$\frac{\mathbf{SMART}\;\mathbf{METER}}{\mathbf{TEXAS^{\mathsf{TM}}}}$

SMT 2.0 Interface Guide March 25, 2021

$\frac{\mathbf{SMART}\;\mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Table of Contents

1	E	xecutive	e Summary	4				
	1.1	What	Information is Available in SMT?	4				
	1.2	5						
	1.3	.3 Purpose of the SMT 2.0 Interface Guide						
	1.4	SMT	2.0 Interface Support	6				
	1.5	Quicl	k Reference	6				
	1.	5.1 V	Web Portal	7				
	1.	5.2 I	FTPS	9				
	1.	5.3 I	REST APIs	10				
	1.	5.4	SOAP APIs	13				
2	S	ecurity 1	Integration Requirements	15				
3	A	PI Over	view	18				
	3.1	REST	Γ Functions	18				
	3.	1.1	Ad-Hoc	18				
		3.1.1.1	15-Minute Interval Data	18				
		3.1.1.2	Daily Register Reads	25				
		3.1.1.3	Monthly Billing Reads	31				
		3.1.1.4	Green Button	38				
		3.1.1.5	Meter Attributes	45				
		3.1.1.6	Premise Attributes	50				
		3.1.1.7	On-Demand Read	55				
		3.1.1.8	On-Demand Read Status	58				
		3.1.1.9	Report Status	60				
		3.1.1.1	0 New Subscription	63				
		3.1.1.1	1 Unsubscribe / Cancel Subscription	67				
		3.1.1.1	2 List Subscriptions	70				
		3.1.1.1	3 New Energy Data Sharing Agreement	73				
		3.1.1.1	4 List ESIIDs per Energy Data Sharing Agreement	77				
		3.1.1.1	5 Terminate Energy Data Sharing Agreement	81				
		3.1.1.1	6 Status of Energy Data Sharing Agreement	85				

	3.1.1.17	List of Energy Data Sharing Agreement	87
3.	2 SOAP	Functions	90
	3.2.1 Ad	l-Hoc	90
	3.2.1.1 Reads)	Energy Data (15-Minute Interval Data, or Daily Register Reads, or Monthly Bi 90	lling
	3.2.1.2	Meter Attributes	107
	3.2.1.3	Premise Attributes	120
	3.2.1.4 Subscrip	Subscription – Scheduled Reports (New Subscription, or Unsubscribe / Cancel tion, or List of Existing Subscriptions)	
	_	CSP Agreement (New Energy Data Sharing Agreement, or List ESIIDs per End Agreement, or Terminate Energy Data Sharing Agreement, or List of Energy Data ents)	a Sharing
3.	3 FTPS (Overview	175
4	Integration		176
4.	1 Web Po	ortal	176
4.	2 FTPS		176
4.	3 API		177
5	Glossary of	Terms	181

1 Executive Summary

The Smart Meter Texas (SMT) 2.0 Interface Guide is the primary interface document for Texas market participants who wish to interface with SMT 2.0 for the purpose of obtaining energy usage data, meter attributes, premise attributes, establishing subscriptions, or facilitating Competitive Service Provider (CSP) authorizations associated with the service territories covered by American Electric Power (AEP) Texas Central Company, AEP Texas North Company, CenterPoint Energy Houston Electric, LLC (CNP), Texas-New Mexico Power Company (TNMP) and Oncor Electric Delivery.

The Texas market participants associated with the service territories of AEP, CNP, TNMP, and Oncor, who will be able to interface with SMT 2.0, will include at a minimum Residential Customers, Small Business Customers, Retail Electric Providers (REPs), Competitive Service Providers (CSPs), ERCOT, Public Utility Commission of Texas (PUCT) and Texas Office of Public Utility Counsel (OPUC)

1.1 What Information is Available in SMT?

SMT maintains the following electric metering information and associated energy usage data for the period of two years:

- Meter Attributes
- Premise Attributes
- 15-minute Interval Data
- Daily Register Reads
- Monthly Billing Reads

1.2 How can Information be retrieved from SMT?

SMT will only provide information to authorized entities as defined in Section 5 – Glossary of Terms.

SMT provides the following interfaces to obtain Information from SMT:

- Website Portal
- FTPS
- APIs

Depending on the information being requested, it can be retrieved in the following formats:

- Website User Interface (UI)
- CSV
- Green Button (XML)
- LSE
- JSON

Depending on the information being requested, it can be delivered using the following methods:

- Website User Interface (UI Download)
- Email
- FTPS
- API (SOAP and REST)
- Callback API (Only in the JSON format)

Information can be processed for the various functions listed in this document based on the following mechanisms:

- On-Demand Read Near-real Time Meter Reading
- Ad-Hoc Reporting On-Demand Information Requests
- Subscription Reporting Schedule to receive Information on continuing frequency

1.3 Purpose of the SMT 2.0 Interface Guide

The aim of the SMT 2.0 Interface Guide is to help the Texas market participant's gain better understanding of the functions provided by the various SMT interfaces that will be used to support both individual and business processes, the structure of the Application Programming Interfaces (APIs), and the minimum security requirements that will need to be met prior to using SMTs File Transfer Protocol Secure (FTPS) or API services.

While the intent of the SMT 2.0 Interface Guide is to provide a complete set of documentation to interface with SMT, we recognize that there may be specific case-by-case examples in which further clarification is required to support SMT integration design and implementation. Please refer to the below section 1.3 SMT 2.0 Integration Support for further assistance.

1.4 SMT 2.0 Interface Support

The SMT Support team is available to answer specific questions related to integrating with SMT, as well as assist with completing all integration requirements. The SMT Support team can be contacted as follows:

1. Email at Support@SmartMeterTexas.com

(Or)

2. Phone at 1-844-217-8595

1.5 Quick Reference

The following quick reference provides a list of SMT 2.0 Interface functions by SMT's Web Portal, REST API, SOAP API and FTPS services. The below table includes the type of function, a short description of the function, and the page number of this document that will provide details associated with the function.

To use the various functions listed in this document, the user must have either established an SMT Account (e.g. Residential Customer, Small Business Customer, Retail Electric Provider, Competitive Service Provider, ERCOT, PUCT or OPUC), or be an SMT Account Administrator or User of an already establish SMT account. For further clarity on an SMT Account or the role of the SMT Account, please refer to the Security Requirements in section 2 of this document.

1.5.1 Web Portal

The following SMT 2.0 functions are available to all SMT Account types within the SMT Web Portal located at www.smartmetertexas.com. For those function types that are listed as 'Subscription', the user will have the ability to select whether they wish to receive their information via email or FTPS. For email-based subscriptions, it should be noted that the user's email service may limit or restrict the size of the email that they are able to receive and will need to plan accordingly.

Function	Туре	Function Description
15-Minute Interval Data	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.
Daily Register Reads	Ad-Hoc	Get Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.
Monthly Billing Reads	Ad-Hoc	Get Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS in the Green Button format. Note: This is a synchronous function.
Meter Attributes	Ad-Hoc	Get Meter Attributes for one or more ESIIDs, or all ESIIDs for one DUNs.
Premise Attributes	Ad-Hoc	Get Premise Attributes for one or more ESIIDs, or all ESIIDs for one DUNs.
On-Demand Read (ODR)	Ad-Hoc	Get current Meter Read for one ESIID at a time. Note: The daily limit for ODRs is up to 3,000 per Transmission and Distribution Utility Company (TDU).
On-Demand Read Status	Ad-Hoc	Get the current status of one or more ODR requests using the appropriate Correlation IDs. Note: This is a synchronous function.
Report Status	Ad-Hoc	Get the current status for Ad-Hoc or Subscription requests. Note: This is a synchronous function.
New Subscription	Ad-Hoc	Create a new subscription for one or more ESIIDs
Unsubscribe / Cancel Subscription	Ad-Hoc	Unsubscribe or Cancel an existing subscription on a one subscription per request basis.
Update Subscription	Ad-Hoc	Update an existing subscription on a one subscription per request basis.
List Subscriptions	Ad-Hoc	Get a list of subscriptions.
New Energy Data Sharing Agreement	Ad-Hoc	Initiate a new Energy Data Sharing Agreement for one or more ESIIDs.
List ESIIDs per Energy Data Sharing Agreement	Ad-Hoc	Get a list of ESIIDs associated with a specific Energy Data Sharing Agreement.

Terminate Energy Data Sharing Agreements	Ad-Hoc	Terminate one or more Energy Data Sharing Agreements.
Status of Energy Data Sharing Agreements	Ad-Hoc	Get a status of one or more Energy Data Sharing Agreements.
List of Energy Data Sharing Agreements	Ad-Hoc	Get a list of one or more Energy Data Sharing Agreements.
15-Minute Interval Data	Subscription	Request to receive, on a defined frequency, a push of 15- Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.
Daily Register Reads	Subscription	Request to receive, on a defined frequency, a push of Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.
Monthly Billing Reads	Subscription	Request to receive, on a defined frequency, a push of Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Subscription	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS in the Green Button format. Note: This is a synchronous function.

Table 1: SMT 2.0 Functions

1.5.2 FTPS

All SMT Account Administrators and Users may elect to receive the following ad-hoc or subscription-based information delivered to a FTPS folder for retrieval within a period of 10 days:

- 15-minute Interval Data
- Daily Register Reads
- Monthly Billing Reads
- Meter Attributes
- Premise Attributes

The requested information may be stored in the FTPS folders using either the Comma-Separated Values (CSV) format, LodeStar Enhanced (LSE) format, or eXtensible Markup Language (XML) file format. For Retail Electric Provider of Record (ROR), the daily market defined files format (LSE) will be used for 15 minute interval data.

1.5.3 REST APIS

The following SMT 2.0 functions are available using a specific Representational State Transfer (REST) API to support request and response payload or message in a JavaScript Object Notation (JSON) format, except where the function is based on the Green Button format. For Green Button specified functions, the request is based on the JSON format, and the response payload or message will be an XML format as defined by the Green Button standard.

