 Search COCR

Data Management System (BEEO) - Search COCR Registry

File No. EMSD/EO/BC/34- <input type="text"/>	Eng. Bldg. Name <input type="text"/>	Eng. Street Name <input type="text"/>	Chl. Bldg. Name <input type="text"/>	Chl. Street Name <input type="text"/>
Expired: <input type="checkbox"/>	Renewal: <input type="checkbox"/>	Search Letter: <input type="text"/>	Search Case: <input type="text"/>	District <input type="text"/>
Search Batch Job: <input type="text"/>	Search Referral: <input type="text"/>	Issue Date Range (dd/mm/yyyy): <input type="text"/> <input type="text"/>	Subject Engineer: <input type="text"/>	
Search Batch Job - Random Generation of Building List	Search Summary: <input type="text"/>	Search		

Input criteria and click search

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File No. (COCR No.)	Issue Date Expiry Date	BEC Edition	Subject Engineer	REA	Expired	Renewal
CaseNo (COCRNO) EMSD/EEO/BC/34-20468 (03012022)	03/12/2021 03/12/2021	BECEdition	E/EEB2/1	REARegNo	Y	N
	03/01/2022 26/01/2022	2012	E/EEB1/2		Y	N

List of COCR show, click on the COCR can edit the COCR detail

Input Detail and click save will modify the REA.

7. Mobile Inspection

7.1 Inspection Compliance Check List - Create

Login as Subject Officer Account

Inbox

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The screenshot shows the 'Inbox' section of the BEEO system. At the top, there is a navigation bar with links: Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout. The user is logged in as 'User:E/EEB5/1'. Below the navigation bar, the title 'Data Management System (BEEO) - Inbox (E/EEB5/1)' is displayed. Underneath, there are three expandable sections: '+ Inbox Statistics', '+ Bring Up', and '+ New Assignment Received'. A search bar labeled 'Assignment No.' and a 'Create Work Record' button are present. Below these, a table titled '- Works in progress' lists one case:

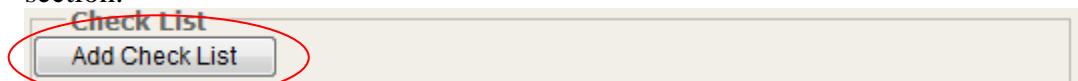
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Energy Audit Inspection', 'Form of Compliance (FOC) Inspection' or 'COCR Inspection'.

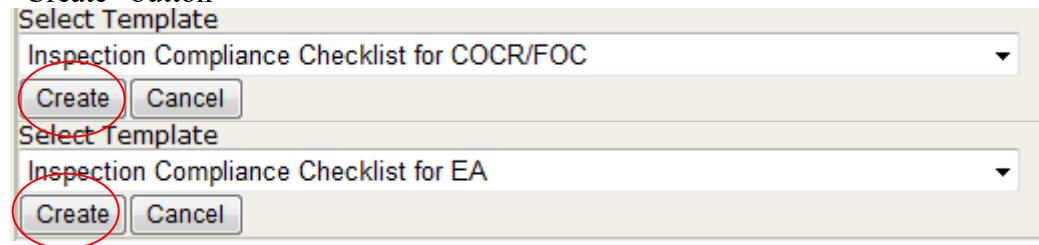
The screenshot shows the 'Work in progress' section with three cases listed in a table:

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06068 (3667)	EMSD HQ	INSP-Energy Audit Inspection	9/5/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	12	E/EEB5/1	9/5/2014 16:19:15
EMSD/EEO/BC/34-01961 (1120)	Sai Kung Government Office Building	INSP-Form of Compliance (FOC) Inspection	29/4/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	22	E/EEB5/1	29/4/2014 14:41:02
EMSD/EEO/BC/34-00352 (3659)	Park Hovan Commercial Building	INSP-COCR Inspection	3/3/2014	E/EEB5/1	BSI/EEB7/1	Date/Time for Inspection under Schedule	E/EEB5/1	79	E/EEB5/1	5/3/2014 13:35:41

Select case. In case screen, click “Add Check List” Button in Check List section.



Select Template “Inspection Compliance Checklist for COCR/FOC” for 'Form of Compliance (FOC) Inspection' or 'COCR Inspection' and ‘Inspection Compliance Checklist for EA’ for 'Energy Audit Inspection'. And then click “Create” button



Enter the relative information in Compliance Checklist for EA or Compliance Checklist for COCR/FOC. (Mandatory field: *Date & time of Inspection*). In Details of items to be checked Section,

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Data Management System (BEEO) - Compliance Checklist for EA Label-NEW

<p>Name of Building - EMSD HQ EMSD HQ, Kai Shing Street</p> <p>Building Type -</p> <p>File No. - EMSD/EEO/BC/34-06068</p> <p>Name of Inspecting Officer - BSI/EEB7/1</p> <p>Date & time of Inspection - <input type="text"/> <input type="button"/> <input type="button"/></p> <p>Date of Relevant Submission - 09-05-2014</p>											
Details of items to be checked											
<p>Inventories of the energy consuming equipment, and manuals or technical brochures indicating their configurations and characteristics (EAC 7.2(b))</p> <p align="right">Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">To be completed by Subject Engineer</td> <td colspan="3">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?(Y/N)</td> <td>Remarks if no inspection conducted</td> <td></td> </tr> </table>				To be completed by Subject Engineer	To be completed by Inspecting Officer			Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
To be completed by Subject Engineer	To be completed by Inspecting Officer										
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted									
<p>Drawings and system schematics showing the layouts of the energy consuming equipment and systems, and drawings showing the layout of the building (EAC 7.2(c))</p> <p align="right">Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">To be completed by Subject Engineer</td> <td colspan="3">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?(Y/N)</td> <td>Remarks if no inspection conducted</td> <td></td> </tr> </table>				To be completed by Subject Engineer	To be completed by Inspecting Officer			Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
To be completed by Subject Engineer	To be completed by Inspecting Officer										
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted									
<p>Equipment day-to-day operation records (EAC 7.2(d)) Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">To be completed by Subject Engineer</td> <td colspan="3">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?(Y/N)</td> <td>Remarks if no inspection conducted</td> <td></td> </tr> </table>				To be completed by Subject Engineer	To be completed by Inspecting Officer			Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
To be completed by Subject Engineer	To be completed by Inspecting Officer										
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted									
<p>Energy consumption data in last 36-month or since operation of the building should such period be less than 36-month (EAC 7.2(e))</p> <p align="right">Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">To be completed by Subject Engineer</td> <td colspan="3">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?(Y/N)</td> <td>Remarks if no inspection conducted</td> <td></td> </tr> </table>				To be completed by Subject Engineer	To be completed by Inspecting Officer			Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
To be completed by Subject Engineer	To be completed by Inspecting Officer										
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted									
<p>Operation & maintenance programmes including timing of major alterations, additions or replacements for the building (EAC 7.2(f))</p> <p align="right">Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">To be completed by Subject Engineer</td> <td colspan="3">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?(Y/N)</td> <td>Remarks if no inspection conducted</td> <td></td> </tr> </table>				To be completed by Subject Engineer	To be completed by Inspecting Officer			Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
To be completed by Subject Engineer	To be completed by Inspecting Officer										
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted									
<p>Areas of relevant spaces attributing to the internal floor area of the building (EAC 7.2(g)) Add</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">To be completed by Subject Engineer</td> <td colspan="3">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?(Y/N)</td> <td>Remarks if no inspection conducted</td> <td></td> </tr> </table>				To be completed by Subject Engineer	To be completed by Inspecting Officer			Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
To be completed by Subject Engineer	To be completed by Inspecting Officer										
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted									

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Total internal floor area of the building (EAC 7.2(h)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of the characteristics of air conditioning systems and their components (EAC 7.3.1(a)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of the characteristics of chillers and/or unitary air-conditioners, their capacity ratings and operating characteristics (EAC 7.3.1(b)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of the characteristics of air handling units (AHU) and fans, their capacity ratings and operating characteristics (EAC 7.3.1(c)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of the characteristics of air conditioning water pumps, their capacity ratings and operating characteristics (EAC 7.3.1(d)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of the characteristics of luminaires, their ratings and operating characteristics (EAC 7.3.1(e)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of the characteristics of lift and escalator installation, their capacity ratings, and operating characteristics (EAC 7.3.1(i)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of operating characteristics of other building services energy consuming equipment/systems (EAC 7.3.1(j)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Records of utilization pattern of the areas served by the energy consuming equipment/systems (EAC 7.3.1(f)) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	

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Records of control mechanisms, electrical power quality, metering provision and other characteristics of the building affecting building energy consumption (EAC clauses 7.3.1(g), 7.3.1(h), 7.3.1(k))			
Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Identification and calculation of building energy consumptions Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Record of EMO already implemented in the last 36-month or to be implemented, and corresponding energy audit report (EAC 7.2(a))			
Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Identification of EMO Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Save Record Cancel			

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Data Management System (BEOO) - Compliance Checklist for COCR / FOC Label-NEW

Name of Building - Sai Kung Government Office Building Sai Kung Government Office Building, 34 Chan Man Street , Sai Kung, New Territories 新界西貢民街34號 西貢政府合署	Building Type - Government	File No. - EMSD/EEO/BC/34-01961	Name of Inspecting Officer - BSI/EEB7/1
Date & time of Inspection - <input type="text"/> <input type="button"/> <input type="button"/>	Date of Relevant Submission - 29-04-2014		
Details of items to be checked			
Lighting Installation			
Maximum Allowable Lighting Power Density (BEC table 5.4) <input type="button" value="Add"/>			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Minimum Number of Lighting Control Points (BEC table 5.5) <input type="button" value="Add"/>			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
System Load Calculation in accordance with established internationally recognized procedures and methods (BEC6.4.1) <input type="button" value="Add"/>			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Indoor Design Conditions for Air-Conditioning System Load Calculation (BEC6.4.2) <input type="button" value="Add"/>			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Outdoor Design Conditions for Air-Conditioning System Load Calculation (BEC6.4.2) <input type="button" value="Add"/>			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Separate Air Distribution System for Process Zone (BEC 6.5) <input type="button" value="Add"/>			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	

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ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Air Distribution Ductwork Leakage Limit (BEC 6.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Air Distribution System Fan Power (BEC 6.7) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Air-Conditioning Installation			
System Load Calculation in accordance with established internationally recognized procedures and methods (BEC 6.4.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Indoor Design Conditions for Air-conditioning System Load Calculation (BEC 6.4.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Outdoor Design Conditions for Air-conditioning System Load Calculation (BEC 6.4.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Separate Air Distribution System for Process Zone (BEC 6.5) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Air Distribution Ductwork Leakage Limit (BEC 6.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Air Distribution System Fan Power (BEC 6.7) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Pumping System (BEC 6.8) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	

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Frictional Loss of Water Piping System (BEC 6.9) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Temperature Control (BEC 6.10.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Humidity Control (BEC 6.10.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Zone Control (BEC 6.10.3) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Off Hours Control (BEC 6.10.4.1 & 6.10.4.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Off Hours Control for Guest Rooms in Hotel, Guest House and Hostel (BEC 6.10.4.3) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Thermal Insulation (BEC 6.11) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Air-Conditioning Equipment Efficiency (BEC 6.12) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Energy Metering for chiller, heat pump or unitary air-conditioner (BEC 6.13.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Energy Metering for chilled/heated water plant (BEC 6.13.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	

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Energy Metering for obtaining chilled water flow rate (BEC 6.13.3) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Energy Metering for determining chilled water plant's power & energy inputs (BEC 6.13.4) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Electrical Installation			
Minimum Transformer Efficiency (BEC 7.4.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Main Circuit Copper Loss (BEC 7.4.2 & 7.4.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Feeder Circuit Copper Loss (BEC 7.4.3 & 7.4.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Sub-Main Circuit Copper Loss for non-residential buildings (BEC 7.4.4.1, 7.4.4.2 & 7.4.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Sub-Main Circuit Copper Loss for residential buildings (BEC 7.4.4.3 & 7.4.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Final Circuit Copper Loss (BEC 7.4.5 & 7.4.6) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Motor for Air-Conditioning Equipment, Distribution Transformer, Lift and Escalator (BEC 7.5.3) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Motor Efficiency (BEC 7.5.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	

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Motor with above 5kW output power rating (BEC 7.5.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Total Power Factor (BEC 7.6.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Total Harmonics Current (BEC 7.6.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Single-phase Load Balancing (BEC 7.6.3) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Main Circuit Metering Device (BEC 7.7.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Metering Device for Feeder and Sub-main Circuit Exceeding 200A and Below 400A Current Rating (BEC 7.7.2.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Metering Device for Feeder and Sub-main Circuit Above 400A Current Rating (BEC 7.7.2.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Life & Escalator Installation			
Traction Lift Maximum Allowable Electrical Power (BEC tables 8.4.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Hydraulic Lift / Escalator / Conveyor Maximum Allowable Electrical Power (BEC tables 8.4.2, 8.4.3 & 8.4.4) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Total Power Factor for Lift (BEC 8.5.1.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	

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Total Power Factor for Escalator and Conveyor (BEC 8.5.1.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Lift Decoration Load (BEC 8.5.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Lift Parking Mode at Off-peak (BEC 8.5.3) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Lift Ventilation and Air-conditioning (BEC 8.5.4) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Lift Total Harmonic Distortion (BEC tables 8.6.1) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Escalator / Conveyor Total Harmonic Distortion (BEC tables 8.6.2) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Metering and Monitoring Facilities for Lift and Escalator Installation (BEC 8.7) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
Save Record		Cancel	

Click 'Add' button to add the check item at section of 'Details of items to be checked'.

Maximum Allowable Lighting Power Density (BEC table 5.4) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or	Remarks if no inspection	

Click 'Delete' button to delete the check item at section of 'Details of items to be checked'.

Maximum Allowable Lighting Power Density (BEC table 5.4) Add			
To be completed by Subject Engineer	To be completed by Inspecting Officer		
Items to be checked	Inspected or not?(Y/N)	Remarks if no inspection conducted	
<input type="button" value="Y"/> <input type="checkbox"/> <input type="button" value="N"/> <input type="checkbox"/>		<input type="button" value="Delete"/>	

Click “Save Record” button to complete the Inspection compliance Checklist creation.

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7.2 Inspection Compliance Check List - Edit

Login as Subject Officer Account

Inbox

Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BEOO) - Inbox (E/EEB5/1)

- + Inbox Statistics
- + Bring Up
- + New Assignment Received

Assignment No.										Create Work Record	
- Works in progress Filter											
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date	
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00	

In "Work in progress" section, select a case which is 'Energy Audit Inspection', 'Form of Compliance (FOC) Inspection' or 'COCR Inspection'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06068 (3667)	EMSD HQ	INSP-Energy Audit Inspection	9/5/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	12	E/EEB5/1	9/5/2014 16:19:15
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01961 (1120)	Sai Kung Government Office Building	INSP-Form of Compliance (FOC) Inspection	29/4/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	22	E/EEB5/1	29/4/2014 14:41:02
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-00352 (3659)	Park Hovan Commercial Building	INSP-COCR Inspection	3/3/2014	E/EEB5/1	BSI/EEB7/1	Date/Time for Inspection under Schedule	E/EEB5/1	79	E/EEB5/1	5/3/2014 13:35:41

Click the record which shown in Check List Section. Only record is not generate to mobile which can be edited.

Check List

Add Check List

Inspection Compliance Checklist for COCR/FOC_20140521

Del Gene Retv

After modified the checklist, click "Save Record" button to complete the checklist editing



7.3 Inspection Compliance Check List - Copy

Login as Subject Officer Account

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Energy Audit Inspection', 'Form of Compliance (FOC) Inspection' or 'COCR Inspection'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06068 (3667)	EMSD HQ	INSP-Energy Audit Inspection	9/5/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	12	E/EEB5/1	9/5/2014 16:19:15
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01961 (1120)	Sai Kung Government Office Building	INSP-Form of Compliance (FOC) Inspection	29/4/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	22	E/EEB5/1	29/4/2014 14:41:02
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-00352 (3659)	Park Hovan Commercial Building	INSP-COCR Inspection	3/3/2014	E/EEB5/1	BSI/EEB7/1	Date/Time for inspection under Schedule	E/EEB5/1	79	E/EEB5/1	5/3/2014 13:35:41

Click the record which shown in Check List Section

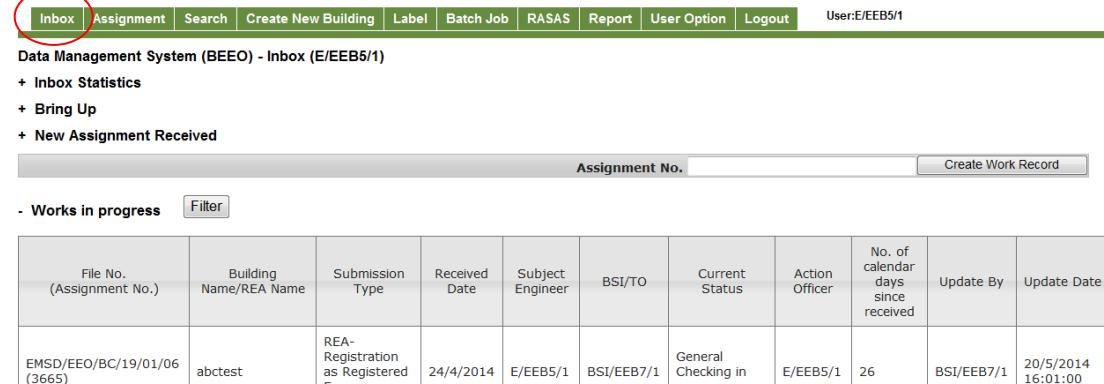
Click “Copy Record” button to complete the checklist copying

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ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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7.4 Inspection Compliance Check List - Delete

Login as Subject Officer Account

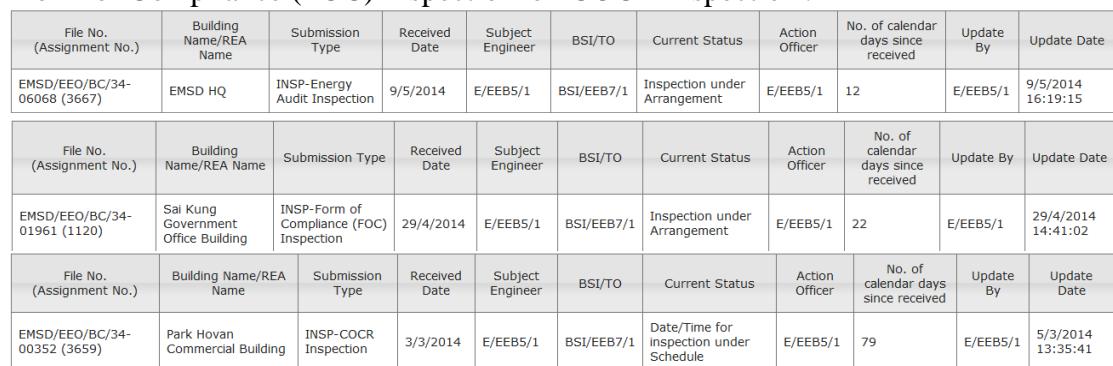
Inbox



The screenshot shows the 'Inbox' section of the BEEO system. At the top, there is a navigation bar with links: 'Inbox' (circled in red), 'Assignment', 'Search', 'Create New Building', 'Label', 'Batch Job', 'RASAS', 'Report', 'User Option', and 'Logout'. To the right of the navigation bar, it says 'User:E/EEB5/1'. Below the navigation bar, the title 'Data Management System (BEEO) - Inbox (E/EEB5/1)' is displayed. Underneath the title, there are three bullet points: '+ Inbox Statistics', '+ Bring Up', and '+ New Assignment Received'. A search bar at the bottom has 'Assignment No.' and 'Create Work Record' buttons. Below the search bar, there are two buttons: '- Works in progress' and 'Filter'. The main table displays one row of data:

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In "Work in progress" section, select a case which is 'Energy Audit Inspection', 'Form of Compliance (FOC) Inspection' or 'COCR Inspection'.



The screenshot shows the 'Inbox' section of the BEEO system displaying multiple inspection cases in progress. There are two tables of data:

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06068 (3667)	EMSD HQ	INSP-Energy Audit Inspection	9/5/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	12	E/EEB5/1	9/5/2014 16:19:15

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01961 (1120)	Sai Kung Government Office Building	INSP-Form of Compliance (FOC) Inspection	29/4/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	22	E/EEB5/1	29/4/2014 14:41:02

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-00352 (3659)	Park Hovan Commercial Building	INSP-COCR Inspection	3/3/2014	E/EEB5/1	BSI/EEB7/1	Date/Time for inspection under Schedule	E/EEB5/1	79	E/EEB5/1	5/3/2014 13:35:41

Click "Del" button of in Check List Section to complete the Inspection Compliance Checklist deletion. Only record is not generate to mobile which can be deleted.



The screenshot shows the 'Check List' section of the BEEO system for the inspection checklist 'COCR/FOC_20140521'. At the top, there is a 'Check List' button and an 'Add Check List' button. Below the buttons, the checklist title is 'Inspection Compliance Checklist for COCR/FOC_20140521'. At the bottom right, there are three buttons: 'Del' (circled in red), 'Gen' (Generate), and 'Retv' (Retrieve).

7.5 Inspection Compliance Check List - Generate record to Mobile device

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Energy Audit Inspection', 'Form of Compliance (FOC) Inspection' or 'COCR Inspection'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06068 (3667)	EMSD HQ	INSP-Energy Audit Inspection	9/5/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	12	E/EEB5/1	9/5/2014 16:19:15
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01961 (1120)	Sai Kung Government Office Building	INSP-Form of Compliance (FOC) Inspection	29/4/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	22	E/EEB5/1	29/4/2014 14:41:02
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-00352 (3659)	Park Hovan Commercial Building	INSP-COCR Inspection	3/3/2014	E/EEB5/1	BSI/EEB7/1	Date/Time for Inspection under Schedule	E/EEB5/1	79	E/EEB5/1	5/3/2014 13:35:41

Click “Gene” button of in Check List Section to generate record to Mobile device. Only record is not generated to mobile before which can be generated.

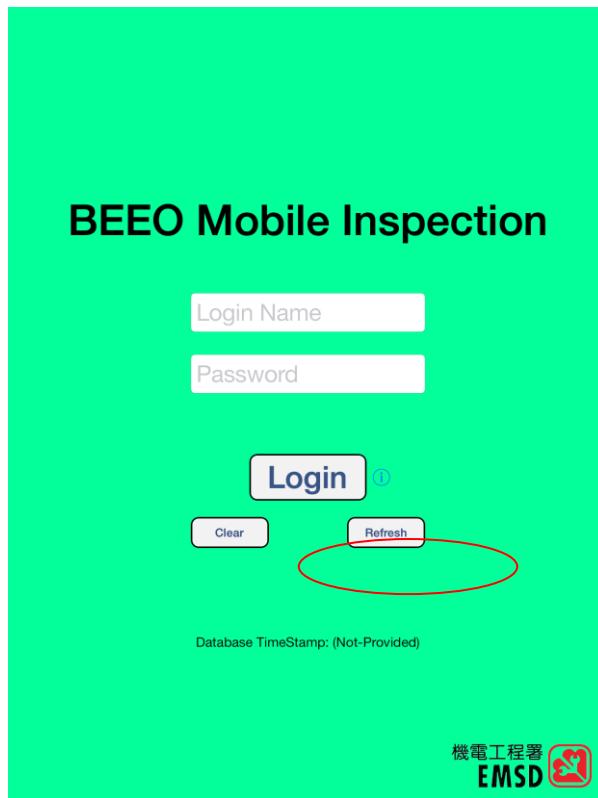
7.6 Login Mobile Device

Ensure the internet connection was established in mobile.

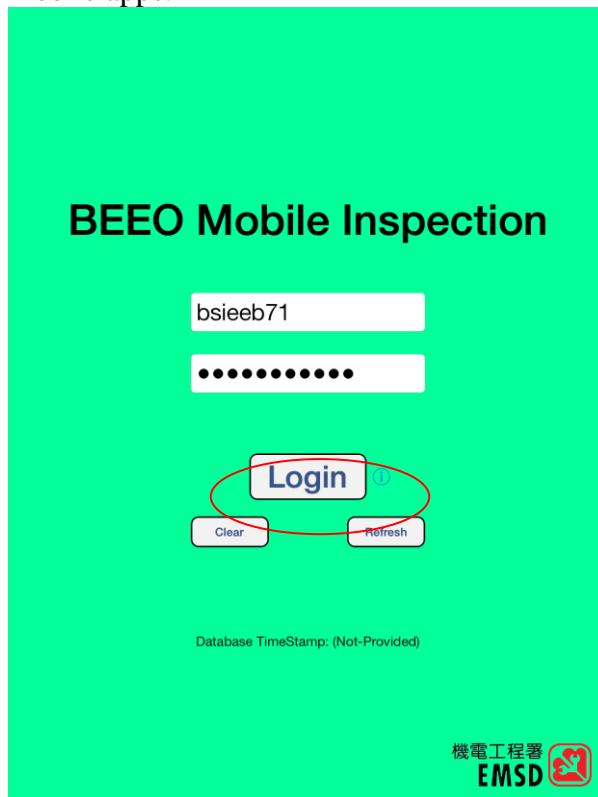
Start the Mobile Apps



Click “Refresh” button to refresh user database



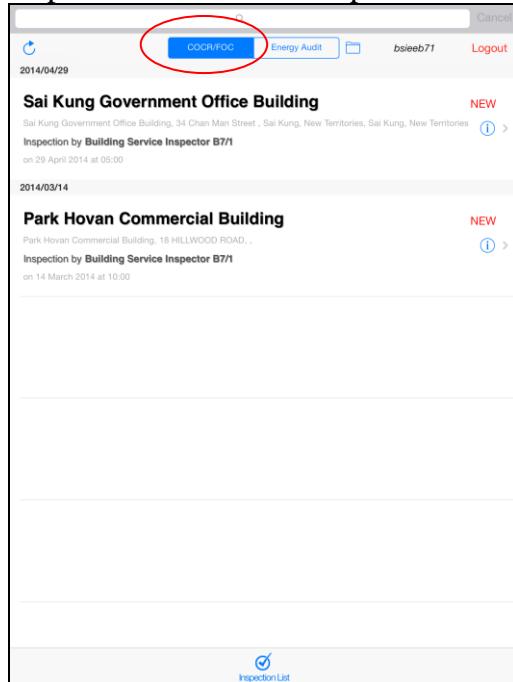
Enter Login Name and Password and then click “Login” button to login the mobile apps.



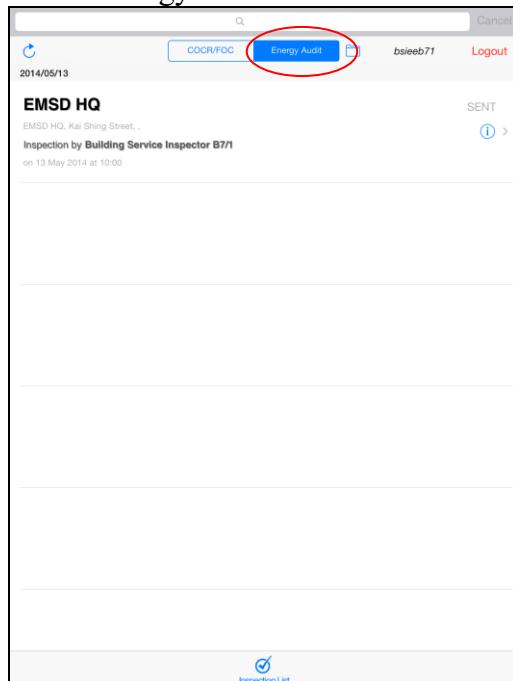
7.7 Check Inspection List in Mobile Apps

Login as Subject Officer Account in mobile apps

Press “COCR/FOC” button to show the ‘Form of Compliance (FOC) Inspection’ and ‘COCR Inspection’ record



Press “Energy Audit” button to show the ‘Energy Audit Inspection’ record



7.8 Edit Inspection record in Mobile Apps

Login as Subject Officer Account in mobile apps

Press 'Form of Compliance (FOC) Inspection' or 'COCR Inspection' record shown in "COCR/FOC" page or 'Energy Audit Inspection' record shown in "Energy Audit" page.

The screenshot displays a web-based application interface for managing building inspections. At the top, there is a navigation bar with icons for refresh, COCR/FOC (selected), Energy Audit, a folder, user ID 'bsieeb71', and a 'Logout' link. Below the navigation bar, the date '2014/04/29' is shown. The main content area contains two entries, each with a circular red outline around its title and details:

Sai Kung Government Office Building NEW
Sai Kung Government Office Building, 34 Chan Man Street , Sai Kung, New Territories, Sai Kung, New Territories (i) >
Inspection by Building Service Inspector B7/1
on 29 April 2014 at 05:00

EMSD HQ NEW
EMSD HQ, Kai Shing Street, ,
Inspection by Building Service Inspector B7/1
on 13 May 2014 at 10:00

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Edit the record for COCR/FOC or Energy Audit

Detailed Compliance Checklist for COCR/FOC (Restricted For Internal User Only) (Building Energy Code 2012 Edition)																																						
General Information of Inspection <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Name of Building</td> <td colspan="2">Park Hovan Commercial Building</td> </tr> <tr> <td>Address of Building</td> <td colspan="2">Park Hovan Commercial Building, 18 HILLWOOD ROAD</td> </tr> <tr> <td>Name of Inspecting Officer</td> <td colspan="2">Building Service Inspector B7/1</td> </tr> <tr> <td>Date & Time of Inspection</td> <td colspan="2">14 March 2014, 10:00</td> </tr> <tr> <td>Date of Relevant Submission</td> <td colspan="2"></td> </tr> </table>			Name of Building	Park Hovan Commercial Building		Address of Building	Park Hovan Commercial Building, 18 HILLWOOD ROAD		Name of Inspecting Officer	Building Service Inspector B7/1		Date & Time of Inspection	14 March 2014, 10:00		Date of Relevant Submission																							
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Name of Inspecting Officer	Building Service Inspector B7/1																																					
Date & Time of Inspection	14 March 2014, 10:00																																					
Date of Relevant Submission																																						
Details of items to be checked <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="background-color: #e0e0ff;">Maximum Allowable Lighting Power Density (BEC table 5.4)</td> </tr> <tr> <td>To be completed by Subject Engineer</td> <td colspan="2">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?</td> <td>Remark(s) if no inspection conducted</td> </tr> <tr> <td colspan="2">Please check LPD</td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td colspan="3" style="background-color: #e0e0ff;">System Load Calculation in accordance with established internationally recognized procedures and methods (BEC6.4.1)</td> </tr> <tr> <td>To be completed by Subject Engineer</td> <td colspan="2">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?</td> <td>Remark(s) if no inspection conducted</td> </tr> <tr> <td colspan="2">Please check SLC</td> <td><input type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> </table>			Maximum Allowable Lighting Power Density (BEC table 5.4)			To be completed by Subject Engineer	To be completed by Inspecting Officer		Items to be checked	Inspected or not?	Remark(s) if no inspection conducted	Please check LPD		<input type="checkbox"/> Yes <input type="checkbox"/> No	System Load Calculation in accordance with established internationally recognized procedures and methods (BEC6.4.1)			To be completed by Subject Engineer	To be completed by Inspecting Officer		Items to be checked	Inspected or not?	Remark(s) if no inspection conducted	Please check SLC		<input type="checkbox"/> Yes <input type="checkbox"/> No												
Maximum Allowable Lighting Power Density (BEC table 5.4)																																						
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Please check LPD		<input type="checkbox"/> Yes <input type="checkbox"/> No																																				
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Please check SLC		<input type="checkbox"/> Yes <input type="checkbox"/> No																																				
Detailed Compliance Checklist for Energy Audit (Restricted For Internal User Only) (Building Audit Code 2012 Edition)																																						
General Information of Visit/Inspection <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Name of Building</td> <td colspan="2">EMSD HQ</td> </tr> <tr> <td>Address of Building</td> <td colspan="2">EMSD HQ, Kai Shing Street</td> </tr> <tr> <td>Name of Inspecting Officer</td> <td colspan="2">Building Service Inspector B7/1</td> </tr> <tr> <td>Date & Time of Inspection</td> <td colspan="2">13 May 2014, 10:00</td> </tr> <tr> <td>Date of Relevant Submission</td> <td colspan="2"></td> </tr> </table>			Name of Building	EMSD HQ		Address of Building	EMSD HQ, Kai Shing Street		Name of Inspecting Officer	Building Service Inspector B7/1		Date & Time of Inspection	13 May 2014, 10:00		Date of Relevant Submission																							
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Date & Time of Inspection	13 May 2014, 10:00																																					
Date of Relevant Submission																																						
Details of items to be checked <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="background-color: #e0e0ff;">Inventories of the energy consuming equipment, and manuals or technical brochures indicating their configurations and characteristics (EAC 7.2(b))</td> </tr> <tr> <td>To be completed by Subject Engineer</td> <td colspan="2">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?</td> <td>Remark(s) if no inspection conducted</td> </tr> <tr> <td>Checking #01</td> <td><input checked="" type="radio"/> Yes <input type="radio"/> No</td> <td>Aaa</td> </tr> <tr> <td colspan="3" style="background-color: #e0e0ff;">Equipment day-to-day operation records (EAC 7.2(d))</td> </tr> <tr> <td>To be completed by Subject Engineer</td> <td colspan="2">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?</td> <td>Remark(s) if no inspection conducted</td> </tr> <tr> <td>Checking #02</td> <td><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> <td></td> </tr> <tr> <td colspan="3" style="background-color: #e0e0ff;">Records of the characteristics of air conditioning systems and their components (EAC 7.3.1(a))</td> </tr> <tr> <td>To be completed by Subject Engineer</td> <td colspan="2">To be completed by Inspecting Officer</td> </tr> <tr> <td>Items to be checked</td> <td>Inspected or not?</td> <td>Remark(s) if no inspection conducted</td> </tr> <tr> <td>Checking #03</td> <td><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> <td></td> </tr> </table>			Inventories of the energy consuming equipment, and manuals or technical brochures indicating their configurations and characteristics (EAC 7.2(b))			To be completed by Subject Engineer	To be completed by Inspecting Officer		Items to be checked	Inspected or not?	Remark(s) if no inspection conducted	Checking #01	<input checked="" type="radio"/> Yes <input type="radio"/> No	Aaa	Equipment day-to-day operation records (EAC 7.2(d))			To be completed by Subject Engineer	To be completed by Inspecting Officer		Items to be checked	Inspected or not?	Remark(s) if no inspection conducted	Checking #02	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Records of the characteristics of air conditioning systems and their components (EAC 7.3.1(a))			To be completed by Subject Engineer	To be completed by Inspecting Officer		Items to be checked	Inspected or not?	Remark(s) if no inspection conducted	Checking #03	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Inventories of the energy consuming equipment, and manuals or technical brochures indicating their configurations and characteristics (EAC 7.2(b))																																						
To be completed by Subject Engineer	To be completed by Inspecting Officer																																					
Items to be checked	Inspected or not?	Remark(s) if no inspection conducted																																				
Checking #01	<input checked="" type="radio"/> Yes <input type="radio"/> No	Aaa																																				
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To be completed by Subject Engineer	To be completed by Inspecting Officer																																					
Items to be checked	Inspected or not?	Remark(s) if no inspection conducted																																				
Checking #02	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																					
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To be completed by Subject Engineer	To be completed by Inspecting Officer																																					
Items to be checked	Inspected or not?	Remark(s) if no inspection conducted																																				
Checking #03	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																					

Click “Save” button to complete the Inspection record updating in mobile apps



Please fill in the form below.

Send

Save

7.9 Send edited Inspection record to DMS

Login as Subject Officer Account in mobile apps

Press 'Form of Compliance (FOC) Inspection' or 'COCR Inspection' record shown in "COCR/FOC" page or 'Energy Audit Inspection' record shown in "Energy Audit" page.

The screenshot shows two inspection records. The first record is for "Sai Kung Government Office Building" on 29 April 2014 at 05:00, listed under "COCR/FOC". The second record is for "EMSD HQ" on 13 May 2014 at 10:00, also listed under "COCR/FOC". Both records show details like location, inspector, and date/time. A red oval highlights the "COCR/FOC" tab and the "Energy Audit" tab above it, indicating where to click to switch between inspection types.