Function	Туре	Function Description	Page #
15-Minute Interval Data	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.	14
Daily Register Reads	Ad-Hoc	Get Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	21
Monthly Billing Reads	Ad-Hoc	Get Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	27
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one ESIID for one DUNS in the Green Button format. Note: This is a synchronous function.	33
Meter Attributes	Ad-Hoc	Get Meter Attributes for one or more ESIIDs, or all ESIIDs of one DUNs.	39
Premise Attributes	Ad-Hoc	Get Premise Attribute data for one or more ESIIDs, or all ESIIDs of one DUNs.	44
On-Demand Read (ODR)	Ad-Hoc	Get current Meter Read for one ESIID at a time. Note: The daily limit for ODRs is up to 3,000 per Transmission and Distribution Utility Company (TDU).	49
On-Demand Read Status	Ad-Hoc	Get the current status of one or more ODR requests using the appropriate Correlation IDs. Note: This is a synchronous function.	52
Report Status	Ad-Hoc	Get the current status for an Ad-Hoc or Subscription request. Note: This is a synchronous function.	54
New Subscription	Ad-Hoc	Create a new subscription for one or more ESIIDs	56

Function	Туре	Function Description	Page #
15-Minute Interval Data	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.	14
Daily Register Reads	Ad-Hoc	Get Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	21
Monthly Billing Reads	Ad-Hoc	Get Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	27
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one ESIID for one DUNS in the Green Button format. Note: This is a synchronous function.	33
Meter Attributes	Ad-Hoc	Get Meter Attributes for one or more ESIIDs, or all ESIIDs of one DUNs.	39
Premise Attributes	Ad-Hoc	Get Premise Attribute data for one or more ESIIDs, or all ESIIDs of one DUNs.	44
On-Demand Read (ODR)	Ad-Hoc	Get current Meter Read for one ESIID at a time. Note: The daily limit for ODRs is up to 3,000 per Transmission and Distribution Utility Company (TDU).	49
On-Demand Read Status	Ad-Hoc	Get the current status of one or more ODR requests using the appropriate Correlation IDs. Note: This is a synchronous function.	52
Unsubscribe / Cancel Subscription	Ad-Hoc	Unsubscribe or Cancel an existing subscription. Only one subscription per request can be submitted.	60
List Subscriptions	Ad-Hoc	Get a list of subscriptions.	63
New Energy Data Sharing Agreement	Ad-Hoc	Initiate a new Energy Data Sharing Agreement for one or more ESIIDs.	66
List ESIIDs per Energy Data Sharing Agreement	Ad-Hoc	Get a list of ESIIDs associated with a specific Energy Data Sharing Agreement.	69
Terminate Energy Data Sharing Agreements	Ad-Hoc	Terminate one or more Energy Data Sharing Agreements.	73

$\frac{\mathbf{SMART}\ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Function	Туре	Function Description	Page #
15-Minute Interval Data	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.	14
Daily Register Reads	Ad-Hoc	Get Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	21
Monthly Billing Reads	Ad-Hoc	Get Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	27
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one ESIID for one DUNS in the Green Button format. Note: This is a synchronous function.	33
Meter Attributes	Ad-Hoc	Get Meter Attributes for one or more ESIIDs, or all ESIIDs of one DUNs.	39
Premise Attributes	Ad-Hoc	Get Premise Attribute data for one or more ESIIDs, or all ESIIDs of one DUNs.	44
On-Demand Read (ODR)	Ad-Hoc	Get current Meter Read for one ESIID at a time. Note: The daily limit for ODRs is up to 3,000 per Transmission and Distribution Utility Company (TDU).	49
On-Demand Read Status	Ad-Hoc	Get the current status of one or more ODR requests using the appropriate Correlation IDs. Note: This is a synchronous function.	52
Status of Energy Data Sharing Agreements	Ad-Hoc	Get a status of one or more Energy Data Sharing Agreements.	76
List of Energy Data Sharing Agreements	Ad-Hoc	Get a list of one or more Energy Data Sharing Agreements.	78
15-Minute Interval Data	Subscription	Request to receive, on a defined frequency, a push of 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.	N/A
Daily Register Reads	Subscription	Request to receive, on a defined frequency, a push of Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	N/A
Monthly Billing Reads	Subscription	Request to receive, on a defined frequency, a push of Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	N/A

Function	Туре	Function Description	Page #
15-Minute Interval Data	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs for one DUNS.	14
Daily Register Reads	Ad-Hoc	Get Daily Register Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	21
Monthly Billing Reads	Ad-Hoc	Get Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	27
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one ESIID for one DUNS in the Green Button format. Note: This is a synchronous function.	33
Meter Attributes	Ad-Hoc	Get Meter Attributes for one or more ESIIDs, or all ESIIDs of one DUNs.	39
Premise Attributes	Ad-Hoc	Get Premise Attribute data for one or more ESIIDs, or all ESIIDs of one DUNs.	44
On-Demand Read (ODR)	Ad-Hoc	Get current Meter Read for one ESIID at a time. Note: The daily limit for ODRs is up to 3,000 per Transmission and Distribution Utility Company (TDU).	49
On-Demand Read Status	Ad-Hoc	Get the current status of one or more ODR requests using the appropriate Correlation IDs. Note: This is a synchronous function.	52
Green Button (15-Minute Interval Data, Daily Register Reads, or Monthly Billing Reads)	Subscription	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads or Monthly Billing Reads for one ESIID for one DUNS in the Green Button format. Note: This is a synchronous function.	N/A

Table 2: SMT 2.0 REST API Functions

1.5.4 SOAP APIs

The following SMT 2.0 functions are available using a specific Simple Object Access Protocol (SOAP) API to support request and response payload or message in an XML format, except where the function is based on the Green Button format. For Green Button specified functions, the request is based on the JSON format, and the response payload or message will be an eXtensible Markup Language (XML) format as defined by the Green Button standard.

$\frac{\mathbf{SMART}\;\mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Function	Туре	Function Description	Page #
Energy Data	Ad-Hoc	Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads, or Monthly Billing Reads for one or more ESIIDs, or all ESIIDs for one DUNS.	81
Meter Attributes	Ad-Hoc	Get Meter Attributes for one or more ESIIDs, or all ESIIDs for one DUNs.	97
Premise Attributes	Ad-Hoc	Get Premise Attributes for one or more ESIIDs, or all ESIIDs for one DUNs.	110
Subscription - Scheduled Reports	Ad-Hoc	Create a new subscription, or Unsubscribe / Cancel an existing subscription, or update an existing subscriptions.	121
CSP Agreement	Ad-Hoc	Initiate a new Energy Data Sharing Agreement, or get a list of ESIIDs associated with a specific Energy Data Sharing Agreement, or Terminate one or more Energy Data Sharing Agreements, or get a status of one or more Energy Data Sharing Agreements.	138

Table 3: SMT 2.0 SOAP API Functions

2 Security Integration Requirements

The following is a minimum set of security requirements for effectively interfacing with SMT 2.0 for using REST API, SOAP API, or FTP services.

Smart Meter Texas (SMT) Account -

A dedicated SMT Account on the SMT portal, belonging to either a Residential Customer, Small Business Customer, REP, CSP, TDU, ERCOT, OPUC, or PUCT, must be established prior to using any of the interface functions for the purpose of obtaining energy usage data, meter attribute data, premise attribute data, establishing subscriptions, or facilitating Competitive Service Provider (CSP) authorizations associated with the service territories covered by AEP, CNP, TNMP and Oncor.

 Smart Meter Texas (SMT) Account Administrator – (Note: this is not applicable to Residential),

An SMT Account Administrator on the SMT 2.0 portal is capable of defining their account's functional (i.e. operational and security) requirements, and will be responsible for managing the technical aspects of the Company's Account including the DUNS number, the integration services, alerts and/or notifications received from SMT 2.0, and generating the appropriate integration service credentials using the SMT 2.0 portal.

In addition, if an SMT Account owner elects to use an Independent IT Service Provider for integration services, a representative of the IT Service Provider will need to register as an "on-behalf" user and be approved by one of the Company Administrators prior to performing their integration services.

Note: It is the responsibility of the Company Administrator, and ultimately the SMT Account owner, to define and fully understand their overall acceptance of the risk associated with their respective functional requirements.

Static Internet Protocol (IP) –

A minimum of one static IP will be required to interface with SMT and can be used to support both FTPS and API services. If an SMT Account owner elects to use an independent IT Service Provider (i.e. on-behalf) which supports more than one company, a minimum of one

static IP may be used by the IT Service Provider to support all SMT Accounts as long as each SMT Account owner is aware of and approves this configuration.

FTPS Secure Socket Layer (SSL) Certificate –

A minimum of one signed registered FTPS SSL certificate for each SMT Account will be required to interface with an SMT Entity Account. An unsigned FTPS SSL certificate may be used for the sole purposes of testing.

The signed certificate for production use must match your Entity domain name.

For IT Vendors providing IT services on behalf of Retail Electric Providers or Competitive Service Providers, integration will require a separate unique SSL certificate for each Entity that you represent. The domain name on the certificate must match your Entity name and the subdomain must match the Retail Electric Provider or Competitive Service Provider Entity name for which you representing and accessing data.

• API SSL Certificate -

A minimum of one signed registered API SSL certificate to the SMT Entity Account owner will be required to interface with an SMT Entity Account. An unsigned API SSL certificate may only be used for testing.

The signed certificate for production use must match your Entity domain name.

For IT Vendors providing IT services on behalf of Retail Electric Providers or Competitive Service Providers, integration will require a separate unique SSL certificate for each Entity that you represent. The domain name on the certificate must match your Entity name and the subdomain must match the Retail Electric Provider or Competitive Service Provider Entity name for which you representing and accessing data.

Pretty Good Privacy (PGP) Key –

A minimum of one PGP key per Entity DUNs will be required to interface with an SMT Account for FTPS services.

If you are an IT Vendor providing IT services on behalf of Retail Electric Providers or

Competitive Service Providers, you will acquire the PGP Key from the Entity you represent.

• FTPS Credentials -

A minimum of one set of FTPS credentials (e.g. ID and password) will be required for each DUNS associated with an SMT Account. The Smart Meter Texas Support team will provide these credentials.

FTPS credentials will be supplied by the Smart Meter Texas support team.

Note: A residential or small business customer will not be required to acquire a DUNS number to create the FTPS credentials.

API Credentials –

A minimum of one set of API credentials (e.g. ID and password) will be required for each DUNS associated with an SMT Account. API credentials will be created by your Entity through the Smart Meter Texas website portal. A Company Administrator will have the capability to create these credentials using the SMT 2.0 portal.

Note: Since residential or small business customer do not associate DUNS numbers to their account, just one set of credentials are required for FTPS or API access

3 API Overview

The following information will provide the detailed API or FTPS definitions for each of the SMT 2.0 functions by REST API, SOAP API, or FTPS service. For each SMT 2.0 function, this document will provide the function name and description, the associated Uniform Resource Locator (URL), method, data parameters, return status codes, success response, error response, and sample call.

Note: Required fields are identified as a red asterisk (*).

3.1 REST Functions

3.1.1 Ad-Hoc

3.1.1.1 15-Minute Interval Data

• Function Description -

Get 15-Minute Interval Consumption and Generation Data for one or more ESIIDs or all ESIIDs of one DUNS.

Note: This specific service supports a callback feature that can integrate with a customer's API. Additionally,

Test URL –

https://uatservices.smartmetertexas.net/15minintervalreads/

• Production URL -

https://services.smartmetertexas.net/15minintervalreads/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

- Body Parameters
 - Interval Energy Data Request

{
 trans_id* string

pattern: [a-zA-Z0-9]{1,32}

Transaction Id

requestorID* string

minLength: 1 maxLength: 32

example: SMT_PORTAL_ID
User ID registered at SMT Portal.

requesterType* string

example: REP

The user type of the registered SMT Portal

User Id. Enum: Array [12]

requesterAuthenticationID string

minLength: 1 maxLength: 18

example: 12321313213

Requester Company DUNs number

startDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 01/20/2018

Start date in mm/dd/yyyy format.

endDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 02/20/2018

End date in mm/dd/yyyy format.

deliveryMode string

example: FTP

The Asynchronous delivery mechanism for the requested report. For requesterTypes: REP, CSP, TDSP, REG the default deliveryMode is FTP and for requesterTypes: RES, BUSINESS

the default deliveryMode is XML

Enum: Array [6]

```
reportFormat
                                  string
                                  example: CSV
                                  Format of the requested report. The default
                                  report format through delivered through FTP
                                 and EML is CSV and the only report format
                                 delivered through API is JSON.
                                  Enum:
                                 Array [ 6 ]
  version*
                                 string
                                  example: L
                                 The version of the energy data required. A-All,
                                 L-Latest
                                  Enum:
                                 Array [2]
  readingType
                                 string
                                  example: C
                                 The type of the reading. C-Consumption, G-
                                  Generation, A-Both Consumption and
                                 Generation. This field is mandatory field for
                                  Interval resource
                                  Enum:
                                 Array [6]
  esiid*
                                 [...]
  SMTTermsandConditions*
                                  string
                                  example: Y
                                 Terms and Conditions. End users needs to
                                 accept terms & conditions by sending the value
                                  as Y
                                  Enum:
                                 Array [ 4 ]
Interval Energy Data Response - Synchronous
 {
     trans_id
                         string
                         pattern: [a-zA-Z0-
                         9]{1,32}
```

}

```
Transaction Id
esiid*
                   string
energyData*
                   ĺ
   DT*
                   string($date)
                    pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}$
                    example: 01/20/2018
                    Date in mm/dd/yyyy.
   RevTS*
                   string($date-time)
                    example: 01/20/2018 11:31:25
                    Revision date in mm/dd/yyyy hh:mm:ss
   RT*
                   string
                    minLength: 1
                    maxLength: 1
                    example: C
                    Reading Type: C- Consumption, G- Generation.
   RD*
                   string
                    example: .085-A,.118-A,.085-A,.153-A,.123-A,.143-A,.133-
                    A,.134-A,,,,.143-A,.125-A,.15-A,.117-A,.159-A,.109-A,.159-
                   A,.114-A,.153-A,.121-A,.146-A,.126-A,.141-A,.132-A,.136-
                   A,.273-A,.159-A,.175-A,.107-A,.138-A,.132-A,.138-A,.082-
                   A,. 123-A,. 117-A,. 147-A,. 113-A,. 145-A,. 121-A,. 147-A,. 119-
                   A, 141-A, 122-A, 138-A, 126-A, 136-A, 127-A, 134-A, 17-
                   A,.15-A,.111-A,.142-A,.132-A,.126-A,.141-A,.119-A,.153-
                   A,.112-A,.153-A,.105-A,.153-A,.105-A,.136-A,.132-A,.118-
                   A, 117-A, 12-A, 118-A, 132-A, 103-A, 147-A, 117-A, 144-
                   A. 176-A. 125-A. 162-A. 12-A. 163-A. 125-A. 154-A. 134-
                   A,.147-A,.162-A,.111-A,.16-A,.123-A,.148-A,.133-A,.138-
                   A. 132-A. 13-A. 151-A. 123-A. 16-A. 114-A. 162-A. 117-
                   A,.125-A
                   Meter Reading in kWH. A-Actual, E-Estimated.
  }
  1
```

Acknowledgement to the Asynchronous Request

}

```
{
       trans_id*
                          string
                          pattern: [a-zA-Z0-9]{1,32}
                          Transaction Id
       correlationId*
                          string
                          maxLength: 18
       statusCode*
                          string
       statusReason*
                          string
       faultESIIDs
                             {
                                     esiid*
                                                      string
                                                      minLength: 9
                                                      maxLength: 64
                                                      string
                                     reason*
                                                      maxLength: 256
                             }
                         ]
   }
o Error Response
   {
       errorCode*
                          string
       errorKey
                          string
       errorMessage*
                          string
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

$\frac{\mathbf{SMART} \ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 4: Return Status Codes

Example(s) –

Example 1 - Synchronous Response - JSON file through REST API

o Interval Energy Data Request

```
{
  "trans_id": "123",
  "requestorID": "smtfirstresidentialuser",
  "requesterType": "RES",
  "startDate": "07/01/2019",
  "endDate": "07/03/2019",
  "reportFormat": "JSON",
  "version": "L",
  "readingType": "C",
  "esiid": [
     "1008901012126195372100"
],
  "SMTTermsandConditions": "Y"
}
```

Interval Energy Data Response - Synchronous

```
"RevTS": "07/02/2019 00:20:05",
       "RT": "C".
       "RD": ".198-A..141-A..183-A..109-A..176-A..12-A..148-A..181-A......156-
A,.132-A,.16-A,.154-A,.132-A,.197-A,.147-A,.148-A,.169-A,.135-A,.139-A,.109-
A., 243-A., 125-A., 093-A., 117-A., 146-A., 103-A., 115-A., 18-A., 133-A., 165-A., 152-
A.,123-A,,126-A,,161-A,,153-A,,183-A,,209-A,,185-A,,136-A,,142-A,,153-A,,151-
A..198-A..158-A..191-A..18-A..193-A..204-A..241-A..24-A..243-A..226-A..233-
A..231-A..24-A..275-A..245-A..254-A..235-A..232-A..231-A..297-A..23-A..366-
A,.295-A,.313-A,.39-A,.316-A,.317-A,.362-A,.387-A,.383-A,.328-A,.395-A,.396-
A..395-A..393-A..388-A..382-A..365-A..353-A..289-A..286-A..251-A..245-A..279-
A..255-A..248-A..294-A..24-A..238-A..275-A..242-A..292-A..242-A..23-A"
     },
       "DT": "07/02/2019",
       "RevTS": "07/03/2019 02:39:13",
       "RT": "C".
       "RD": ".212-A,.192-A,.172-A,.196-A,.201-A,.151-A,.209-A,.149-A,,,,..151-
A,.173-A,.212-A,.248-A,.295-A,.166-A,.208-A,.184-A,.188-A,.201-A,.196-A,.155-
A,.16-A,.177-A,.156-A,.146-A,.163-A,.135-A,.178-A,.152-A,.165-A,.168-A,.211-
A.,154-A.,184-A.,186-A.,21-A.,188-A.,155-A.,2-A.,166-A.,15-A.,183-A.,18-A.,155-
A..169-A..192-A..175-A..192-A..205-A..247-A..213-A..218-A..244-A..229-A..206-
A,.233-A,.239-A,.238-A,.221-A,.202-A,.172-A,.217-A,.213-A,.196-A,.224-A,.201-
A..178-A..218-A..216-A..209-A..228-A..201-A..407-A..311-A..247-A..246-A..286-
A,.25-A,.232-A,.233-A,.186-A,.191-A,.21-A,.262-A,.161-A,.198-A,.161-A,.144-
A,.179-A,.174-A,.208-A,.168-A,.167-A,.157-A,.169-A,.184-A,.203-A"
       "DT": "07/03/2019",
       "RevTS": "07/04/2019 04:21:07",
       "RT": "C"
       "RD": ".18-A,.173-A,.17-A,.153-A,.131-A,.137-A,.124-A,.123-A,,,,.13-A,.144-
A..123-A..159-A..113-A..162-A..153-A..114-A..156-A..138-A..155-A..134-A..116-
A..127-A..122-A..108-A..098-A..123-A..128-A..086-A..132-A..199-A..162-A..171-
A,.175-A,.164-A,.157-A,.189-A,.173-A,.191-A,.186-A,.167-A,.154-A,.169-A,.186-
A.,153-A.,18-A.,19-A.,155-A.,156-A.,179-A.,185-A.,205-A.,18-A.,207-A.,182-A.,221-
A,.18-A,.208-A,.175-A,.192-A,.171-A,.186-A,.187-A,.196-A,.19-A,.207-A,.185-
A., 225-A., 208-A., 265-A., 265-A., 254-A., 27-A., 254-A., 282-A., 228-A., 236-A., 332-
A..395-A..4-A..297-A..267-A..289-A..292-A..28-A..234-A..246-A..244-A..306-A..286-
A..263-A..294-A..244-A..297-A..235-A..224-A..272-A"
}
```

Example 2 - Asynchronous Response - CSV File Sent Through Email

o Interval Energy Data Request