Click “Send” button to send the Inspection record to DMS.



Please fill in the form below.

Send

Save

After sent, the record would be marked as Sent.

The screenshot shows the same inspection records as before, but now the "SENT" status is indicated next to the "NEW" status for both entries. A red oval highlights the "SENT" status, indicating the result of sending the records.

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7.10 Inspection Compliance Check List - Retrieve result record from Mobile device

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

In “Work in progress” section, select a case which is 'Energy Audit Inspection', 'Form of Compliance (FOC) Inspection' or 'COCR Inspection'.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-06068 (3667)	EMSD HQ	INSP-Energy Audit Inspection	9/5/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	12	E/EEB5/1	9/5/2014 16:19:15
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01961 (1120)	Sai Kung Government Office Building	INSP-Form of Compliance (FOC) Inspection	29/4/2014	E/EEB5/1	BSI/EEB7/1	Inspection under Arrangement	E/EEB5/1	22	E/EEB5/1	29/4/2014 14:41:02
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-00352 (3659)	Park Hovan Commercial Building	INSP-COCR Inspection	3/3/2014	E/EEB5/1	BSI/EEB7/1	Date/Time for inspection under Schedule	E/EEB5/1	79	E/EEB5/1	5/3/2014 13:35:41

Click “Retv” button of in Check List Section to retrieve record from Mobile device. Only record is generated to mobile before which can be retrieved.

Inspection Compliance Checklist for COCR/FOC_20140429	Del	Gen	Retv
---	-----	-----	------

8. Buildings

8.1 Create Building Record

Login as Subject Officer Account

Click "Create New Building" in Menu

Inbox Assignment Search **Create New Building** Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BEEO) - Inbox (E/EEB5/1)

+ Inbox Statistics
- Bring Up

Fill in Building information

Data Management System (BEEO) - Create New Building

File No. EMSD/EEO/BC/34- 00001 N/A
(Input an existing File No. or let it blank for system to generate a File No. automatically)

Eng. Bldg. Name (Not Provided) Times Square

Eng. Street Name Matheson Street

Chi. Bldg. Name (Not Provided) 時代廣場

Chi. Street Name 罗素街

Lot No.

Street Start No. 1

Street Start No Alpha.

Street End No.

Street End No Alpha.

District

AREA -

Building Type Commercial

Save Record

Company/Person
Developer of the building

Click save Record

AREA -

Building Type Commercial

Save Record

8.2 Search Building

Login as Subject Officer Account

Search->Search Building

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System Search Building Search Case (EA FOC, CDR, INSP)

Fill in Building information

Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BEEO) - Search Building

File No. EMSD/EEO/BC/34-	Chi. Bldg. Name
Eng. Bldg. Name	Chi. Street Name
Eng. Street Name	Lot No.
Building Type Commercial	Group
Search	

Click Search Button

Building Type Commercial	Group
Search	

Searching Result will be shown

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	Commercial	EMSD/EEO/BC/34-00002	EA1
MTR Headquarters Building (Telford Plaza), 33 Wai Yip Street , Kowloon Bay, Kowloon	MTR Headquarters Building (Telford Plaza)	九龍九龍灣偉業街33號 德福廣場港鐵總部大樓	德福廣場港鐵總部大樓	Commercial	EMSD/EEO/BC/34-00003	EA1
Hong Kong Convention and	Hong Kong	香港灣仔海港道1號 香港會議展覽			EMSD/EEO/BC/34-	

8.3 Search Building - Ext. Ref. - EORS

Login as Subject Officer Account

Search->Search Building

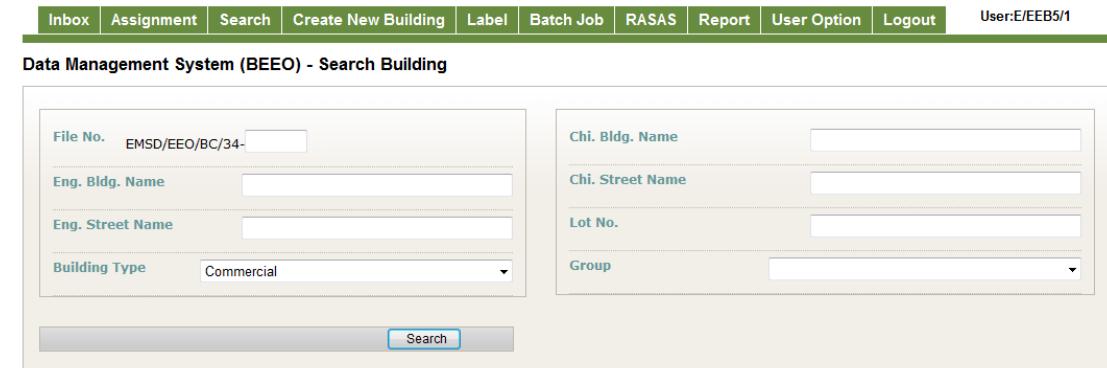


Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System

Search Case (EA FOC/COLIC/NSP)

Fill in Building information



Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BEEO) - Search Building

File No.	EMSD/EEO/BC/34-	Chi. Bldg. Name	
Eng. Bldg. Name		Chi. Street Name	
Eng. Street Name		Lot No.	
Building Type	Commercial	Group	
<input type="button" value="Search"/>			

Click Search Button



Building Type	Commercial	Group
<input type="button" value="Search"/>		

Searching Result will be shown

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	Commercial	EMSD/EEO/BC/34-00002	EA1
MTR Headquarters Building (Telford Plaza), 33 Wai Yip Street , Kowloon Bay, Kowloon	MTR Headquarters Building (Telford Plaza)	九龍九龍灣偉業街33號 德福廣場港鐵總部大樓	德福廣場港鐵總部大樓	Commercial	EMSD/EEO/BC/34-00003	EA1
Hong Kong Convention and	Hong Kong	香港會議展覽中心	香港會議展覽中心		EMSD/EEO/BC/34-	

Select Building



<input type="button" value="Ext. Ref."/> <input type="button" value="Case"/> <input type="button" value="Letter"/> <input type="button" value="Edit"/>						
Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-	Hong Kong Science	新界沙田科技大道				

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AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Click "Ext.Ref." Button



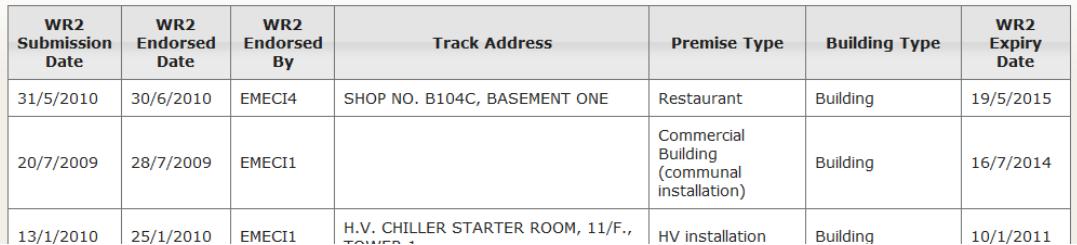
Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-	Hong Kong Science	新界沙田科特大道				

Click "EORS" link




WR2 Submission Date	WR2 Endorsed Date	WR2 Endorsed By	Track Address	Premise Type	Building Type	WR2 Expiry Date
31/5/2010	30/6/2010	EMECI4	SHOP NO. B104C. BASEMENT ONE	Restaurant	Building	19/5/2015

EORS information will be shown



WR2 Submission Date	WR2 Endorsed Date	WR2 Endorsed By	Track Address	Premise Type	Building Type	WR2 Expiry Date
31/5/2010	30/6/2010	EMECI4	SHOP NO. B104C, BASEMENT ONE	Restaurant	Building	19/5/2015
20/7/2009	28/7/2009	EMECI1		Commercial Building (communal installation)	Building	16/7/2014
13/1/2010	25/1/2010	EMECI1	H.V. CHILLER STARTER ROOM, 11/F., TOWER 1	HV installation	Building	10/1/2011

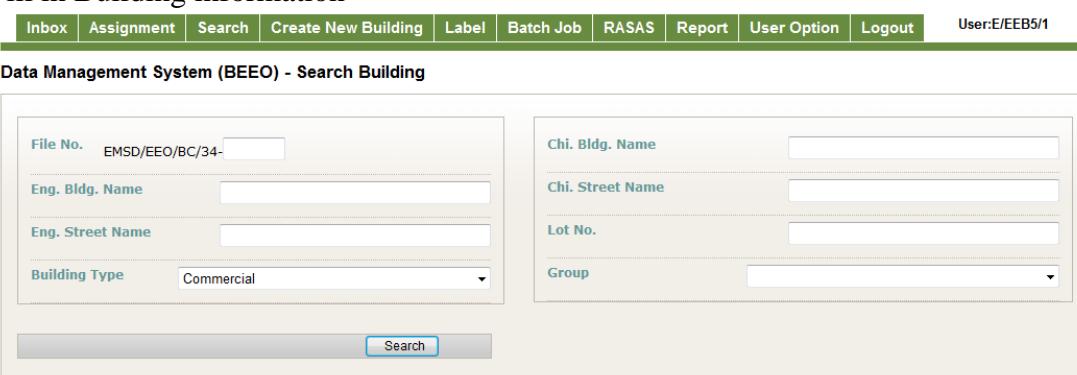
8.4 Search Building - Ext. Ref. - LEOS

Login as Subject Officer Account

Search->Search Building



Fill in Building information



File No.	EMSD/EEO/BC/34-	Chi. Bldg. Name	
Eng. Bldg. Name		Chi. Street Name	
Eng. Street Name		Lot No.	
Building Type	Commercial	Group	
<input type="button" value="Search"/>			

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Click Search Button

Building Type: Commercial

Group:

Search

Searching Result will be shown

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	Commercial	EMSD/EEO/BC/34-00002	EA1
MTR Headquarters Building (Telford Plaza), 33 Wai Yip Street , Kowloon Bay, Kowloon	MTR Headquarters Building (Telford Plaza)	九龍九龍灣德忌利士街33號 德福廣場港鐵總部大樓	德福廣場港鐵總部大樓	Commercial	EMSD/EEO/BC/34-00003	EA1
Hong Kong Convention and	Hong Kong	香港灣仔港聲道1號	香港會議展覽		EMSD/EEO/BC/34-	

Select Building

Ext. Ref. Case Letter Edit

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-	Hong Kong Science	新界沙田科大道				

Click "Ext.Ref." Button

Ext. Ref. Case Letter Edit

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-	Hong Kong Science	新界沙田科大道				

Click "LEOS" link

EORS LEOS

WR2 Submission Date	WR2 Endorsed Date	WR2 Endorsed By	Track Address	Premise Type	Building Type	WR2 Expiry Date
31/5/2010	30/6/2010	EMECI4	SHOP NO. B104C. BASEMENT ONE	Restaurant	Building	19/5/2015

LEOS information will be shown

Form	Apply Date	Authorization Date	Authorization By	Type
F5	3/11/2009	10/11/2009	CEMEGL	Escalator
F5	3/11/2009	10/11/2009	CEMEGL	Escalator
F5	3/11/2009	10/11/2009	CEMEGL	Escalator
FF	7/11/2009	10/11/2009	CFMFGI	Escalator

8.5 Search Building - Geo Reference Assignment

Login as Subject Officer Account

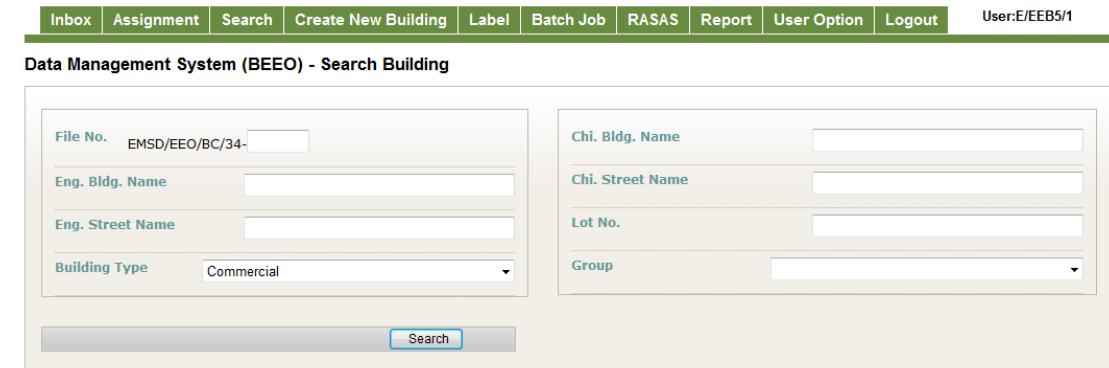
Search->Search Building



Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BESS) Search Case (EA EOC CODE:RSP)

Fill in Building information



Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BESS) - Search Building

File No.	EMSD/EEO/BC/34-	Chi. Bldg. Name	
Eng. Bldg. Name		Chi. Street Name	
Eng. Street Name		Lot No.	
Building Type	Commercial	Group	
<input type="button" value="Search"/>			

Click Search Button



Building Type	Commercial	Group
<input type="button" value="Search"/>		

Searching Result will be shown

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	Commercial	EMSD/EEO/BC/34-00002	EA1
MTR Headquarters Building (Telford Plaza), 33 Wai Yip Street , Kowloon Bay, Kowloon	MTR Headquarters Building (Telford Plaza)	九龍九龍灣德忌利士街33號 德福廣場港鐵總部大樓	德福廣場港鐵總部大樓	Commercial	EMSD/EEO/BC/34-00003	EA1
Hong Kong Convention and	Hong Kong	香港會議展覽中心	香港會議展覽中心		EMSD/EEO/BC/34-	

Select Building



<input type="button" value="Ext. Ref."/> <input type="button" value="Case"/> <input type="button" value="Letter"/> <input type="button" value="Edit"/>						
Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-	Hong Kong Science	新界沙田科技大道				

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Click "Edit" Button

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No	Group
Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	Commercial	EMSD/EEO/BC/34-00001	EA1
Hong Kong Science Park (Bio-	Hong Kong Science	新界沙田科特大道				

Click "Find" Button

Geo Reference

OP No.

Find

Fill the building information and then click “Search” Button

Location Selection

DMS-BEEO Building Information

Eng. Bldg. Name	Times Square
Eng. Street Name	Matheson Street
Chi. Bldg. Name	時代廣場
Chi. Street Name	羅素街
Street Start No.	1

Building Search

Eng. Bldg. Name	Times Square
Eng. Street Name	Matheson Street
Chi. Bldg. Name	
Chi. Street Name	
Street No.	
Geo Reference	

Search

Select record and then Click “Confirm” Button to complete Geo. Ref. Assignment

Building Name	Building Name (Chinese)	Street Name	Street Name (Chinese)	Start No.	End No.	Geo Reference	District
TIMES SQUARE	時代廣場	MATHESON STREET	勿地臣街	1	1	3673915475	

Prev Page 1 Next

9. Investigation and Prosecution

9.1 Add Referral

Login as Subject Officer Account

RASAS->Add Referral

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout
User:E/EEB5/1									
Add Referral									

Data Management System (BEEO) - Inbox (E/EEB5/1)

- + [Inbox Statistics](#)
- [Bring Up](#)

Case File No.	Bring Up Message	Generated Date & Time	Initiated By
		20/05/2014	

Enter the relative information (Mandatory fields: *File Reference, First Known Date, Open Date, and Estimated No. of Summons*)

Data Management System (BEEO) Referral Detail

Referral No.	File Reference	_B
First Date Known to DEMS	20/05/2014	Save Bar Date Calculate
Open Date	20/05/2014	Complete Date 27/05/2014
Nature	EELPO	
Senior Case Engineer	SE/EEB5	
Responsible Inspector (Investigation)	BSI/EEB/PS9/3	Responsible Engineer (Investigation) E/EEB4/5
Responsible Inspector (Prosecution)	BSI/EEB/PS9/3	Responsible Engineer (Prosecution) E/EEB4/5
Referral Description	Referral Description	
Status	New Record	Total No. of Summons Drafted
Estimated No. of Summons	2	Actual No. of Summons Uploaded
Remark	Remark	
	Save	

Click "Calculate" button to calculate save bar date and then the date will be shown

Data Management System (BEEO) Referral Detail

Referral No.	File Reference	_B
First Date Known to DEMS	20/05/2014	Save Bar Date Calculate 20/11/2014
Open Date	20/05/2014	Complete Date 27/05/2014
Nature	EELPO	

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Click "Save" button to save the referral information for Add Referral

The screenshot shows a table with two columns: 'Remark' and 'Summons Uploaded'. In the 'Remark' column, there is a text area labeled 'Remark'. At the bottom of the table, there is a 'Save' button, which is highlighted with a red oval.

9.2 Search Referral

Login as Subject Officer Account

Search->Search Referral

The screenshot shows a navigation bar with links like Inbox, Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout. Below the navigation bar, it says 'User:E/EEB5/1'. A sidebar on the left has 'Data Management System' and 'Inbox Statistics'. The main area shows a table with columns: Case File No., Generated Date & Time, and Initiated By. One row in the table is circled in red. To the left of the table, there is a sidebar with options: Search Building, Search Case (EA,FOC,COCR,INSP), Search Case (REA), Search REA, Search Letter, Search Batch Job - Batch Letter Generation, Search Batch Job - Random Generation of Building List, Search Referral (which is circled in red), and Search Summons. At the bottom, it says 'EMSD/EEO/BC/34-' and 'BEEO DMS Assignment No 3734'.

Enter the search criteria and then click “Search” Button

Data Management System (BEEO) - Search Referral

The screenshot shows a form with fields for Referral No., File Reference, First Date Known to DEMS, File Open Date, Nature, and Referral Description. Below the form is a 'Search' button, which is highlighted with a red oval.

The search result will be shown. Click “Referral No.” which shown in result grid.

The screenshot shows a table with columns: Referral No, File Reference, First Known Date, File Open Date, Complete Date, Nature, and Referral Description. One row in the table is circled in red. The circled row contains the value 'EEA-20140507-00006' in the Referral No. column.

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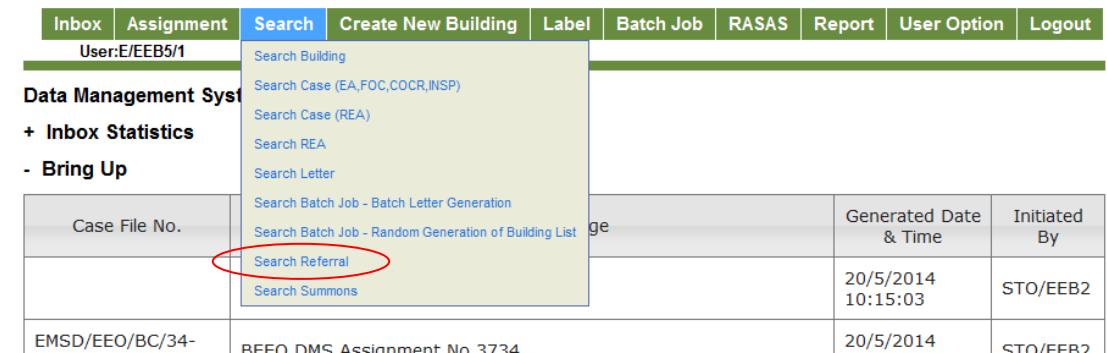
The referral detail will be shown
Data Management System (BEEO) Referral Detail

Referral No.	EEA-20140507-00006	File Reference	Ref_1
First Date Known to DEMS	01/05/2014	Save Bar Date	31/10/2014 <input type="button" value="Calculate"/>
Open Date	02/05/2014	Complete Date	05/05/2014

9.3 Edit Referral

Login as Subject Officer Account

Search->Search Referral



Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout

User:E/EEB5/1

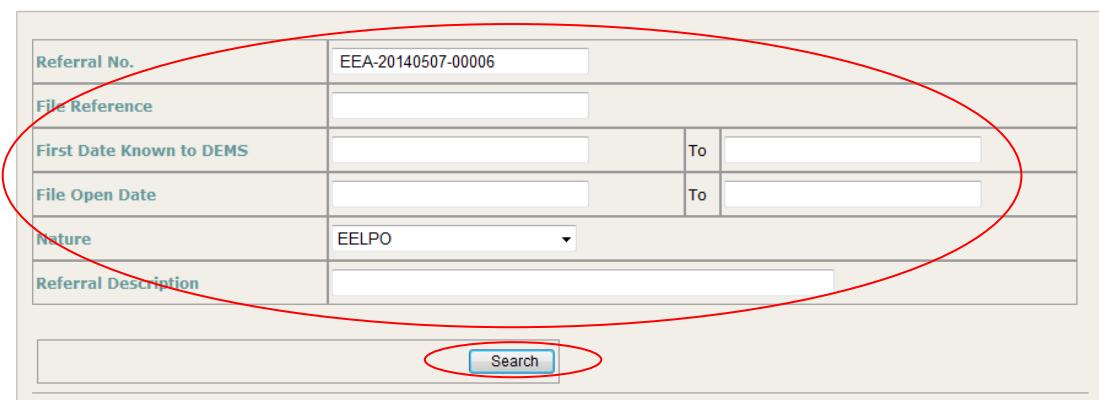
Data Management System

- + Inbox Statistics
- Bring Up

Case File No.	ge	Generated Date & Time	Initiated By
		20/5/2014 10:15:03	STO/EEB2
EMSD/EEO/BC/34-	RFFO DMS Assignment No. 3734	20/5/2014	STO/EEB2

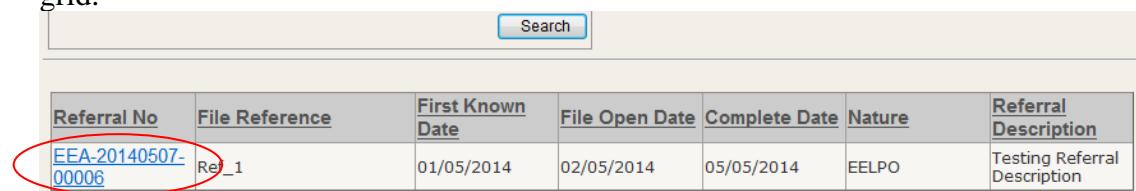
Enter the search criteria and then click “Search” Button

Data Management System (BEEO) - Search Referral



Referral No.	EEA-20140507-00006		
File Reference			
First Date Known to DEMS		To	
File Open Date		To	
Nature	EELPO		
Referral Description			
<input type="button" value="Search"/>			

The search result will be shown. Click “Referral No.” which shown in result grid.



Search						
Referral No	File Reference	First Known Date	File Open Date	Complete Date	Nature	Referral Description
EEA-20140507-00006	Ref_1	01/05/2014	02/05/2014	05/05/2014	EELPO	Testing Referral Description

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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In referral detail screen, click “Edit” button to change to edit mode for update the referral information

The screenshot shows a software interface for managing referrals. At the top, there is a header with the text "Remark" and "Testing Case 1234". Below the header is a large text area containing the text "Testing Case 1234". At the bottom of the screen, there are two buttons: "Edit" and "Add Summons". The "Edit" button is highlighted with a red oval.

After modified the referral information, click “Save” button to complete the referral editing

The screenshot shows the same software interface as the previous one, but the text area now contains "Testing Case 1234 5678". At the bottom, there is a single "Save" button, which is highlighted with a red oval.

9.4 Add Summons

Login as Subject Officer Account

Search->Search Referral

The screenshot shows a navigation bar with links for Inbox, Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout. The user is logged in as "User:E/EEB5/1". On the left, there is a sidebar with "Data Management System" and options for "Inbox Statistics" and "Bring Up". The main area has a table with columns for Case File No., Status, Generated Date & Time, and Initiated By. A dropdown menu is open over the "Search Referral" link in the sidebar, showing options like "Search Referral" and "Search Summons".

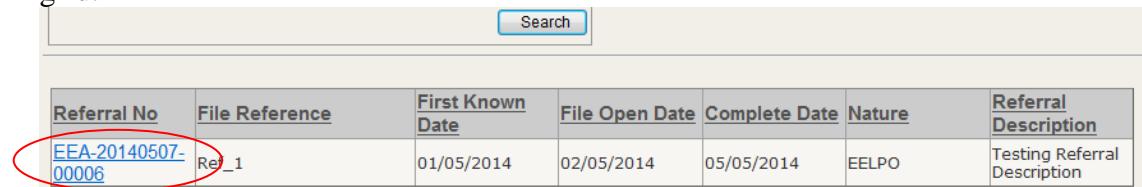
Enter the search criteria and then click “Search” Button

Data Management System (BEEO) - Search Referral

The screenshot shows the "Data Management System (BEEO) - Search Referral" page. It has fields for Referral No. (containing "EEA-20140507-00006"), File Reference, First Date Known to DEMS, File Open Date, Nature (set to "EELPO"), and Referral Description. At the bottom, there is a "Search" button, which is highlighted with a red oval.

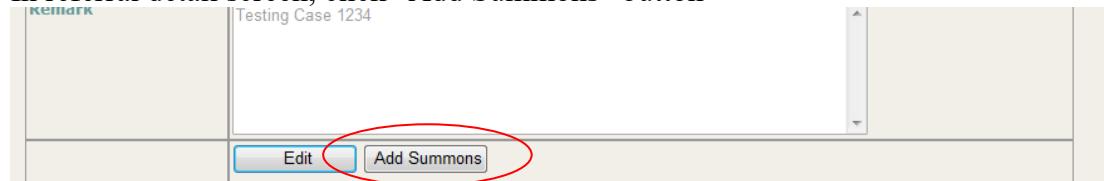
**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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The search result will be shown. Click “Referral No.” which shown in result grid.



Referral No	File Reference	First Known Date	File Open Date	Complete Date	Nature	Referral Description
EEA-20140507-00006	Ref_1	01/05/2014	02/05/2014	05/05/2014	EELPO	Testing Referral Description

In referral detail screen, click “Add Summons” button



REMARK Testing Case 1234

Edit **Add Summons**

Enter the relative information (Mandatory field: *Summon No*)

Part 1

Def. Ref. No.	EEA-20140507-00006	Summon No	
Case No			
Offence Type	EELPO		
Information of Summon Result			
Summons Result	A.S.D.		
Counting Date			
Upload Date		Summon Result Date	
Fine		Imprisonment (month)	
Identifier Type	BRC		
Defendant Identifier (HKID/BRC/etc.)			
Serving Mode	<input type="radio"/> By Post <input type="radio"/> By Hand		
Offence Location			
Offence Location in Chinese			
Offence District	HKI - Central and Western		
To	s4(1)(a)&(b) of Cap. 598		
Remark			

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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The followings are details of each field of Part 1.

Summon No	A unique no. for identifying this summon within the case.
Case No	The no. returned from CASEMAN
Offence Type	EELPO
Summons Result	Result of this result after hearing
Counting Date	Other division use this field for Close Date
Upload Date	Date for uploading the summon to CASEMAN
Summon Result Date	Date of getting summon result
Action Date	Date of action taken
Fine	Fine for the defendant
Imprisonment (month)	Imprisonment for the defendant
Identifier Type	Defendant's ID Type
Defendant Identifier	Defendant's ID No.
Serving Mode	Either the summon is served by Post or by Hand
Offence Location	Offence location in English
Offence Location in Chinese	Offence location in Chinese
Offence District	Offence District
To	The ordinance that the defendant contrary to. This selection affects some input fields in later page
Remark	Any remark for the summon

Part 2

Prosecution Department	EMS Electrical & Mechanical Services Department	Dept Ref. No.	EEA-20140507-00006
Informant			
Chinese Name		CCC Code	
Manual Schedule Required	<input type="radio"/> Yes	<input type="radio"/> No	
Hearing Group ID			
Attachment to Summons	<input type="radio"/> Yes	<input type="radio"/> No	
Offence Description Format			
Time Bar Calculation Based On	<input type="radio"/> Discover date	<input type="radio"/> Offence date	
Discover Date			
Offence Date Format	On *Date1		
Date1		Date2	

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The followings are details of each field of Part 2.

Informant	The informant responsible for the case
Manual Schedule Required	Whether manual scheduling of hearing is required
Hearing Group ID	A group ID used in CASEMAN
Attachment to Summons	Whether attachment exists for this summon
Time Bar Calculation Based On	Choose whether the bar date is calculated from Discover Date or Offence Date
Offence Date Format	Select the best description of Offence Date
Date1 & Date2	Dates used in Offence Date Format

Part 3

Prosecution Department	EMS Electrical & Mechanical Services Department			Dept Ref. No.	EEA-20140507-00006
Defendant Type	<input type="radio"/> Limited Company	<input type="radio"/> Adult	<input type="radio"/> Juvenile		
Defendant					
Chinese Name					
CCC Code					
Sex	<input type="radio"/> Male	<input type="radio"/> Female	<input type="radio"/> Unknown		
Age					
District	HKI - Central and Western		Territory	Hong Kong Island	
Address					
Address in Chinese					
Contact Phone No					
Dialect/Language Interpret	JAP Japanese				

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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The followings are details of each field of Part 3.

Defendant Type	Select defendant type
Defendant	Defendant English name
Chinese Name	Defendant Chinese name
CCC Code	CCC Code of Defendant's name
Sex	Sex of the defendant
Age	Age of the defendant
District	District of Defendant's Address
Territory	Territory of Defendant's Address
Address	Defendant's Address in English
Address in Chinese	Defendant's Address in Chinese
Contact Phone No	Defendant's Contact No.
Dialect / Language Interpret	Specify any Dialect used by the Defendant

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Part 4

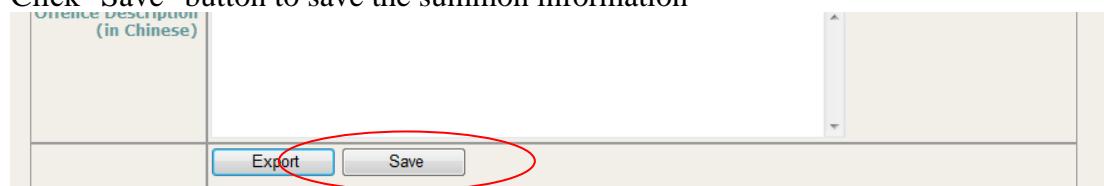
Prosecution Department	EMS Electrical & Mechanical Services Department	Dept Ref. No.	EEA-20140507-00006		
Chapter		Sub Leg.			
Section		Subsection			
Paragraph		Sub Paragraph			
Hearing Time Weight	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
Penalty Weight	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3		
PGBL Allowed	<input type="radio"/> Yes	<input type="radio"/> No			
Contrary to Law					
Contrary to Law (in Chinese)					
Short Description					
Short Description (in Chinese)					
Offence Description					
Offence Description (in Chinese)					
	Export	Save			

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The followings are details of each field of Part 4.

Hearing Time Weight	Weight of Hearing Time
Penalty Weight	Weight of Penalty
PGBL Allowed	Attribute in CASEMAN
Contrary to Law	Description of the Ordinance in English the Defendant Contrary to, which is automatically filled in when user selects the field "To" in Part 1
Contrary to Law (in Chinese)	Description of the Ordinance in Chinese the Defendant Contrary to, which is automatically filled in when user selects the field "To" in Part 1
Short Description	Short Description of the Offence in English, which is automatically filled in when user selects the field "To" in Part 1
Short Description (in Chinese)	Short Description of the Offence in Chinese, which is automatically filled in when user selects the field "To" in Part 1
Offence Description	Offence Description in English
Offence Description (in Chinese)	Offence Description in Chinese

Click "Save" button to save the summon information



9.5 Search Summons

Login as Subject Officer Account

Search->Search Summons

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout												
User:E/EEB5/1																					
Data Management System <ul style="list-style-type: none"> + Inbox Statistics - Bring Up <table border="1"> <tr> <td>Case File No.</td> <td>ge</td> <td>Generated Date & Time</td> <td>Initiated By</td> </tr> <tr> <td></td> <td>20/5/2014 10:15:03</td> <td>STO/EEB2</td> <td></td> </tr> <tr> <td>EMSD/EEO/BC/34-</td> <td>RFFO DMS Assignment No 3734</td> <td>20/5/2014</td> <td>STO/EEB2</td> </tr> </table>										Case File No.	ge	Generated Date & Time	Initiated By		20/5/2014 10:15:03	STO/EEB2		EMSD/EEO/BC/34-	RFFO DMS Assignment No 3734	20/5/2014	STO/EEB2
Case File No.	ge	Generated Date & Time	Initiated By																		
	20/5/2014 10:15:03	STO/EEB2																			
EMSD/EEO/BC/34-	RFFO DMS Assignment No 3734	20/5/2014	STO/EEB2																		
Search Building Search Case (EA,FOC,COCR,INSPI) Search Case (REA) Search REA Search Letter Search Batch Job - Batch Letter Generation Search Batch Job - Random Generation of Building List Search Referral Search Summons																					

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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Enter the search criteria and then click “Search” Button
Data Management System (BEEO) - Search Summons

Referral No.		Dept Ref No.	
Case No.			
Offence Type	EELPO		
Summons Result			
Upload Date		To	
Summons Result Date		To	
Counting Date		To	
Action Date		To	
Fine		Imprisonment	
Defendant Identifier			
Offence Location		Offence Location in Chinese	
Offence District			
Informant		Defendant	
<input type="button" value="Search"/>			

The search result will be shown. Click “ID” which shown in result grid.

ID	Referral No	Dept. Ref. No.	Case No.	Offence Type	Fine	Imprisonment	Upload Date	Summons Result Date	Counting Date	Action Date
1	EEA-20140502-444 00005			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
3	EEA-20140502-343 00005			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
5	EEA-20140507-sm1 00006	sm1	case1	20	22.03	20	01/05/2014	03/05/2014	01/05/2014	
8	EEA-20140507-△			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	

The summons detail will be shown

Data Management System (BEEO) Summons Detail

Part 1

Def. Ref. No.	EEA-20140507-00006	Summon No	sm1
Case No	case1		
Offence Type	EELPO		

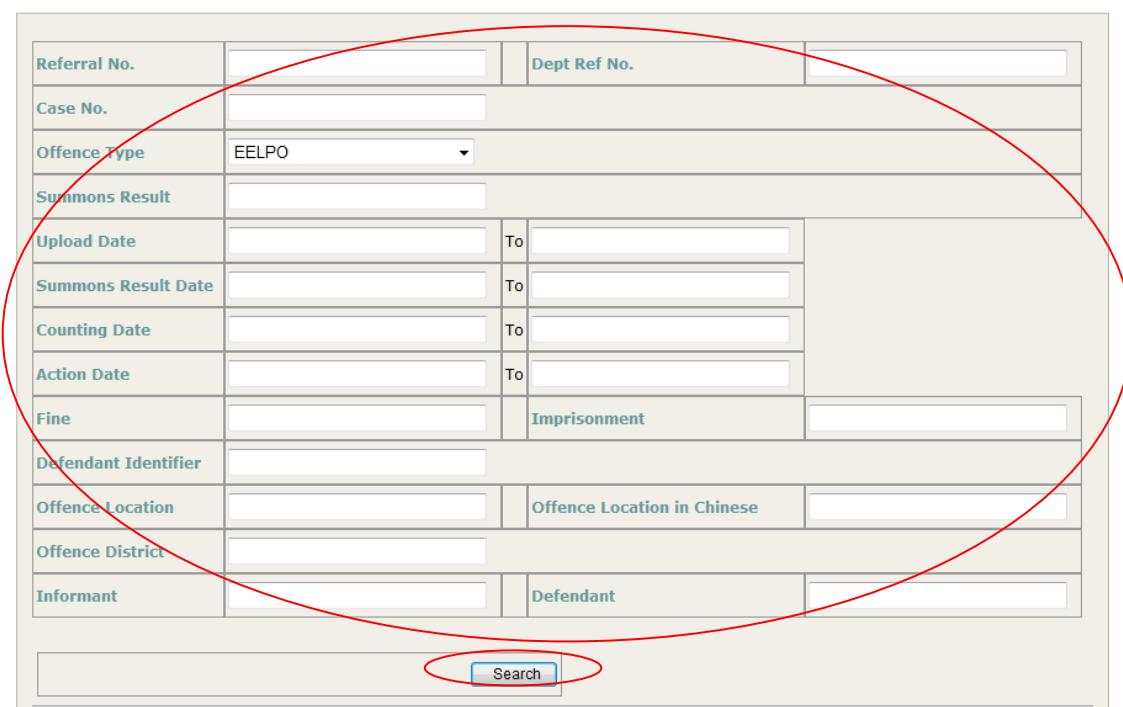
9.6 Edit Summons

Login as Subject Officer Account

Search->Search Summons

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout												
User:E/EEB5/1																					
Data Management System + Inbox Statistics - Bring Up <table border="1"> <tr> <td>Case File No.</td> <td>ge</td> <td>Generated Date & Time</td> <td>Initiated By</td> </tr> <tr> <td></td> <td>20/5/2014 10:15:03</td> <td>STO/EEB2</td> <td></td> </tr> <tr> <td>EMSD/EEO/BC/34-</td> <td>RFFO DMS Assignment No 3734</td> <td>20/5/2014</td> <td>STO/EEB2</td> </tr> </table>										Case File No.	ge	Generated Date & Time	Initiated By		20/5/2014 10:15:03	STO/EEB2		EMSD/EEO/BC/34-	RFFO DMS Assignment No 3734	20/5/2014	STO/EEB2
Case File No.	ge	Generated Date & Time	Initiated By																		
	20/5/2014 10:15:03	STO/EEB2																			
EMSD/EEO/BC/34-	RFFO DMS Assignment No 3734	20/5/2014	STO/EEB2																		
Search Building Search Case (EA,FOC,COCR,INSP) Search Case (REA) Search REA Search Letter Search Batch Job - Batch Letter Generation Search Batch Job - Random Generation of Building List Search Referral Search Summons																					

Enter the search criteria and then click “Search” Button
Data Management System (BEEO) - Search Summons



Referral No.		Dept Ref No.	
Case No.			
Offence Type	EELPO		
Summons Result			
Upload Date	To		
Summons Result Date	To		
Counting Date	To		
Action Date	To		
Fine	Imprisonment		
Defendant Identifier			
Offence Location	Offence Location in Chinese		
Offence District			
Informant	Defendant		
<input type="button" value="Search"/>			

The search result will be shown. Click “ID” which shown in result grid.