```
{
  "trans_id": "1234",
  "requestorID": "intervalbothgc",
  "requesterType": "RES",
  "startDate": "01/20/2018",
  "endDate": "01/25/2018",
  "deliveryMode": "emI",
  "reportFormat": "CSV",
  "version": "L",
  "readingType": "A",
  "esiid": [
    "10204049715823010"
],
  "SMTTermsandConditions": "Y"
}
```

Interval Energy Data Response – Asynchronous Email

```
{
  "trans_id": "1234",
    "correlationId": "3d4dd55cabf211e9ac0c0a04",
    "statusCode": "0000",
    "statusReason": "Request has been submitted successfully. The CSV report will be delivered through EML"
}
```

3.1.1.2Daily Register Reads

• Function Description -

Get Daily Register Reads for one or more ESIIDs, or all ESIIDs of one DUNS. Note: This specific service supports a callback feature that can integrate with a customer's API.

Test URL –

https://uatservices.smartmetertexas.net/dailyreads/

Production URL -

https://services.smartmetertexas.net/dailyreads/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

<u>Body Parameters</u> – Daily Register Reads

Daily Energy Data Request

```
{
trans_id*
string
pattern: [a-zA-Z0-9]{1,32}
Transaction Id
```

requestorID* string

minLength: 1 maxLength: 32

example: SMT_PORTAL_ID
User ID registered at SMT Portal.

requesterType* string

example: REP

The user type of the registered SMT Portal

User Id. Enum: Array [12]

requesterAuthenticationID string

minLength: 1 maxLength: 18

example: 12321313213

Requester Company DUNs number

startDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 01/20/2018

Start date in mm/dd/yyyy format.

endDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 02/20/2018

End date in mm/dd/yyyy format.

deliveryMode string

reportFormat

version*

example: FTP

The Asynchronous delivery mechanism for the requested report. For requesterTypes: REP, CSP, TDSP, REG the default deliveryMode is FTP and for requesterTypes: RES, BUSINESS

the default deliveryMode is EML

Enum:

Array [6]

string

example: CSV

Format of the requested report. The default report format through delivered through FTP and EML is CSV and the only report format

delivered through API is JSON.

Enum:

Array [6] string

example: L

The version of the energy data required. A-All,

L-Latest

Enum:

Array [2] string

readingType string example: C

The type of the reading. C-Consumption, G-

Generation, A-Both Consumption and Generation. This field is mandatory field for

Interval resource

Enum:

Array [6]

esiid* [...]

```
SMTTermsandConditions*
                                   string
                                   example: Y
                                   Terms and Conditions. End users needs to
                                   accept terms & conditions by sending the value
                                   as Y
                                   Enum:
                                   Array [ 4 ]
   }
   Daily Registered Read Synchronous Response
trans_id
                 string
                 pattern: [a-zA-Z0-9]{1,32}
                 Transaction Id
esiid*
                 string
registeredReads* [
                                         string($date)
                     readDate*
                                         pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}$
                                         example: 01/20/2018
                                         Date in mm/dd/yyyy.
                     revisionDate*
                                         string($date-time)
                                         example: 01/20/2018 11:31:25
                                         Revision date in mm/dd/yyyy
                                         hh:mm:ss
                     startReading*
                                         string
                                         example: 43791.955
                      endReading*
                                         string
                                         example: 43798.024
                     energyDataKwh*
                                         string
                                         example: 6.031
}
```

Acknowledgement to the Asynchronous Request

$\frac{\mathbf{SMART} \ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

```
{
       trans_id*
                          string
                          pattern: [a-zA-Z0-9]{1,32}
                          Transaction Id
       correlationId*
                          string
                          maxLength: 18
       statusCode*
                          string
       statusReason*
                          string
       faultESIIDs
                          [
                                  esiid*
                                               string
                                               minLength: 9
                                               maxLength: 64
                                               string
                                  reason*
                                               maxLength: 256
                             }
                          ]
   }
o Error
       errorCode*
                          string
       errorKey
                          string
       errorMessage*
                          string
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>

400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error": "Something went wrong. Please try again later."}

Table 5: Return Status Codes

Example(s) –

Example 1 - Synchronous Response - JSON file through REST API

Daily Register Read Request

```
{
    "trans_id": "111",
    "requestorID": "UATRES123",
    "requesterType": "RES",
    "startDate": "07/07/2019",
    "endDate": "07/07/2019",
    "version": "L",
    "readingType": "c",
    "esiid": [
        "1008901005102632580100"
    ],
    "SMTTermsandConditions": "Y"
}
```

Daily Register Read Response - Synchronous



Example 2 - Asynchronous Response - CSV File Sent Through Email

Daily Register Read Request

```
{
    "trans_id": "111",
    "requestorID": "UATRES123",
    "requesterType": "RES",
    "startDate": "05/07/2019",
    "endDate": "07/07/2019",
    "deliveryMode": "EML",
    "reportFormat": "CSV",
    "version": "L",
    "readingType": "c",
    "esiid": [
        "1008901005102632580100"
    ],
    "SMTTermsandConditions": "Y"
}
```

Daily Register Read Response – Asynchronous Email

```
{
  "trans_id": "111",
  "correlationId": "ac80d2c2ad5411e9ac0c0a04",
  "statusCode": "0000",
  "statusReason": "Request has been submitted successfully. The CSV report will be delivered through EML"
}
```

3.1.1.3Monthly Billing Reads

• Function Description -

Get Monthly Billing Reads for one or more ESIIDs, or all ESIIDs of one DUNS.

Note: This specific service supports a callback feature that can integrate with a customer's API.

Test URL –

https://uatservices.smartmetertexas.net/monthlybillingInformation/

Production URL -

https://services.smartmetertexas.net/monthlybillingInformation/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – Monthly Billing Data

Monthly Billing Energy Data Request

```
{
    trans_id*
                                   string
                                   pattern: [a-zA-Z0-9]{1,32}
                                   Transaction Id
    requestorID*
                                   string
                                   minLength: 1
                                   maxLength: 32
                                   example: SMT PORTAL ID
                                   User ID registered at SMT Portal.
    requesterType*
                                   string
                                   example: REP
                                   The user type of the registered SMT Portal
                                   User Id.
                                   Enum:
                                   Array [ 12 ]
    requesterAuthenticationID
                                   string
                                   minLength: 1
                                   maxLength: 18
                                   example: 12321313213
                                   Requester Company DUNs number
```

startDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 01/20/2018

Start date in mm/dd/yyyy format.

endDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 02/20/2018

End date in mm/dd/yyyy format.

deliveryMode string

example: FTP

The Asynchronous delivery mechanism for the requested report. For requesterTypes: REP, CSP, TDSP, REG the default deliveryMode is FTP and for requesterTypes: RES, BUSINESS

the default deliveryMode is EML

Enum:

Array [6]

reportFormat string

example: CSV

Format of the requested report. The default report format through delivered through FTP and EML is CSV and the only report format

delivered through API is JSON.

Enum:

Array [6]

version* string

example: L

The version of the energy data required. A-All,

L-Latest

Enum:

Array [2]

readingType string

example: C

The type of the reading. C-Consumption, G-

Generation, A-Both Consumption and

```
Generation. This field is mandatory field for
                                  Interval resource
                                  Enum:
                                  Array [ 6 ]
  esiid*
                                  [...]
  SMTTermsandConditions*
                                  string
                                  example: Y
                                  Terms and Conditions. End users needs to
                                  accept terms & conditions by sending the value
                                  as Y
                                  Enum:
                                  Array [ 4 ]
}
Monthly Billing Data Synchronous Response
    trans_id
               string
                pattern: [a-zA-Z0-9]{1,32}
               Transaction Id
    esiid*
               string
    billingData [
                                        string($date)
                    startDate*
                                        pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}$
                                        example: 01/20/2018
                                        Start Date for the Billing month in
                                        mm/dd/yyyy.
                    endDate*
                                        string($date)
                                        pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}$
                                        example: 02/20/2018
                                        End Date for the Billing month in
                                        mm/dd/yyyy.
                    revisionDate
                                        string($date-time)
                                        example: 01/20/2018 11:31:25
                                        Revision date in mm/dd/yyyy hh:mm:ss
```

```
actualkWh*
                                          string
                                          example: 389
                      meteredKW*
                                          string
                      billedKW*
                                          string
                      meteredKVA*
                                          string
                      billedKVA*
                                          string
                  }
                  ]
   }

    Acknowledgement

   {
       trans_id*
                          string
                          pattern: [a-zA-Z0-9]{1,32}
                          Transaction Id
       correlationId*
                          string
                          maxLength: 18
       statusCode*
                          string
       statusReason*
                          string
       faultESIIDs
                                  esiid*
                                               string
                                               minLength: 9
                                               maxLength: 64
                                               string
                                  reason*
                                               maxLength: 256
                             }
                          ]
   }
o Error
       errorCode*
                          string
       errorKey
                          string
       errorMessage*
                          string
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 6: Return Status Codes

• Example -

Example 1 - Synchronous Response - JSON file through REST API

Monthly Billing Data Request

```
{
  "trans_id": "111",
  "requestorID": "UATRES123",
  "requesterType": "RES",
  "startDate": "05/07/2019",
  "endDate": "07/07/2019",
  "version": "L",
  "readingType": "c",
  "esiid": [
  "1008901005102632580100"

],
  "SMTTermsandConditions": "Y"
}
```

Monthly Billing Data - Synchronous

```
"trans_id": "111",
  "esiid": "1008901005102632580100",
  "billingData": [
      "startDate": "04/25/2019",
     "endDate": "05/24/2019",
     "revisionDate": "05/29/2019 01:22:52",
      "actualkWh": "683",
     "meteredKW": "0",
     "billedKW": "0".
     "meteredKVA": "0",
     "billedKVA": "0"
   },
      "startDate": "05/24/2019",
     "endDate": "06/25/2019",
     "revisionDate": "06/27/2019 01:33:05",
      "actualkWh": "1048",
     "meteredKW": "0",
     "billedKW": "0",
     "meteredKVA": "0",
     "billedKVA": "0"
   },
     "startDate": "06/25/2019",
     "endDate": "07/01/2019",
      "revisionDate": "07/02/2019 02:22:47",
     "actualkWh": "211",
     "meteredKW": "0",
     "billedKW": "0".
     "meteredKVA": "0",
     "billedKVA": "0"
   }
 ]
}
```

Example 2 - Asynchronous Response - CSV File Sent Through Email

Monthly Billing Data Request