ID	Referral No	Dept. Ref. No.	Case No.	Offence Type	Fine	Imprisonment	Upload Date	Summons Result Date	Counting Date	Action Date
1	EEA-20140502-444	00005		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
3	EEA-20140502-343	00005		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
5	EEA-20140507-sm1	case1		20	22.03	20	01/05/2014	03/05/2014	01/05/2014	
6	EEA-20140520-A			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	

In summons detail screen, click “Edit” button to change to edit mode

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AND MECHANICAL SERVICES DEPARTMENT (EMSD)



After modified the summons information, click “Save” button to complete the summons editing



9.7 Add Scheduled hearing details

Login as Subject Officer Account

Search->Search Summons

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout
User:E/EEB5/1									
Data Management System + Inbox Statistics - Bring Up Case File No. Search Referral Search Summons EMSD/EEO/BC/34- RFFO DMS Assignment No 3734									
						ge	Generated Date & Time	Initiated By	
							20/5/2014 10:15:03	STO/EEB2	
							20/5/2014	STO/EEB2	

Enter the search criteria and then click “Search” Button
Data Management System (BEEO) - Search Summons

Referral No.		Dept Ref No.	
Case No.			
Offence Type	EELPO		
Summons Result			
Upload Date	To		
Summons Result Date	To		
Counting Date	To		
Action Date	To		
Fine	Imprisonment		
Defendant Identifier			
Offence Location	Offence Location in Chinese		
Offence District			
Informant	Defendant		
<input type="button" value="Search"/>			

The search result will be shown. Click “ID” which shown in result grid.

ID	Referral No	Dept. Ref. No.	Case No.	Offence Type	Fine	Imprisonment	Upload Date	Summons Result Date	Counting Date	Action Date
1	EEA-20140502-444	00005		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
3	EEA-20140502-343	00005		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
5	EEA-20140507-sm1	00006	case1	20	22.03	20	01/05/2014	03/05/2014	01/05/2014	
6	EEA-20140520-A			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	

In summons detail screen, click “Edit” button to change to edit mode



Click “Add” button in Scheduled hearing details



Enter the relative information

Data Management System (BEEO) Scheduled hearing details

Day	
Hearing Date	
Hearing Time	00 : 00
Verdict Mode	Appeal
Magistracy	ES Eastern
Court No.	
Prosecutor	
Plea / Trail	<input type="radio"/> Trial <input type="radio"/> Plea
Remark	
	Save

The followings are details of each field.

Hearing Date	Hearing Date as scheduled by CASEMAN
Hearing Time	Hearing Time as scheduled by CASEMAN
Verdict Mode	Select the Verdict Mode of the Hearing
Magistracy	Select the Magistracy of this Hearing
Court No.	Court Room No.
Prosecutor	Name of Prosecutor
Plea / Trail	Select whether this Hearing is a Plea or a Trail
Remark	Remark of this Hearing

Click “Save” Button to complete the add Scheduled hearing details



9.8 Edit/Delete Scheduled hearing details

Login as Subject Officer Account

Search->Search Summons

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Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout
User:E/EEB5/1									
Data Management System + Inbox Statistics - Bring Up									
Case File No. <input type="text"/>		Search Building Search Case (EA,FOC,COCR,INSPE) Search Case (REA) Search REA Search Letter Search Batch Job - Batch Letter Generation Search Batch Job - Random Generation of Building List Search Referral Search Summons							
EMSD/EEO/BC/34- RFFO DMS Assignment No. 3734		Generated Date & Time Initiated By 20/5/2014 10:15:03 STO/EEB2 20/5/2014 STO/FER2							

Enter the search criteria and then click “Search” Button

Data Management System (BEEO) - Search Summons

Referral No.	<input type="text"/>	Dept Ref No.	<input type="text"/>
Case No.	<input type="text"/>		
Offence Type	EELPO <input type="button" value="▼"/>		
Summons Result	<input type="text"/>		
Upload Date	<input type="text"/>	To	<input type="text"/>
Summons Result Date	<input type="text"/>	To	<input type="text"/>
Counting Date	<input type="text"/>	To	<input type="text"/>
Action Date	<input type="text"/>	To	<input type="text"/>
Fine	<input type="text"/>	Imprisonment	<input type="text"/>
Defendant Identifier	<input type="text"/>		
Offence Location	<input type="text"/>	Offence Location in Chinese	<input type="text"/>
Offence District	<input type="text"/>		
Informant	<input type="text"/>	Defendant	<input type="text"/>
<input type="button" value="Search"/>			

The search result will be shown. Click “ID” which shown in result grid.

ID	Referral No	Dept. Ref. No.	Case No.	Offence Type	Fine	Imprisonment	Upload Date	Summons Result Date	Counting Date	Action Date
1	EEA-20140502-4440005			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
3	EEA-20140502-3430005			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
5	EEA-20140507-sm10006	case1		20	22.03	20	01/05/2014	03/05/2014	01/05/2014	
6	EEA-20140520-4			20	0.00	0	01/01/1900	01/01/1900	01/01/1900	

In summons detail screen, click “Edit” button to change to edit mode

Offence Description (in Chinese)	Desc4
<input type="button" value="Export"/> <input type="button" value="Edit"/>	

Click “Day” which shown in result grid of Scheduled hearing details.

Scheduled hearing details								
<input type="button" value="Add"/>								
Day	Hearing Date	Hearing Time	Verdict Mode	Magistracy	Court No.	Prosecutor	Plea/Trial	Remarks
1	09/05/2014	11:25	Appeal	ES Eastern	1	Prosecutor1	Trial	Remark2
2	01/01/1900	nn:nn	Appeal	ES Eastern	0			

In Scheduled hearing details screen, Click “Edit” button to change to edit mode or click “Delete” button to delete this record



After modified the Schedule hearing details information on clicked “Edit” button, click “Save” button to complete the Scheduled hearing details editing



9.9 Export Summon to flat file

Login as Subject Officer Account

Search->Search Summons

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout
User:E/EEB5/1		Search Building Search Case (EA,FOC,COCR,INSP) Search Case (REA) Search REA Search Letter Search Batch Job - Batch Letter Generation Search Batch Job - Random Generation of Building List Search Referral Search Summons							
EMSD/EEO/BC/34-	RFFO DMS Assignment No. 3734								

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Enter the search criteria and then click “Search” Button
Data Management System (BEEO) - Search Summons

The screenshot shows a search form for summons. The fields include:

- Referral No.
- Dept Ref No.
- Case No.
- Offence Type: EELPO
- Summons Result
- Upload Date
- To
- Summons Result Date
- To
- Counting Date
- To
- Action Date
- To
- Fine
- Imprisonment
- Defendant Identifier
- Offence Location
- Offence Location in Chinese
- Offence District
- Informant
- Defendant

At the bottom is a blue "Search" button.

The search result will be shown. Click “ID” which shown in result grid.

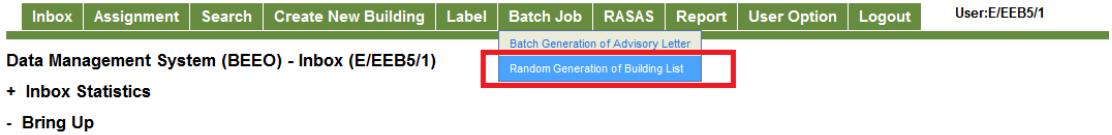
ID	Referral No	Dept. Ref. No.	Case No.	Offence Type	Fine	Imprisonment	Upload Date	Summons Result Date	Counting Date	Action Date
1	EEA-20140502-444	00005		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
3	EEA-20140502-343	00005		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	
5	EEA-20140507-sm1	00006	case1	20	22.03	20	01/05/2014	03/05/2014	01/05/2014	
6	EEA-20140507-4	00007		20	0.00	0	01/01/1900	01/01/1900	01/01/1900	

In summons detail screen, Click "Export" button to export summons information to text file

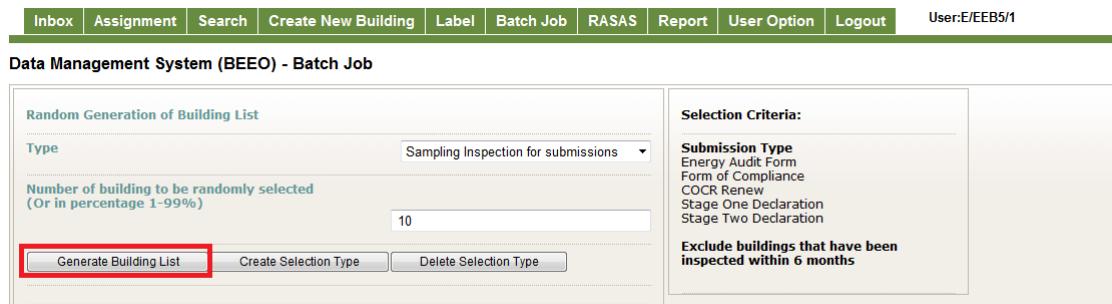
The screenshot shows a summons detail screen with a "Export" button highlighted by a red circle at the bottom.

10. Random Site Selection

10.1 Generate Building List

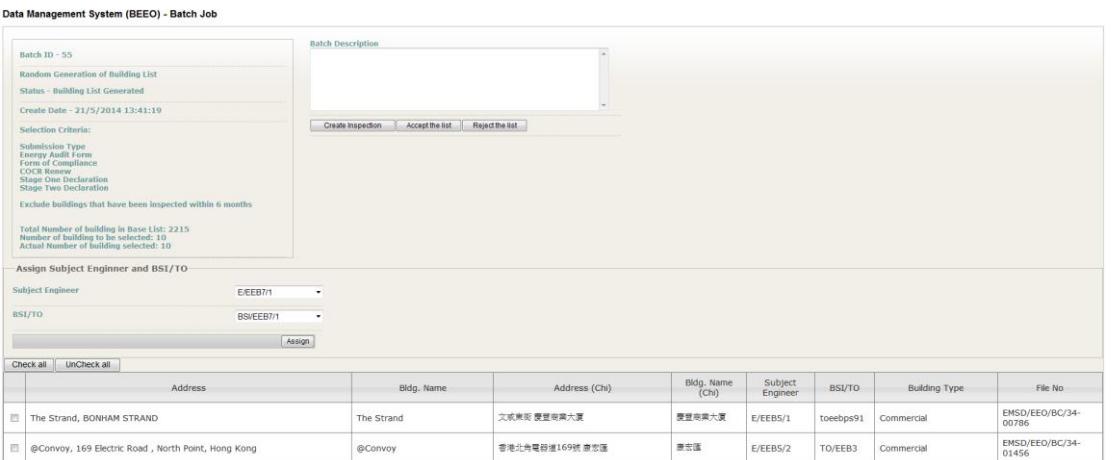


Data Management System (BEEO) - Batch Job



The screenshot shows the 'Data Management System (BEEO) - Batch Job' interface. On the left, there is a form titled 'Random Generation of Building List'. It has fields for 'Type' (set to 'Sampling Inspection for submissions'), 'Number of building to be randomly selected (Or in percentage 1-99%)' (set to '10'), and three buttons: 'Generate Building List' (highlighted with a red box), 'Create Selection Type', and 'Delete Selection Type'. To the right, there is a 'Selection Criteria:' section with a list of submission types: Energy Audit Form, Form of Compliance, COCOM Renew, Stage One Declaration, and Stage Two Declaration. Below this is a box labeled 'Exclude buildings that have been inspected within 6 months'.

Select type, Number of building (Integer or in percentage), then click Generate Building List.



Data Management System (BEEO) - Batch Job

The screenshot shows the 'Data Management System (BEEO) - Batch Job' interface after generating a building list. It displays a table of selected buildings:

Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Subject Engineer	BSI/TO	Building Type	File No
The Strand, BONHAM STRAND	The Strand	文咸東街 廣豐商業大廈	廣豐商業大廈	E/EEB5/1	toeebps91	Commercial	EMSD/EEO/BC/34-00786
@Convoy, 169 Electric Road, North Point, Hong Kong	@Convoy	香港北角電器街169號 廣志匯	廣志匯	E/EEB5/2	TO/EEB3	Commercial	EMSD/EEO/BC/34-01456

After Building List Generated,
If Click Accept the list, the batch job status will change to accepted
If Click Reject the list, the batch job status will change to rejected.
If user want to create inspection for the selected building, follow the instruction in selection 9.2

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10.2 Generate Inspection

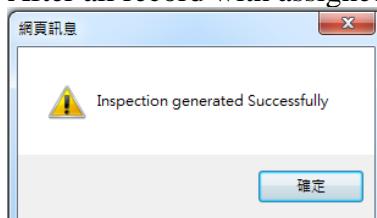
Change of subject Subject Engineer or BSI/TO for the inspection

Assign Subject Engineer and BSI/TO							
Subject Engineer	E/EEB7/1	BSI/TO	BSI/EEB7/1	<input type="button" value="Assign"/>			
<input type="checkbox"/> Check all <input type="checkbox"/> UnCheck all							
Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Subject Engineer	BSI/TO	Building Type	File No
<input type="checkbox"/> The Strand, BONHAM STRAND	The Strand	文咸東街 廣豐商業大廈	慶豐商業大廈	E/EEB5/1	toeebps91	Commercial	EMSD/EO/BC/34-00786
<input checked="" type="checkbox"/> @Convoy, 169 Electric Road , North Point, Hong Kong	@Convoy	香港北角電銅街169號 廣宏匯	廣宏匯	E/EEB5/2	TO/EEB3	Commercial	EMSD/EO/BC/34-01456
<input checked="" type="checkbox"/> Tin King Estate Car park, 10 Tin King Road, Tuen Mun, New Territories , Tuen Mun, New Territories	Tin King Estate Car park	新界屯門新界屯門田景路10號 田景邨停車場	田景邨停車場	E/EEB5/2	TO/EEB3	Composite (commercial & residential)	EMSD/EO/BC/34-01918
<input type="checkbox"/> Miramar Shopping Centre & Miramar Tower, 132-134 Nathan Road & 1-23 Kimberley Road , Tsim Sha Tsui, Kowloon	Miramar Shopping Centre & Miramar Tower	九龍尖沙咀彌敦道132-134 及金巴頓1-23 英皇御歌德及英皇歌德大廈	英皇御歌德及英皇歌德大廈	E/EEB5/2	TO/EEB3	Commercial	EMSD/EO/BC/34-02130
<input type="checkbox"/> Hopewell Centre, 183 Queen's Road East , Wan Chai, Hong Kong	Hopewell Centre	香港灣仔皇后大道東183號 合和中心	合和中心	E/EEB5/1	TO/EEB3	Commercial	EMSD/EO/BC/34-02332

Select the record to be change, select Subject Engineer , BSI/TO and then click assign

Batch ID - 55							
Random Generation of Building List							
Status - Building List Generated							
Create Date - 21/5/2014 13:41:19							
Selection Criteria:							
Submission Type Energy Audit Form Audit Committee COCK Renew Audit Committee Registration Stage Two Declaration							
Exclude buildings that have been inspected within 6 months							
Total Number of building in Base List: 2215 Number of building to be selected: 10 Actual Number of building selected: 10							
Assign Subject Engineer and BSI/TO							
Subject Engineer	E/EEB7/1	BSI/TO	BSI/EEB7/1	<input type="button" value="Assign"/>			
<input type="checkbox"/> Check all <input type="checkbox"/> UnCheck all							
Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Subject Engineer	BSI/TO	Building Type	File No
<input type="checkbox"/> The Strand, BONHAM STRAND	The Strand	文咸東街 廣豐商業大廈	慶豐商業大廈	E/EEB5/1	toeebps91	Commercial	EMSD/EO/BC/34-00786
<input type="checkbox"/> @Convoy, 169 Electric Road , North Point, Hong Kong	@Convoy	香港北角電銅街169號 廣宏匯	廣宏匯	E/EEB7/1	BSI/EEB7/1	Commercial	EMSD/EO/BC/34-01456
<input type="checkbox"/> Tin King Estate Car park, 10 Tin King Road, Tuen Mun, New Territories , Tuen Mun, New Territories	Tin King Estate Car park	新界屯門新界屯門田景路10號 田景邨停車場	田景邨停車場	E/EEB7/1	BSI/EEB7/1	Composite (commercial & residential)	EMSD/EO/BC/34-01918
<input type="checkbox"/> Miramar Shopping Centre & Miramar Tower, 132-134 Nathan Road & 1-23 Kimberley Road , Tsim Sha Tsui, Kowloon	Miramar Shopping Centre & Miramar Tower	九龍尖沙咀彌敦道132-134 及金巴頓1-23 英皇御歌德及英皇御歌德大廈	英皇御歌德及英皇御歌德大廈	E/EEB5/2	TO/EEB3	Commercial	EMSD/EO/BC/34-02130
<input type="checkbox"/> Hopewell Centre, 183 Queen's Road East , Wan Chai, Hong Kong	Hopewell Centre	香港灣仔皇后大道東183號 合和中心	合和中心	E/EEB5/1	TO/EEB3	Commercial	EMSD/EO/BC/34-02332

After all record with assigned Engineer and BSI/TO. Click Create Inspection.



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Inspection for the buildings are created

Data Management System (BEEO) - Batch Job

Batch ID - 55 Random Generation of Building List Status - Building List Accepted Create Date - 21/5/2014 13:41:19	Batch Description <div style="border: 1px solid #ccc; height: 100px; width: 100%;"></div>				
Selection Criteria: Submission Type Energy Audit Form of Compliance COC Renewal Stage One Declaration Stage Two Declaration Exclude buildings that have been inspected within 6 months					
Total Number of Building in Base List: 2215 Number of building to be selected: 10 Actual Number of Building selected: 10					
Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	Building Type	File No
The Strand, BONHAM STRAND	The Strand	文武東街 慶豐商業大廈	慶豐商業大廈	Commercial	EMSD/EEO/BC/34-00786
@Convoy, 169 Electric Road , North Point, Hong Kong	@Convoy	香港北角電銳路169號 嘉慶匯	嘉慶匯	Commercial	EMSD/EEO/BC/34-01456
Tin King Estate Car park, 10 Tin King Road, Tuen Mun, New Territories	Tin King Estate Car park	新界屯門新界屯門田頭路10號 田頭停車場	田頭停車場	Composite (commercial & residential)	EMSD/EEO/BC/34-01918
Miramar Shopping Centre & Miramar Tower, 132-134 Nathan Road & 1-23 Kimberley Road , Tsim Sha Tsui, Kowloon	Miramar Shopping Centre & Miramar Tower	九龍尖沙咀彌敦道132-134 及金巴打1-23 美麗華 橋及尖沙嘴大廈	美麗華商場及美麗華 大廈	Commercial	EMSD/EEO/BC/34-02130
Hopewell Centre, 183 Queen's Road East , Wan Chai, Hong Kong	Hopewell Centre	香港灣仔皇后大道東183號 合和中心	合和中心	Commercial	EMSD/EEO/BC/34-02332
Grand Blossom, 123 Bulkeley Street , Hung Hom, Kowloon	Grand Blossom	九龍紅磡寶其利街123號 盛宏華庭	盛宏華庭	Composite (commercial & residential)	EMSD/EEO/BC/34-02697
Wing On Building, 250-252 Cheung Sha Wan Road , Sham Shui Po, Kowloon	Wing On Building	九龍深水埗長沙灣道250-252號 永安大廈	永安大廈	Residential	EMSD/EEO/BC/34-02754
Banyan Mansions, Site 10, Whampoa Garden, 8 Wan Hoi street , Hung Hom, Kowloon	Banyan Mansions, Site 10,	九龍紅磡渡船街8號 黃地花園10期綠苑	黃地花園10期綠苑	Composite (commercial & residential)	EMSD/EEO/BC/34-02755

In the Inbox of the Subject Engineer or BSI/TO, inspection will be found.

Data Management System (BEEO) - Inbox (E/EEB/1) + Inbox Statistics + Bring Up + New Assignment Received	Assignment No. Create Work Record									
- Works in progress <input type="button" value="Filter"/>										
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update by	Update Date
EMSD/EEO/BC/34-01918 (3742)	Tin King Estate Car park	INSP-Energy Audit Inspection	21/5/2014	E/EEB/1	BSI/EEB/1	Inspection under Arrangement	E/EEB/1	0	E/EEB/1	21/5/2014 13:52:25
EMSD/EEO/BC/34-01456 (3740)	@Convoy	INSP-Energy Audit Inspection	21/5/2014	E/EEB/1	BSI/EEB/1	Inspection under Arrangement	E/EEB/1	0	E/EEB/1	21/5/2014 13:52:25
EMSD/EEO/BC/34-01958 (1109)	Hing Tin Shopping Centre	EA-Energy Audit Form	27/6/2013	E/EEB/1	BSI/EEB/1	General Checking in progress	E/EEB/1	328	BSI/EEB/1	9/5/2014 16:09:07
EMSD/EEO/BC/34-01216 (3637)	Knutsford Commercial Building	INSP-Energy Audit Inspection	3/3/2014	E/EEB/1	toeebps91	Inspection under Arrangement	E/EEB/1	79	E/EEB/1	3/3/2014 9:23:54

10.3 Create User Defined Selection Type

Data Management System (BEEO) - Batch Job

Random Generation of Building List	Selection Criteria:
Type Routine Sampling Inspection	Exclude buildings that have been inspected within 6 months
Number of building to be randomly selected (Or in percentage 1-99%) 10	
<input type="button" value="Generate Building List"/> <input style="background-color: #0070C0; color: white; border: 1px solid #0070C0; padding: 2px 10px; border-radius: 5px; font-weight: bold; margin-left: 10px;" type="button" value="Create Selection Type"/> <input type="button" value="Delete Selection Type"/>	

Click Create Selection Type

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Data Management System (BEOO) - Batch Job

Random Inspection - Selection Type Creation

Name	COCR 1 and 2
Type of submission	<input type="checkbox"/> EA-Energy Audit Extension <input type="checkbox"/> EA-Energy Audit Improvement Notice <input type="checkbox"/> EA-Enquiry (Energy Audit) <input type="checkbox"/> EA-Energy Audit Supplementary <input type="checkbox"/> EA-Energy Audit Exemption <input type="checkbox"/> EA-Energy Audit Form <input type="checkbox"/> EA-Energy Audit Form Duplicate <input type="checkbox"/> FOC-FOC Extension <input type="checkbox"/> FOC-FOC Exemption <input type="checkbox"/> FOC-Form of Compliance <input type="checkbox"/> FOC-FOC Duplicate <input type="checkbox"/> COCR-COCR Improvement Notice <input type="checkbox"/> COCR-COCR Renew <input type="checkbox"/> COCR-Enquiry (COCR) <input type="checkbox"/> COCR-COCR Extension <input type="checkbox"/> COCR-COCR Exemption <input checked="" type="checkbox"/> COCR-Stage One Declaration <input checked="" type="checkbox"/> COCR-Stage Two Declaration <input type="checkbox"/> COCR-COCR Duplicate <input type="checkbox"/> INSP-Visit <input type="checkbox"/> INSP-Routine Sampling <input type="checkbox"/> INSP-Energy Audit Inspection <input type="checkbox"/> INSP-Form of Compliance (FOC) Inspection <input type="checkbox"/> INSP-COCR Inspection <input type="checkbox"/> INSP-Report <input type="checkbox"/> INSP-Complaint <input type="checkbox"/> INSP-Investigation
Building Type	<input type="checkbox"/> Commercial <input type="checkbox"/> Composite (commercial & industrial) <input type="checkbox"/> Hotel and guesthouse <input type="checkbox"/> Residential <input type="checkbox"/> Composite (commercial & residential) <input type="checkbox"/> Industrial <input type="checkbox"/> Educational <input type="checkbox"/> Community <input type="checkbox"/> Municipal <input type="checkbox"/> Hospital, clinic or rehabilitation center <input type="checkbox"/> Government <input type="checkbox"/> Passenger terminal building of an airport <input type="checkbox"/> Railway station <input type="checkbox"/> Other composite use
With In	<input type="radio"/> Yes <input type="radio"/> No
Building Group	<input type="checkbox"/> EA1-1st batch for Energy Audit <input type="checkbox"/> EA10-Energy Audit Exemption Requested <input type="checkbox"/> EA2-2nd batch for Energy Audit <input type="checkbox"/> EA3-3rd batch for Energy Audit <input type="checkbox"/> EA4-4th batch for Energy Audit <input type="checkbox"/> EA5-Energy Audit Not Required (Contractor) <input type="checkbox"/> EA6-Energy Audit Not Required (BSI) <input type="checkbox"/> EA7-Energy Audit Required (BSI) <input type="checkbox"/> EA8-Energy Audit can be exempted (BSI) <input type="checkbox"/> EA9-Energy Audit In Progress
Exclude buildings that have been inspected within	<input type="text"/> Months
Exclude buildings that have been included in previous selection of same selection type	<input type="radio"/> Yes <input type="radio"/> No
Create	

Set the criteria, input the name and then click create.

Data Management System (BEEO) - Batch Job

The screenshot shows the 'Random Generation of Building List' section of the BEEO Batch Job interface. It includes fields for 'Type' (set to 'COCR 1 and 2'), 'Number of building to be randomly selected (Or in percentage 1-99%)' (set to 10), and 'Submission Date' (with 'From' and 'To' fields). On the right, there is a 'Selection Criteria' panel with 'Submission Type' (COCR-Stage One Declaration, COCR-Stage Two Declaration) and a 'Delete Selection Type' button.

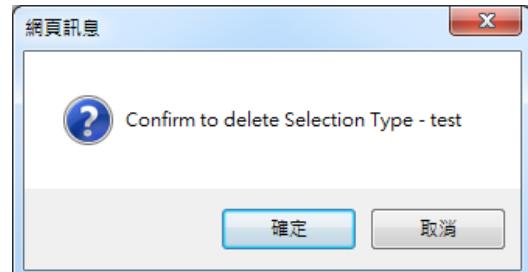
Selection type create and can be set for generate building list.

10.4 Delete User Defined Selection Type

Data Management System (BEEO) - Batch Job

The screenshot shows the 'Random Generation of Building List' section of the BEEO Batch Job interface. It includes fields for 'Type' (set to 'test'), 'Number of building to be randomly selected (Or in percentage 1-99%)' (set to 10), and 'Submission Date' (with 'From' and 'To' fields). On the right, there is a 'Selection Criteria' panel with 'Submission Type' (EA-Energy Audit Form, FOC-FOC Duplicate), 'Building Type' (Commercial), and a checkbox for 'Exclude buildings that have been inspected within 4 months'. A red box highlights the 'Delete Selection Type' button.

Select the Type to be deleted and then click Delete Selection Type.



Confirm will delete the type

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10.5 Searching Batch Job

Search-> Search Batch Job – Random Generation of Building List

User: E/EEB5/1

Data Management System (BEEO) - Search Batch Job

Type - Random Generation of Building List

Batch No.

Status

Create Date Range(dd/mm/yyyy)
21/05/2014 -

Search

Selection Criteria:
Exclude buildings that have been inspected within 6 months

Data Management System (BEEO) - Search Batch Job

Type - Random Generation of Building List

Batch No.

Status

Create Date Range(dd/mm/yyyy)
21/05/2014 -

Search

Input search criteria and click search

Batch ID	Type	Batch Description	Status	Create Date
55	Random Generation of Building List	Building List Generated	Building List Generated	21/5/2014 13:41:19

Click on the batch job will go to the batch job detail

Data Management System (BEEO) - Batch Job

Batch ID - 55

Random Generation of Building List

Status - Building List Generated

Create Date - 21/5/2014 13:41:19

Selection Criteria:
Submission Type
Energy Audit Form
Form of Compliance
COC
Stage One Declaration
Stage Two Declaration
Exclude buildings that have been inspected within 6 months

Total Number of buildings in Base List: 2215
Number of building to be selected: 10
Actual Number of building selected: 10

Assign Subject Engineer and BSI/TO

Subject Engineer: E/EEB7/1
BSI/TO: BSI/EEB7/1

Batch Description

Actions: Create Inspection, Accept the list, Reject the list, Obtain Base List Excel

Address	Bldg. Name	Address (Ch)	Bldg. Name (Ch)	Subject Engineer	BSI/TO	Building Type	File No
The Strand, BONHAM STRAND	The Strand	文咸東街 廣豐商業大廈	廣豐商業大廈	E/EEB5/1	toeebps91	Commercial	EMSD/EO/BC/34-00786
@Convoy, 169 Electric Road , North Point, Hong Kong	@Convoy	香港北角電召道169號 聚志匯	聚志匯	E/EEB7/1	BSI/EEB7/1	Commercial	EMSD/EO/BC/34-01456
Tin King Estate Car park, 10 Tin King Road, Tuen Mun, New Territories , Tuen Mun, New Territories	Tin King Estate Car park	新界屯門新界屯門三號路10號 田景邨停車場	田景邨停車場	E/EEB7/1	BSI/EEB7/1	Composite (commercial & residential)	EMSD/EO/BC/34-01918
Miramar Shopping Centre & Miramar Tower, 123-134 Nathan Road & 1-23 Kimberley Road , Tsim Sha Tsui, Kowloon	Miramar Shopping Centre & Miramar Tower	九龍尖沙咀彌敦道123-134 及金巴打1-23 美麗都商場及美麗都大廈	美麗都商場及美麗都大廈	E/EEB5/2	TO/EEB3	Commercial	EMSD/EO/BC/34-02130

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AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

In general the Base List Excel will be generated after 30 mins of the building list generated, if the excel is available, the button “Obtain Base List Excel” will be shown. Click on it will download the excel.

11. BringUp and Reminder

There are 4 types of reminder:

- User defined reminder
- Report type reminder
- Event driven reminder
- Batch generate reminder

11.1 User defined reminder

In submission page, click Bring Up Management

Assignment ID - 3741
Type - INSP- Form of Compliance (FOC) Inspection
ID- 301 (Please Click to view Detail)
Status - Inspection under Arrangement
Scheduled Date of Inspection -
Subject Engineer - E/EEBS/1
BSI/TO - TO/EEBS
Action Officer - E/EEBS/1
Related Submissions:
FOC Form of Compliance-484

User	Action	Remarks/Comments	Date
E/EEBS/1	Action Start	Arrange inspection	21/5/2014 13:52:25
E/EEBS/1	Action Start	Attach Detailed Compliance Checklist for action by Inspector	21/5/2014 13:52:25

Bring Up Management

Case File No.	EMSD/EEO/BC/34-02332	Bring Up Date	22/05/2014
Bring Up Name	test	Bring Up Time	10 : 10
Generate Reminder	<input checked="" type="checkbox"/>	Recipients	E/EEBS/1 <input type="button" value="Add"/> <input type="button" value="Delete"/>
Bring Up Message	test bring up message		

Add **Close**

Input detail and then click add, a bring up will be Added.

(Note: If Generate Reminder is checked, email will be sent to the the recipients.)

Case File No.	EMSD/EEO/BC/34-02332	Bring Up Date	22/05/2014
Bring Up Name		Bring Up Time	10 : 16
Generate Reminder	<input type="checkbox"/>	Recipients	<input type="button" value="Add"/> <input type="button" value="Delete"/>
Bring Up Message			

Add **Close**

ID	Name	Message	Date	Time	Recipients	Status	Edit
242	test	test bring up message	22/05/2014	10 : 10	E/EEBS/1	Pending	Edit

If the status of the bring up is pending, user can still modify the bring up by click Edit. When bring up date time come, the bring up will change to effective and will not allow modification anymore.

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Click Edit will go to the bring up detail, user can modify the detail and click save to confirm change or click cancel message to delete the bring up.

Data Management System (BEEO) Bring Up Management

Case File No.	EMSD/EEO/BC/34-02332	Bring Up Date	22/05/2014			
Bring Up Name	test	Bring Up Time	10 : 10			
Generate Reminder	<input checked="" type="checkbox"/>	Recipients	Add Delete			
Bring Up Message	test bring up message					
	<input type="button" value="Save"/> <input type="button" value="Close"/> <input type="button" value="Cancel Message"/>					
ID	Name	Message	Date			
242	test	test bring up message	22/05/2014			
		Date	Time	Recipients	Status	Edit
				E/EEBS/1	Pending	Edit

At bring up time, bring up message shown in Inbox of the recipient
(Note: bring up may be shown at 15 mins later than bring up time)

Data Management System (BEEO) [Inbox \(E/EEBS/1\)](#)

- + Inbox Statistics
- Bring Up

Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-02332	test bring up message	22/5/2014 10:16:29	E/EEBS/1
BEEO DMS Case Status Change - File No:			

Click on the bring up will go to the corresponding submission.

11.2 Report type reminder

Report type reminder will be generated at scheduled time. An Excel report will be generated and email to the corresponding recipients.

Report reminder summary:

(RPT-COCR-13) Weekly report of buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines

(RPT-COCR-14) Monthly report of buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in 1 month(s)

(RPT-EA-2) Weekly report of buildings without energy audit form received but first energy audit deadlines have already expired

(RPT-EA-3) Monthly report of buildings without energy audit form received but first energy audit deadlines will be expired in 6 month(s)

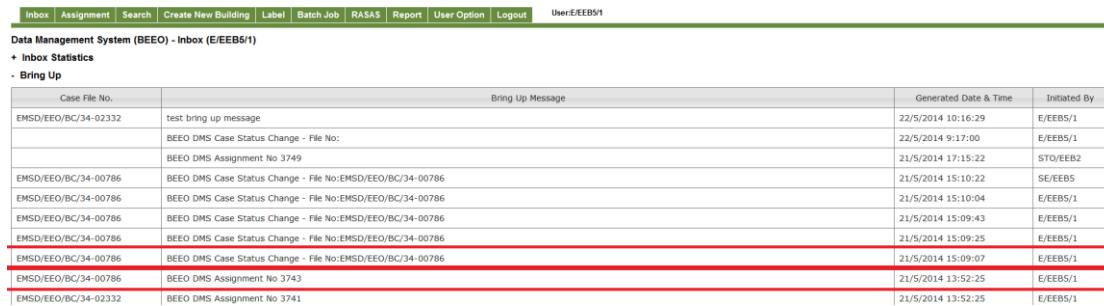
(RPT-EA-4) Weekly report of buildings with energy audit forms already expired but still without valid energy audit forms in force

(RPT-EA-5) Monthly report of buildings with energy audit forms which are currently in force are to be expired in 6 month(s)

11.3 Event driven reminder

Event driven reminder summary

(EVENT-CA) Case Assignment Created	Bring up generated when user create an assignment
(EVENT-CSC) Case Status Change	Bring up generated when user change status of a submission
(EVENT-ISC) Inspection Status Change	Bring up generated when user change status of an inspection



The screenshot shows the inbox interface of the Data Management System. The top navigation bar includes links for Inbox, Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout, along with a user identifier 'User:E/EEBS/1'. Below the navigation is a section titled 'Data Management System (BEOO) - Inbox (E/EEBS/1)' with a link to 'Inbox Statistics'. A sub-section titled '- Bring Up' lists several messages:

Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EOO/BC/34-02332	test bring up message	22/5/2014 10:16:29	E/EEBS/1
	BEOO DMS Case Status Change - File No:	22/5/2014 9:17:00	E/EEBS/1
	BEOO DMS Assignment No 3749	21/5/2014 17:15:22	STO/EEB2
EMSD/EOO/BC/34-00786	BEOO DMS Case Status Change - File No:EMSD/EOO/BC/34-00786	21/5/2014 15:10:22	SE/EEBS
EMSD/EOO/BC/34-00786	BEOO DMS Case Status Change - File No:EMSD/EOO/BC/34-00786	21/5/2014 15:10:43	E/EEBS/1
EMSD/EOO/BC/34-00786	BEOO DMS Case Status Change - File No:EMSD/EOO/BC/34-00786	21/5/2014 15:09:43	E/EEBS/1
EMSD/EOO/BC/34-00786	BEOO DMS Case Status Change - File No:EMSD/EOO/BC/34-00786	21/5/2014 15:09:25	E/EEBS/1
EMSD/EOO/BC/34-00786	BEOO DMS Case Status Change - File No:EMSD/EOO/BC/34-00786	21/5/2014 15:09:07	E/EEBS/1
EMSD/EOO/BC/34-00786	BEOO DMS Assignment No 3743	21/5/2014 13:52:25	E/EEBS/1
EMSD/EOO/BC/34-02332	BEOO DMS Assignment No 3741	21/5/2014 13:52:25	E/EEBS/1

Bring Up would be shown in the inbox of the corresponding Subject Engineer, BSI and Action Officer.

11.4 Batch generate reminder

At scheduled time, system will select submissions which fulfil a certain criteria. Bring Up will be generated for the selected submissions and send to the corresponding Subject Engineer and BSI.

Batch generate reminder summary

(BG-COCR-13) buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines

(BG-COCR-14) buildings with stage two declaration received, COCR not yet issued (or not yet refused) and the deadlines are to be expired in 1 month(s)

(BG-EA-4) buildings with energy audit forms already expired but still without valid energy audit forms in force

(BG-EA-5) buildings with energy audit forms which are currently in force are to be expired in 6 month(s)

(BG-INSP-1) buildings to be inspected in 1 month(s)

Bring up shown in the Inbox

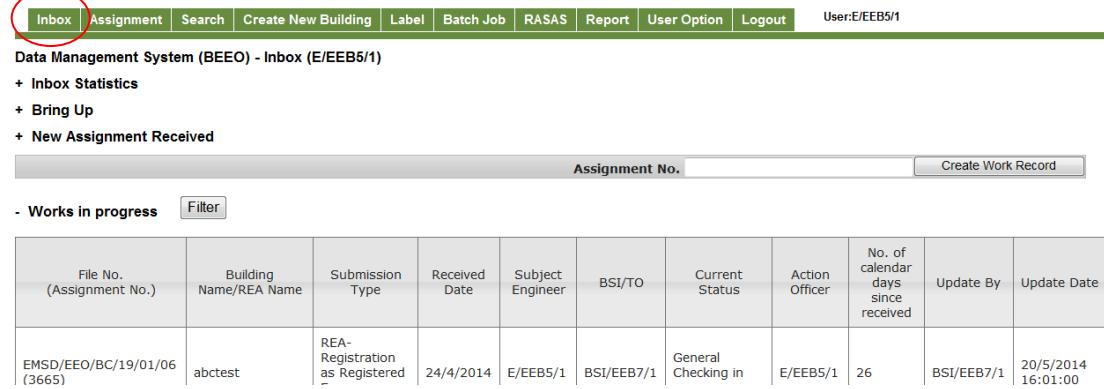
BEEO DMS Assignment No 3722			
	BEEO DMS Assignment No 3721	13/5/2014 11:01:21	E/EEBS/1
EMSD/EEO/BC/34-06068	BEEO DMS Case Status Change - File No:EMSD/EEO/BC/34-06068	9/5/2014 16:19:16	E/EEBS/1
	BEEO DMS Assignment No 3714	8/5/2014 15:55:34	E/EEBS/1
EMSD/EEO/BC/34-01185	BEEO DMS Reminder - buildings with stage two declaration received, COCR not yet issued and the deadlines are to be in 1 month(s)	8/5/2014 14:39:49	SYS
EMSD/EEO/BC/34-01325	BEEO DMS Reminder - buildings with stage two declaration received, COCR not yet issued and the deadlines are to be in 1 month(s)	8/5/2014 14:39:49	SYS
	BEEO DMS Assignment No 3711	8/5/2014 10:58:43	E/EEBS/1

12. Letter

12.1 Letter - Create

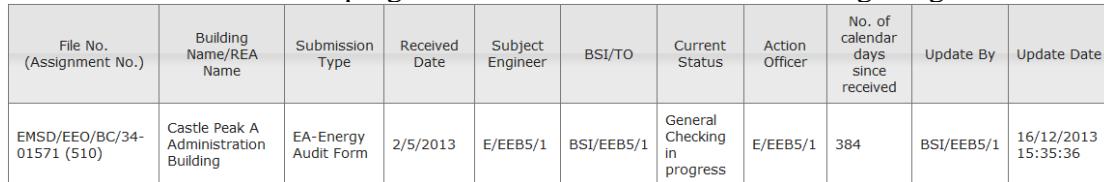
Login as Subject Officer Account

Inbox



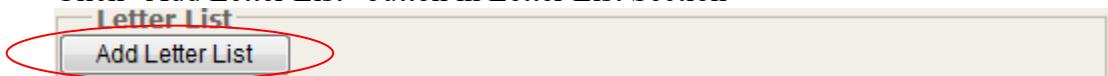
Assignment No.											Create Work Record	
<input type="checkbox"/> Works in progress <input type="button" value="Filter"/>												
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date		
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00		

Select a Case at "Work in progress" which case must has a building assigned.

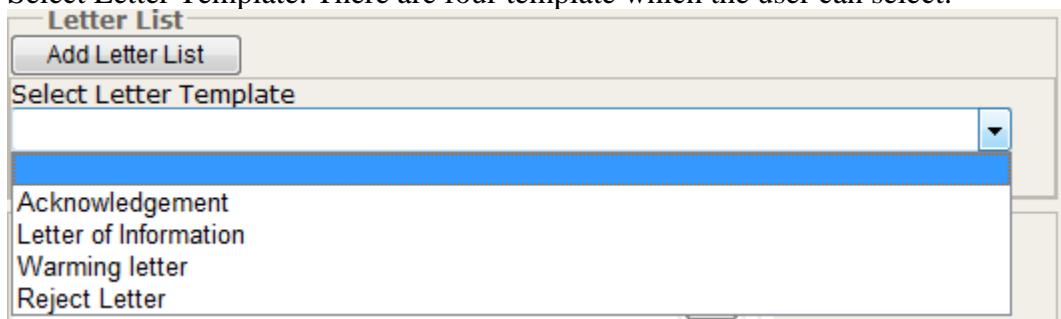


File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34- 01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Add Letter List" button in Letter List Section



Select Letter Template. There are four template which the user can select.



Click "Create" button to go to related template screen for further information input



The followings is letter generation screen for "Acknowledgement" template.

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NEW Data Management System (BEEO) - Letter Generation

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍躍頭石角龍躍街9號 青山發電廠A廠行政大樓	
File No.	EMSD/EEO/BC/34-01571	
Name of Building / Premises	Castle Peak A Administration Building, Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories	
Recipient	<input type="button" value="Add Recipient"/>	<input type="button" value="Fill CC Recipient"/>
CC Recipient	<input type="button" value="Fill CC Recipient"/>	
Issuing Channel	<input type="checkbox"/> By fax <input type="checkbox"/> By email <input type="checkbox"/> By Post Post Reg. No. <input type="text"/>	
Letter Date/By	Letter date 26/05/2014	Letter By dd/MM/yyyy <input type="button" value=""/>
Letter Content	acknowledge receipt Date dd/MM/yyyy	
	<input type="button" value="Generate Letter"/>	<input type="button" value="Back"/>

The followings is letter generation screen for “Letter of Information” template.
NEW Data Management System (BEEO) - Letter Generation

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍躍頭石角龍躍街9號 青山發電廠A廠行政大樓	
File No.	EMSD/EEO/BC/34-01571	
Name of Building	Castle Peak A Administration Building	
Recipient	<input type="button" value="Add Recipient"/>	<input type="button" value="Fill CC Recipient"/>
CC Recipient	<input type="button" value="Fill CC Recipient"/>	
Issuing Channel	<input type="checkbox"/> By fax <input type="checkbox"/> By email <input type="checkbox"/> By Post Post Reg. No. <input type="text"/>	
Letter Date/By	Letter date 26/05/2014	Letter By dd/MM/yyyy <input type="button" value=""/>
Letter Content	Your Letter Ref. <input type="text"/> Scheduled Date dd/MM/yyyy	Letter received Date dd/MM/yyyy Scheduled Time <input type="button"/> : <input type="button"/> <input type="button"/> Case Officer <input type="button"/>
	<input type="button" value="Generate Letter"/>	<input type="button" value="Back"/>

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The followings is letter generation screen for “Warning Letter” template.

NEW Data Management System (BEOO) - Letter Generation

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍躍頭街9號 青山發電廠A廠行政大樓	
File No.	EMSD/EEO/BC/34-01571	
Name of Building / Address	Building Name Castle Peak A Administration Building	Building Address Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories
Recipient	<input type="button" value="Add Recipient"/>	
CC Recipient	<input type="button" value="Fill CC Recipient"/>	
Issuing Channel	<input type="checkbox"/> By fax <input type="checkbox"/> By email <input type="checkbox"/> By Post Post Reg. No. <input type="text"/>	
Letter Date/By	Letter date 26/05/2014	Letter By dd/MM/yyyy <input type="button"/>
Letter Content	Your Letter Date <input type="text" value="dd/MM/yyyy"/>	
	<input type="button" value="Generate Letter"/> <input type="button" value="Back"/>	

The followings is letter generation screen for “Reject Letter” template.

NEW Data Management System (BEOO) - Letter Generation

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍躍頭街9號 青山發電廠A廠行政大樓	
File No.	EMSD/EEO/BC/34-01571	
Name of Building / Premises	Castle Peak A Administration Building, Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories	
Recipient	<input type="button" value="Add Recipient"/>	
CC Recipient	<input type="button" value="Fill CC Recipient"/>	
Issuing Channel	<input type="checkbox"/> By fax <input type="checkbox"/> By email <input type="checkbox"/> By Post Post Reg. No. <input type="text"/>	
Letter Date/By	Letter date 26/05/2014	Letter By dd/MM/yyyy <input type="button"/>
Letter Content	Your Letter Date dd/MM/yyyy	Not Later than Date dd/MM/yyyy
	<input type="button" value="Generate Letter"/> <input type="button" value="Back"/>	

User can select the Recipient from drop down list if there are Responsible Company/Person information in this form.

Recipient	<input type="button"/>	Add Recipient
CC Recipient	<input type="button"/>	Fill CC Recipient

1676, Tai Shing Service Limited

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Or user can add one or more recipient information by click “Add Recipient” button and click “Delete” button to delete these recipient information

For CC Recipient, user can select the information from drop down list if there are Responsible Company/Person information in this form. And then click “Fill CC Recipient” to fill the information to CC Recipient.

After information filled, click “Generate Letter” button to generate the letter.

Here is the example of letter generated by select “Acknowledgement” template



1400_letter_Acknowledgement_2014

Here is the example of letter generated by select “Letter of Information” template



1400_letter_Letter_of_Information_2014

Here is the example of letter generated by select “Warning Letter” template



1400_letter_Warning_letter_20140522

Here is the example of letter generated by select “Reject Letter” template



1400_letter_Reject_Letter_201405221

12.2 Letter - Edit

Login as Subject Officer Account

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ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA-Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case should has a letter created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Edit" to edit the Letter.

Letter Generation screen will be shown for editing

EDIT Data Management System (BEEO) - Letter Generation

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍角頭街9號青山發電廠A廠行政大樓
File No.	EMSD/EEO/BC/34-01571
Name of Building / Premises	Castle Peak A Administration Building, Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories

After modified the letter information, click 'Save Edit and Generate new Letter' to save and re-generate the letter.

12.3 Letter - Copy

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case should has a letter created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Copy" to copy the letter.

Letter List

Add Letter List

1400_letter Reject Letter 20140522154734.doc (Created) Action Edit EditInfo Copy

A new Letter Generation will be shown with new Letter ID. User can modify the copied letter content.

COPY Data Management System (BEEO) - Letter Generation

Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門龍躍石角龍躍街9號 青山發電廠A廠行政大樓
File No.	EMSD/EEO/BC/34-01571
Name of Building / Premises	Castle Peak A Administration Building, Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories

After modified the letter information, click 'Copy and Generate new Letter' to copy and generate the letter.

Copy and Generate new Letter Back

12.4 Letter - EditInfo

Login as Subject Officer Account

Inbox

Data Management System (BEEO) - Inbox (E/EEB5/1)										User:E/EEB5/1
+ Inbox Statistics + Bring Up + New Assignment Received										
										Assignment No.
										Create Work Record
- Works in progress	Filter									
File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case should has a letter created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "EditInfo" to edit the letter.

Action	Edit	EditInfo	Copy
------------------------	----------------------	--------------------------	----------------------

Letter Supplementary Information screen will be shown for editing

Data Management System (BEEO) Letter - Supplementary Information

Letter ID: 56 Case No: EMSD/EEO/BC/34-01571 Current Status: Created Future Status: -	Action Date: 22/05/2014 Action By: 22/5/2014 Issue Date: - Issue By:
Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門踏石角龍躍街9號青山發電廠A廠行政大樓
Recipient	
Supplementary information	Issuing Channel: <input checked="" type="checkbox"/> By fax <input type="checkbox"/> By email <input type="checkbox"/> By Post Post Reg. No. <input type="checkbox"/>
	Save Back

After modified the Supplementary Information, click 'Save' button to update the modified information.

Save	Back
----------------------	----------------------

12.5 Letter - Action

Login as Subject Officer Account

Inbox

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/19/01/06 (3665)	abctest	REA- Registration as Registered	24/4/2014	E/EEB5/1	BSI/EEB7/1	General Checking in	E/EEB5/1	26	BSI/EEB7/1	20/5/2014 16:01:00

Select a Case at "Work in progress" which case should has a letter created.

File No. (Assignment No.)	Building Name/REA Name	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date
EMSD/EEO/BC/34-01571 (510)	Castle Peak A Administration Building	EA-Energy Audit Form	2/5/2013	E/EEB5/1	BSI/EEB5/1	General Checking in progress	E/EEB5/1	384	BSI/EEB5/1	16/12/2013 15:35:36

Click "Action" to make an action of letter.

Action screen will be shown and the followings are the action which user can make an action in the letter and related information should be filled.

Data Management System (BEEO) Letter - Action

Letter ID: 56 Case No: EMSD/EEO/BC/34-01571 Current Status: Created Future Status: -	Action Date: 22/05/2014 Action By: E/EEB5/1 Issue Date: - Issue By:
Building	Building Type: Composite (commercial & industrial) Castle Peak A Administration Building 青山發電廠A.廠行政大樓 Castle Peak A Administration Building, 9 Lung Yiu Street, Tap Shek Kok, Tuen Mun, New Territories 新界屯門諸石角龍躍街9號 青山發電廠A.廠行政大樓
Recipient	
Action	Action Date: dd/MM/yyyy Action Remark:
	Issue Cancel Back

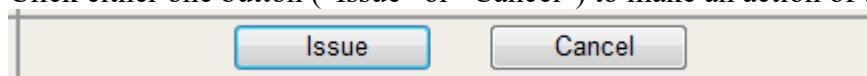
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- “**Issue**”: User is required to input Issue Date. The status of the letter record would be automatically updated as “Issued”, which also represents that senior approval (if required) to issue the letter has already been obtained. DMS-BEO would automatically send the current attached copy of letter to the workstation default printer for online printing. If the input issue date is before today, the IN status will be changed to “Issued” after the button “Issue” is clicked; if the input issue date is today or after today, the IN status will be changed by a daily schedule job. The IN status will be changed to “Issued” only when the issue date is before the schedule job running date. The handling will be the same for Cancel Date.
- “**Cancel**”: User is required to input cancel date and enter remarks (in free text) of the reason for cancellation. Once user confirms, the status of the letter record would be automatically updated as “Cancelled”, which also represents that senior approval (if required) to cancel the letter has already been obtained.

The action buttons would be enabled according to current status of the letter and is documented as below:

Letter Status	Triggered Action	Status Action	Allow Modify?
New (Only displayed in letter generation UI before the letter is actually created)	Letter creation	N/A	Yes
Created	After letter is created	Issue Cancel	Yes
Issued	After “Issue” action is completed	Cancel	No
Error	If the letter is failed to be generated	N/A	No
Cancelled	After “Cancel” action is completed	N/A	No

Click either one button (“Issue” or “Cancel”) to make an action of the letter.



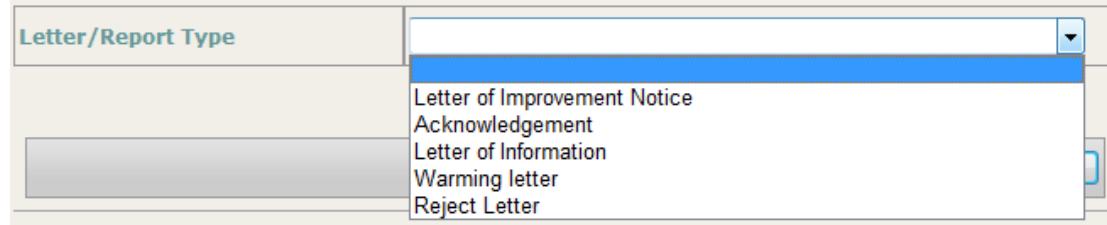
12.6 Letter - Search

Login as Subject Officer Account

Search->Search Letter

The screenshot shows a menu bar with links like Inbox, Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, and Logout. A user 'User:E/EEB5/1' is logged in. On the left, there's a sidebar with 'Data Management System' and 'Inbox Statistics'. A red circle highlights the 'Search Letter' option under the 'Search' menu. The main area shows a table with columns for Case File No., Generated Date & Time, and Initiated By. The table contains several rows of data.

Select “Acknowledgement” or “Letter of Information” or “Warning letter” or “Reject Letter” in Letter/Report Type



Enter relative information in search criteria section and then click “Search” button to search the result.

This screenshot shows a complex search form with many fields. The fields include: Letter Situation (dropdown), Issue Date Range (dd/mm/yyyy), Letter Date Range (dd/mm/yyyy), Issuing Channel (checkboxes for Any, By fax, By email, By Post), Eng. Bldg. Name, Eng. Bldg. Street Name, Bldg. Region (dropdown), Bldg. Type (dropdown), Bldg. Group (dropdown), Recipient Name, Action Date Range (dd/mm/yyyy), Letter By (dropdown), Chi. Bldg. Name, Chi. Bldg. Street Name, Bldg. District (dropdown), Lot No., Submission Type (dropdown), Recipient Address, Letter Status (dropdown), Improvement Letter Status (button), Notice No. (text input IN-), Installation (checkboxes for Any, Air Conditioning, Electrical, Escalator, Lift, Lighting), and a large 'Search' button at the bottom. A red circle highlights the 'Search' button.

User can click the record to go to the case directly.

A table displays search results with columns: ID, Case No, Bldg Name Eng, Bldg Name Chi, Recip Name, Channel, Report Date, Action Date, Status, and several icons. The first row is highlighted with a red circle. The status column for the first row shows 'Created' with a red circle around it. A footer message 'You are viewing page 1 of 1' is visible at the bottom.

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Download the letter by click the circled icon

ID	Case No	Bldg Name Eng	Bldg Name Chi	Recip Name	Channel	Report Date	Action Date	Status	
54	EMSD/EEO/BC/34-01571	Castle Peak A Administration Building	青山發電廠A廠行政大樓	Chan Tai Ming	Fax,	26/05/2014	22/05/2014	Created	  

You are viewing page 1 of 1

Make an action of letter by click the circled icon

ID	Case No	Bldg Name Eng	Bldg Name Chi	Recip Name	Channel	Report Date	Action Date	Status	
54	EMSD/EEO/BC/34-01571	Castle Peak A Administration Building	青山發電廠A廠行政大樓	Chan Tai Ming	Fax,	26/05/2014	22/05/2014	Created	  

You are viewing page 1 of 1

Edit the supplementary information of letter by click the circled icon

ID	Case No	Bldg Name Eng	Bldg Name Chi	Recip Name	Channel	Report Date	Action Date	Status	
54	EMSD/EEO/BC/34-01571	Castle Peak A Administration Building	青山發電廠A廠行政大樓	Chan Tai Ming	Fax,	26/05/2014	22/05/2014	Created	  

You are viewing page 1 of 1

12.7 Batch Generation of Advisory Letter - Create

Login as Subject Officer Account

Batch Job->Batch Generation of Advisory Letter

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout	User:E/EEB5/1
-------	------------	--------	---------------------	-------	------------------	-------	--------	-------------	--------	---------------

Data Management System (BEEO) - Inbox (E/EEB5/1)

- + Inbox Statistics
- Bring Up

Batch Generation of Advisory Letter
Random Generation of Building List

Enter relative information in search criteria section and then click “Search” button to search the building record.

Data Management System (BEEO) - Batch Generation of Advisory Letter

File No. EMSD/EEO/BC/34-	Chi. Bldg. Name
Eng. Bldg. Name	Chi. Street Name
Eng. Street Name	Lot No.
District	Improvement Notice Situation
Building Type	Consent Date Range(dd/mm/yyyy)
Building Group	OP Date Range(dd/mm/yyyy)
Submission Type	Last Letter Issue Date Range(dd/mm/yyyy)
Search	

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Select one or more building record in Search Result and then click “Add to list” for Batch Generation. User can “Select All” button to select all the building record in Search Result of “Un - Select All” button to de-select all the selected building record.

Search Result Building List For Generation of Advisory Letter

Select All Un - Select All Add to list

	Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	File No
<input checked="" type="checkbox"/>	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	EMSD/EEO/BC/34-00001
<input type="checkbox"/>	Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	EMSD/EEO/BC/34-00002
<input type="checkbox"/>	MTR Headquarters Building (Telford Plaza), 33 Wai	MTR Headquarters Building	九龍九龍灣偉業街33號 德福廣	德福廣	EMSD/EEO/BC/34-

Selected record will be inserted into Building List for Generation of Advisory Letter. User can confirm their selection of selected record and then click “Next” button to the next step. Or user can remove the selected building record from the list by click “Remove From List” button.

Search Result Building List For Generation of Advisory Letter

Select All Un - Select All Remove From List Next

	Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	File No
<input checked="" type="checkbox"/>	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	EMSD/EEO/BC/34-00001
<input checked="" type="checkbox"/>	Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	EMSD/EEO/BC/34-00002

After click “Next” button, drop down list “Send to” will be shown. Batch Generation of Advisory letter will use these information of building to generate the letter.

Send To

Occupier of the unit

Developer of the building

Incorporated Owner of the building

Occupier of the unit

Owner of the building

Owner of the relevant central build

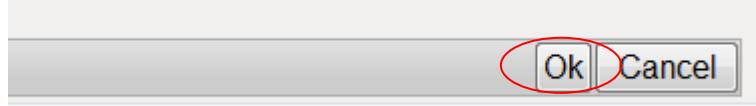
Owner of the relevant comon area

Owner of the unit

Property Management Co.

Tenant of the unit

Click “OK” button to next step after select drop down list “Send To”



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Review the List with recipient information and then click 'Next' button

Select Letter and Click Next							Next
	Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	File No	Send To	Send To (Chi)
<input checked="" type="checkbox"/>	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	EMSD/EEO/BC/34-00001	Tai Ming Limit	大明公司
<input checked="" type="checkbox"/>	Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	EMSD/EEO/BC/34-00002	Tai Ming Limit	大明公司

Fill the Advisory Letter Information.

Data Management System (BEEO) - Batch Generation of Advisory Letter

Letter Date (dd/mm/yyyy)	26/05/2014	Send To - Developer of the building
Letter By	E/EEB5/1	Batch Description
Cap. 610		
Issued advisory letter Date (dd/mm/yyyy)		
Post Channel	<input type="checkbox"/> By Fax <input type="checkbox"/> By email <input type="checkbox"/> By Post	
Post Delivery		
	<input type="button" value="Set Post Delivery Number"/>	<input type="button" value="Clear Post Delivery Number"/>
	<input type="button" value="Generate the letter"/>	

HK Post Delivery	Address	Bldg. Name	Address (Chi)	Bldg. Name (Chi)	File No	Send To	Send To (Chi)
	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	Times Square	香港銅鑼灣羅素街1號 時代廣場	時代廣場	EMSD/EEO/BC/34-00001	Tai Ming Limit	大明公司
	Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	Hong Kong Science Park (Bio-informatics Centre)	新界沙田科技大道西2號 香港科學園生物資訊中心	香港科學園生物資訊中心	EMSD/EEO/BC/34-00002	Tai Ming Limit	大明公司

If there are Post Delivery Number, you can fill a prefix and range of number into “Post Delivery” field and then click “Set Post Delivery Number”. For clear the Post Delivery Number, you can click “Clear Post Delivery Number”.

Post Delivery	N 00000001 - 00000002
<input type="button" value="Set Post Delivery Number"/>	<input type="button" value="Clear Post Delivery Number"/>

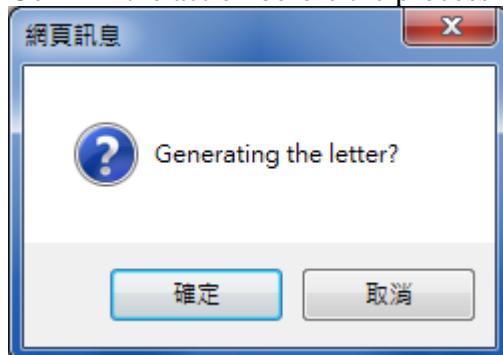
HK Post Delivery	Address
N00000001	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong
N00000002	Hong Kong Science Park (Bio-informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories

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Click 'Generate the Letter' button to start the batch generation process.



Confirm the action before the process start



In Batch Job screen, user can monitor the progress of batch job and click "Refresh Data" to retrieve the latest status.

Data Management System (BEEO) - Batch Job

ID	BuildingName	PartyName	Address	caseno	Channel	Action Date	ActionBy	Status	Future Status	Status Code
66	Times Square	Tai Ming Limit	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	EMSD/EEO/BC/34- 00001		22/05/2014	E/EEB5/1	Letter Generation Start		9000
67	Hong Kong Science Park (Bio- informatics Centre)	Tai Ming Limit	Hong Kong Science Park (Bio- informatics Centre), 2 Science Park West Avenue, Sha Tin, New Territories	EMSD/EEO/BC/34- 00002		22/05/2014	E/EEB5/1	Letter Generation Start		9000

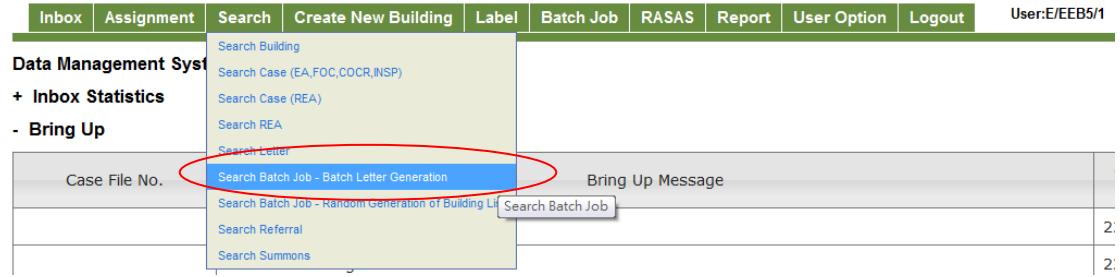
If the letters generated, the status of record would be “Letter Generated” and the document icon would be shown on the record. User can click the document icon to download the letter.

ID	BuildingName	PartyName	Address	caseno	Channel	Action Date	ActionBy	Status	Future Status	Status Code
66	Times Square	Tai Ming Limit	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	EMSD/EEO/BC/34- 00001	Post,	22/05/2014	E/EEB5/1	Letter Generated		9000

12.8 Batch Generation of Advisory Letter - Search

Login as Subject Officer Account

Search->Search Batch Job – Batch Letter Generation



Select “Advisory Letter Generation” in Batch Letter / Job Type

Data Management System (BEEO) - Search Batch Job

This screenshot shows a search form for 'Batch Letter / Job Type'. A dropdown menu is open, showing 'Advisory Letter Generation' as the selected option, indicated by a blue highlight and a red oval.

Enter relative information in search criteria section and then click “Search” button to search the result.

This screenshot shows a search criteria section with the following fields:
- 'Type -Advisory Letter Generation' (highlighted in green)
- 'Batch No.' input field
- 'Status' dropdown menu
- 'Create Date Range(dd/mm/yyyy)' input fields
- A large search button at the bottom right with a red oval around it.

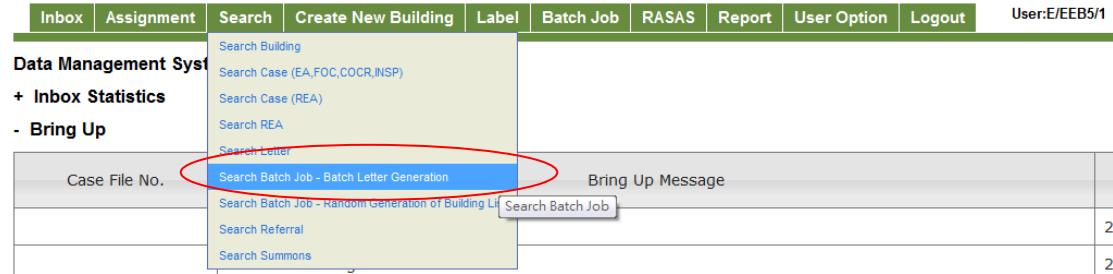
Select the Batch Job for Advisory Letter Generation and then the screen of Batch Job for Advisory Letter Generation will be shown.

Batch ID	Type	Batch Description	Status	Create Date
58	Advisory Letter Generation		Letter Generated	22/5/2014 17:44:19
57	Advisory Letter Generation		Letter Generated	22/5/2014 17:36:52

12.9 Batch Generation of Advisory Letter - Print

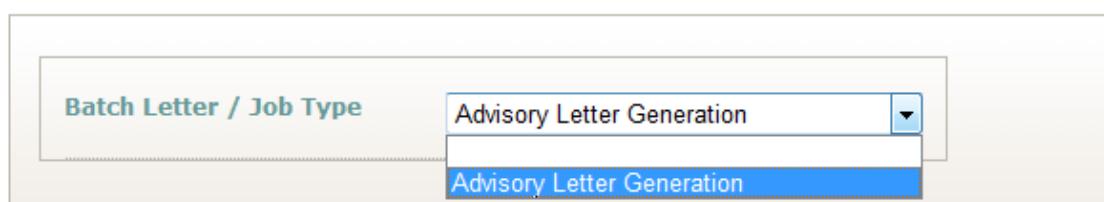
Login as Subject Officer Account

Search->Search Batch Job – Batch Letter Generation



Select “Advisory Letter Generation” in Batch Letter / Job Type

Data Management System (BEEO) - Search Batch Job



Enter relative information in search criteria section and then click “Search” button to search the result.

The screenshot shows a search form with fields for 'Batch No.' and 'Status', and a date range selector for 'Create Date Range(dd/mm/yyyy)'. At the bottom is a 'Search' button, which is circled in red.

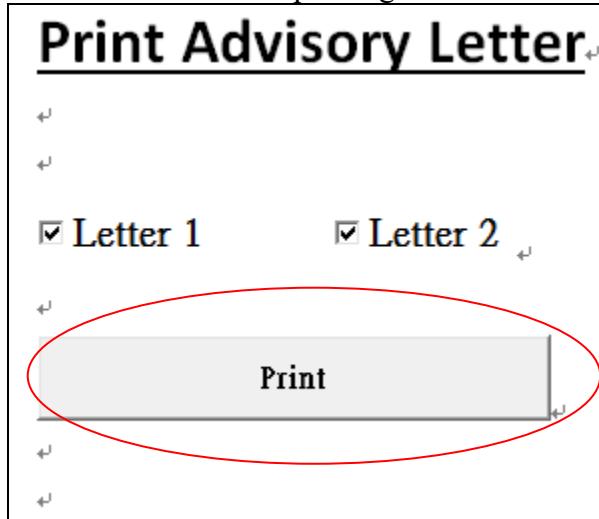
Select the Batch Job for Advisory Letter Generation and then the screen of Batch Job for Advisory Letter Generation will be shown.

Batch ID	Type	Batch Description	Status	Create Date
58	Advisory Letter Generation		Letter Generated	22/5/2014 17:44:19
57	Advisory Letter Generation		Letter Generated	22/5/2014 17:36:52

Click “Print” button and then download a .docm file in word format



Open the .docm file by Microsoft Word and the screen will be shown. User can select which letter for printing and click “Print” button to batch print the letters.



12.10 Batch Generation of Advisory Letter - Edit Supplementary information

Login as Subject Officer Account

Search->Search Batch Job – Batch Letter Generation

A screenshot of the "Data Management System (BEEO)" interface. At the top, there is a navigation bar with links like "Inbox", "Assignment", "Search", "Create New Building", "Label", "Batch Job", "RASAS", "Report", "User Option", and "Logout". The user is logged in as "User:E/EEB5/1". On the left, there is a sidebar with "Data Management System" and "Inbox Statistics" sections. The main area shows a "Case File No." input field and a dropdown menu with several options. One option, "Search Batch Job - Batch Letter Generation", is highlighted with a red oval. A "Bring Up Message" window is visible at the bottom right.

Select “Advisory Letter Generation” in Batch Letter / Job Type

Data Management System (BEEO) - Search Batch Job

A screenshot of a dropdown menu titled "Batch Letter / Job Type". The menu contains two entries: "Advisory Letter Generation" and another entry that is partially visible below it. The first entry is highlighted with a red oval.

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Enter relative information in search criteria section and then click “Search” button to search the result.

Type -Advisory Letter Generation

Batch No.

Status

Create Date Range(dd/mm/yyyy)
 -

Search

Select the Batch Job for Advisory Letter Generation and then the screen of Batch Job for Advisory Letter Generation will be shown.

Batch ID	Type	Batch Description	Status	Create Date
58	Advisory Letter Generation		Letter Generated	22/5/2014 17:44:19
57	Advisory Letter Generation		Letter Generated	22/5/2014 17:36:52

Select letter and then fill the related information about supplementary information. Click “Save Supplementary infor” to update the supplementary information.

Supplementary Information

By fax By email By Post Post Reg.
No.