```
{
    "trans_id": "111",
    "requestorID": "UATRES123",
    "requesterType": "RES",
    "startDate": "04/07/2019",
    "endDate": "07/07/2019",
    "deliveryMode": "EML",
    "reportFormat": "CSV",
    "version": "L",
    "readingType": "c",
    "esiid": [
        "1008901005102632580100"

],
    "SMTTermsandConditions": "Y"
}
```

Daily Register Read Response – Asynchronous Email

```
{
  "trans_id": "111",
  "correlationId": "34553b76ad5911e9ac0c0a04",
  "statusCode": "0000",
  "statusReason": "Request has been submitted successfully. The CSV report will be delivered through EML"
}
```

3.1.1.4Green Button

Function Description –

Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads, or Monthly Billing Reads for one ESIID.

Note: This is a synchronous function.

- <u>Test URL</u> –
 https://uatservices.smartmetertexas.net/greenbutton/
- <u>Production URL</u> -https://services.smartmetertexas.net/greenbutton/
- Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

 <u>Body Parameters</u> – Interval Energy Data, or Daily Register Reads, or Monthly Billing Reads

GreenButtonRequest

{ trans_id* string

pattern: [a-zA-Z0-9]{1,32} Id for the green button report

requestorID* string

minLength: 1 maxLength: 100 example: KHUDAK

requesterType* string

example: REP

The user type of the registered SMT Portal User Id.

Enum: Array [12]

requesterAuthenticationID string

minLength: 1 maxLength: 18

Requester Company DUNs number

ESIID* string

minLength: 9 maxLength: 64

startDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 05/10/2018

mm/dd/yyyy

endDate* string(\$date)

pattern: ^[0-9]{1,2}/[0-9]{1,2}/[0-9]{4}\$

example: 05/10/2018

mm/dd/yyyy

reportType* string

Report Type can be interval or daily or monthly

$\frac{\mathbf{SMART} \ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

```
Enum:
                                 Array [3]
       readingType*
                                 string
                                 It can be either C for Consumption or G for Generation
                                 Enum:
                                 Array [2]
       deliveryMode
                                 string
                                 The Asynchronous delivery mechanism for the
                                 greenbutton report
                                 Enum:
                                 Array [4]
       SMTTermsandConditions* string
                                 example: Y
                                 User needs to accept Terms and Conditions by sending
                                 the value Y or y
                                 Enum:
                                 Array [4]
}
  Error
   {
       errorCode
                        string
       errorKey
                        string
       errorMessage
                        string
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}

500 {"error":"Something went wrong. Please try
again later."}

Table 7: Return Status Codes

- Example –
 Example 1 Interval Green Button -Synchronous in XML format
 - 15-Minutes Interval Reads Request
 - Request

```
{
  "GreenButtonRequest":{
  "trans_id": "A1",
  "requestorID": "CSPAPIUser1",
  "requesterType": "CSP",
  "requesterAuthenticationID": "19999999999",
  "ESIID": "10443720008107413",
  "startDate": "06/20/2018",
  "endDate": "06/20/2018",
  "reportType": "I",
  "readingType": "C",
  "SMTTermsandConditions": "Y"
}
}
```

Synchronous Response



- Daily Registered Read Request
 - Request

```
{
    "GreenButtonRequest":{
    "trans_id": "A1",
    "requestorID": "CSPAPIUser1",
    "requesterType": "CSP",
    "requesterAuthenticationID": "199999999999",
    "ESIID": "10443720008107413",
```

```
"startDate": "06/20/2018",
"endDate": "07/20/2018",
"reportType": "D",
"readingType": "C",
"SMTTermsandConditions": "Y"
}
}
```

Synchronous Response



Monthly Billing Read Request

Request

```
{
  "GreenButtonRequest":{
  "trans_id": "A1",
  "requestorID": "CSPAPIUser1",
  "requesterType": "CSP",
  "requesterAuthenticationID": "19999999999",
  "ESIID": "10443720008107413",
  "startDate": "06/20/2018",
  "endDate": "07/20/2018",
  "reportType": "M",
  "readingType": "C",
  "SMTTermsandConditions": "Y"
}
}
```

Synchronous Response



Example 2 – Interval Green Button - Asynchronous Request Acknowledgment

15-Minutes Interval Reads Request

```
Request
 {
  "GreenButtonRequest":{
  "trans_id": "A1",
  "requestorID": "CSPAPIUser1",
  "requesterType": "CSP",
  "requesterAuthenticationID": "199999999999",
  "ESIID": "10443720008107413",
  "startDate": "04/20/2019",
  "endDate": "05/20/2019",
  "reportType": "I",
  "readingType": "C",
  "deliveryMode": "FTP",
  "SMTTermsandConditions": "Y"
Acknowledgement Response
   "trans_id": "A1",
   "correlationId": "40f82f4eb7c411e99e090a04",
   "statusCode": "0000",
   "statusReason": "Request has been submitted successfully. The report will
 be delivered through FTP"
 }
```

Daily Registered Reads Request

```
Request
{
    "GreenButtonRequest":{
    "trans_id": "A1",
    "requestorID": "CSPAPIUser1",
    "requesterType": "CSP",
    "requesterAuthenticationID": "19999999999",
    "ESIID": "10443720008107413",
    "startDate": "04/20/2019",
    "endDate": "05/20/2019",
```

```
"reportType": "D",
        "readingType": "C",
        "deliveryMode": "FTP",
        "SMTTermsandConditions": "Y"
      Acknowledgement Response
         "trans id": "A1",
         "correlationId": " d7c6ce40b7c811e9a3ad0a04",
         "statusCode": "0000",
         "statusReason": "Request has been submitted successfully. The report will
      be delivered through FTP"
Monthly Billing Data Request
      Request
        "GreenButtonRequest":{
        "trans_id": "A1",
        "requestorID": "CSPAPIUser1",
        "requesterType": "CSP",
        "requesterAuthenticationID": "199999999999",
        "ESIID": "10443720008107413",
        "startDate": "04/20/2019",
        "endDate": "05/20/2019",
        "reportType": "M",
        "readingType": "C",
        "deliveryMode": "FTP",
        "SMTTermsandConditions": "Y"
      Acknowledgement Response
         "trans_id": "A1",
         "correlationId": "bcfbc278b7c811e9a3ad0a04",
         "statusCode": "0000",
         "statusReason": "Request has been submitted successfully. The report will
```

```
be delivered through FTP"
}
```

3.1.1.5Meter Attributes

Function Description –

Get Meter Attributes for one or more ESIIDs, or all ESIIDs of one DUNs. Note: This specific service supports a callback feature that can integrate with a customer's API.

Test URL –

https://uatservices.smartmetertexas.net/meterInfo/

• Production URL -

https://services.smartmetertexas.net/meterInfo/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – Meter Attributes

MeterSearchRequest

```
trans_id*

string

minLength: 1

maxLength: 100

example: SMT_PORTAL_ID

User ID registered at SMT Portal.

requestorID*

string

example: REP
```

The user type of the registered SMT Portal User Id.

Enum: Array [12]

```
requesterType*
                         string
                         maxLength: 16
                         The DUNS number associated with the
                         REP/TDSP/CSP.
requesterAuthenticationID string
                         example: FTP
                         The Asynchronous delivery mechanism for the
                         requested report. For userTypes: REP, CSP, TDSP,
                         REG the default deliveryMode is FTP and for
                         userTypes: RES, BUSINESS the default deliveryMode is
                         EML
                         Enum:
                         Array [6]
deliveryMode*
                         string
reportFormat
                         string
                         example: CSV
                         Format of the requested report. The default report
                         format through delivered through FTP and EML is CSV
                         and the only report format delivered through API is
                         JSON.
                         Enum:
                         Array [4]
version*
                         string
ESIIDMeterList
                                 esiid*
                                                  string
                                                  minLength: 9
                                                  maxLength: 64
                                 meterNumber
                                                  string
                                                  minLength: 1
                                                  maxLength: 30
                         }
SMTTermsandConditions* string
```

MeterSearchResponse

}

```
{
    trans id
                  string
    correlationId string
    statusCode
                  string
    statusReason string
    MeterData
                          utilityCompanyId
                                                        string
                          ESIID*
                                                        string
                                                        minLength: 9
                                                        maxLength: 64
                          meterSerialNumber*
                                                        string
                                                        minLength: 1
                                                        maxLength: 30
                          utilityMeterId*
                                                        string
                                                        minLength: 1
                                                        maxLength: 30
                          KWHMeterMultiplier*
                                                        string
                          configuredChannels*
                                                        string
                          manufacturerName*
                                                        string
                                                        minLength: 1
                                                        maxLength: 50
                          testDate*
                                                        string
                          meterClass*
                                                        string
                          installationDate*
                                                        string
                          initialProvisionDate*
                                                        string
                          communicationIndicator*
                                                        string
                                                        minLength: 1
                                                        maxLength: 3
                          instrumentRated*
                                                        string
                                                        minLength: 1
                                                        maxLength: 1Enum:
                                                        Array [4]
                          currentTransformersRatio
                                                        string
                                                        minLength: 0
                                                        maxLength: 16
                          potentialTransformersRatio
                                                        string
                                                        minLength: 0
                                                        maxLength: 16
                          esiFirmwareVersion*
                                                        string
                                                        minLength: 1
                                                        maxLength: 16
```

```
HANProtocol
                                                          string
                                                          minLength: 0
                                                          maxLength: 22
                            smartEnergyProfile*
                                                          string
                                                          minLength: 1
                                                          maxLength: 22
                            intervalSetting*
                                                          string
                            reverseFlowHandling*
                                                          string
                                                          minLength: 1
                                                          maxLength: 1Enum:
                                                          Array [4]
                            DGChannel
                                                          string
                            disconnect*
                                                          string
                                                          minLength: 1
                                                          maxLength: 1Enum:
                                                          Array [4]
                            meterStatus
                                                          string
                                                          minLength: 1
                                                          maxLength: 1Enum:
                                                          Array [4]
                            meterPhases
                                                          string
                            meterModel
                                                          string
                                                          minLength: 0
                                                          maxLength: 30
                            revisionDate
                                                          string
                     }
                    1
   }
o Error
   {
       errorCode
                        string
       errorKey
                        string
       errorMessage
                        string
   }
```

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 8: Return Status Codes

• Example -

Meter Information Response

3.1.1.6Premise Attributes

• Function Description -

Get Premise Attributes for one or more ESIIDs, or all ESIIDs of one DUNs. Note: This specific service supports a callback feature that can integrate with a customer's API.