Action Process

Action Date: dd/MM/yyyy Action Remark:

Save Supplementary infor

ID	BuildingName	PartyName	Address	caseno	Channel	Action Date	ActionBy	Status	FutureStatus	ie	DOC1	DOC2	DOC1	DOC2
66	Times Square	Tai Ming Limit	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong	EMSD/EEO/BC/34- 00001	Post,	22/05/2014	E/EEB5/1	Letter Generated						

12.11 Batch Generation of Advisory Letter - Action

Login as Subject Officer Account

Search->Search Batch Job – Batch Letter Generation

Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System

+ Inbox Statistics

- Bring Up

Case File No.

Search Building
Search Case (EA,FOC,COCR,INSP)
Search Case (REA)
Search REA
Search Letter
Search Batch Job - Batch Letter Generation

Search Batch Job - Random Generation of Building L Search Batch Job

Bring Up Message

Select “Advisory Letter Generation” in Batch Letter / Job Type

Data Management System (BEEO) - Search Batch Job

The screenshot shows a dropdown menu titled "Batch Letter / Job Type". The option "Advisory Letter Generation" is highlighted with a blue selection bar at the bottom of the list.

Enter relative information in search criteria section and then click “Search” button to search the result.

The screenshot shows a search form with the following fields:

- Type -Advisory Letter Generation**: A title label.
- Batch No.**: An input field.
- Status**: A dropdown menu.
- Create Date Range(dd/mm/yyyy)**: Two input fields separated by a dash.
- Search**: A button at the bottom right of the search area, circled in red.

Select letter and then fill the “Action Date” and “Action Remark”. Click “Issue” button or “Cancel” button to make an action of letter.

The screenshot shows the "Action Process" screen with the following components:

- Supplementary information**: Fields for "By fax", "By email", "By Post", and "Post Reg.", and a "Save Supplementary infor" button.
- Action Date**: A date input field with a red circle around it.
- Action Remark**: A text input field.
- Action Buttons**: "Issue" and "Cancel" buttons, both circled in red.
- Action Process Table**: A table showing a single row of data:

ID	BuildingName	PartyName	Address	caseno	Channel	Action Date	ActionBy	Status	FutureStatus
66	Times Square	Tai Ming Limit	Times Square, 1 Matheson Street , Causeway Bay, Hong Kong Hong Kong	EMSD/EEO/BC/34- 00001	Post,	22/05/2014	E/EEB5/1	Letter Generated	

13. Report

13.1 Generation of Report

Click Report and click on the report to be generated

The screenshot shows a navigation bar with links: Inbox, Assignment, Search, Create New Building, Label, Batch Job, RASAS, Report, User Option, Logout, and User:SE/EEBS. The 'Report' link is highlighted. A dropdown menu is open under 'Report' containing the following items:

- COCR Report - List of Received COCR Stage One Declaration per Reporting Period
- COCR Report - List of Received COCR Stage Two Declaration per Reporting Period
- COCR Report - List of Received COCR Renewal per Reporting Period
- FOC Report - List of Received FOC per Reporting Period
- EA Report - List of Received Energy Audit Form per Reporting Period** (highlighted in blue)
- EA Report - List of Received Applications for EA Exemptions per Reporting Period
- INSP Report - List of Buildings being inspected in past 12 months / 6 months / 3 months
- INSP Report - List of Buildings to be inspected in next 12 months / 6 months / 3 months
- REA Report - List of REA Register
- REA Report - List of REA to be expired within 12 months / 6 months / 3 months
- REA Statistics Summary Report

Data Management System (BEEO) - FOC Report - List of Received FOC per Reporting Period

The screenshot shows a form for generating a FOC report. It includes fields for filtering criteria and an output selection section.

Filtering Criteria (green bars):

- Submission Received Date Range(dd/mm/yyyy)
- District
- Building Type
- Building Group
- Subject Engineer
- BSI/TO

Output Selection (red box):

Output PDF Excel

Generate Report

Setting filtering criteria and click “Generate Report” will generate the report.
(Remarks: If PDF is checked, output report will be in pdf format.
IF Excel is checked, output report will be in Excel format.
If both are checked, report will be output in both format)

14. Label

14.1 Building Label

When new building record is created, a label record is created

Label->Building Label

The screenshot shows the 'Label' tab highlighted in red. Below it, a sub-menu for 'Label' is open, with 'REA Label' also highlighted in red.

Data Management System (BEEO) - Work (Assignment)

Building Label

REA Label

Label

Data Management System (BEEO) - Building Label

File No.	Content	Create By	Create Date	PrintedBy	PrintedDate
EMSD/EEO/BC/34-06120	EMSD HQ2, 1 abc street	E/EEB5/1	21/5/2014 16:36:15		

List of unprinted label

Click View Label

A modal window is displayed, showing the file number 'EMSD/EEO/BC/34-06120' and the content 'EMSD HQ2, 1 abc street'. A red box highlights the entire modal window.

Data Management System (BEEO) - Building Label

Close

EMSD/EEO/BC/34-06120 EMSD/EEO/BC/34-06120

Buildings Energy Efficiency Ordinance - EMSD HQ2, 1 abc street

User may copy the content to a word document for printing.
After that, click close

The 'Mark Label as printed' button is highlighted in red. The table below shows the label record with the 'PrintedBy' field populated.

Data Management System (BEEO) - Building Label

File No.	Content	Create By	Create Date	PrintedBy	PrintedDate
EMSD/EEO/BC/34-06120	EMSD HQ2, 1 abc street	E/EEB5/1	21/5/2014 16:36:15		

“Mark Label as printed” button appear.
Click on the button will mark all unprinted label listed as printed.

Data Management System (BEEO) - Building Label

The 'File No.' input field contains 'EMSD/EEO/BC/34- 00123' and the 'Search' button is highlighted in red.

File No. EMSD/EEO/BC/34- 00123

Search

Input File No and Click Search may find out printed Label

14.2 REA Label

When a REA case is created, a REA Label will be created.

Label->REA Label

Data Management System (BEEO) - REA Label

File No. (REA)	Content	Create By	Create Date	PrintedBy	PrintedDate
EMSD/EEO/BC/19/01/06124	chan titi	BSI/EEB7/1	21/5/2014 17:20:27		

List of unprinted label

Click View Label

Data Management System (BEEO) - REA Label

Close

EMSD/EEO/BC/19/01/06124 EMSD/EEO/BC/19/01/06124

Buildings Energy Efficiency Ordinance - chan titi

User may copy the content to a word document for printing.
After that, click close

Data Management System (BEEO) - REA Label

File No. (REA)	Content	Create By	Create Date	PrintedBy	PrintedDate
EMSD/EEO/BC/19/01/06124	chan titi	BSI/EEB7/1	21/5/2014 17:20:27		

“Mark Label as printed” button appear.

Click on the button will mark all unprinted label listed as printed.

Data Management System (BEEO) - REA Label

File No. (REA) / 06124

Search

Input File No and Click Search may find out printed Label

15. User Option

15.1 Change Password

Click User Option



Data Management System (BEEO) - User Option

The screenshot shows a 'Change Password' form. It has fields for 'Login Name - eeeb52', 'New Password' (containing six dots), and 'Confirm New Password' (also containing six dots). A 'Save' button is at the bottom right. The entire form is enclosed in a light gray box.

Input New Password and click save

Data Management System (BEEO) - User Option

The screenshot shows the same 'Change Password' form as before. At the bottom, there is a red message box containing the text 'Password changed successfully'. The form fields are empty again.

Password changed successfully.

16. E-submission (WBRS)

16.1 Assign WBRS - EE1 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Select to Assign	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
<input type="checkbox"/>	EE1	ee1210120221100	string	0string-0string string string, Kowloon Bay, Hong Kong	24/11/2021	NEW	BSI/EEB/PS9/3	E/EEB1/2

Click Hyperlink "Application No" for EE1 record

Application No.	ee1210120221100
Building Name(English)	string
Building Name(Chinese)	string
Cancel Reason	
Address of Proposed Building	
Street No:	Unit No:
Address:	

16.2 Assign WBRS – EE1 -Cancel WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Select to Assign	Submission Type	Application No.	Building Name	Building Address
<input type="checkbox"/>	EE1	ee1210120221100	string	0string-0string string string, Kowloon Bay, Hong Kong

The status is "NEW"

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Select the EE1 record

<input type="checkbox"/> Select to Assign select all	Submission_Type	Application_No.	Building_Name	Building_Address	Receive_Date	Status	Inspector	Engineer
<input type="checkbox"/>	EE1	ee1002	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	16/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	
<input checked="" type="checkbox"/>	EE1	ee1003	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	16/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE1	ee1004	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	16/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	

Enter Cancel Reason

Cancel Reason: Cancel

Click " Cancel " button Cancel this Record item

Cancel Reason: Cancel

16.3 Assign WBRS - EE1 Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration L

Assign Job Assign WBRS record EEO) - WBRS Record Assignment

Status: NEW Assign REA WBRS record

- EE1

Select to Assign select all	Submission_Type	Application_No.	Building_Name	Building_Address
<input type="checkbox"/>	EE1	ee1210120221100	string	Ostring-Ostring str

The status is "NEW"

Status: NEW

PENDING
NEW
CONVERTED
CANCELLED

- EE1

Select to Assign select all	Submission_Type	Application_No.	Building_Name	Building_Address
<input type="checkbox"/>	EE1	ee1210120221100	string	Ostrin

Select the EE1 record

<input type="checkbox"/> Select to Assign select all	Submission_Type	Application_No.	Building_Name	Building_Address	Receive_Date	Status	Inspector	Engineer
<input type="checkbox"/>	EE1	ee1002	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	16/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	
<input checked="" type="checkbox"/>	EE1	ee1003	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	16/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE1	ee1004	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	16/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	

Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: E/EEB1/2 Inspector: BSI/EEB/PS9/3

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Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: E/EEB1/2 Inspector: BSI/EEB/PS9/3 Assign

Cancel Reason:



16.4 Assign WBRS – EE2 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record



- EE1

Select to Assign select all	Submission Type	Application No.	Building Name	Building Address
<input type="checkbox"/>	EE2	ee2002	string	Ostring-Ostring string, Kowloon Bay

Click Hyperlink "Application No" for EE2 record

Select to Assign select all	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
<input type="checkbox"/>	EE2	ee2002	string	Ostring-Ostring string, Kowloon Bay	16/11/2021 11:00	NEW	BSI/EEB/PS9/3	E/EEB1/2

EE2 Information will be shown

Data Management System (BEOO) WBRS - EE2

Application No.	ee2002
Building Name(English)	string
Building Name(Chinese)	string
Cancel Reason	

16.5 Assign WBRS – EE2 -Cancel WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record



- EE1

Select to Assign select all	Submission Type	Application No.	Building Name	Building Address
<input type="checkbox"/>	EE2	ee2002	string	Ostring-Ostring string, Kowloon Bay

Select the EE2 record

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Select to Assign select all <input type="checkbox"/>	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
<input checked="" type="checkbox"/>	EE2	ee2002	string	Ostring-Ostring string string, Kowloon Bay	16/11/2021	NEW	BSI/EEB/PS9/3	E/EEB1/2

Enter Cancel Reason

Cancel Reason: <input type="text" value="Cancel"/>	<input type="button" value="Cancel"/>
--	---------------------------------------

Click " Cancel " button Cancel this Record item

Cancel Reason: <input type="text" value="Cancel"/>	<input type="button" value="Cancel"/>
--	---------------------------------------

16.6 Assign WBRS – EE2 Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox	Assignment	Search	Building	Label	Batch Job	RASAS	Report	User Option	Configuration	L
Data Man	<input type="button" value="Assign Job"/>	<input type="button" value="Assign WBRS record"/>	EEO) - WBRS Record Assignment							
Status:	<input type="text" value="N"/>	<input type="button" value="Assign REA WBRS record"/>								

- EE1	Select to Assign select all <input type="checkbox"/>	Submission Type	Application No.	Building Name	Buildling Address
					Ostring-Ostring str

The status is "NEW"

Status: <input type="text" value="NEW"/>	<input type="button" value="PENDING"/>
<input type="button" value="NEW"/>	<input type="button" value="CONVERTED"/>
<input type="button" value="EE1"/>	<input type="button" value="CANCELLED"/>
Select to Assign select all <input type="checkbox"/>	Submission Type Application No. Building Name
<input type="checkbox"/>	EE1 ee1210120221100 string

Select the EE2 record

Select to Assign select all <input type="checkbox"/>	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
<input checked="" type="checkbox"/>	EE2	ee2002	string	Ostring-Ostring string string, Kowloon Bay	16/11/2021	NEW	BSI/EEB/PS9/3	E/EEB1/2

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Select "Engineer" and "Inspector"

Assign selected submission to:

<input type="text" value="Engineer:E/EEB1/2"/>	<input type="text" value="Inspector:BSI/EEB/PS9/3"/>
<input type="button" value="Assign"/>	

Click "Assign" button to complete the assignment

Assign selected submission to:

<input type="text" value="Engineer:E/EEB1/2"/>	<input type="text" value="Inspector:BSI/EEB/PS9/3"/>
<input type="button" value="Assign"/>	

16.7 Assign WBRS – EE3 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Data Management System (BEO) - WBRS Record Assignment

Status: N	Assign REA WBRS record																											
<table border="1"> <thead> <tr> <th colspan="9">- EE1</th> </tr> <tr> <th>Select to Assign</th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Building Address</th> <th>Receive Date</th> <th>Status</th> <th>Inspector</th> <th>Engineer</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>EE1</td> <td>ee12012021100</td> <td>string</td> <td>Ostring-Ostring string string, Kowloon Bay, Hong Kong</td> <td>24/11/2021</td> <td>NEW</td> <td>BSI/EEB/PS9/3</td> <td>E/EEB1/2</td> </tr> </tbody> </table>		- EE1									Select to Assign	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer	<input type="checkbox"/>	EE1	ee12012021100	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	24/11/2021	NEW	BSI/EEB/PS9/3	E/EEB1/2
- EE1																												
Select to Assign	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer																				
<input type="checkbox"/>	EE1	ee12012021100	string	Ostring-Ostring string string, Kowloon Bay, Hong Kong	24/11/2021	NEW	BSI/EEB/PS9/3	E/EEB1/2																				

Click Hyperlink "Application No" for EE3 record

Select to Assign	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
<input type="checkbox"/>	EE3	34-02874	Lai Ping House	11-11 1 1, Kowloon Bay, Hong Kong	19/11/2021	CANCELLED	BSI/EEB/PS9/3	E/EEB1/2
<input type="checkbox"/>	EE3	9	1	01-01 1 1, Kowloon Bay	14/12/2021	CANCELLED		

EE4 Information will be shown

Data Management System (BEO) WBRS - EE3

Application No.	34-02874
Cancel Reason	ee test cancel

16.8 Assign WBRS – EE3 -Cancel WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Data Management System (BEO) - WBRS Record Assignment

Status: N	Assign REA WBRS record															
<table border="1"> <thead> <tr> <th colspan="5">- EE1</th> </tr> <tr> <th>Select to Assign</th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Building Address</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td>Ostring-Ostring strin</td> </tr> </tbody> </table>		- EE1					Select to Assign	Submission Type	Application No.	Building Name	Building Address	<input type="checkbox"/>				Ostring-Ostring strin
- EE1																
Select to Assign	Submission Type	Application No.	Building Name	Building Address												
<input type="checkbox"/>				Ostring-Ostring strin												

Select the EE3 record

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Select to Assign select all <input type="checkbox"/>	Submission_Type	Application_No.	Building_Name	Building_Address	Receive_Date	Status	Inspector	Engineer
<input checked="" type="checkbox"/>	EE3	34-02874	Lai Ping House	11-11 1 1, Kowloon Bay, Hong Kong	19/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE3	9	1	01-01 1 1, Kowloon Bay	14/12/2021	CANCELLED		

Enter Cancel Reason

Cancel Reason:	Cancel
----------------	--------

Cancel

Click " Cancel " button Cancel this Record item

Cancel Reason:	Cancel
----------------	--------

Cancel

16.9 Assign WBRS – EE3 Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox	Assignment	Search	Building	Label	Batch Job	RASAS	Report	User Option	Configuration	L
Data Man	Assign Job	EEO) - WBRS Record Assignment								
Status:	New	Assign WBRS record								
		Assign REA WBRS record								

- EE1

Select to Assign select all <input type="checkbox"/>	Submission_Type	Application_No.	Building_Name	Building_Address

The status is "NEW"

Status: NEW	PENDING
- EE1	NEW
Select to Assign select all <input type="checkbox"/>	CONVERTED
	CANCELLED
Submission_Type	Application_No.
EE1	ee1210120221100

Select the EE3 record

Select to Assign select all <input type="checkbox"/>	Submission_Type	Application_No.	Building_Name	Building_Address	Receive_Date	Status	Inspector	Engineer
<input checked="" type="checkbox"/>	EE3	34-02874	Lai Ping House	11-11 1 1, Kowloon Bay, Hong Kong	19/11/2021	CANCELLED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE3	9	1	01-01 1 1, Kowloon Bay	14/12/2021	CANCELLED		

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Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: E/EEB1/2	Assign
Cancel Reason:	

Inspector: BSI/EEB/PS9/3

Assign

Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: E/EEB1/2	Assign
Cancel Reason:	

16.10 Assign WBRS – EE4 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration L

Data Management System (BEOO) - WBRS Record Assignment

Status: N

Assign Job
Assign WBRS record
Assign REA WBRS record

- EE1

Select to Assign	Submission Type	Application No.	Building Name	Building Address
<input type="checkbox"/> select all				
<input type="checkbox"/>	EE4	98	1	01-01 1 , Kowloon Bay
<input type="checkbox"/>	EE4	77	1	01-01 1 , Kowloon Bay

Click Hyperlink "Application No" for EE4 record

Select to Assign	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
<input type="checkbox"/> select all								
<input type="checkbox"/>	EE4	98	1	01-01 1 , Kowloon Bay	19/11/2021	CANCELLED		

EE4 Information will be shown

Data Management System (BEOO) WBRS - EE4

Application No.	98
Cancel Reason	ee4 test cancel
Information of Building	
Building Name(English)	1
Building Name(Chinese)	1
Address of Building	

Google Translate

16.11 Assign WBRS – EE4 -Cancel WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

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Inbox	Assignment	Search	Building	Label	Batch Job	RASAS	Report	User Option	Configuration	L																																									
Data Man	Assign Job	Assign WBRS record	EEO) - WBRS Record Assignment																																																
Status:N			Assign REA WBRS record																																																
<p>- EE1</p> <table border="1"> <thead> <tr> <th>Select to Assign</th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Buidling Address</th> <th>Receive Date</th> <th>Status</th> <th>Inspector</th> <th>Engineer</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>EE4</td> <td>12</td> <td>12</td> <td>1212-1212 12 , Kowloon Bay</td> <td>17/11/2021</td> <td>CONVERTED BSI/EEB/PS9/3</td> <td>E/EEB1/2</td> </tr> <tr> <td><input type="checkbox"/></td> <td>EE4</td> <td>14</td> <td>14</td> <td>1414-1414 14 , Kowloon Bay</td> <td>17/11/2021</td> <td>CONVERTED BSI/EEB/PS9/3</td> <td>E/EEB1/2</td> </tr> <tr> <td><input type="checkbox"/></td> <td>EE4</td> <td>5</td> <td>1</td> <td>121-121 1 , Kowloon Bay</td> <td>17/11/2021</td> <td>CONVERTED BSI/EEB/PS9/3</td> <td>E/EEB1/2</td> </tr> <tr> <td><input type="checkbox"/></td> <td>EE4</td> <td>6</td> <td>1</td> <td>121-121 1 , Kowloon Bay</td> <td>17/11/2021</td> <td>CONVERTED BSI/EEB/PS9/3</td> <td>E/EEB1/2</td> </tr> </tbody> </table>											Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date	Status	Inspector	Engineer	<input type="checkbox"/>	EE4	12	12	1212-1212 12 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	<input type="checkbox"/>	EE4	14	14	1414-1414 14 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	<input type="checkbox"/>	EE4	5	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	<input type="checkbox"/>	EE4	6	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2
Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date	Status	Inspector	Engineer																																											
<input type="checkbox"/>	EE4	12	12	1212-1212 12 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2																																												
<input type="checkbox"/>	EE4	14	14	1414-1414 14 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2																																												
<input type="checkbox"/>	EE4	5	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2																																												
<input type="checkbox"/>	EE4	6	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2																																												

Select the EE4 record

Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date	Status	Inspector	Engineer
<input checked="" type="checkbox"/>	EE4	12	12	1212-1212 12 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE4	14	14	1414-1414 14 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE4	5	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	
<input type="checkbox"/>	EE4	6	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	

Enter Cancel Reason

Cancel Reason:	Cancel	<input type="button" value="Cancel"/>
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Click " Cancel " button Cancel this Record item

Cancel Reason:	Cancel	<input type="button" value="Cancel"/>
----------------	--------	---------------------------------------

(Cancel)

16.12 Assign WBRS – EE4 Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox	Assignment	Search	Building	Label	Batch Job	RASAS	Report	User Option	Configuration	L																		
Data Man	Assign Job	Assign WBRS record	EEO) - WBRS Record Assignment																									
Status:N			Assign REA WBRS record																									
<p>- EE1</p> <table border="1"> <thead> <tr> <th>Select to Assign</th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Buidling Address</th> <th>Receive Date</th> <th>Status</th> <th>Inspector</th> <th>Engineer</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>EE1</td> <td>ee1210120221100</td> <td>string</td> <td>0string-0string str</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>											Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date	Status	Inspector	Engineer	<input type="checkbox"/>	EE1	ee1210120221100	string	0string-0string str				
Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date	Status	Inspector	Engineer																				
<input type="checkbox"/>	EE1	ee1210120221100	string	0string-0string str																								

The status is "NEW"

Status:	<input type="button" value="NEW"/>	<input type="button" value="PENDING"/>	<input type="button" value="NEW"/>	<input type="button" value="CONVERTED"/>	<input type="button" value="CANCELLED"/>												
<p>- EE1</p> <table border="1"> <thead> <tr> <th>Select to Assign</th> <th>Submission Type</th> <th>Application No.</th> <th>Building Name</th> <th>Buidling Address</th> <th>Receive Date</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>EE1</td> <td>ee1210120221100</td> <td>string</td> <td>0string-0string str</td> <td></td> </tr> </tbody> </table>						Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date	<input type="checkbox"/>	EE1	ee1210120221100	string	0string-0string str	
Select to Assign	Submission Type	Application No.	Building Name	Buidling Address	Receive Date												
<input type="checkbox"/>	EE1	ee1210120221100	string	0string-0string str													

Select the EE4 record

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- EE4	Select to Assign	Submission Type	Application No.	Building Name	Building Address	Receive Date	Status	Inspector	Engineer
	<input checked="" type="checkbox"/>	EE4	12	12	1212-1212 12 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	
	<input type="checkbox"/>	EE4	14	14	1414-1414 14 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	
	<input type="checkbox"/>	EE4	5	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	
	<input type="checkbox"/>	EE4	8	1	121-121 1 , Kowloon Bay	17/11/2021	CONVERTED BSI/EEB/PS9/3	E/EEB1/2	

Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: E/EEB1/2	Inspector: BSI/EEB/PS9/3	Assign
Cancel Reason:		

Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: E/EEB1/2	Inspector: BSI/EEB/PS9/3	Assign
Cancel Reason:		

16.13 Assign WBRS – EE5 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Management System (BEOO) - Inbox (E/EEB5/1)

- + Inbox S Assign REA WBRS record
- Bring Up

Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-	BEOO DMC Assignment No. 2722	15/5/2014	CTO/EEB5/1

Click Hyperlink "Application No" for EE5 record

<input type="checkbox"/>	EE5	L140000083	1 简体 繁體 Name of Building	1a-12z 11 11 Street (English) , Mid-Level, Hong Kong	05/05/2014 0
<input type="checkbox"/>	EE5	L140000077	1 Name of Building	1a-12z Street (English) , Island, New Territories	05/05/2014 0
<input type="checkbox"/>	EE5	L140000104	1 654	65-5 654 , Choi Hung, Kowloon	05/05/2014 0

EE5 Information will be shown

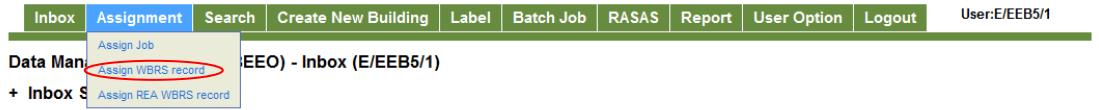
Data Management System (BEOO) WBRS - EE5

Application No.	L140000077	SEQ	1
Building Name(English)	Name of Building		
Building Name(Chinese)	建築物名稱		

16.14 Assign WBRS – EE5 Assignment

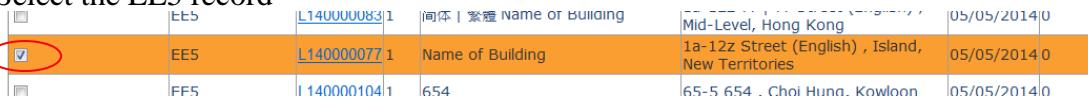
Login as Subject Officer Account

Assignment->Assign WBRS record



Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-	DEEO DMS Assignment No 2722	15/5/2014	CTO/EEO2

Select the EE5 record



<input type="checkbox"/>	EE5	L1400000771	Name of Building	Mid-Level, Hong Kong	05/05/2014 0
<input type="checkbox"/>	FF5	I 1400001041	654	1a-12z Street (English) , Island, New Territories	05/05/2014 0

Select "Engineer" and "Inspector"



Assign selected submission to:

Engineer: EEB5/1 ✓

Cancel Reason:

Inspector: BSIEEBPS93 ✓

Click "Assign" button to complete the assignment



Assign selected submission to:

Engineer: EEB5/1 ✓

Cancel Reason:

Inspector: BSIEEBPS93 ✓

16.15 Assign WBRS – EE7 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record



Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-	DEEO DMS Assignment No 2722	15/5/2014	CTO/EEO2

Click Hyperlink "Application No" for EE7 record



<input type="checkbox"/>	EE7	L1400000911	111文字	Territories	05/05/2014 0
<input type="checkbox"/>	FF7	I 1400000921	111文字	333-433 555?? , Lamma Island, New Territories	05/05/2014 0

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EE7 Information will be shown
Data Management System (BEOO) WBRS - EE7

Application No.	L140000091
Certificate of Compliance Registration	Registration No. Of Certificate of Compliance Registration
<input checked="" type="checkbox"/> Form of Compliance	Registration No. Of Form of Compliance
<input type="checkbox"/> Energy Audit Form	Registration No. Of Energy Audit Form

16.16 Assign WBRS – EE7 Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout	User:E/EEB5/1
Data Manager (BEOO) - Inbox (E/EEB5/1)										
<ul style="list-style-type: none"> + Inbox S Assign REA WBRS record - Bring Up 										
Case File No.	Bring Up Message				Generated Date & Time	Initiated By				
EMSD/EEO/BC/34-	BEOO DMS Assignment No 2723				15/5/2014	CTO/EEO7				

Select the EE7 record

<input type="checkbox"/>	EE7	L140000092	111文字	New Territories	05/05/2014 0
<input checked="" type="checkbox"/>	EE7	L140000095	111	333-433 555?? , Lamma Island, New Territories	05/05/2014 0
<input type="checkbox"/>	EE7	L140000095	111	333-433 555 , Lamma Island, New Territories	05/05/2014 0

Select "Engineer" and "Inspector"

Assign selected submission to:
Engineer: E/EEB1/2 <input type="button" value="Assign"/>
Cancel Reason:
Inspector: B/EEB/PS93 <input type="button" value="Assign"/>

Click "Assign" button to complete the assignment

Assign selected submission to:
Engineer: E/EEB1/2 <input type="button" value="Assign"/>
Cancel Reason:
Inspector: B/EEB/PS93 <input type="button" value="Assign"/>

16.17 Assign WBRS – EEEX - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record

Inbox	Assignment	Search	Create New Building	Label	Batch Job	RASAS	Report	User Option	Logout	User:E/EEB5/1
Data Manager (BEOO) - Inbox (E/EEB5/1)										
<ul style="list-style-type: none"> + Inbox S Assign REA WBRS record - Bring Up 										
Case File No.	Bring Up Message				Generated Date & Time	Initiated By				
EMSD/EEO/BC/34-	BEOO DMS Assignment No 2723				15/5/2014	CTO/EEO7				

Click Hyperlink "Application No" for EEEX record

<input type="checkbox"/>	EEEX	L140000033	11	3344-5566 // , Aberdeen, Hong Kong	0
<input type="checkbox"/>	EEEX	L140000034	11	3344-5566 77 , Aberdeen, Hong Kong	0
<input type="checkbox"/>	FFFX	L140000035	11	3344-5566 77 , Aberdeen, Hong Kong	0

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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EEEX Information will be shown

Data Management System (BEEO) WBRS - EEEX (COCR)

Application No.	L140000034	SEQ	1
Building Name(English)	11		
Building Name(Chinese)	22		

16.18 Assign WBRS – EEEX Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record



Inbox Assignment Search Create New Building Label Batch Job RASAS Report User Option Logout User:E/EEB5/1

Data Manager (BEEO) - Inbox (E/EEB5/1)

- + Inbox S Assign REA WBRS record
- Bring Up

Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-	EEEO DMS Assignment No. 2722	15/5/2014	E/EEB5/1

Select the EEEX record



	Case File No.	Submission ID	SEQ	Address	Status
<input checked="" type="checkbox"/>	EEEX	L140000032	1	34-56 7 , Aberdeen, Hong Kong	0
<input type="checkbox"/>	EEEX	L140000033	11	3344-5566 77 , Aberdeen, Hong Kong	0

Select "Engineer" and "Inspector"



Assign selected submission to:

Engineer: E/EEB1/2 Inspector: BSIEEB/PS9/3

Cancel Reason:

Assign

Click "Assign" button to complete the assignment



Assign selected submission to:

Engineer: E/EEB1/2 Inspector: BSIEEB/PS9/3

Cancel Reason:

Assign

16.19 Assign WBRS – EEET - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign WBRS record



Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-	BEEO DMS Assignment No. 2722	15/5/2014	CTO/EEO

Click Hyperlink "Application No" for EEET record

<input type="checkbox"/>	EEET	L140000085	1	34-56 7 , Admiralty, Hong Kong	05/05/2014 0
<input type="checkbox"/>	EEET	L140000086	1	13 2 , Lai King, Kowloon	05/05/2014 0
<input type="checkbox"/>	EEET	L140000088	1	2 , Lamma Island, New Territories	05/05/2014 0

EEET Information will be shown

Data Management System (BEEO) WBRS - EEET (COCR)

Application No.	L140000086	SEQ	1
Building Name (English)	1		
Building Name			

16.20 Assign WBRS – EEET Assignment

Login as Subject Officer Account

Assignment->Assign WBRS record



Case File No.	Bring Up Message	Generated Date & Time	Initiated By
EMSD/EEO/BC/34-	BEEO DMS Assignment No. 2722	15/5/2014	CTO/EEO

Select the EEET record

<input type="checkbox"/>	EEET	L140000089	1	2 , Lai Chi Kok, Kowloon	05/05/2014 0
<input checked="" type="checkbox"/>	EEET	L140000099	222	1 , Lai Chi Kok, Kowloon	05/05/2014 0
<input type="checkbox"/>	EEET	L140000100	1	2 , Lamma Island, New Territories	05/05/2014 0

Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: E/EEB5/2	Assign
Cancel Reason:	

Inspector: B/EEB/PSS/3	Assign
------------------------	--------

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
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AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: EEEB1/2 Inspector: BSEEPPS9/3 **Assign**

Cancel Reason:

16.21 Assign REA WBRS – REA1 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign REA WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration Logout User:CSA/EEB5

Data Man **Assign WBRS record** EEO) - WBRS Record Assignment for EA

Status: NEW

Select to Assign Submission Application No. Name Registration No. Receive Date

[Assign REA WBRS record](#)

Click Hyperlink "Application No" for REA1 record

REA1	Application No.	Name	Receive Date
REA1	L160000008	L160000006_ENG_NAME	03/04/2018
REA1	L160000008	L160000008_ENG_NAME	03/04/2018
REA1	L160000009	L160000009_ENG_NAME	03/04/2018
REA1	L160000011	L160000011_ENG_NAME	03/04/2018
REA1	L160000012	L160000012_ENG_NAME	03/04/2018
REA1	L160000014	L160000014_ENG_NAME	03/04/2018

REA1 Information will be shown

Data Management System (BEEO) WBRS - REA1

Application No.	L12000037	Receive Date	22/4/2014 11:19:07
Application Type	NEW	Change of particulars	<input type="checkbox"/> Name <input type="checkbox"/> Correspondence Address <input type="checkbox"/> Professional Qualification
Registration No.		Expiry Date	1/1/1900

16.22 Assign REA WBRS – REA1 Assignment

Login as Subject Officer Account

Assignment->Assign REA WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration Logout User:CSA/EEB5

Data Man **Assign WBRS record** EEO) - WBRS Record Assignment for EA

Status: NEW

Select to Assign Submission Application No. Name Registration No. Receive Date

[Assign REA WBRS record](#)

Select the REA1 record

<input type="checkbox"/>	REA1	@a11301/02/14N0JHN	engNameCH2	202201071613	16/11/2021	NEW
<input checked="" type="checkbox"/>	REA1	@a11301/02/14Z2	engName		16/11/2021	NEW

Download

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: E/EEB1/2	Inspector: BSI/EEB/PS9/3
<input type="button" value="Assign"/>	

Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: E/EEB1/2	Inspector: BSI/EEB/PS9/3
<input type="button" value="Assign"/>	

Login as STO Account

File No. (Assignment No.)	Building Name Work Location [REA]	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date	Document Check (Batch No.)
EMSD/EEO/BC/19/01/00245 (25293)	[engName]	REA-Registration as General Officer	25/2/2022	E/EEB1/2	STO/EEBS	General Checking in progress	STO/EEBS	0	CSA/EEBS	25/2/2022 13:44:01	No
EMSD/EEO/BC/19/01/01252 (23017)	[L200000003_ENG_NAME]	REA-Registration as General Officer	26/11/2021	E/EEB1/2	STO/EEBS	General Checking in progress	STO/EEBS	91	CSA/EEBS	17/2/2022 14:29:10	No

Click record to enter the detailed page

Data Management System (BEOO) - Work (Assignment No.25293)