Test URL –

https://uatservices.smartmetertexas.net/premiseInfo/

Production URL -

https://services.smartmetertexas.net/premiseInfo/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

- Body Parameters Premise Attributes
 - PremiseSearchRequest

Transaction Id

requestorID* string

minLength: 1 maxLength: 32

example: SMT_PORTAL_ID User ID registered at SMT Portal.

requesterType* string

example: REP

The user type of the registered SMT Portal User Id.

Enum:

Array [12]

requesterAuthenticationID string

minLength: 1 maxLength: 18

example: 12321313213

Requester Company DUNs number

deliveryMode string

example: FTP

The Asynchronous delivery mechanism for the requested report. For userTypes: REP, CSP, TDSP,

REG the default deliveryMode is FTP and for

userTypes: RES, BUSINESS the default deliveryMode is

EML

Enum:

Array [6]

reportFormat string

example: CSV

Format of the requested report. The default report format through delivered through FTP and EML is CSV and the only report format delivered through API is

JSON. Enum:

Array [4]

version* string

example: L

The version of the energy data required. A-All, L-Latest

Enum:

Array [2]

esiid [...]

```
SMTTermsandConditions* string
                                 example: Y
                                 Terms and Conditions. End users needs to accept terms
                                 & conditions by sending the value as Y
                                 Enum:
                                 Array [4]
   }

    PremiseSearchResponse

   {
       trans_id
                       String
       PremiseData
                       L
                        {
                            utilityCompanyld
                                                       string
                            ESIID*
                                                       string
                                                       minLength: 9
                                                       maxLength: 64
                            serviceVoltage*
                                                       string
                                                       minLength: 1
                                                       maxLength: 15
                            premiseStatus*
                                                       string
                                                       minLength: 1
                                                       maxLength: 1Enum:
                                                       Array [4]
                            timeZone*
                                                       string
                                                       minLength: 3
                                                       maxLength: 3
                            fractionalHouseAddress
                                                       string
                                                       minLength: 0
                                                       maxLength: 10
                            leadingDirectional
                                                       string
                                                       minLength: 0
                                                       maxLength: 6
                            streetName*
                                                       string
                                                       minLength: 1
                                                       maxLength: 100
                            streetType
                                                       string
                                                       minLength: 0
                                                       maxLength: 16
```

```
trailingDirectional
                                                        string
                                                        minLength: 0
                                                         maxLength: 6
                            houseNumber
                                                        string
                                                        minLength: 0
                                                        maxLength: 50
                            unitDesignation
                                                        string
                                                        minLength: 0
                                                        maxLength: 50
                            locality*
                                                        string
                                                        minLength: 1
                                                        maxLength: 40
                            state*
                                                        string
                                                        minLength: 2
                                                        maxLength: 2Enum:
                                                        Array [1]
                            zipcode*
                                                        string
                                                        minLength: 5
                                                        maxLength: 5
                            zipcodePlus4*
                                                        string
                                                        minLength: 1
                                                        maxLength: 4
                            meterReadCycle*
                                                        string
                            loadProfile*
                                                        string
                                                        minLength: 1
                                                        maxLength: 30
                            rateClassCode
                                                        string
                                                        minLength: 0
                                                        maxLength: 3
                            AMSProfileEffectiveDate
                                                        string
                            revisionDate
                                                        string
                        }
                        ]
   }
o Error
   {
       errorCode*
                          string
       errorKey*
                          string
       errorMessage*
                          string
   }
```

```
o FaultESIIDs
```

```
{
        esiid
                            string
        reason
                            string
   }

    Acknowledgement

   {
       trans_id
                          string
        correlationId
                          string
       statusCode
                          string
        statusReason
                          string
        faultESIIDs
                             {
                                  esiid
                                                      string
                                                      string
                                  reason
                          ]
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}

```
{"error":"Something went wrong. Please try
again later."}
```

Table 9: Return Status Codes

Example –

```
o Premise Information Request
   "trans_id": "123",
   "requestorID": "SUMANTH_CSP",
   "requesterType": "CSP",
   "requesterAuthenticationID":"199999999999",
   "deliveryMode": "EML",
   "version": "L",
   "esiid": [
   "10443720008107413",
   "10443720007526004"
   "SMTTermsandConditions": "Y"
   }

    Premise Information Response

   {
     "trans_id": "123",
     "correlationId": "0bfc96a8ad5c11e9bcc30a04",
     "statusCode": "0001",
     "statusReason": "Request submitted successfully for further processing with some
  faultESIIDs. The CSV report will be delivered through EML",
     "faultESIIDs": [ {
      "ESIID": "10443720007526004",
      "REASON": "ESIID NOT VISIBLE TO THIS USER"
    }]
   }
```

3.1.1.7On-Demand Read

Function Description –

Get current Meter Read for one ESIID at a time. Note: The daily limit for On-Demand Reads (ODRs) is up to 3,000 per Transmission and Distribution utility (TDU).

Note: This specific service supports a callback feature that can integrate with a customer's API.

Test URL –

https://uatservices.smartmetertexas.net/odr/

Production URL -

https://services.smartmetertexas.net/odr/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

- Body Parameters On-Demand Read
 - OnDemandMeterReadRequest

```
{
    trans id*
                                  string
    requesterType*
                                  string
    requesterAuthenticationID
                                  string
    requestorID*
                                  string
    deliveryMode*
                                  string
    ESIID*
                                  string
    meterNumber
                                  string
    SMTTermsandConditions*
                                  string
}
```

$\circ \quad \textbf{OnDemandMeterReadResponse}$

```
{
    trans_id string correlationId string statusCode string statusReason string}
```

o Error

```
{
    errorCode string
    errorKey string
    errorMessage string
}
```

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 10: Return Status Codes

• Example -

```
"trans_id": "123",
"correlationId": "441888",
"statusCode": "0",
"statusReason": "Request submitted successfully for further processing"
}
```

3.1.1.8On-Demand Read Status

Function Description –

Get the current status of one or more ODR requests using the appropriate Correlation IDs. Note: This is a synchronous function.

Test URL –

https://uatservices.smartmetertexas.net/odrstatus/

• Production URL -

https://services.smartmetertexas.net/odrstatus/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

• Body Parameters - On-Demand Read Status

ODRStatusRequest

```
{
    trans_id* string
    requestorID* string
    correlationId* string
    SMTTermsandConditions* string
}
```

ODRStatusResponse

```
{
      trans_id
                       string
      correlationId
                       string
      statusCode
                       string
      statusReason
                       string
      odrRead
                            registeredRead
                                               string
                            readDate
                                              string
                        }
   }
o Error
   {
       errorCode
                        string
       errorKey
                        string
       errorMessage
                        string
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 11: Return Status Codes

- Example
 - ODR Request Status

```
{
    "trans_id": "ABC123",
    "requestorID": "NEWTDSPUSER1",
    "correlationId": "442256",
    "SMTTermsandConditions": "Y"
}
o ODR Status Response
{
```

```
"trans_id": "ABC123",

"correlationId": "442256",

"statusCode": "PEN",

"statusReason": "Request Submitted by API",

"odrRead": {

    "registeredRead": ,

    "readDate": "08/05/2019 22:13:03"

}
```

3.1.1.9Report Status

Function Description –

Get the current status for Ad-Hoc or Subscription requests. Note: This is a synchronous function.

Test URL –

https://uatservices.smartmetertexas.net/reportrequeststatus/

• Production URL -

https://services.smartmetertexas.net/reportrequeststatus/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

• Body Parameter – Report Status

o ODRStatusRequest

```
trans id*
                                       string
                                       pattern: [a-zA-Z0-9]{1,32}
                                       Transaction Id for the Meter Information
                                       API
requestorID*
                                       string
                                       minLength: 1
                                       maxLength: 100
                                       example: SMT_PORTAL_ID
                                       User ID registered at SMT Portal.
correlationId*
                                       string
SMTTermsandConditions*
                                       string
                                       example: Y
                                       Terms and Conditions. Subscription needs
                                       to accept terms & conditions by sending
                                       the value as Y
                                       Enum:
                                       Array [4]
}
```

• <u>Data Parameter Response</u> – Report Status Response

StatusReportResponse

```
{
     trans id
                                                                                           string
                                           [{
AdhocStatusResponse
                                                correlationId
                                                                            string
                                                reportType
                                                                            string
                                                requestDate
                                                                            string
                                                status
                                                                            string
                                                statusCode
                                                                            string
                                                statusReason
                                                                            string
                                           }]
                                           [{
SubscriptionStatusResponse
                                                subscriptionId
                                                                                         string
                                                reportType
                                                                                         string
```

subscriptionFrequency

string

```
subscriptionType string
status string
lastReportGenerationDate string
statusCode string
statusReason string
```

}

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 12: Return Status Codes

• Example -

Report Status Request

```
{
  "trans_id": "A12",
  "requestorID": "NEWTDSPUSER1",
  "serviceType": "ADHOC",
  "correlationId": "6dce368cb7cc11e9a3ad0a04",
  "SMTTermsandConditions": "Y"
}
```

Report Status Response

```
{
    "trans_id": "A12",
    "AdhocStatusResponse" : [ {
        "correlationId": "40f82f4eb7c411e99e090a04",
        "reportType" : "SMTMeterDataSearch",
        "requestDate": "2019-08-05 03:09:08",
        "status": "SUBMITTED"
        }]
}
```

3.1.1.10 New Subscription

- Function Description
 - Create a new subscription for one or more ESIIDs
- Test URL –

https://uatservices.smartmetertexas.net/NewSubscription/

Production URL -

https://services.smartmetertexas.net/NewSubscription/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

- Body Parameters New Subscription
 - NewSubscription

```
{
trans_id*
```

string minLength: 1 maxLength: 32

pattern: [a-zA-Z0-9]{1,32}

Transaction Id for the Subscription

requestorID* string

minLength: 1 maxLength: 32

example: SMT_PORTAL_ID

Subscription User ID

requesterType* string

example: SMT_PORTAL_IDEnum:

Array [12]

requesterAuthenticationID string

minLength: 1 maxLength: 18

example: 12321313213

Requester Company DUNs number

subscriptionType* stringEnum:

Array [4]

historicalSubscriptionDuration integer

ONLY APPLICABLE FOR HISTORICAL BACKFILL SUBCRIPTION (REPENROLL/ CSPENROLL) DEFINES NUMBER OF MONTHS FOR WHICH HISTORICAL DATA

IS REQURIED.