File No. - EMSD/EEO/BC/19/01/00245	Attachment <input type="button" value="Add attachment"/> <input type="button" value="Template"/>																																											
REA Name - engName	Improvement Notice																																											
Assignment ID - 25293	Letter List																																											
Type - REA-Registration as General Officer	Check List																																											
ID - 3520 (Please Click to view Detail)	Action																																											
Status - General Checking in progress	Required																																											
Date when GR received the submission - 25/02/2022	<input checked="" type="checkbox"/> Prepare Acknowledgement Letter	Completed																																										
Subject Engineer - E/EEB1/2	<input checked="" type="checkbox"/> Check submitted documents	<input type="checkbox"/>																																										
BSI/TO - STO/EEBS	<input checked="" type="checkbox"/> Prepare Checklist for General Checking	<input type="checkbox"/>																																										
Action Officer - STO/EEBS	<input checked="" type="checkbox"/> Attach Checklist for General Checking for comments / endorsement	<input type="checkbox"/>																																										
	<input checked="" type="checkbox"/> Prepare Letter of Request for Supplementary Information	<input type="checkbox"/>																																										
	<input checked="" type="checkbox"/> Attach Letter of Request for Supplementary Information for comments / endorsement	<input type="checkbox"/>																																										
	<input checked="" type="checkbox"/> Input / Update Information of application / submission	<input type="checkbox"/>																																										
	<input checked="" type="checkbox"/> For new case no, Inform GR to create label	<input type="checkbox"/>																																										
	<input type="button" value="Save Action"/>																																											
<table border="1"> <tr> <td>Log History</td> <td>Action Report</td> </tr> <tr> <td>User</td> <td>Action</td> <td>Remarks/Comments</td> <td>Date</td> </tr> <tr> <td>CSA/EEBS</td> <td>Create Work assigned By - CSA/EEBS</td> <td></td> <td>25/2/2022 13:44:03</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>For new case no, Inform GR to create label</td> <td>25/2/2022 13:44:03</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Input / Update Information of application / submission</td> <td>25/2/2022 13:44:03</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Attach Letter of Request for Supplementary Information for comments / endorsement</td> <td>25/2/2022 13:44:03</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Prepare Letter of Request for Supplementary Information</td> <td>25/2/2022 13:44:03</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Attach Checklist for General Checking for comments / endorsement</td> <td>25/2/2022 13:44:02</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Prepare Checklist for General Checking</td> <td>25/2/2022 13:44:02</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Check submitted documents</td> <td>25/2/2022 13:44:02</td> </tr> <tr> <td>CSA/EEBS</td> <td>Action Start</td> <td>Prepare Acknowledgement Letter</td> <td>25/2/2022 13:44:02</td> </tr> </table>			Log History	Action Report	User	Action	Remarks/Comments	Date	CSA/EEBS	Create Work assigned By - CSA/EEBS		25/2/2022 13:44:03	CSA/EEBS	Action Start	For new case no, Inform GR to create label	25/2/2022 13:44:03	CSA/EEBS	Action Start	Input / Update Information of application / submission	25/2/2022 13:44:03	CSA/EEBS	Action Start	Attach Letter of Request for Supplementary Information for comments / endorsement	25/2/2022 13:44:03	CSA/EEBS	Action Start	Prepare Letter of Request for Supplementary Information	25/2/2022 13:44:03	CSA/EEBS	Action Start	Attach Checklist for General Checking for comments / endorsement	25/2/2022 13:44:02	CSA/EEBS	Action Start	Prepare Checklist for General Checking	25/2/2022 13:44:02	CSA/EEBS	Action Start	Check submitted documents	25/2/2022 13:44:02	CSA/EEBS	Action Start	Prepare Acknowledgement Letter	25/2/2022 13:44:02
Log History	Action Report																																											
User	Action	Remarks/Comments	Date																																									
CSA/EEBS	Create Work assigned By - CSA/EEBS		25/2/2022 13:44:03																																									
CSA/EEBS	Action Start	For new case no, Inform GR to create label	25/2/2022 13:44:03																																									
CSA/EEBS	Action Start	Input / Update Information of application / submission	25/2/2022 13:44:03																																									
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CSA/EEBS	Action Start	Prepare Acknowledgement Letter	25/2/2022 13:44:02																																									
<input type="button" value="Re-Assignment"/> <input type="button" value="WBR Record"/> <input type="button" value="Change REA File No."/> <input type="button" value="Bring Up Management"/> <input type="button" value="Change Action Officer"/> <input type="button" value="Close"/>																																												

Click “Change Action Officer” button Change Action Officer

Data Management System (BEOO) - Work (Assignment No.25293)

File No. - EMSD/EEO/BC/19/01/00245	Remarks / Comments
REA Name - engName	<input type="text" value="Eng"/>
Assignment ID - 25293	
Type - REA-Registration as General Officer	
ID - 3520 (Please Click to view Detail)	
Status - General Checking in progress	
Date when GR received the submission - 25/02/2022	
Subject Engineer - E/EEB1/2	
BSI/TO - STO/EEBS	
Next Action Officer - E/EEB1/2	
	<input type="button" value="Re-Assignment"/> <input type="button" value="WBR Record"/> <input type="button" value="Change REA File No."/> <input type="button" value="Confirm"/> <input type="button" value="Cancel"/>

Click “Confirm” button Submit records

Next Action Officer - E/EEB1/2	<input type="button" value="Re-Assignment"/> <input type="button" value="WBR Record"/> <input type="button" value="Change REA File No."/> <input type="button" value="Confirm"/> <input type="button" value="Cancel"/>
--------------------------------	--

Click record to enter the detailed page

Assignment No.	Subject Engineer	BSI/TO	Action Officer	Assign By	Assign Date	Category	File No.	Building Name/[REA]	Street Name	Work Location	Document Check (Batch No.)
25293	E/EEB1/2	STO/EEBS	E/EEB1/2	CSA/EEBS	25/2/2022 13:43:30	REA					No
25291	E/EEB1/2	STO/EEBS	E/EEB1/2	CSA/EEBS	25/2/2022 13:42:53	REA					No

Select and enter corresponding information

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)

Type: REA Registration as General Officer
Date when GR received the submission: 25/02/2022
Subject Engineer - E/EEB1/2
BSI/TO - STO/EEBS
Action Officer: STO/EEBS
Remarks/Comments: long

Action Required:

- Prepare Acknowledgement Letter
- Check submitted documents
- Prepare Checklist for General Checking
- Attach Checklist for General Checking for comments / endorsement
- Prepare Letter of Request for Supplementary Information
- Attach Letter of Request for Supplementary Information for comments / endorsement
- Input / Update Information of application / submission
- For new case no, inform GR to create label

Click the "save record" button to save the record

Save Record | Quit

Click record to enter the detailed page

EMSD/EEO/BC/19/01/00245	BEOO DMS - Being Action Officer	25/2/2022 13:56:02	STO/EEBS	<input type="button" value="delete"/>
EMSD/EEO/BC/19/01/00233	BEOO DMS - Being Action Officer	18/2/2022 15:35:26	STO/EEB2	<input type="button" value="delete"/>
EMSD/EEO/BC/19/01/00237	BEOO DMS - Being Action Officer	18/2/2022 15:33:08	STO/EEB2	<input type="button" value="delete"/>

Click the "Proceed" button to save the record

File No.: EMSD/EEO/BC/19/01/00245
REA Name: engName
Assignment ID: 25293
Type: REA-Registration as General Officer
ID: 3520 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission: 25/02/2022
Subject Engineer - E/EEB1/2
BSI/TO - STO/EEBS
Action Officer - E/EEB1/2

Log History		Action Report	
User	Action	Remarks/Comments	Date
STO/EEBS	Pass to E/EEB1/2	long	25/2/2022 13:56:02
CSA/EEBS	Create Work assigned By - CSA/EEBS		25/2/2022 13:44:03
CSA/EEBS	Action Start	For new case no, inform GR to create label	25/2/2022 13:44:03
CSA/EEBS	Action Start	Input / Update Information of application / submission	25/2/2022 13:44:03
CSA/EEBS	Action Start	Attach Letter of Request for Supplementary Information for comments / endorsement	25/2/2022 13:44:03
CSA/EEBS	Action Start	Prepare Letter of Request for Supplementary Information	25/2/2022 13:44:03
CSA/EEBS	Action Start	Attach Checklist for General Checking for comments / endorsement	25/2/2022 13:44:02
CSA/EEBS	Action Start	Prepare Checklist for General Checking	25/2/2022 13:44:02
CSA/EEBS	Action Start	Check submitted documents	25/2/2022 13:44:02
CSA/EEBS	Action Start	Prepare Acknowledgement Letter	25/2/2022 13:44:02

WBR Record | Change REA File No. | Bring Up Management | Change Action Officer | **Proceed** (circled) | Close | Cancel | Google Translate

Select and enter corresponding information

Data Management System (BEOO) - Work (Assignment No.25293)

Transit To Next Stage

File No.: EMSD/EEO/BC/19/01/00245
REA Name: engName
Assignment ID: 25293
Type: REA-Registration as General Officer
ID: 3520 (Please Click to view Detail)
Status - General Checking in progress
Date when GR received the submission: 25/02/2022
Subject Engineer - E/EEB1/2
BSI/TO - STO/EEBS

Next Action Officer: SE/EEB15
Next Stage: long-Recommend for Accepted registration

Next Stage Action:

Recommend for acceptance of registration

Remarks/Comments: long

WBR Record | Change REA File No. | Confirm | Cancel |

Click "Confirm" button Submit records

WBR Record | Change REA File No. | **Confirm** (circled) | Cancel |

Login as Subject Officer Account
Click record to enter the detailed page

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)

- Works in progress Filter											
File No. (Assignment No.)	Building Name Work Location [REA]	Submission Type	Received Date	Subject Engineer	BSI/TO	Current Status	Action Officer	No. of calendar days since received	Update By	Update Date	Document Check (Batch No.)
EMSD/EEO/BC/19/01/00120 (23138)	[engName]	REA-Registration as General Officer	14/12/2021	E/EEB1/2	STO/EEBS	Pending for CE Confirmation	SE/EEB15	73	E/EEB1/2	25/2/2022 14:55:21	No
EMSD/EEO/BC/19/01/00245 (25293)	[engName]	REA-Registration as General Officer	25/2/2022	E/EEB1/2	STO/EEBS	Recommend for Accepted registration	SE/EEB15	0	E/EEB1/2	25/2/2022 14:53:37	No
EMSD/EEO/BC/19/01/00236 (25288)	[L160000016_ENG_NAME]	REA-Registration as General Officer	18/2/2022	E/EEB1/2	STO/EEB2	Pending for CE Confirmation	SE/EEB15	7	SE/EEB15	18/2/2022 17:44:17	No
EMSD/EEO/BC/19/01/00231 (25285)	[L170000004_ENG_NAME]	REA-Registration as General Officer	18/2/2022	E/EEB1/2	STO/EEB2	Issue Certificate	SE/EEB15	7	SE/EEB15	18/2/2022 14:43:28	No

Click the "Endorse" button to save the record

Select and enter corresponding information

Click “Confirm” button Submit records

Click record to enter the detailed page

Bring Up				
Case File No.	Bring Up Message	Generated Date & Time	Initiated By	
EMSD/EEO/BC/19/01/00120	BEOO DMS - Being Action Officer	25/2/2022 14:55:19	E/EEB1/2	Delete
EMSD/EEO/BC/19/01/00245	BEOO DMS - Being Action Officer	25/2/2022 14:53:35	E/EEB1/2	Delete
EMSD/EEO/BC/19/01/00236	BEOO DMS - Being Action Officer	18/2/2022 15:48:38	E/EEB1/2	Delete
EMSD/EEO/BC/19/01/00231	BEOO DMS - Being Action Officer	18/2/2022 14:41:39	E/EEB1/2	Delete
EMSD/EEO/BC/19/01/00270	BEOO DMS - Being Action Officer	18/2/2022 14:17:40	E/EEB1/2	Delete

Click the hyperlink to enter the sub page

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

File No. - EMSD/EEO/BC/19/01/00245

REA Name - engName

Assignment ID - 25293

Type - REA-Registration as General Officer

ID- 3520 (Please Click to view Detail)

Status - Issue Certificate

Date when GR received the submission - 25/02/2022

Subject Engineer - E/EEB1/2

BSI/TO - STO/EEB5

Attachment

Add attachment **Template**

Improvement Notice

Letter List

Check List

Action

Prepare confirmation letter

Fill in the required data with red title

Received Date (dd/mm/yyyy)	25/02/2022	Review By	
REA Reg. No.	DSAD	Review Date (dd/mm/yyyy)	
REA Name		Handled By	
Issue Date (dd/mm/yyyy)	25/02/2022	Date To BSI for DCI(dd/mm/yyyy)	
Ack. Date (dd/mm/yyyy)		Issue Date of DCI(dd/mm/yyyy)	
Screen By		Letter return Date of DCI (dd/mm/yyyy)	
Screen Date (dd/mm/yyyy)		Receipt Date (dd/mm/yyyy)	
Agree to disclosure of email	<input type="checkbox"/>	Agree to disclosure of Tel. no	<input type="checkbox"/>
Practical Experience A	<input type="checkbox"/>	Practical Experience B	<input type="checkbox"/>
Practical Experience C	<input type="checkbox"/>	Withdrawn Date (dd/mm/yyyy)	
Withdrawn Reason A	<input type="checkbox"/>	Withdrawn Reason B	<input type="checkbox"/>
Withdrawn Remark		Remark	
Status	Disable	Trade	Contractor
Registered Date First (dd/mm/yyyy)		Expiry Date (dd/mm/yyyy)	25/02/2032

Form Detail

Application No.: #a1190120221422

Note :

Please read the "Notes to this Form" attached and complete all the items in block letters.

To the Director of Electrical & Mechanical Services :

I hereby apply for the following (Please tick in the appropriate box(s)) :-

For new applicant only

New Application for Registration as a Registered Energy Assessor

For current Registered Energy Assessor

Registration No.:

Expiry Date:

Click the "generate certificate" button to generate the "e-license" information

Save Record	Generate Certificate	Draft Version	Create/Update Register	Back To Work	Quit
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View the "e-license" information according to the address

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)

d32u5qschurz37.cloudfront.net/token/5ac3472c-c56a-4727-88d3-c202672df896
BEEO - Data Manag...



e-Licence System

English



Certificate of Compliance Registration
Buildings Energy Efficiency Ordinance (Cap. 610)

Registration No.	tom12345
Building Name (English)	Asia Perfect Development Limited
Building Name (Traditional Chinese)	誠邦發展有限公司
Address (English)	Times Square, 1 Matheson Street, Causeway Bay, Hong Kong
Address (Traditional Chinese)	香港銅鑼灣羅素街1號 時代廣場
BEC Edition Involved	2018
Issue Date	24/01/2022
Expiry Date	24/01/2032

16.23 Assign REA WBRS – REA2 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign REA WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration Logout User:CSA/EEB5

Data Man Assign Job Assign WBRS record Assign REA WBRS record EEO) - WBRS Record Assignment for EA

Status: NEW

Select to Assign	Submission	Application No.	Name	Registration No.	Receive Date
------------------	------------	-----------------	------	------------------	--------------

Click Hyperlink "Application No" for REA2 record

<input type="checkbox"/> REA3	EA31401202211512CHA	engName	EA3140120221154	22/11/2021	CONVERTED STO/EEB2	E/EEB1/2
<input type="checkbox"/> REA2	ea3190120221122a	engName	EA3140120221154	22/11/2021	CONVERTED STO/EEB2	E/EEB1/2
<input type="checkbox"/> REA3	ea3190120221122c	engName		22/11/2021	CONVERTED STO/EEB2	E/EEB1/2
<input type="checkbox"/> REA3	ea3190120221122c	engName		22/11/2021	CONVERTED STO/EEB2	E/EEB1/2

REA1 Information will be shown

Data Management System (BEEO) WBRS - REA2

Application No	L120000172	Receive Date	22/4/2014 11:20:44
No. of Duplicate	2		
Personal Details			

16.24 Assign REA WBRS – REA2 Assignment

Login as Subject Officer Account

Assignment->Assign REA WBRS record

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)

The screenshot shows a software interface for managing building energy efficiency records. At the top, there is a horizontal navigation bar with links: Inbox, Assignment, Search, Building, Label, Batch Job, RASAS, Report, User Option, Configuration, and Logout. To the right of the navigation bar, it says "User:CSA/EEB5". Below the navigation bar, there is a sub-menu titled "Data Man" which includes "Assign Job", "Assign WBRS record", and "Assign REA WBRS record". The "Assign WBRS record" option is highlighted with a yellow box and has a red oval drawn around it. The main title of the page is "EEO) - WBRS Record Assignment for EA". Below the title, there is a status dropdown menu set to "New". The bottom part of the screen contains several input fields: "Select to Assign", "Submission", "Application No.", "Name", "Registration No.", and "Receive Date".

**USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
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Select the REA2 record

<input type="checkbox"/> REA3 EA3140120221512CHA engName EA31401202211154 22/11/2021 CONVERTED/STO/EEB2 E/EEB1/2
<input checked="" type="checkbox"/> REA2 EA3140120221613CHA engName EA31401202211154 22/11/2021 CONVERTED/STO/EEB2 E/EEB1/2
<input type="checkbox"/> REA3 ea319012022112e engName 22/11/2021 CONVERTED/STO/EEB2 E/EEB1/2
<input type="checkbox"/> REA3 ea319012022112c engName 22/11/2021 CONVERTED/STO/EEB2 E/EEB1/2

Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: E/EEB1/2

Cancel Reason:

Inspector: BSU/EEB/PSS3

Assign

Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: E/EEB1/2

Cancel Reason:

Inspector: BSU/EEB/PSS3

Assign

16.25 Assign REA WBRS – REA3 - Display WBRS Record

Login as Subject Officer Account

Assignment->Assign REA WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration Logout User:CSA/EEB5

Data Manager Assign Job Assign WBRS record EEO - WBRS Record Assignment for EA

Status: NEW

Select to Assign	Submission	Application No.	Name	Registration No.	Receive Date	Status	Inspector	Engineer
<input type="checkbox"/>	REA1	L160000003	L160000003_ENG_NAME		03/04/2018	CANCELLED		
<input type="checkbox"/>	REA1	L200000002	L200000002_ENG_NAME		21/04/2020	CANCELLED STO/EEB2	E/EEB1/2	
<input type="checkbox"/>	REA3	ea3130120221454CHA	engName	EA1100120220952	22/11/2021	CANCELLED		

Click Hyperlink "Application No" for REA3 record

Select to Assign all	Submission Type	Application No.	Name	Registration No.	Receive Date	Status	Inspector	Engineer
<input type="checkbox"/>	REA1	L160000003	L160000003_ENG_NAME		03/04/2018	CANCELLED		
<input type="checkbox"/>	REA1	L200000002	L200000002_ENG_NAME		21/04/2020	CANCELLED STO/EEB2	E/EEB1/2	
<input type="checkbox"/>	REA3	ea3130120221454CHA	engName	EA1100120220952	22/11/2021	CANCELLED		

REA1 Information will be shown

Data Management System (BEEO) WBRS - REA3

Application No.	ea3130120221454CHA	Receive Date	22/11/2021
Application Type	CHANGE	Change of particulars	<input type="checkbox"/> Name <input checked="" type="checkbox"/> Correspondence Address
Registration No.	EA1100120220952		
Cancel Reason	dsa		
Personal Details			

16.26 Assign REA WBRS – REA3 Assignment

Login as Subject Officer Account

Assignment->Assign REA WBRS record

Inbox Assignment Search Building Label Batch Job RASAS Report User Option Configuration Logout User:CSA/EEB5

Data Manager Assign Job Assign WBRS record EEO - WBRS Record Assignment for EA

Status: NEW

Select to Assign	Submission	Application No.	Name	Registration No.	Receive Date	
<input type="checkbox"/>	REA1	L160000003	L160000003_ENG_NAME		03/04/2018	
<input type="checkbox"/>	REA1	L200000002	L200000002_ENG_NAME		21/04/2020	
<input type="checkbox"/>	REA3	ea3130120221454CHA	engName	EA1100120220952	22/11/2021	

USER PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL
AND MECHANICAL SERVICES DEPARTMENT (EMSD)

Select the REA3 record

#	REAI	LEADER_ID	LEADER_NAME	CREATED_DATE	CANCELLED_DATE	DELETED_DATE
	REA3	ea3130120221454CHA	engName	EA1100120220952	22/11/2021	CANCELLED

Select "Engineer" and "Inspector"

Assign selected submission to:

Engineer: EEEB1/2 Cancel Reason:

Inspector: BSEEBS93

Click "Assign" button to complete the assignment

Assign selected submission to:

Engineer: EEEB1/2 Cancel Reason:

Inspector: BSEEBS93

- End of Document -

**COMPUTER OPERATION PROCEDURE
MANUAL**

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



Version: 0.1

July 2022

COMPUTER OPERATION PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF
ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)

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Department
[EE/ITD/3]

Date: _____ Date: _____

**COMPUTER OPERATION PROCEDURE MANUAL ON DATA MANAGEMENT SYSTEM FOR
BUILDINGS ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF
ELECTRICAL AND MECHANICAL SERVICES DEPARTMENT (EMSD)**

Amendment History				
Change Number	Revision Description	Section Affected	Revision Number	Date
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1. Purpose

The purpose of this is to provide information and operating instructions related to the operating of the computer systems, BEEO-DMS system.

2. Scope

This document defines the computer operating procedures manual for (DMS-BEEO). It should be reference for all operation staff involved in (DMS-BEEO) operation.

3. Reference

Documentation Standards for Implementation Phase (S8)

4. Definitions and Conventions

4.1 Definitions

DMS	Data Management System
DB	MS SQL Database
Rptserv	MS SQL Report Server
LN	Lotus Notes
IP	Internet Protocol
LAN	Local Area Network
VM	Virtual Machine
SAN	Storage Area Network
iDRAC	Integrated Dell Remote Access Controllers

4.2 Conventions

NIL

5. Computer System Information

This section mentions the system information for the computer systems, including:

- Hardware Configuration
- Communication Network configuration
- Hardware Components Description
- System Software Environment
- Application Software

5.1 Hardware Configuration

This section describes the virtual machine for application servers, database servers, the VMware vSphere physical machines, network equipment to be required by the system.

Hardware Item	Host Name/ Item No.	Description	Machine Type (Physical/ Virtual)	Location														
VMware vSphere server	server01	HP ProLiant DL380 Gen10 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Item</th><th>Description</th></tr> </thead> <tbody> <tr> <td>OS</td><td>VMWare ESXi 6.7</td></tr> <tr> <td>CPU</td><td>Intel Xeon Gold 6134</td></tr> <tr> <td>RAM</td><td>128 GB</td></tr> <tr> <td>DISK</td><td>15TB in RAID 6</td></tr> </tbody> </table>	Item	Description	OS	VMWare ESXi 6.7	CPU	Intel Xeon Gold 6134	RAM	128 GB	DISK	15TB in RAID 6	Physical	1/F Watson Centre, Kwai Chung				
Item	Description																	
OS	VMWare ESXi 6.7																	
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CPU	Intel Xeon Gold 6134																	
RAM	128 GB																	
DISK	15TB in RAID 6																	
Backup Server	beeoba01	HP ProLiant DL380 Gen10 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Item</th><th>Description</th></tr> </thead> <tbody> <tr> <td>OS</td><td>VMWare ESXi 6.7</td></tr> <tr> <td>CPU</td><td>Intel Xeon Silver 4108</td></tr> <tr> <td>RAM</td><td>64 GB</td></tr> <tr> <td>DISK</td><td>11TB in RAID 6</td></tr> </tbody> </table>	Item	Description	OS	VMWare ESXi 6.7	CPU	Intel Xeon Silver 4108	RAM	64 GB	DISK	11TB in RAID 6	Physical	1/F Watson Centre, Kwai Chung				
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Application Server (productio n)	beeodmsapp	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Item</th><th>Description</th></tr> </thead> <tbody> <tr> <td>OS</td><td>Microsoft Windows Server 2019 Standard</td></tr> <tr> <td>OS Version</td><td>10.0.17763 Build 17763</td></tr> <tr> <td>VM</td><td>VMware 7</td></tr> <tr> <td>CPU</td><td>Intel Xeon Gold 6134</td></tr> <tr> <td>RAM</td><td>32 GB</td></tr> <tr> <td>DISK</td><td>600 GB</td></tr> </tbody> </table>	Item	Description	OS	Microsoft Windows Server 2019 Standard	OS Version	10.0.17763 Build 17763	VM	VMware 7	CPU	Intel Xeon Gold 6134	RAM	32 GB	DISK	600 GB	Virtual	Server02
Item	Description																	
OS	Microsoft Windows Server 2019 Standard																	
OS Version	10.0.17763 Build 17763																	
VM	VMware 7																	
CPU	Intel Xeon Gold 6134																	
RAM	32 GB																	
DISK	600 GB																	
Database Server (productio n)	beeodmsdb	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Item</th><th>Description</th></tr> </thead> <tbody> <tr> <td>OS</td><td>Microsoft Windows Server 2019 Standard</td></tr> <tr> <td>OS Version</td><td>10.0.17763 Build 17763</td></tr> <tr> <td>VM</td><td>VMware 7</td></tr> <tr> <td>CPU</td><td>Intel Xeon Gold 6134</td></tr> <tr> <td>RAM</td><td>32 GB</td></tr> <tr> <td>DISK</td><td>1.3 TB</td></tr> </tbody> </table>	Item	Description	OS	Microsoft Windows Server 2019 Standard	OS Version	10.0.17763 Build 17763	VM	VMware 7	CPU	Intel Xeon Gold 6134	RAM	32 GB	DISK	1.3 TB	Virtual	Server02
Item	Description																	
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RAM	32 GB																	
DISK	1.3 TB																	

Application Server (Development) Applicatio n Server (Developm ent)	beeodmsd ev	<table border="1"> <thead> <tr> <th>Item</th><th>Description</th></tr> </thead> <tbody> <tr> <td>OS</td><td>Microsoft Windows Server 2019 Standard</td></tr> <tr> <td>OS Version</td><td>10.0.17763 Build 17763</td></tr> <tr> <td>VM</td><td>VMware 7</td></tr> <tr> <td>CPU</td><td>Intel Xeon Gold 6134</td></tr> <tr> <td>RAM</td><td>32 GB</td></tr> <tr> <td>DISK</td><td>1 TB</td></tr> </tbody> </table>	Item	Description	OS	Microsoft Windows Server 2019 Standard	OS Version	10.0.17763 Build 17763	VM	VMware 7	CPU	Intel Xeon Gold 6134	RAM	32 GB	DISK	1 TB	Virtual	Server01
Item	Description																	
OS	Microsoft Windows Server 2019 Standard																	
OS Version	10.0.17763 Build 17763																	
VM	VMware 7																	
CPU	Intel Xeon Gold 6134																	
RAM	32 GB																	
DISK	1 TB																	
LAN Switch			Physical	1/F EMSD HQ														
Computer Equipment Rack			Physical	1/F EMSD HQ														
iPad			Physical	M/F EMSD HQ														

5.2 Communication Network Configuration

This section describes the configuration setting of all servers for connection to EMSD departmental network

IP	Host Name	Description	Machine Type (Physical/Virtual)
10.16.133.22	server01	VMware vSphere server	Physical
10.16.133.23	server02	VMware vSphere server	Physical
10.16.133.32	beeoba01	Backup Server	Physical
10.16.133.214	beeodmsapp	Application Server (production)	Virtual
10.16.133.215	beeodmsdb	Database Server (production)	Virtual
10.16.133.216	beeodmsdev	Application Server (Development)	Virtual
10.16.133.216	beeodmsdev	Database Server (Development)	Virtual

5.3 Other Hardware Components Description

5.3.1 San storage

The san storage holds the data stores for the VM machine.

5.3.2 San Switch

The san switch allows many to many communications between the san storage and the other server through optical fibre channel protocol.

5.3.3 Lan Switch

The Lan switch allows many to many communications between system and EMSD departmental network.

5.3.4 iPad

The mobile device used for mobile inspection.

5.3.5 Computer Equipment Rack

The standard 19-inch rack is a standardized frame for mounting multiple equipment modules and servers.

5.4 System Software Environment

5.4.1 Application Software

Device/ Host Name	Software ID/Name	Version / Release no.	Description
beeodmsapp	Windows 2019 Server standard	10.0.17763 Build 17763	Operation system
	Symantec Endpoint Protection	14 build 1148	Anti-Virus
beeodmsdb	Windows 2019 Server standard	10.0.17763 Build 17763	Operation system
	SQL Server 2017	(RTM-CU28) (KB5008084) - 14.0.3430.2 (X64)	Database software
	Symantec Endpoint Protection	14 build 1148	Anti-Virus
beeodmsdev	Windows 2019 Server standard	10.0.17763 Build 17763	Operation system
	SQL Server 2017	(RTM-CU28) (KB5008084) - 14.0.3430.2 (X64)	Database software
	Symantec Endpoint Protection	14 build 1148	Anti-Virus

6. Computer System Operating (Normal)

This section mentions the operating procedures of performing the following tasks for operating staff under the computer systems, web-based BEEO-DMS system, including:

- Turning On/Off the Servers
- Switching On/Off the Hardware Components
- Loading the Computer Systems
- Shutting Down the Computer Systems

6.1 Turning ON/OFF The Servers

6.1.1 Turn Off the Servers

Before turning off the servers, operating staff is required to check whether the backup jobs (For more details, please refer to Section **Error! Reference source not found.**) related to that server are being run or not.

After operating staff has verified that there are no backup job(s) related to that server being run, operating staff is required to follow the steps below in order to turn off the servers:

- a. Login the server.
- b. Click the “Start” button from the menu of the network operating system
- c. Select “Shutdown”

Below is the screen shown after the above procedures have been performed.



6.1.2 Backup Job

In order to check whether the backup job(s) is/are running on the Backup server, operating staff is required to check the Job Status of the Tape Backup Software, BackupExec, on the backup server.

It is recommended NOT to turn off the servers when there is/are backup job(s) being run on that server. Otherwise, data may be lost owing to the incomplete running of the backup job(s).

6.1.3 Turn On the Servers

To turn on the servers, operating staff is required to press the “Power” button of the server. The location of the “Power” button is subject to the model of the server. Operating staff may refer to the specification of the servers.

After the “Power” button of the server has been pressed, the Windows operating system will be loaded. After the operating system has been loaded, operating staff is required to perform the procedures mentioned below:

- a) Login the server as Administrator
- b) Load the services on the servers (Refer to Section **Error! Reference source not found.** for more details)
- c) Press Lock the Console for Secure Console from any unauthorized access.

Note: A visit to the server room is required to accomplish the task of turning on the servers.

6.2 Switching ON/OFF the Hardware Components

Before switching on/off other hardware components (like Tape Drive etc.), in general, operating staff is required to seek approval from the responsible parties so as to access the physical location of the hardware components. Access card(s)/key(s) may be required to access the server room and the cabinet where the hardware components are placed.

In order to switch on/off the hardware components, operating staff is required to press the “Power” buttons of the hardware components. The locations of the “Power” buttons are subject to different models of the hardware components. Operating staff may also need to configure the software related to that hardware components. Please refer to the specification of the hardware components for further details.

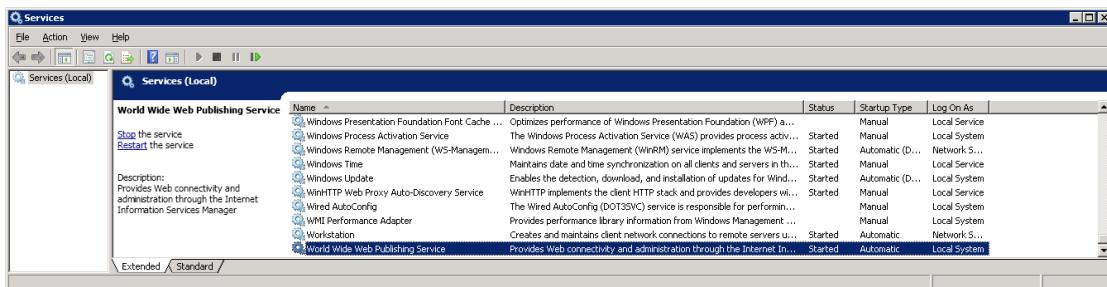
6.3 Loading the Computer System

In case there is any maintenance on the system, some of the servers are required to perform manual loading or shutting down. Operating staff is required to perform the procedures mentioned below to perform manual loading of the services.

6.3.1 Load Services on Application Server

In order to load the services on Application server, operating staff is required to follow the procedures mentioned below:

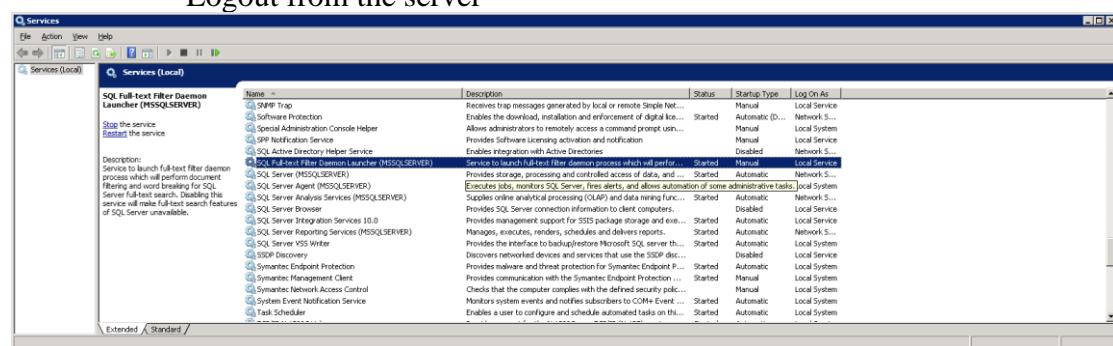
- ☞ Login as Administrator
- ☞ Ensure the service “World Wide Web Publishing Service” is started
- ☞ Logout from the server



6.3.2 Load Services on Database Server

In order to load the services on Database server, operating staff is required to follow the procedures mentioned below:

- ☞ Login as Administrator
- ☞ Ensure the services for SQL server are started
- ☞ Logout from the server



6.4 Shutting Down the Computer Systems

In case there is any maintenance on the system, some of the servers are required to perform manual loading or shutting down. Operating staff is required to perform the procedures mentioned below to perform manual shutting down of the services.

6.4.1 Shut Down Services on Application Server

In order to shut down the services on Application server, operating staff is required to follow the procedures mentioned below:

- ☞ Login as Administrator
- ☞ Stop the service “World Wide Web Publishing Service”
- ☞ Logout from the server

6.4.2 Shut Down Services on Database Server

In order to shut down the services on Database server, operating staff is required to follow the procedures mentioned below:

- ☞ Login as Administrator
- ☞ Stop the services for SQL server are started
- ☞ Logout from the server

6.5 Scheduling

6.5.1 Backup Jobs

Backup job of BackupExec on Backup server is scheduled to run periodically.

6.5.2 Schedule Jobs

The schedule jobs are listed in the table below whereas they are executed by BEEO-DMS application:

Job Name	Program description
BJ_Checklist_MobileList	To generate mobile inspection checklist.
BJ_LetterAction	To generate letters in batch.
WBRS_data_sync	To synchronize e-submission data to BEEO-DMS.
WBRS_file_sync	To synchronize e-submission attachment files to BEEO-DMS.
BEEOGENREPORT	To generate reports periodically.
BJ_SendElicenceEmail	To send email with E-Licence as attachment to applicant and inform related parties.

6.6 Media Placement

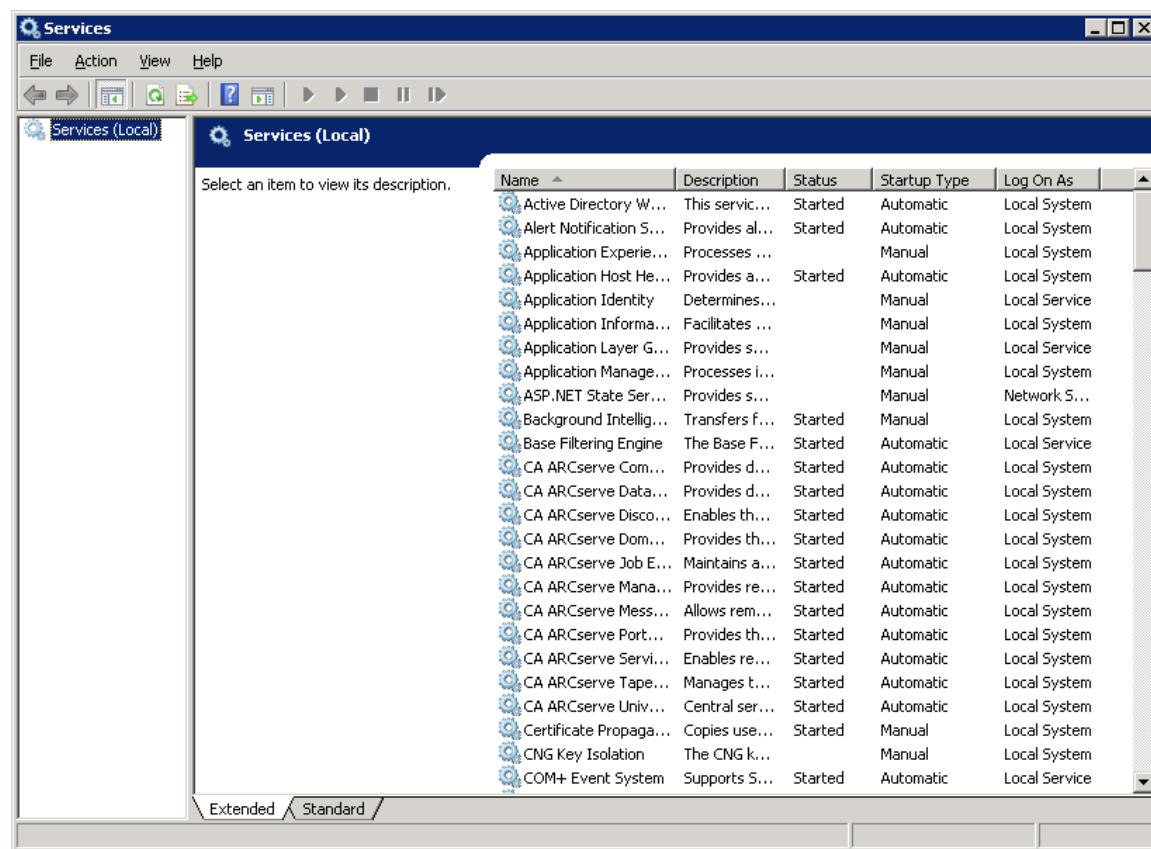
1 set of backup tapes of weekly full backup shall be kept off-site (Data Center at Siu Ho Wan) with the conditions supporting the storage of backup tapes. The sets of tapes will be call back when the set of tapes which are going to be used again.