Enum:

Array [5]

reportFormat* string

Format of the requested subscription report. The default report format through delivered through FTP and EML is CSV and the only report format delivered through API is JSON.

Enum:

Array [8]

dataType* stringEnum:

Array [7]

deliveryMode* string

The Asynchronous delivery mechanism for the requested subscription report. For userTypes:

REP, CSP, TDSP, REG the default

deliveryMode is FTP and for userTypes: RES, BUSINESS the default deliveryMode is EML

Enum: Array [6]

$\frac{\mathbf{SMART} \ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

```
reportFrequency
                                        string
                                        The frequency for the requested subscription
                                        report. A mandatory field for subscriptionType
                                        SCHEDULE
                                        Enum:
                                        Array [4]
       SMTTermsandConditions*
                                        string
                                        example: Y
                                        Terms and Conditions. Subscription needs to
                                        accept terms & conditions by sending the
                                        value as Y
                                        Enum:
                                        Array [ 4 ]
       ESIID
                                        [...]
   }
NewSubscriptionResponse
   {
       trans_id
                                string
                                minLength: 1
                                maxLength: 32
                                pattern: [a-zA-Z0-
                                9]{1,32}
                                Id for the
                                Subscription
       subscriptionNumber
                                string
       statusCode
                                string
       statusReason
                                string
       CustomerESIIDFaultList [...]
       CustomerDUNSFaultList [...]
   }

    CustomerESIIDFault

   {
       esiid
                           string
       reasonCode
                           string
   }
```

CustomerDUNSFault

```
{
       duns
                       string
       reasonCode
                       string
o Error
   {
       errorCode
                        string
                        maxLength: 4
       errorKey
                        string
                        maxLength: 25
       errorMessage
                        string
                        maxLength: 128
   }
```

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 13: Return Status Codes

Example –

New Subscription Request

```
{
"trans_id": "A1",
```

```
"requestorID": "CSP-ADMIN",
"requesterType": "CSP",
"requesterAuthenticationID": "079696342",
"subscriptionType": "CSPENROLL",
"historicalSubscriptionDuration": 3,
"reportFormat": "LSE",
"dataType": "INTERVAL",
"deliveryMode": "FTP",
"SMTTermsandConditions": "Y"
}
```

New Subscription Response

```
{
  "trans_id": "A1",
    "subscriptionNumber": "8E5C4B6451F40096E0530A0403227FE4",
    "statusCode": "0000",
    "statusReason": "Success"
}
```

3.1.1.11 Unsubscribe / Cancel Subscription

• Function Description -

Unsubscribe or Cancel an existing subscription on a one subscription per request basis.

Test URL –

https://uatservices.smartmetertexas.net/UnSubscription/

Production URL -

https://services.smartmetertexas.net/UnSubscription/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – Unsubscribe / Cancel Subscription

UnsubscriptionRequest

```
{
       trans_id*
                                    string
                                    pattern: [a-zA-Z0-9]{1,32}
                                    Transaction Id for the Subscription
       requestorID*
                                    string
                                    minLength: 1
                                    maxLength: 32
                                    example: SMT_PORTAL_ID
                                    Subscription User ID
       requesterAuthenticationID
                                    string
                                    minLength: 1
                                    maxLength: 18
                                    example: 12321313213
                                    Requester Company DUNs number
       subscriptionNumber*
                                    string
       SMTTermsandConditions*
                                    string
                                    example: Y
                                    Terms and Conditions. Subscription needs to
                                    accept terms & conditions by sending the value
                                    as Y
                                    Enum:
                                    Array [ 4 ]
       ESIID
                                    [...]
   }

    UnsubscriptionResponse

   {
       trans_id
                         string
       statusCode
                         string
       statusReason
                         string
   }
Error
   {
       errorCode
                       string
                       maxLength: 4
```

```
errorKey string
maxLength: 25
errorMessage string
maxLength: 128
}
```

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	ОК
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 14: Return Status Codes

Example –

o UnSubscription Request

```
{
"trans_id": "A1",
"requestorID": "CSP-ADMIN",
"subscriptionNumber":"8E5C4B6451F40096E0530A0403227FE4",
"SMTTermsandConditions": "Y"
}
```

o UnSubscription Response

```
{
 "trans_id": "A1",
```

```
"statusCode": "0000",
"statusReason": "Success"
}
```

3.1.1.12 List Subscriptions

• Function Description -

Get a list of subscriptions.

Test URL –

https://uatservices.smartmetertexas.net/Mysubscriptions/

Production URL -

https://services.smartmetertexas.net/Mysubscriptions/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

• Body Parameters – List Subscriptions

o SubscriptionList

```
{
    subscriptionNumber string
    startDate string
    reportFormat string
    deliveryType string
    dataType string
    status string
    lastSuccessfulReportDate string
}
```

SubscriptionList

```
trans_id string
statusCode string
```

```
string
       statusReason
       SubscriptionsList
                           [...]
   }
o Error
   {
       errorCode
                       string
                       maxLength: 4
       errorKey
                       string
                       maxLength: 25
       errorMessage
                       string
                       maxLength: 128
   }
```

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 15: Return Status Codes

• Example -

List My Subscriptions Request

```
{
"trans_id": "A123",
"requestorID": "CSP-ADMIN",
```

```
"requesterAuthenticationID": "079696342",
   "SMTTermsandConditions": "y"

    List My Subscriptions Response

   {
     "trans_id": "A123",
     "statusCode": "0000",
     "statusReason": "Success",
     "subscritpionList": [
        "subscriptionNumber": "8DBE0A8D6B0D00F8E0530A040322C1D1",
        "startDate": "2019-07-16 14:12:28",
        "reportformat": "CSV",
        "deliveryType": "FTP",
        "dataType": "DLY",
        "status": "ACT",
        "lastSuccessfulReportDate": null
      },
        "subscriptionNumber": "8DB8E9D8C22A0094E0530A04032238C3",
        "startDate": "2019-07-16 08:05:25",
        "reportformat": "JSON",
        "deliveryType": "API",
        "dataType": "INT",
        "status": "ACT",
        "lastSuccessfulReportDate": null
      },
        "subscriptionNumber": "8DCE794681BF00BEE0530A0403223819",
        "startDate": "2019-07-17 09:48:46",
        "reportformat": "LSE",
        "deliveryType": "FTP",
        "dataType": "HML",
        "status": "ACT",
        "lastSuccessfulReportDate": null
      },
        "subscriptionNumber": "8E5C4B6451F40096E0530A0403227FE4",
        "startDate": "2019-07-24 11:00:41",
        "reportformat": "LSE",
        "deliveryType": "FTP",
```

```
"dataType": "INT",
    "status": "CLS",
    "lastSuccessfulReportDate": null
    }
]
```

3.1.1.13 New Energy Data Sharing Agreement

• Function Description -

Initiate a new Energy Data Sharing Agreement for one or more ESIIDs.

Test URL –

https://uatservices.smartmetertexas.net/NewAgreement/

• Production URL -

https://services.smartmetertexas.net/NewAgreement/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – New Agreement

NewAgreement

```
trans_id*

string

pattern: [a-zA-Z0-9]{1,32}

Id for the agreement between CSP and retail customer

requestorID*

string

minLength: 1

maxLength: 32
```

example: SMT_CSP_PORTAL_ID

CSP User ID registered at SMT Portal, who initiates agreement. requesterAuthenticationID* string minLength: 1 maxLength: 18 example: 12321313213 Requester Company DUNs number retailCustomerEmail* string minLength: 1 maxLength: 64 example: XXXXX @gmail.com End customer email address. agreementDuration* integer example: 9 Duration of agreement in months. Enum: Array [6] customerLanguagePreference string example: ENGLISH Language preference to send agreement notification emails. Enum: Array [4] customerMeterList* [...] SMTTermsandConditions* string example: Y Terms and Conditions. CSP needs to accept terms & conditions by sending the value as Y Enum: Array [4] NewAgreementResponse trans id* string pattern: [a-zA-Z0-9]{1,32} Id for the agreement between CSP and retail customer

}

{

```
agreementNumber* integer
                          example: 100212
       statusCode*
                          string
                          maxLength: 4
                          example: ACK
       statusReason*
                          string
                          maxLength: 256
   }
  NewAgreementFaultResponse
   {
       statusCode*
                             string
                             maxLength: 4
                             example: FLR
       statusReason*
                             string
                             maxLength: 256
       customerMeterFaultList [...]
   }
o Error
   {
       errorCode
                       string
                       maxLength: 4
```

string

string

maxLength: 25

maxLength: 128

Return Status Codes –

errorKey

errorMessage

The following table lists the Status Code and associated Description:

}

$\frac{\mathbf{SMART} \ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 16: Return Status Codes

Example –

New Agreement Request

"trans_id": "64576457",

"statusCode": "ACK",

"agreementNumber": "119098",

```
{
  "trans_id": "64576457",
  "requestorID": "UATCSPAPIDee6",
  "requesterAuthenticationID": "96785888888869",
  "retailCustomerEmail": "delluri281@gmail.com",
  "agreementDuration": 9,
  "customerLanguagePreference": "ENGLISH",
  "customerMeterList": [
    {
        "ESIID": "10032789400250865",
        "meterNumber": "144054330",
        "PUCTRORNumber": 10004
     }
   ],
   "SMTTermsandConditions": "Y"
}
New Agreement Response
```

Proprietary & Confidential

```
"statusReason": "Success" }
```

3.1.1.14 List ESIIDs per Energy Data Sharing Agreement

Function Description –

Get a list of ESIIDs associated with a specific Energy Data Sharing Agreement.