6.7 System Monitoring Tasks

6.7.1 Ensure Services Running in Windows 2019 Servers

In order to check the status of the services, operating staff is required to perform the following steps:

- ☞ Select “Start” from the lower left-hand corner of the console
- ☞ Select “Administrative Tools”
- ☞ Select “Services”



Operating staff can ensure the services are automatically initiated by verifying their statuses (“狀態”) are started (“啟動”).

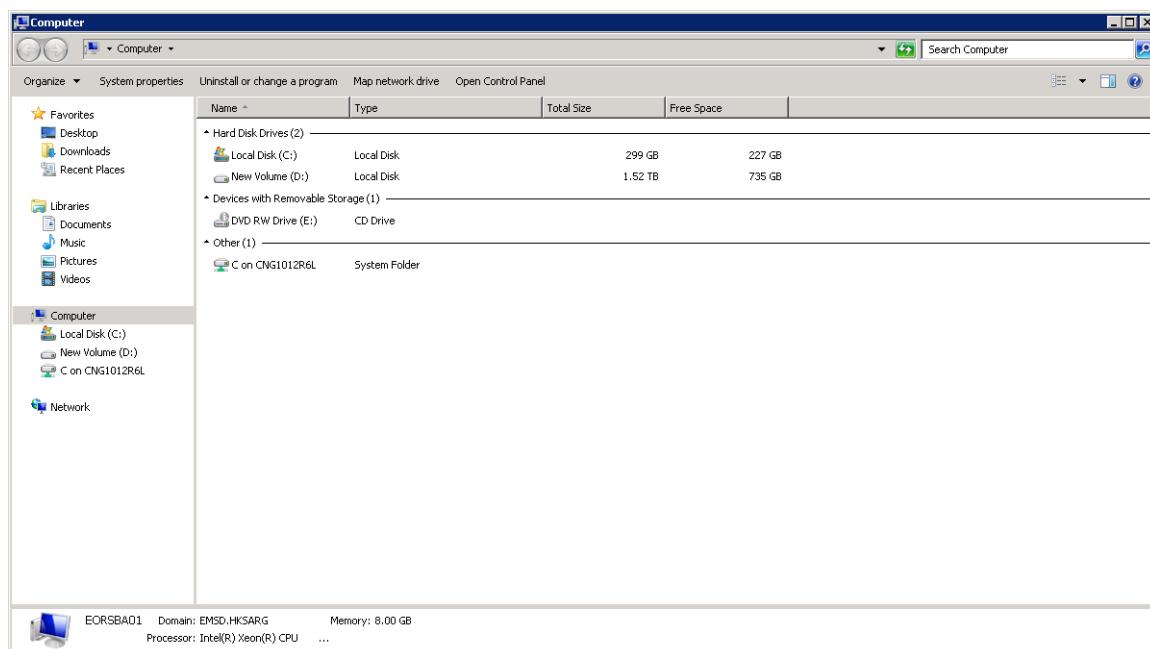
If the system services are not started, operation staff can start the services by right-click on the services and choose “Start” (“啟動”).

To stop a system services, operation staff can start the services by right-click on the services and choose “Stop” (“停止”).

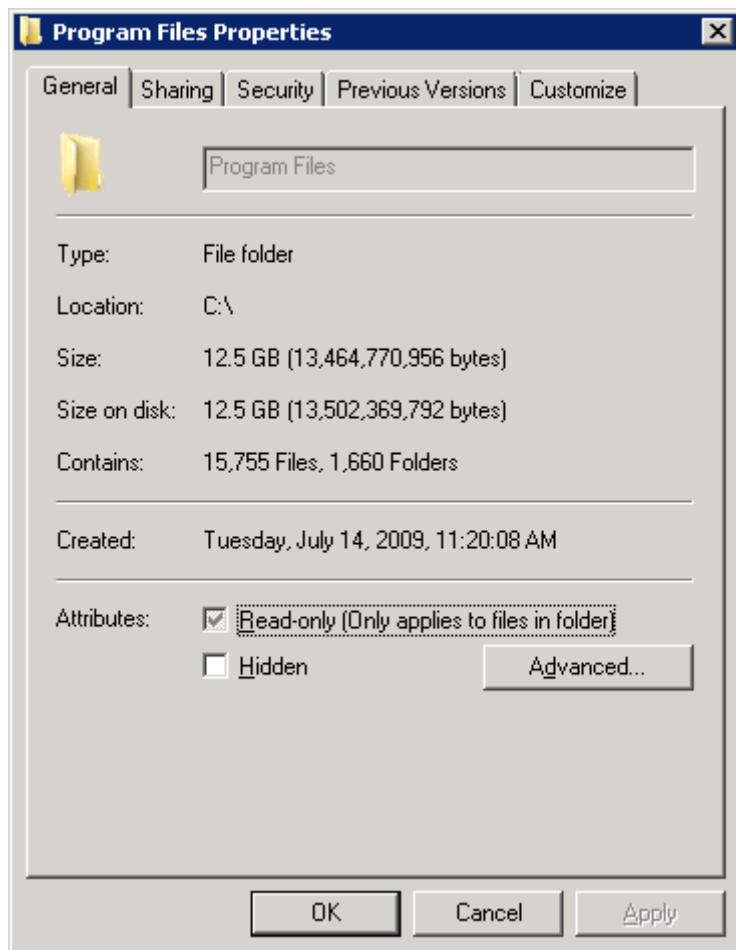
6.7.2 Monitor Disk Space Utilization in Windows 2019 Servers

To observe the disk space utilisation, operating staff is required to perform the following steps:

- ☞ In desktop, place the mouse cursor over the icon “Computer” and then right-click to select “Open”. A window of file explorer will be shown as follows:



- ☞ The total disk capacity assigned to each drive is shown in the column “Total Size”. And the disk free space is shown in the column “Free Space”. (In the above example, Drive (C:) has the disk capacity of 299GB and remains 227GB of free storage).
An appropriate disk cleaning up should be performed if free storage is less than 10% of total disk capacity. Or management team should be notified if hardware upgrade is necessary.
- ☞ To view the disk usage of a particular folder, place the mouse cursor over the selected folder and right-click to select “Properties”.
The following properties window will be shown:

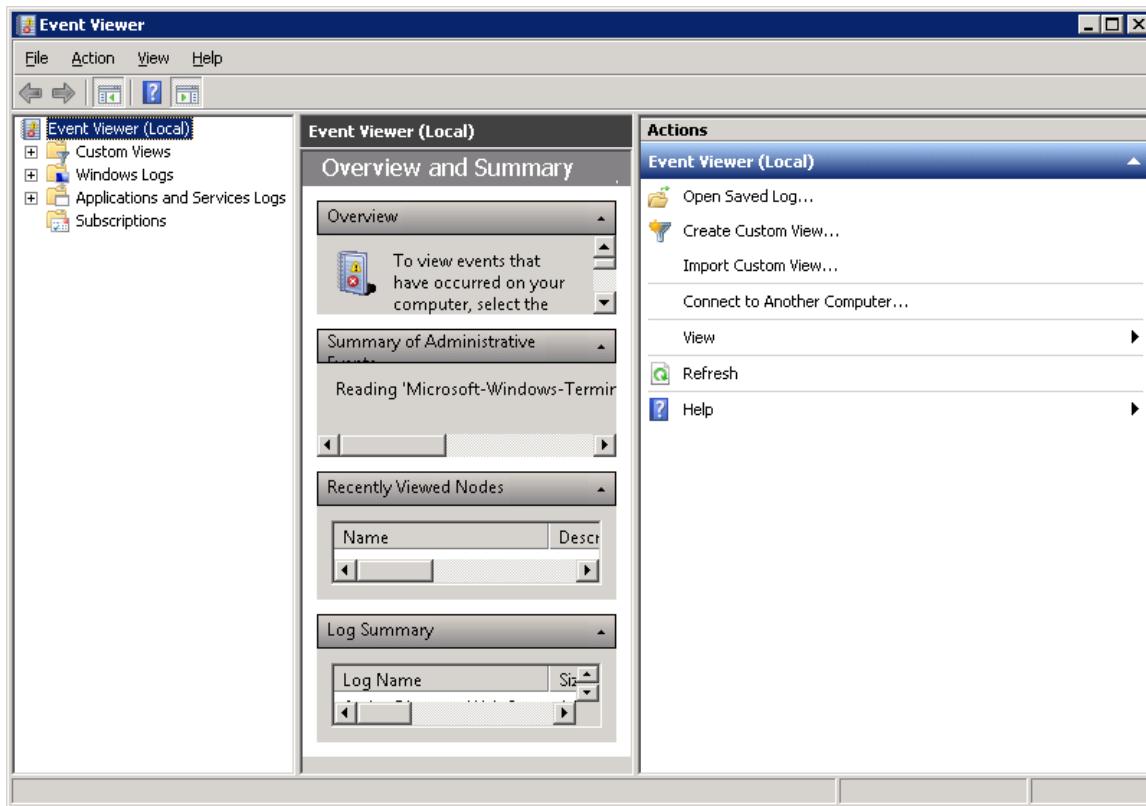


- ☞ The folder size is shown at “Size:”. (In the above example, the “Program Files” folder occupied in Drive (C:) with a space of 12.5GB)

6.7.3 Inspect Events in Windows 2019 Servers

To view the system event log, operating staff is required to perform the following steps:

- ☞ Select “Start” from the lower left-hand corner of the console
- ☞ Select “Administrative Tools”
- ☞ Select “Event Viewer”

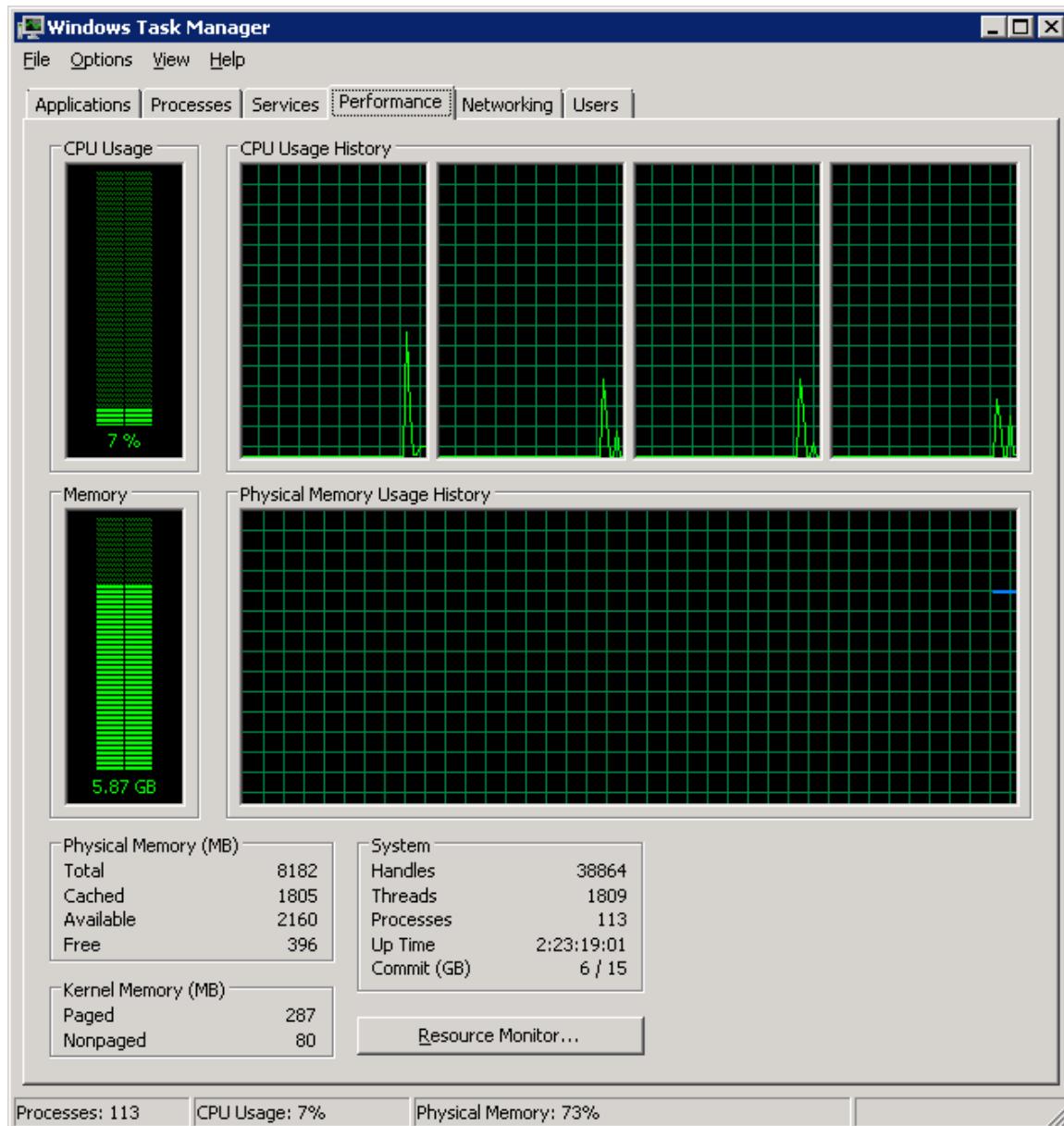


- ☞ Operating staff must observe regularly the system log and application log by selecting “Application” and “System” of “Windows Logs” respectively.
- ☞ Operating staff should particularly look into the event with ✖ 錯誤 or ⚠ 警告 indicated in the column “類型” and report to application support team accordingly.

6.7.4 System Performance Monitoring in Windows 2019 Servers

Follow the steps below to invoke the graphical presentation of the current system usage information:

- ☞ Right-click on the task bar and select “Task Manager...”
- ☞ Windows Task Manager will be displayed as shown



From the tab Performance, it will show the current usage of CPU and Memory. When a high and steady line is found in CPU Usage History, it may indicate the server is in a very busy moment. If this situation keeps for a period of time, say for 5 minutes, support team should be notified.

6.8 Scan Virus

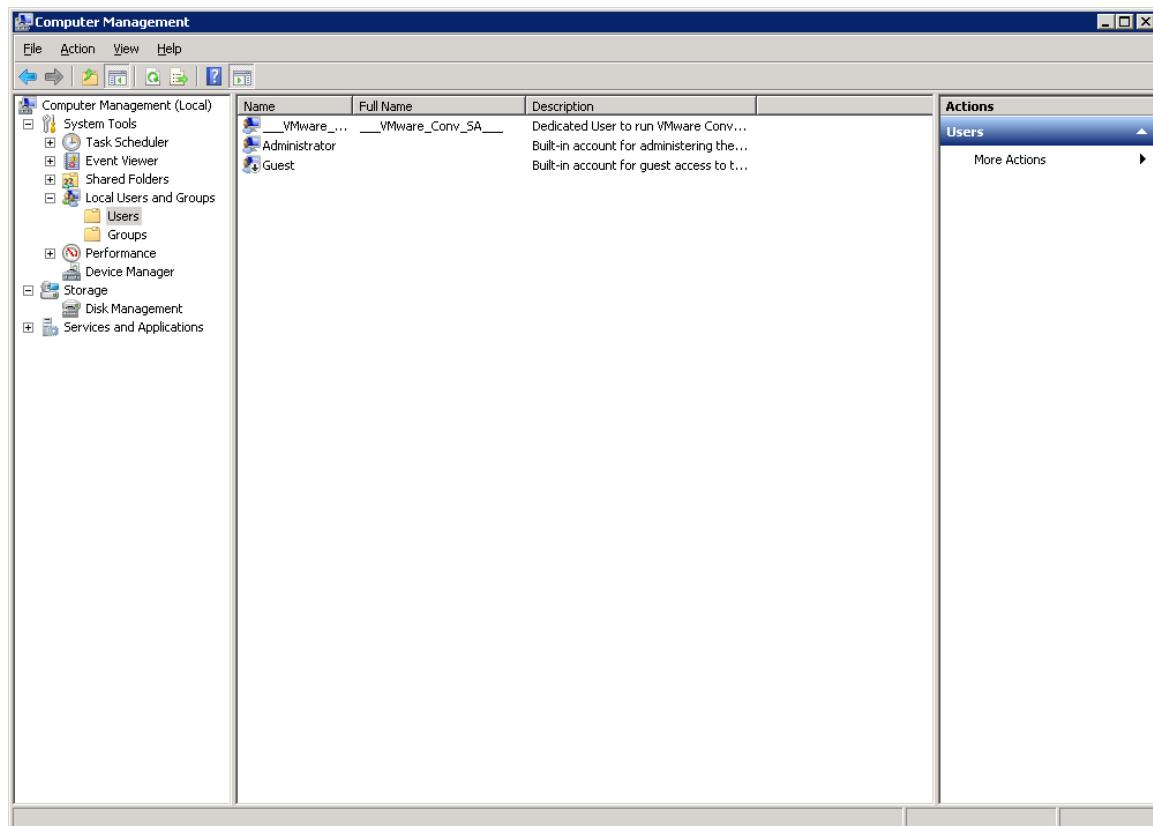
With a view to guard against virus intrusion to the system and system users, the application will perform virus scanning on data files and make sure they are clean before uploading them. The scanning activity is scheduled by group policies, as well as virus signature update.

6.9 Other System Operations

6.9.1 Change Server Password

In order to change the password of the GIS server, Report server, Image server, or Backup server, operating staff is required to perform the procedures mentioned below:

- a) Log on the Server
- b) Click the “Start” button in the lower left-hand corner on the screen
- c) Select the icon “Administrative Tools”
- d) Select the icon “Computer Management”
- e) Double-click “Local Users and Groups”
- f) Choose “Users”



- g) Right-click on the user and choose “Set Password”
- h) Enter the new password in the field “New password”
- i) Repeat to input new password at “Confirm new password”
- j) Click the “OK” button

7. Computer System Operating (Abnormal)

This section mentions the operating procedures of performing the following tasks for operating staff under the computer systems BEEO-DMS, including:

- Power Supply System Outage
- Fault Report Procedure
- First Line System Crash/Communication Fault Diagnosis

7.1 Power Supply System Outage

In case there is any scheduled power outage, the affected servers should be turned off properly in order to prevent unnecessary loss of data. Operating staff is required to follow the procedures mentioned in Section 6.1.1. Support Team should be notified prior to the scheduled power outage. On the other hand, users should also be informed and aware of the outage status.

Should there be the case of any unscheduled power outage, Uninterrupted Power Supply (UPS), which is connected with the servers, will cater for short-term electrical supply so as to maintain the running of the system for a short period. The affected servers should be turned off properly to prevent unnecessary loss of data. Operating staff is required to follow the procedures mentioned in 6.1.1. Support Team should also be informed of the outage status.

No matter the power outage is scheduled or not, operating staff is required to load the computer system, after the power supply has been resumed. (Refer to Section 6.3 for more details on loading the computer systems)

7.2 Fault Report Procedure

In order to report any faults and irregularities for BEEO-DMS, operating staff is required to follow the procedures mentioned below:

- k) Operators should report any computer operational problems to Support Team for further action or advice
- l) Per Support Team's advisory, they should fix the problem themselves for recurrent minor issues, or they may call support from the hardware/software vendors concerned directly.

7.3 First Line System Crash/Communication Faults Diagnosis

7.3.1 System Crash Diagnosis Procedure

System failures may be due to server network disconnection, server hardware failure (e.g. harddisk, motherboard and RAM) and/or server operating system failure (e.g. crash of AIX operating system). Following are the diagnosis procedures:

- a) When a user cannot access BEEO-DMS application, the operating staff should firstly try with his/her own PC. If the problem exists only on user machine, check the network cabling for user.
- b) If a number of workstations cannot access the server, the operating staff should try to ping the server by opening the Command prompt and issuing the command “ping <server-ip>”. If the returned message looks like “Unreachable”, “Timeout” or “Unknown host”, some communication components might be mal-functioning. It is necessary to check the communication hardware (e.g. network port and switch placed near that group of users) and see whether there is any communication problem.
- c) If all workstations cannot access the server, the operating staff should try to ping the server by opening the Command prompt and issuing the command “ping <server-ip>”. If the returned message looks like “Unreachable”, “Timeout” or “Unknown host”, some communication components might be mal-functioning. It is necessary to check the communication hardware (e.g. hub or the network cards on the server) and see whether there is any communication problem.
- d) Gather the findings and error messages, if any, and report them to Support Team.
- e) For a major failure, where the system fails to respond to any key stroke, the operating staff should follow the procedures in Computer System Operating (Restart) (please refer to Section 8).
- f) If system crash occurs, Support Team should escalate to management as well as users if necessary.

8. Computer System Operating (Restart)

This section mentions the Reloading procedures for the servers. This should be referred whenever that server requires restart, e.g. after applying security patch. It may be necessary to shut down the system application before proceeding to restart of server.

8.1 Reloading Procedures

In order to restart the servers, at first, operating staff is required to follow the procedures of checking whether there is/are any batch job(s)/backup job(s) being run in that server (please refer to Section **Error! Reference source not found.**).

After operating staff has verified that there are no batch job(s) or backup job(s) being run in the server, operating staff is required to follow the steps below in order to restart the server:

For Windows 2008 servers,

- a) Shut down the system application
- b) Click the “開始” button from the menu of the network operating system
- c) Select “關機”
- d) Select “重新開機” from the pull-down menu
- e) Click the “確定” button

After the above procedures have been followed, the server is going to be restarted. After a moment, a screen requesting the Console Administrator to login will appear. Then the Console Administrator/Operating Staff is required to logon the server and follow the procedures of “Loading the Computer Systems” mentioned on Section **Error! Reference source not found..**

9. Removable Media handling

This section describes the following areas:

- Tape Deck Handling
- Backup Tapes
- Magnetic Tape Failure Recovery/Reporting
- Labeling of Magnetic Tapes

9.1 Tape Deck Handling

To backup data from the server reliably, 3 sets of data tapes would be kept and each set would be responsible for 1 week's backup. This leads to the retention period of the backup data be 3 weeks.

Tape drive is autoloaders. Thus operating staff is only required to change the set of tapes on the 1st daily backup of the week.

9.2 Backup Tapes

The backup tape used by backup should possess the following characteristics:

Format	LTO 5 Data Cartridge
Capacity	1.5 TB or above

9.3 MAGNETIC TAPE FAILURE RECOVERY/REPORTING

Backup failure can be caused by either tape drive failure or tape failure. When backup fails, operating staff is requested to report to the support team and clean the tape drive to avoid the possibility of tape drive mal-functioning. If the error still occurs, operating staff should test the tape drive with a new tape and replace the damaged tape with a new one.

To avoid mal-functioning of tape drive, tape drive is recommended to clean monthly.

9.4 Labelling of Magnetic Tapes

In general, backup media is recommended to be labeled to ensure the data to be backed up to the correct tape.

9.4.1 Backup Tapes

Backup is performed at every night.

4 tapes are grouped into 1 set of backups. 1 set of backup tapes would serve 1 week's data backup.

Rotation Scheme

This rotation scheme is designed to backup data for 3 weeks retention period.

	Monday	Tuesday	Wednesday	Thursday	Friday	Tape Pool
Week 1	Full	Incremental	Incremental	Incremental	Incremental	LTO000001 - 4
Week 2	Full	Incremental	Incremental	Incremental	Incremental	LTO000005 - 8
Week 3	Full	Incremental	Incremental	Incremental	Incremental	LTO000009 - 12

A total of 12 LTO 5 Data Cartridge will be required to implement the above backup scheme.

9.5 Off-Site Tape Arrange

1 set of weekly backup tapes should be stored off-site (Siu Ho Wan data center). It is suggested to bring the whole set of the weekly tapes to off-site weekly and call back when the set of tapes which are going to be used.

- End of Document -

BUSINESS CONTINUITY PLAN & BACKUP PLAN

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



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July 2022

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BUSINESS CONTINUITY PLAN & BACKUP PLAN ON DATA MANAGEMENT SYSTEM FOR BUILDINGS
ENERGY EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND
MECHANICAL SERVICES DEPARTMENT (EMSD)

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1 INTRODUCTION

This Business Continuity Plan (BCP) provides a documented framework including the management organization and procedures for monitoring, activation, deactivation, communication and actions to be followed during loss, interruption or disruption of mission-critical functions of Data Management System for Buildings Energy Efficiency Ordinance (DMS-BEEO).

2 SCOPE

The guidelines outlined in this document, though not intended to be restrictive and exhaustive process to cover every business continuity scenario for DMS of BEEO, they have covered the continuity planning for mission-critical functions.

3 DEFINITION AND CONVENTION

3.1 DEFINITIONS

In this document, unless the context otherwise requires, the following expressions have the following meanings:

Term	Definition
BEEO	Electricity Ordinance Regulation System
ASD	Architectural Services Department, it is requested to repair or rebuild the damaged computer site. They are coordinated by the Chief DR Commander.
DR Drill	The drill to practice the flow and activities defined in the Disaster Recovery Plan, so as to spot out the problem resided in the DR Plan, hence made the actual Disaster Recovery become smooth.
Contingency	The major disruption to the services of DMS BEEO that lead to unavailability of the mission-critical functions for an estimated duration acceptable system down time.
Acceptable system down time	The time period accepted and agreed between EMSD CMT and DMS BEEO end users for unavailable services from LEO III. The said time period is defined as 24 hours.
Target recovery time	The time period aimed by EMSD CMT to recover DMS BEEO services to end users. The said time period is defined as 72 hours.

4 IMPACT AND THREAT ANALYSIS

DMS BEEO can be affected by various threats, such as natural disasters, computer virus, hacking activities, hardware malfunctioning, networking failure, power shortage, and other sudden outage of supportive services.

Based on the possible threats to DMS of BEEO, the following major impacts to the mission-critical activities of DMS of BEEO are defined, and the detail scenario descriptions, solution and implementation planning are mentioned in Section 5 “Impact Scenario, Solution and Implementation”.

Scenario A : Disaster in Watson Centre, Kwai Chung (e.g. fire, floods, explosion)

Scenario B : Loss of power supply in EMSD server room

Scenario C : Damage and malfunctioning of DMS of BEEO servers

Scenario D : Security attacks (e.g. hackers, computer viruses, unauthorized access)

Scenario E : Network service failure

5 IMPACT SCENARIO, SOLUTION AND IMPLEMENTATION

In response to the threats identified in the section above, the scenario, solution and the actions to take are described as follow:

5.1 SCENARIO A : DISASTER IN WATSON CENTRE, KWAI CHUNG

Scenario	Fire, floods, explosion disrupting Watson Centre, Kwai Chung
Impact	Affects the safety of human lives and facilities, and the operation of DMS BEEO hosted in Watson Centre, Kwai Chung
Related Parties	[POST 1], [POST 2], [POST 4]
Monitoring, Activation / Deactivation	<ul style="list-style-type: none">• Upon receiving any report of incidents, [POST 1] is required to closely monitor the incident and determine the impacts to the operations of DMS BEEO.• If [POST 4] finds that the agreed mission-critical activities cannot be performed, [POST 4] should report the situation to [POST 2] and review if BCP of DMS BEEO need to be activated.• [POST 2] will seek approval from the [POST 1] for the activation of BCP.• [POST 1] will coordinate with ASD to repair and rebuild the damaged Watson Centre, Kwai Chung and facilities.• After restoration of the affected operations, [POST 2] will seek approval from the [POST 1] for the deactivation of BCP.
Actions to take	<ul style="list-style-type: none">• [POST 1] is required to liaise with DMS BEEO system administrator, and other relevant parties to evaluate the impacts to the system and estimate when the operations of DMS BEEO will be restored.• If the anticipated recovery time of the system is longer than the acceptable system down time, [POST 4] should report the current status to [POST 2] and review if the DMS BEEO disaster recovery plan is required to be activated.• If activation is required, [POST 2] should seek approval from the [POST 1] for activation of the disaster recovery plan in Section 7 to setup another system at DR site.• [POST 1] is required to closely monitor the status of the incident and disseminate status update until deactivation of DMS BEEO BCP.

5.2 SCENARIO B : LOSS OF POWER SUPPLY IN EMSD SERVER ROOM

Scenario	Suspension of power supply of server room; or failure of major components of power supply systems in Watson Centre, Kwai Chung leading to stoppage of power supply to server room.
Impact	Unable to provide power supply to server room and the IT equipment in EMSD server room.
Related Parties	[POST 1], [POST 2], [POST 4]
Monitoring, Activation / Deactivation	<ul style="list-style-type: none">• Upon receiving any report of power supply failures, [POST 1] is required to closely monitor the incident and determine the impacts to the operations of DMS BEEO.• If [POST 4] finds that the agreed mission-critical activities cannot be performed, [POST 4] should report the situation to [POST 2] and review if BCP of DMS BEEO need to be activated.• [POST 2] will seek approval from the [POST 1] for the activation of BCP.• [POST 1] will liaison with [POST 4] to check if there is any secondary power supply, e.g. UPS, or spare components to replace the damaged one, so as to switch the DMS BEEO operation services to the secondary means and minimise the impact to end users.• After restoration of the affected operations, [POST 2] will seek approval from the [POST 1] for the deactivation of BCP.
Actions to take	<ul style="list-style-type: none">• [POST 1] is required to liaise with DMS BEEO system administrator, and other relevant parties to evaluate the impacts to the system and estimate when the operations of DMS BEEO will be restored.• If the anticipated recovery time of the system is longer than the acceptable system down time, [POST 4] should report the current status to [POST 2] and review if the DMS BEEO disaster recovery plan is required to be activated.• If activation is required, [POST 2] should seek approval from the [POST 1] for activation of the disaster recovery plan in Section 7 to restore the DMS BEEO applications at DR site.• [POST 1] is required to closely monitor the status of the incident and disseminate status update until deactivation of DMS BEEO BCP.

5.3 SCENARIO C : DAMAGE AND MALFUNCTIONING OF DMS BEEO SERVERS

Scenario	Hardware broken or malfunctioning to DMS BEEO servers, e.g. Application server, database server, or report server
Impact	Unable to provide services by DMS BEEO system from Watson Centre, Kwai Chung
Related Parties	[POST 1], [POST 2], [POST 4]
Monitoring, Activation / Deactivation	<ul style="list-style-type: none">• Upon receiving any report of incidents, [POST 1] is required to closely monitor the incident and determine the impacts to the operations of DMS BEEO.• If [POST 4] finds that the agreed mission-critical activities cannot be performed, [POST 4] should report the situation to [POST 2] and review if BCP of DMS BEEO need to be activated.• [POST 2] will seek approval from the [POST 1] for the activation of BCP.• [POST 1] will coordinate with [POST 2] to assess the extent of damage or malfunctioning of the DMS BEEO Servers, and determine if a replacement is needed to acquire, or contact the corresponding hardware vendor for maintenance.• After restoration of the affected operations, [POST 2] will seek approval from the [POST 1] for the deactivation of BCP.
Actions to take	<ul style="list-style-type: none">• [POST 1] is required to liaise with DMS BEEO system administrator, and other relevant parties to evaluate the impacts to the system and estimate when the operations of DMS BEEO will be restored.• If the anticipated recovery time of the system is longer than the acceptable system down time, [POST 4] should report the current status to [POST 2] and review if the DMS BEEO disaster recovery plan is required to be activated.• If activation is required, [POST 1] will also liaison with [POST 2] to restore the DMS BEEO application at the DR site.• [POST 1] is required to closely monitor the status of the incident and disseminate status update until deactivation of DMS BEEO BCP.

5.4 SCENARIO D : SECURITY ATTACKS

Scenario	Various security attacks, e.g. hackers, viruses, unauthorized access, occurred to DMS BEEO
Impact	Unable to perform normal operations by DMS BEEO and provide functionalities to users
Related Parties	[POST 1], [POST 2], [POST 7]
Monitoring, Activation / Deactivation	<ul style="list-style-type: none">• Upon receiving any report of the security attacks, [POST 1] is required to closely monitor the incident and determine the impacts to the operations of DMS BEEO.• If [POST 7] identifies and confirms that a security incident has occurred, the reporting and escalation procedure in the “Security Guidelines” should be followed to report and escalate the incidents to [POST 1] and Head of [POST 7].• [POST 2] will coordinate with [POST 7] to review the firewall policy and strengthen the security measures to stop the loophole.• [POST 2] will seek approval from the [POST 1] for the activation of BCP.• After restoration of the affected operations, [POST 2] will seek approval from the [POST 1] for the deactivation of BCP.
Actions to take	<ul style="list-style-type: none">• [POST 1] is required to liaise with EMSD Security Team, [POST 2] and DMS BEEO system administrators, and other relevant parties to evaluate the impacts to the system and estimate when the operations of DMS BEEO will be restored.• [POST 2] is required to liaise with EMSD Security Team to perform necessary eradication actions in the “Security Guidelines”• If the anticipated recovery time of the system is longer than the acceptable system down time, [POST 2] should report the current status to [POST 1] and review if the DMS BEEO disaster recovery plan is required to be activated.• If activation is required, [POST 2] should seek approval from the [POST 1] for activation of the disaster recovery plan in Section 7 to setup another system at DR site and the access to the DR system should be limited within DR site to avoid another security attack.• [POST 1] is required to closely monitor the status of the incident and disseminate status update until deactivation of DMS BEEO BCP.

5.5 SCENARIO E : NETWORK SERVICE FAILURE

Scenario	Network service failure that leads to system down of DMS BEEO
Impact	Affects the availability of DMS BEEO hosted in Watson Centre, Kwai Chung, hence, it affects the normal operations of DMS BEEO users
Related Parties	[POST 1], [POST 2], [POST 5]
Monitoring, Activation / Deactivation	<ul style="list-style-type: none">• Upon receiving any report of failures, [POST 1] is required to closely monitor the incident and determine the impacts to the operations of DMS BEEO.• If [POST 5] finds that the agreed mission-critical activities cannot be performed due to network failure, [POST 5] should report the situation to [POST 2] and review if BCP of DMS BEEO need to be activated.• [POST 2] will seek approval from the [POST 1] for the activation of BCP.• [POST 1] will contact [POST 5] to fix the network failure and aim to resume the network service within acceptable system down time.• After restoration of the affected operations, [POST 2] will seek approval from the [POST 1] for the deactivation of BCP.
Actions to take	<ul style="list-style-type: none">• [POST 1] is required to liaise with DMS BEEO system administrator, and other relevant parties to evaluate the impacts to the system and estimate when the operations of DMS BEEO will be restored.• If the anticipated recovery time of the system is longer than the acceptable system down time, [POST 2] should report the current status to [POST 1] and review if the DMS BEEO disaster recovery plan is required to be activated.• If activation is required, [POST 1] will also liaison with [POST 2] to restore the DMS BEEO application at the DR site.• [POST 1] is required to closely monitor the status of the incident and disseminate status update until deactivation of DMS BEEO BCP.

6 EMERGENCY CONTACT POINT

In case of system emergency, please refer to the follow parties for emergency contact:

	Name	Post	Email	Contact No.
EMSD				
	-TBC-	--	--	--

6.1 CONTINGENCY MANAGEMENT TEAM (CMT)

6.1.1 Main Duties of CMT

- Activate / deactivate the DR Plan
- Assess the impact of the disaster
- Execute DR Plan
- Monitor and coordinate for the execution of the DR Plan
- Perform DR Drill
- Review and update DR Plan, if required.

6.1.2 Organization of CMT

EMSD CMT is headed by Chief DR Commander and consists of the following members:

Chief DR Commander	[POST 1]
IT DR Commander	[POST 2]
Business DR Commander	[POST 3]
IT System and Software Support	[POST 4]
Computer Operation Support	[POST 4] / [POST 5]
Departmental Administration Support	[POST 6]
End User Support	[POST 6]
EMSD Security Team	[POST 7]
ASD	Government Directory (TBC)

6.1.3 Role and Responsibility of CMT

- Chief DR Commander is responsible to monitor and coordinate all DR activities, to execute DMS BEEO DR Plan, and to manage the operation of the DMS BEEO at DR site.
- IT DR Commander is responsible to assist Chief DR Commander to assess the impact of the disaster, to co-ordinate all DR activities and to execute DMS BEEO DRP on IT aspects, e.g. to recover the system environment and the DMS BEEO at DR site, distribute templates to different units for manual operations during the restoration of the DMS BEEO service in DR site, coordinate IT support to the DMS BEEO and to re-establish the DMS BEEO in production site
- Business DR Commander is responsible to assist Chief DR Commander to assess the impact of the disaster, to co-ordinate all DR activities and to execute DMS BEEO DRP on business aspects, e.g. arrange administrative support including co-ordinate with the administration sections and supplies section for the necessary support service required and coordinate DR users to operate the DMS BEEO.
- IT System and Software Support (EMSD ITMU) is responsible to setting up the system and application software environment of the DMS BEEO at DR site.
- Computer Operation Support (EMSD ITMU) is responsible to provide operation support to the DMS BEEO at DR site, e.g. monitor and re-run the batch jobs of the DMS BEEO,

and perform backup jobs for the DMS BEEO.

- Departmental Administration Support is responsible for administrative support, such as transportation, office and clerical support as well as supply of stationery. EMSD will co-ordinate with the Administration Section and Supplies Section for the necessary support service required.
- End User Support is responsible for co-ordinating all activities of end users during DR.
- ASD is requested to repair/rebuild the damaged computer site. They are co-ordinated by the Chief DR Commander.

7 BUSINESS AND DISASTER RECOVERY DRILL PLAN

7.1 DISASTER RECOVERY (DR) PROCEDURES

7.1.1 Occurrence of a Disaster

A disaster of the DMS BEEO is referred to the circumstance that effectively precludes the provision of the normal computer services for a sustained period of time. Upon the confirmation of disaster occurrence, the Chief DR Commander should be immediately mobilizing an Immediate Response Group to perform an initial assessment on the situation and activate the disaster recovery. The Immediate Response Group would consist of Chief DR Commander, IT DR Commander, Business DR Commander and anyone else required by the situation at that moment in time.

7.1.2 Evaluation of the Impact of a Disaster on Production System

IT DR Commander should assess the impact of the disaster on IT aspects and Business DR Commander should assess the impact of the disaster on business aspects. They should also liaise with other relevant parties to estimate the duration of the outage and when the operations of the DMS BEEO will be restored. They should advise the Chief DR Commander to activate a DR.

An overview outlining a chronological order of typical events and major activities involved in evaluating the impact from a disaster and in triggering the disaster recovery for the system is listed below for reference:

Events	Major Activities	Activity Time (hrs)	Elapse Time (hrs)	Remaining Time (hrs)
Occurrence of an interruption		--	--	72
Investigation and evaluation of impact to the Production System	Investigation and evaluation of the concerned interruption	TBC	TBC	TBC
Activation of Disaster Recovery (DR)	Activate DR Plan	TBC	TBC	TBC
DR System Preparation Procedure	Locate the required hardware	TBC	TBC	TBC
	If backup tapes for system and data recovery are not available, transfer the required backup tapes to DR site	TBC	TBC	TBC
	If hardware devices are not functioning properly, acquire supports from the hardware maintenance vendors	TBC	TBC	TBC

Events	Major Activities	Activity Time (hrs)	Elapse Time (hrs)	Remaining Time (hrs)
DR System Restore Procedure	Prepare DR files for the system recovery from DR backup tapes to a shared storage device and restore the latest backup files from the daily full backup tapes	TBC	TBC	TBC
	Recover the servers (application and database servers) by the DR backup files in the shared storage device	TBC	TBC	TBC
	Modify the server configuration (mapping and changing device drivers of the system s as well as network settings)	TBC	TBC	TBC
	Activate and check the recovered application and database servers	TBC	TBC	TBC
	Redeploy the online application and batch jobs as well as update database	TBC	TBC	TBC
	Check and test the functions of the system	TBC	TBC	TBC

7.1.3 Activation of Disaster Recovery (DR)

Upon a declaration of a DR by the Chief DR Commander, the DMS BEEO DRP will be activated. IT DR Commander and Business DR Commander should notify the DMS BEEO CMT, and other relevant parties the DRP has been activated and start the coordination of all DR activities.

7.1.4 DR System Preparation Procedure

IT DR Commander should coordinate the corresponding parties to locate the required hardware of servers for the recovery of the application and database servers, backup tape drive (tape autoloader), a personal computer for use in the system recovery process, and system full backup tapes for recovering the application, the database, and the data files at DR site for restoring the system environment of the DMS BEEO. If the required devices such as backup tapes or hardware are unavailable at DR site, IT DR Commander should work with Operation Support to check if the required backup tapes or hardware can be transferred from production site to DR site or to acquire the required hardware from hardware maintenance vendors. IT DR Commander should arrange necessary IT support to the DMS BEEO at DR site. The steps are listed below:

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	Tasks	Responsible Party	Estimated Time Required
1	Locate the required hardware	IT System and Software Support	TBC
2	If backup tapes (for system and data recovery) are not available, transfer the required backup tapes to DR site	Operation Support	TBC
3	If hardware devices are not functioning properly, acquire supports from the hardware maintenance vendors	IT DR Commander	TBC

Business DR Commander should arrange administrative support including transportation, office and clerical support as well as supply of stationery and other consumables, such as A4 paper and laser printer toner, and co-ordinate with the administration sections and supplies section for the necessary support service required.

7.1.5 DR System Restore Procedure

After the preparation in section 7.2.4 has been completed, the online application and data of the DMS BEEO should be restored at DR site. It was estimated that about 30 hours will be required to complete the restoration and testing on the system. The tasks and the estimated time for each task are listed as follows:

	Tasks	Responsible Party	Estimated Time Required
1	Confirm the availability of computer hardware and the latest full system backup tapes for system recovery in the DR site	IT System and Software Support, Operational Support	TBC
2	Confirm the availability of network connection between the tape autoloader, the application server, and the database server in the DR site	IT System and Software Support, Operational Support	TBC
3	Recover the database server using the daily full backup of the database server	IT System and Software Support	TBC
4	Recover the application server using the daily full backup of the application server	IT System and Software Support	TBC
5	Start up and check the recovered application and database servers	IT System and Software Support	TBC
6	Redeploy the online application and batch jobs as well as update database if necessary	IT System and Software Support	TBC
7	Check and test the functions of the system	IT System and Software Support	TBC

7.1.6 Operation of the Recovered Functions on DR System

Upon the successful recovery of the DMS BEEO at DR site, Business DR Commander should arrange the DR users to operate the DMS BEEO. IT DR Commander should arrange the necessary operational support to monitor the batch jobs, including the daily full backup jobs of the DMS BEEO at DR site, and to re-run these jobs if required.

7.1.7 Backup and Housekeeping Procedures for DR System

The DR system should be scheduled to perform the full system backup process from Monday to Sunday at 3:30am. Two sets with 28 tapes (4 consecutive weeks x 7 days per week) are dedicated to daily full backups from Monday to Sunday. These tapes should be labelled as “DMS BEEO DR <weekday> (Daily) <Week no.>”. For example, the tape used on Wednesday in Week 2 and stored in DR Site would be labelled as “DMS BEEO DR Wed (Daily) 2”. Two sets of backup tapes will be used in rotation one by one and will be stored at DR site.

7.1.8 Salvage of Computer Centre

Depending on the type of the disaster, the Computer Room and the hardware may have been damaged. IT DR Commander will liaise with the hardware vendors, ASD, to assess the extent of damages, and determine the re-instalment plan.

7.1.9 Re-build Computer Facilities at Department Computer Centre

Business DR Commander will co-ordinate with the computer vendors and seek authorization and funding for the procurement of the necessary equipment for replacement of the damaged equipment, if any, in the EMSD Computer Centre.

If there is any damage to the environmental equipment or other site preparation matters in the Department Computer Centre, which will affect the physical environment for providing computer services. The Chief DR Commander would liaise with Director of Architecture Services and/or Director of Electrical and Mechanical Services for arranging structural and electrical works immediately.

The IT DR Commander will liaise with the computer vendors for the delivery of the installation of the ordered equipment.

7.1.10 Termination of DR

After production site / system of the DMS BEEO has been rebuilt / recovered, IT DR Commander should arrange with IT System and Software Support to restore the latest backup of DR system to

production system. Upon confirmation of the availability of production system, Chief DR Commander will declare the switch-back to production system and formally terminate the DMS BEEO DRP.

7.1.11 DR System Clean-up Procedure

After the switch-back to production system, DR system should be cleaned up by deactivating the corresponding DR servers.

7.2 DR DRILL

7.2.1 Purpose of the DR Drill

The disaster recovery drill should normally be conducted once a year to test the effectiveness of this DRP and to determine what changes may be necessary. Since carrying out a disaster recovery drill could be time-consuming and may affect normal operations, CMT may determine the frequency of conducting drills according to the business environment.

7.2.2 Steps of the DR Drill

CMT should follow the following steps to conduct the DR Drill:

1. Schedule when the DR drill will be conducted and invite DR users to participate the DR drill.
2. Perform DR drill by following the procedures in Section 10.2
3. Log the activities during the DR drill.
4. Review if any changes / improvements on this DRP are required.

7.2.3 Logging of the activities during the DR Drill

During the DR drill, CMT should monitor the progress and record the activities.

7.2.4 DR Drill Review

After DR drill, the CMT should arrange a review meeting with the DR users to review the effectiveness of the DR procedures and identify if any changes / improvements are required.

7.2.5 Update of the DR Procedure Manual

After DR drill review, the DMS BEEO DRP should be updated with the identified changes / improvements and submitted to Chief DR Commander for approval.

8 **BACKUP STRATEGY / SCHEDULE / PROCEDURE**

8.1 **BACKUP MECHANISM**

A physical backup server will be assigned for the backup operations for DMS BEEO system. The server will run on Windows Server 2016 and will use Veeam Backup & Replication Enterprise and connect the existing Tape Drive for production DMS BEEO backup.

The backup server will be responsible for the following types of administrative activities:

- Coordinates backup, replication, recovery verification and restore tasks
- Controls job scheduling and resource allocation
- Set up and manage backup infrastructure components as well as specify global settings for the backup infrastructure

The system backup of the servers will be stored in the Backup server and LTO tapes. System backup can be invoked manually when the system configuration is changed. On the other hand, the ESXi Host Server, make use of the Veeam tool to perform scheduled backup. The data is stored into Backup server and LTO tapes.

8.1.1 **Backup Jobs Schedule**

The backup jobs will be scheduled as below:

Day of Week	Backup Type	Schedule Time	Retention
Monday	Full backup without photos	22:00	7 days
Tuesday	Full backup without photos	22:00	7 days
Wednesday	Full backup without photos	22:00	7 days
Thursday	Full backup without photos	22:00	7 days
Friday	Full backup with photos	22:00	7 days

8.1.2 **Backup Files Locations**

All the backup files will be stored on the Backup Server, D:\Backup\ in the following folders:

- Production backup : \Backup Job – Production VM\
- UAT backup : \Backup Job – UAT VM\

8.1.3 **Backup Tape and Tape Drives**

The tape drives for LTO Ultrium is autoloaders. Thus, operating staff is only required to change the set of tapes before the full weekly backup on every Saturday.

The backup tape used by AIX servers system backup should possess the following characteristics:

Format	DDS-4 Data Cartridge
Capacity	20 GB or above

The backup tape used by Database Server SSA disk backup should possess the following characteristics:

Format	LTO Ultrium Data Cartridge
Capacity	100 GB or above

The backup tape used by Windows 2000 Server backup should possess the following characteristics:

Format	AIT Data Cartridge
Capacity	35 GB or above

Backup failure can be caused by either tape drive failure or tape failure. When backup fails, operating staff is requested to report to the support team and clean the tape drive to avoid the possibility of tape drive mal functioning. If the error still occurs, operating staff should test the tape drive with a new tape and replace the damaged tape with a new one. To avoid mal functioning of tape drive, tape drive is recommended to clean monthly.

8.1.4 Labelling of Magnetic Tapes

In general, backup media will be recommended to be labelled to ensure the data to be backed up to the correct tape.

8.1.5 Rotation Scheme

This rotation scheme will be designed to backup data on Weekly basis with 3 weeks retention period.

The following describe the rotation scheme for system backup of Database server:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	BEEODB01 mksysb (Daily) 1	BEEODB01 mksysb (Daily) 2	BEEODB01 mksysb (Daily) 3	BEEODB01 mksysb (Daily) 4	BEEODB01 mksysb (Daily) 5	BEEODB01 mksysb (Weekly) 1
Week 2	BEEODB01 mksysb (Daily) 1	BEEODB01 mksysb (Daily) 2	BEEODB01 mksysb (Daily) 3	BEEODB01 mksysb (Daily) 4	BEEODB01 mksysb (Daily) 5	BEEODB01 mksysb (Weekly) 2
Week 3	BEEODB01 mksysb (Daily) 1	BEEODB01 mksysb (Daily) 2	BEEODB01 mksysb (Daily) 3	BEEODB01 mksysb (Daily) 4	BEEODB01 mksysb (Daily) 5	BEEODB01 mksysb (Weekly) 3

A total of 8 DDS-4 Data Cartridge tapes (5 Daily, 3 Weekly) are required.

8.1.6 Off-site Tape Arrangement

For weekly system backup and weekly SSA disk backup, the backup tape of last week is stored off-site (EMSD operation center). That is, Set 2 tapes will be replaced at the Saturday of next week cycle

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by the Set 3 tapes, and that Set 1 tapes will be stored off-site accordingly. Hence, for every moment, there are 2 sets of backup tapes will be stored locally and 1 set will be stored off-site.

For Windows server backup, the backup tapes of the current week is stored off-site, as there are 2 sets of identical backup tapes for a week.

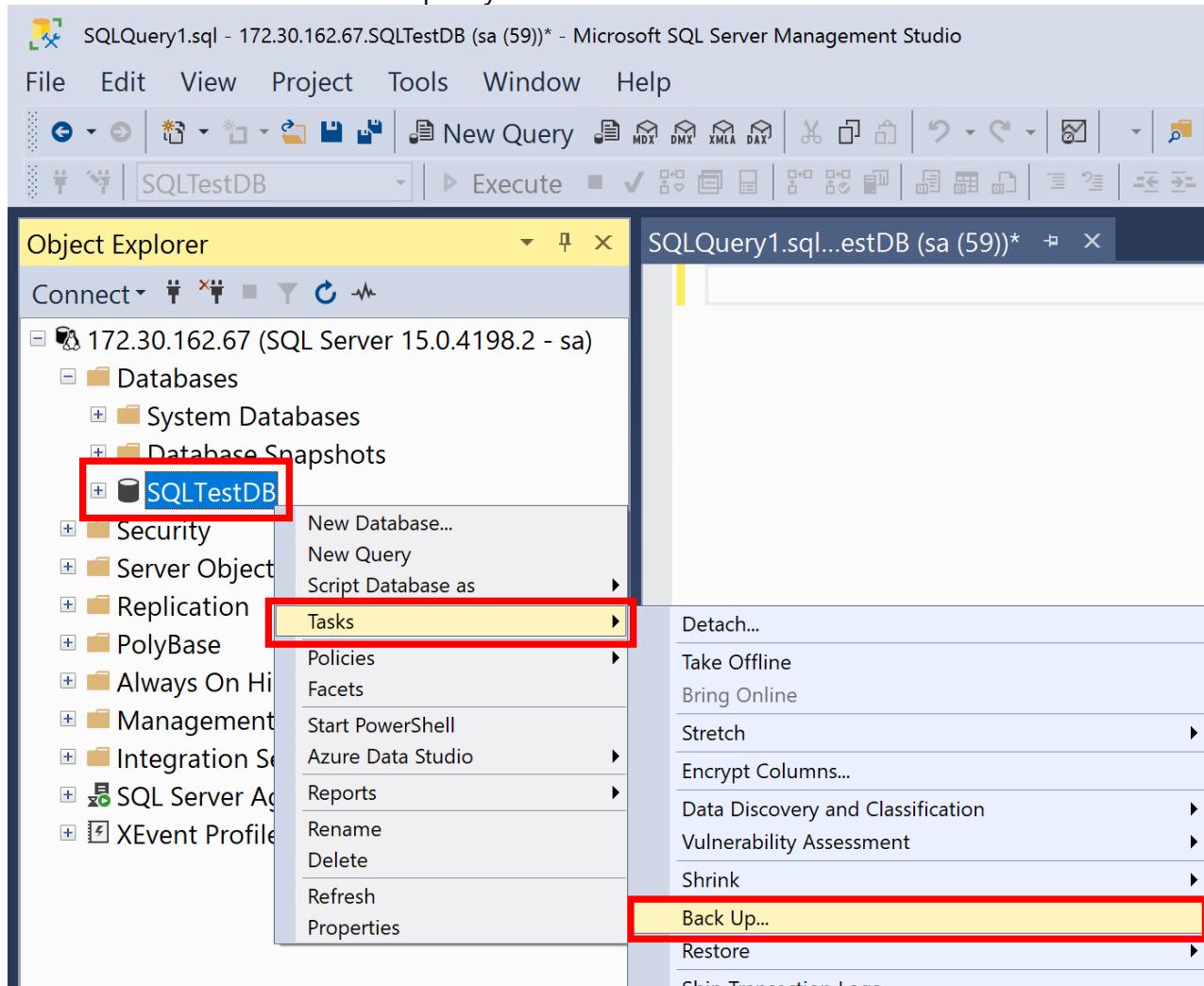
It is suggested to bring the whole set of the weekly tapes to off-site weekly and call back when the set of tapes which are going to be used.

8.2 BACKUP STRATEGY

8.2.1 Database Backup

To take a backup of your database, follow these steps:

1. Launch [SQL Server Management Studio \(SSMS\)](#) and connect to your SQL Server instance.
2. Expand the **Databases** node in **Object Explorer**.
3. Right-click the database, hover over **Tasks**, and select **Back up....**
4. Under **Destination**, confirm that the path for your backup is correct. If you need to change the path, select **Remove** to remove the existing path, and then **Add** to type in a new path. You can use the ellipses to navigate to a specific file.
5. Select **OK** to take a backup of your database.



8.2.2 Windows / Linux (VM) Servers Backup

Backup of the files stored in Server is scheduled to perform during the non-office hours. backup of files to the LTO tapes. The data is backup into 3 identical set of tapes. One set of tapes are kept on-site while another 2 sets should be kept off-site (Data Centre at EMSD HQ) with the conditions supporting the storage of backup tapes. When necessary, the files can be restored from the any one set of backup tapes to the servers.

The activity log could be checked daily by the following steps:

- a) Go to the activity Log.
- b) Look for warning messages or error messages to determine the severity and to decide whether it is required to re-run the job.

The job could be re-run by the following steps when necessary:

- a) To re-run the job, switch to the windows of “Job Status”. Select the job that needs to be re-running, right-click and choose “Reschedule Job”.
- b) If the error is caused by bad backup media, re-run the backup job using a clean new tape. Then insert the problematic tape and try an ad-hoc backup job for a small number of files. If the media is still with error, try reformatting the tape. If format failed, the tape will not be usable and should be discarded.
- c) Modify the date to the previous working date (e.g. if today is 2/10/02, then re-schedule the job to 1/10/02) without changing the time. After pressing OK, the job would start running from the “Job Status” windows automatically. That is no need to re-adjust the schedule after re-running the backup job.

9 TESTING AND VERIFICATION OF BACKUP PROCEDURE

After the backup procedures for DMS BEEO system and database mentioned in Section 8 were performed, there are some measures that can be taken to verify if the backup had been completed successfully and whether the up-to-date data had been backed up.

The ways to test and verify the backup procedure are as follows:

1. Check the backup logs for system and database backup jobs to see if there were any errors during the backup process. If yes, rectification actions need to be taken, and re-run of backup jobs would be needed.
2. For information, the log file of system backup jobs can be found at /backup/log/system_backup.<date>.log
3. For information, the log file of database backup jobs can be found at /backup/log/BEEO_dr_backup.<data>.log
4. Check the job status for the scheduled jobs on the Backup Server. Job status may either be “READY”, “DONE” or “HOLD”. For the scheduled jobs, make sure the job status is “READY”.
5. Check the job report for the backup jobs on the Backup Server. On the job report, information such as “Type”, “Status”, “Start Date”, “Description” are available to help to spot out any abnormalities for the executed backup jobs.
6. Load the LTO tapes of the full backup performed weekly and extract backup records or image to see if it is up-to-date. Re-run of backup process would be necessary if the backup image was not as expected.

10 RECOVERY STRATEGY / SCHEDULE / PROCEDURE

10.1 RECOVERY STRATEGY

The target recovery time for DR of DMS BEEO would be 72 hours.

10.1.1 DR System Preparation Procedure

- Check if hardware devices listed in section 10.1.2 below are available at DR site
- Check if the hardware devices are functioning properly
- Check if software listed in section 10.1.3 below are installed properly on the DR Servers.
- Check if the latest full backup tapes (for the application and database servers) are available at DR site
- Check if the database, the application server, and the backup tape drive are connected properly through the DR network environment
- Check if the PC computer is functioning properly
- Refer to the DR procedure documents using the PC computer for quick reference

10.1.2 Hardware List for DR

DR AIX Server	
<u>Processor</u>	
CPU	
<u>Operating System</u>	
<u>Memory</u>	
<u>Disk</u>	
<u>Disk Storage</u>	
Disk Storage Total	

10.1.3 Software List for DR

Server Role	Software Particulars
Database Server	

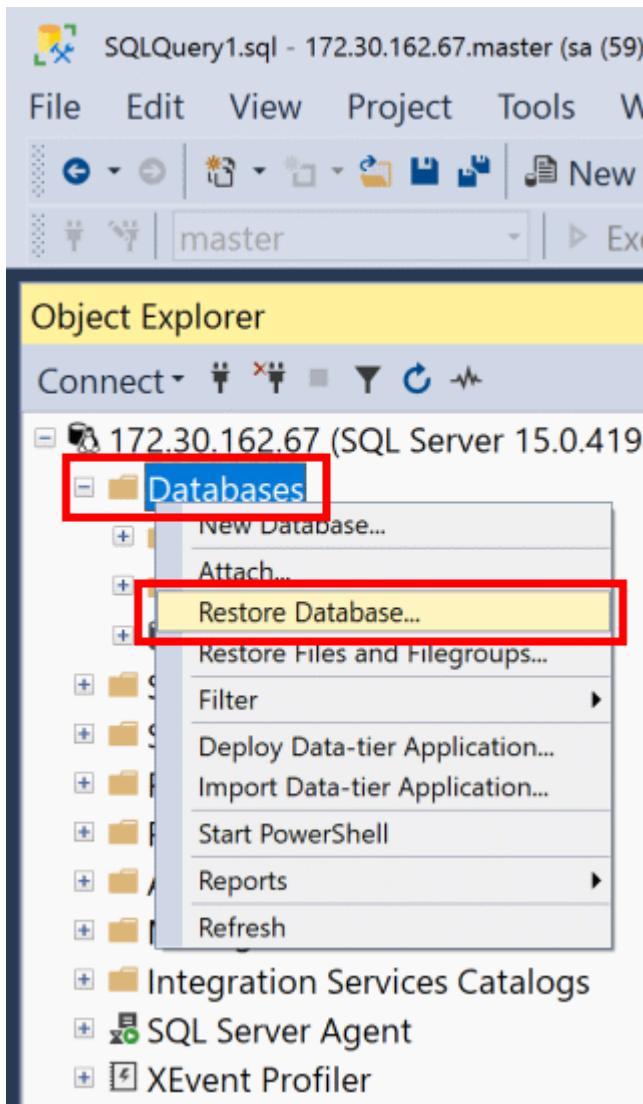
Server Role	Software Particulars
Web/Application Server	
Report Server	
Image Server	
GIS Server	

10.2 RECOVERY PROCEDURE

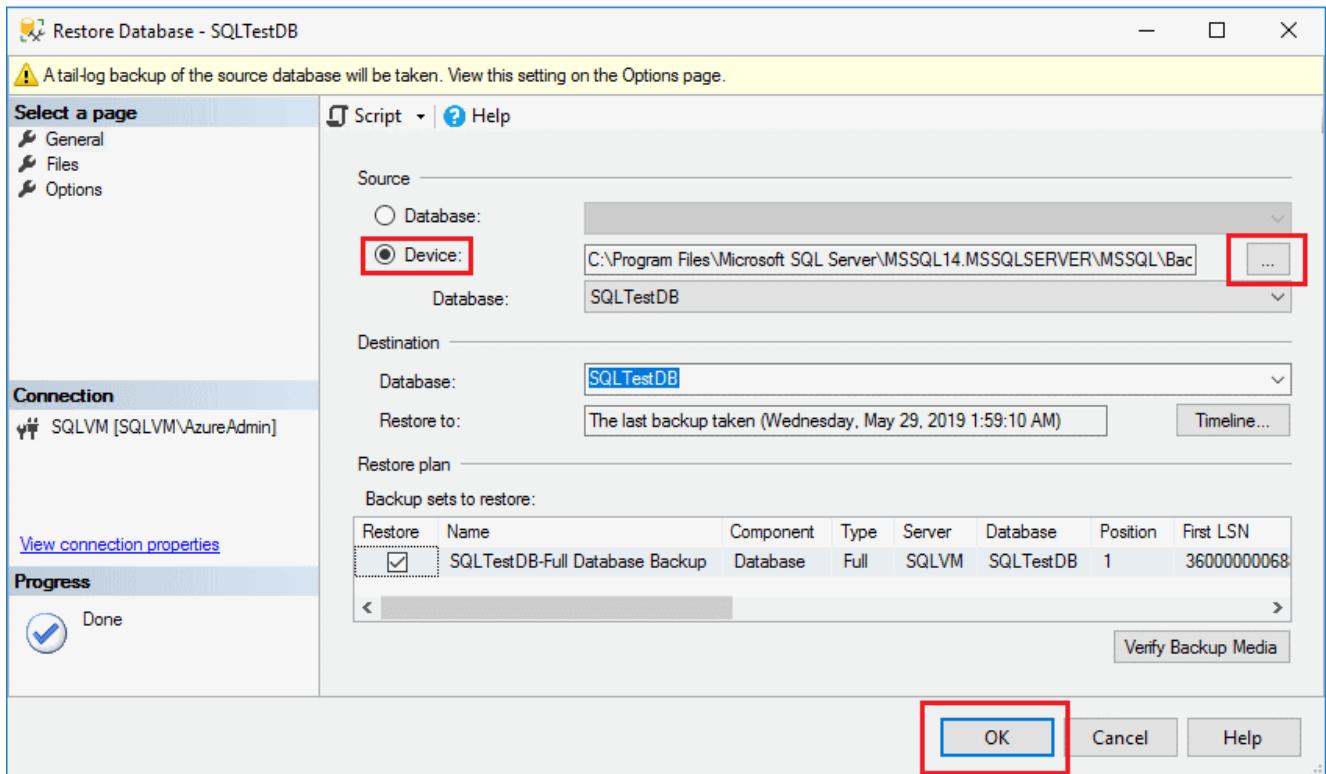
10.2.1 Database Server Restore

To restore your database, follow these steps:

1. Launch [SQL Server Management Studio \(SSMS\)](#) and connect to your SQL Server instance.
2. Right-click the **Databases** node in **Object Explorer** and select **Restore Database....**



3. Select **Device:**, and then select the ellipses (...) to locate your backup file.
4. Select **Add** and navigate to where your .bak file is located. Select the .bak file and then select **OK**.
5. Select **OK** to close the **Select backup devices** dialog box.
6. Select **OK** to restore the backup of your database.



10.2.2 Windows Servers Restore

There are 8 slots in the autoloader and a tape drive in the LTO tape unit. Please follow the steps below to load/replace tapes to LTO tape unit:

- a) Please make sure that no backup is processing when change the tapes.
- b) You can control the movement of the tapes by the control buttons on LTO
- c) If there is tape inside the drive, please move that tape back to the autoloader, by press the Menu button, then Move Tape, and choose the slot number to move the tape from the drive.
- d) Press the Menu button, and choose Eject/Insert Tapes.
- e) Choose multiple mode, and then press enter to start replacing the tapes.
- f) The autoloader will then move from slot 01 to slot 07. For each slot, take out the old tape and insert a blank tape.
- g) Slot 08 is the cleaning tape. Hence there is no need to replace it.
- h) Label the old tapes with appropriate slot number and description such as the date of backup.
- i) Wait about 20 minutes for the LTO to recognize the tape, then format or erase the tapes, following the steps mentioned above.

11 TESTING AND VERIFICATION OF RECOVERY PROCEDURE

After DMS BEEO system and database was restored according to the procedures mentioned in Section 10, there are some measures that can be taken to verify if the restore had been completed successfully and whether the correct set of data had been resumed.

The ways to test and verify the restore procedure are as follows:

1. Login to DMS BEEO database and perform sql query for tables used by major functions to check if the record's last updated date match with the backup date of the restored database.
2. Login to the restored DMS BEEO system and perform query for major functions, such as FN-LEF-008 “Form LE5 – Current Application (Lift/Escalator)”, FN-CON-003 “Contractor Registration – Current Application”, or FN-DMS-001 “View Document”, to check if the records/documents could be loaded properly and the corresponding information are matching with the backup date of the resumed image.
3. Check the “Activity Log” of the restore process to see if the job had been completed successfully or not. If not, the restore process would need to be re-run.

12 **BACKUP JOB AND CONFIGURATION**

The backup jobs and its schedules are depicted as below:

Backup job	Schedule	Schedule Start Time	Schedule End Time
DB server	Daily & Weekly System Backup	11:30pm	12:00pm

13 APPENDIX

N/A

- End of Document -

HAND-OVER PLAN

ON

DATA MANAGEMENT SYSTEM

FOR

BUILDINGS ENERGY EFFICIENCY ORDINANCE

FOR

ENERGY EFFICIENCY OFFICE

OF

**ELECTRICAL AND MECHANICAL SERVICES
DEPARTMENT (EMSD)**



By



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**HAND-OVER PLAN ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND
MECHANICAL SERVICES DEPARTMENT (EMSD)**



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**HAND-OVER PLAN ON DATA MANAGEMENT SYSTEM FOR BUILDINGS ENERGY
EFFICIENCY ORDINANCE FOR ENERGY EFFICIENCY OFFICE OF ELECTRICAL AND
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1. INTRODUCTION

1.1 Objective

The purpose of this document is to provide detailed tasks for the handover of the first line support for the Enhancement of Data Management System (DMS) for Buildings Energy Efficiency Ordinance (BEEO) for Energy Efficiency Office (EEO) of Electrical and Mechanical Services Department (EMSD) from the ASL Project Team to EMSD Infra Technology Dev (ITD) Team.

The handover plan defines the handover activities, schedule and resources required to handover the first line support for the DMS-BEEO from the ASL Project Team to EMSD ITD Team.

The handover documentation specifies DMS-BEEO related documents which will be handover to the EMSD ITD Team for reference.

1.2 Scope

This document is to define the handover plan and procedure for DMS-BEEO.



1.3 References

The following documents have been submitted to EMSD for reference.

1. Current Environment Description (CED)
2. Requirement Specification (RS)
3. System Specification
4. Interface Specification
5. Selected Technical System Option (Selected TSO)
6. System Manual (SM)
7. Program Manual (PM)
8. Data Manual (DM)
9. Application Operation Manual (AOM)
10. User Procedure Manual (UPM)
11. Computer Operation Procedure Manual (COPM)
12. Business Continuity Plan and Backup Plan

1.4 Definitions and Conventions

This section defines the definitions and conventions used in this document.

Definition	Descriptions
ASL	Automated Systems (HK) Limited
EMSD	Electrical and Mechanical Services Department
ITD Team	Infn Technology Dev Team
BEEO	Buildings Energy Efficiency Ordinance
EEO	Energy Efficiency Office
DMS	Data Management System



2. HANDOVER PLAN

2.1 Handover Tasks

The following handover activities will be performed:

1. Prepare Handover Plan.
2. Handover the system documentations listed in Section 1.3 above.
3. Share ASL Project Team's experience to ITD Team during the handover period. Arrange ad-hoc discussion meetings with ITD Team if necessary.
4. Handover the first line support for the system to ITD Team along with the necessary support documentation and manuals.

2.2 Handover Schedule

The table below lists the estimated effort required of each task to handover the first line support for the system to the ITD Team.

Task No.	Description	Est. Effort (man-day)	Responsible Parties
1	Prepare handover plan	3 day	ASL Project Team
2	Review and finalize handover plan	5 day	ASL Project Team, EMSD ITD Team
3	Handover system documentations	0.5 day	ASL Project Team
4	Handover first line support for the system	0.5 day	ASL Project Team, EMSD ITD Team



2.3 Responsibilities of relevant parties

The roles and responsibilities for each relevant party are defined in this section.

Team/Role	Name	Responsibilities
Overall		
ASL Project Team	Joe LAM	<ul style="list-style-type: none">• Overall planning and monitoring of handover activities• Update the system documentation for handover
Application Handover		
ASL Project Team	Lewen LAM	<ul style="list-style-type: none">• Brief EMSD ITD Team on the application architecture, business logic, source code compilation procedure, deployment procedures and software configuration management
EMSD ITD Team	Anderson CHAN Carlos CHEUNG Amy WONG	<ul style="list-style-type: none">• Review relevant hand-over documentations from ASL Project Team• Discuss with ASL Project Team on the application handover items whenever needed
System Handover		
ASL Project Team	Lewen LAM	<ul style="list-style-type: none">• Brief EMSD ITD Team on the system architecture, system operation, system administration, backup/restore scheme and health check
EMSD ITD Team	Anderson CHAN Carlos CHEUNG Amy WONG	<ul style="list-style-type: none">• Review relevant hand-over documentations from ASL Project Team• Discuss with ASL Project Team on the system handover items whenever needed



3. HANDOVER MATERIALS

The handover items are listed in below table:

Handover Items	Documentation
DMS-BEEO System Documentation	<ul style="list-style-type: none">• Current Environment Description• Requirement Specification• System Specification• Interface Specification• Selected Technical System Option• System Manual• Program Manual• Data Manual• Application Operation Manual• User Procedure Manual• Computer Operation Procedure Manual• Business Continuity Plan and Backup Plan
Source Codes	<ul style="list-style-type: none">• Program Source Codes
Non-production System Account Password	<ul style="list-style-type: none">• Application Server User Account ^{Note 1}• Database User Account ^{Note 1}
Program Review Environment	<ul style="list-style-type: none">• Development and testing environment for program review by ITD Team

Note 1: Please refer to [Appendix A](#) for the account information.



4. SOFTWARE SOURCE

4.1 System Software & Application Software

The required system software and application software are listed in the Section 5.4 System Software Environment of the Computer Operating Procedures Manual.



5. SYSTEM BACKUP

The system backup of the servers will be stored in the Backup server and LTO tapes. System backup can be invoked manually when the system configuration is changed. On the other hand, the ESXi Host Server, make use of the Veeam tool to perform scheduled backup. The data is stored into Backup server and LTO tapes.

The operator should check the backup log file after the scheduled backup job to ensure everything is fine.

The backup schedule is defined in the Business Continuity Plan & Backup Plan.



APPENDIX A NON-PRODUCTION SYSTEMS ACCOUNT

B.1 Application Server Account

Application Server	Windows Account	Description
BEEODMSDEV	administrator	Development user account for development, and execution of DMS-BEEO database and application

B.2 MS SQL Server Account

SQL Server	Login Account	Description
BEEODMSDEV	sa	SQL Server administrator account