Test URL –

https://uatservices.smartmetertexas.net/AgreementESIIDs/

Production URL -

https://services.smartmetertexas.net/AgreementESIIDs/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – Agreement ESIIDs

AgreementESIIDs

```
{
    trans_id*
                             string
                             pattern: [a-zA-Z0-9]{1,32}
                             Id for the agreement between CSP and retail customer
    requestorID*
                             string
                             minLength: 1
                             maxLength: 32
                             example: SMT_CSP_PORTAL_ID
                             CSP User ID registered at SMT Portal.
    requesterAuthenticationID* string
                             minLength: 1
                             maxLength: 18
                             example: SMT CSP PORTAL ID
                             Requester Company DUNs number
                             integer
    agreementNumber*
```

example: 100212

Proprietary & Confidential

```
SMTTermsandConditions* string
                                 example: Y
                                 Terms and Conditions. CSP needs to accept terms &
                                 conditions by sending the value as Y
                                 Enum:
                                 Array [4]
   }

    TerminateAgreementResponse

   {
       trans_id
                               string
                               pattern: [a-zA-Z0-9]{1,32}
                               Id for the agreement between CSP and retail
                               customer
       statusCode
                               string
                               maxLength: 4
                               example: 0
       statusMessage
                               string
                               maxLength: 128
                               example: Request submitted for your aggrement
                               terminated request
       terminateInitiatedList
                               [...]
       agreementFaultList
                               [...]
   }
  AgreementTerminateInitiated
   {
       agreementNumber*
                             integer
                              example: 100212
       statusCode*
                              string
                              maxLength: 4
                              example: ACK
       statusReason*
                             string
                              maxLength: 256
   }
  AgreementFault
   {
```

```
agreementNumber integer
                          example: 100212
       retailCustomerEmail string
                          minLength: 1
                          maxLength: 100
                          example: XXXXX @gmail.com
                          Customer Email Id to send the Agreement Email.
                          string
       reason
                          maxLength: 256
                          example: Agreement & CustomerEmailId entered do not
                          belong to CSP.
                          Fault Message for the entered input combination of
                          agreementNumber & retailCustomerEmail
   }
o Error
   {
       errorCode
                       string
                       maxLength: 4
       errorKey
                       string
                       maxLength: 25
       errorMessage
                       string
                       maxLength: 128
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 17: Return Status Codes

Example –

o Agreement ESIIDs Request

```
"trans_id": "76876876u8787",
    "requestorID": "UATCSPAPIDee6",
    "requesterAuthenticationID": "96785888888869",
    "agreementNumber": 119098,
    "SMTTermsandConditions": "Y"

    Agreement ESIIDs Response

     "trans_id": "76876876u8787",
     "statusCode": "0000",
     "statusReason": "Success",
     "AgreementESIIDList": [ {
      "ESIID": "10032789400250865",
      "meterNumber": "144054330",
      "PUCTRORNumber": "10004",
      "status": "Pending - Customer Authorization",
      "startDate": "07/23/2019",
      "endDate": "04/23/2020"
    }]
   }
```

3.1.1.15 Terminate Energy Data Sharing Agreement

• Function Description -

Terminate one or more Energy Data Sharing Agreements.

Test URL –

https://uatservices.smartmetertexas.net/Terminateagreement/

Production URL –

https://services.smartmetertexas.net/Terminateagreement/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

<u>Body Parameters</u> – Terminate Agreement

TerminateAgreement

```
{
    trans id*
                             string
                             pattern: [a-zA-Z0-9]{1,32}
                             Id for the agreement between CSP and retail customer
    requestorID*
                             string
                             minLength: 1
                             maxLength: 32
                             example: SMT_CSP_PORTAL_ID
                             CSP User ID registered at SMT Portal.
    requesterAuthenticationID* string
                             minLength: 1
                             maxLength: 18
                             example: SMT_CSP_PORTAL_ID
                             Requester Company DUNs number
    agreementList*
                             [...]
    SMTTermsandConditions* string
                             example: Y
                             Terms and Conditions. CSP needs to accept terms &
```

conditions by sending the value as Y

Enum: Array [4] } TerminateAgreementResponse { trans_id string pattern: [a-zA-Z0-9]{1,32} Id for the agreement between CSP and retail customer statusCode string maxLength: 4 example: 0 statusMessage string maxLength: 128 example: Request submitted for your aggrement terminated request terminateInitiatedList [...] agreementFaultList } AgreementTerminateInitiated { agreementNumber* integer example: 100212 statusCode* string maxLength: 4 example: ACK statusReason* string maxLength: 256 } AgreementFault { agreementNumber integer example: 100212 retailCustomerEmail string minLength: 1 maxLength: 100 example: XXXXX @gmail.com

Customer Email Id to send the Agreement Email.

reason string

maxLength: 256

example: Agreement & CustomerEmailId entered do not

belong to CSP.

Fault Message for the entered input combination of

agreementNumber & retailCustomerEmail

}

o Error

```
errorCode string
maxLength: 4
errorKey string
maxLength: 25
errorMessage string
maxLength: 128
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 18: Return Status Codes

• Example -

o Terminate Agreement Request

```
"trans_id": "6827364j87987",
    "requestorID": "UATCSPAPIDee6",
    "requesterAuthenticationID": "9678588888869",
    "agreementList": [
      "agreementNumber": 119098,
      "retailCustomerEmail": "delluri281@gmail.com"
    "SMTTermsandConditions": "Y"

    Terminate Agreement Response

     "trans_id": "6827364j87987",
     "statusCode": "0000",
     "statusReason": "Agreement termination successful",
     "terminateInitiatedList": [ {
      "agreementNumber": 119098,
      "statusCode": "ACK",
      "statusReason": "Success"
    }]
```

3.1.1.16 Status of Energy Data Sharing Agreement

Function Description –

Get a status of one or more Energy Data Sharing Agreements.

<u>Test URL</u> –

https://uatservices.smartmetertexas.net/myagreements/

Production URL -

https://services.smartmetertexas.net/myagreements/

• Method -

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

The name of the CSP

<u>Body Parameters</u> – Agreement Status

AgreementStatus

```
{
    agreementNumber*
                                 integer
                                 example: 100212
    startDate*
                                 string
                                 minLength: 1
                                 maxLength: 30
    endDate*
                                 string
                                 minLength: 1
                                 maxLength: 30
    CSPName*
                                 string
                                 minLength: 1
                                 maxLength: 100
                                 example: cspbrand1
```

```
requesterAuthenticationID*
                                    string
                                    minLength: 1
                                    maxLength: 18
                                    example: SMT_CSP_PORTAL_ID
                                    Requester Company DUNs number
       retailCustomerEmail*
                                    string
                                    minLength: 1
                                    maxLength: 100
                                    example: XXXXX @gmail.com
                                    Customer Email Id to send the Agreement Email.
       status*
                                    string
                                    example: Active, About to expire, Terminated in
                                    last 45 days, Expire in last 45 days, Not accepted
                                    list
                                    The status Message for Agreement
                                    Enum:
                                    Array [ 11 ]
   }
Error
   {
       errorCode
                       string
                       maxLength: 4
       errorKey
                       string
                       maxLength: 25
       errorMessage
                       string
                       maxLength: 128
   }
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 19: Return Status Codes

3.1.1.17 List of Energy Data Sharing Agreement

Function Description –

Get a list of one or more Energy Data Sharing Agreements.

Test URL –

https://uatservices.smartmetertexas.net/myagreements/

• Production URL -

https://services.smartmetertexas.net/myagreements/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – My Agreements

```
    MyAgreements
```

```
trans_id* string

pattern: [a-zA-Z0-9]{1,32}

Id for the agreement between CSP and retail customer
```

```
requestorID*
                              string
                              minLength: 1
                              maxLength: 32
                              example: SMT CSP PORTAL ID
                              CSP User ID registered at SMT Portal.
      requesterAuthenticationID* string
                              minLength: 1
                              maxLength: 18
                              example: SMT_CSP_PORTAL_ID
                              Requester Company DUNs number
      agreementNumber
                              integer
                              example: 100212
      statusReason
                              string
                              example: ACT
                              Status of Agreement for Customer. PEN - Pending, ACT - Active, COM -
                              Completed, NACOM - Not Accepted Completed
                              Enum:
                              Array [4]
      SMTTermsandConditions* string
                              example: Y
                              Terms and Conditions. CSP needs to accept terms & conditions by
                              sending the value as Y
                              Enum:
                              Array [4]
 }
 MyAgreementsResponse
 {
      trans_id
                                string
                                pattern: [a-zA-Z0-9]{1,32}
                                Id for the agreement between CSP and
                                retail customer
      statusCode
                                string
                                maxLength: 4
      statusReason
                                string
                                maxLength: 256
      agreementStatusList
                                [...]
 }
Error
 {
```

```
errorCode string
maxLength: 4
errorKey string
maxLength: 25
errorMessage string
maxLength: 128
```

• Return Status Codes -

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 20: Return Status Codes

Example –

o My Agreements Request

```
{
  "trans_id": "45674657f7376893hjh",
  "requestorID": "UATCSPAPIDee6",
  "requesterAuthenticationID": "9678588888869",
  "agreementNumber": 119098,
  "statusReason": "PEN",
  "SMTTermsandConditions": "Y"
}
```

My Agreements Response

3.2 SOAP Functions

3.2.1 Ad-Hoc

3.2.1.1Energy Data (15-Minute Interval Data, or Daily Register Reads, or Monthly Billing Reads)

Function Description –

Get 15-Minute Interval Consumption and Generation Data, or Daily Register Reads, or Monthly Billing Reads for one or more ESIIDs or all ESIIDs of one DUNS.

Test URL –

https://uatservices.smartmetertexas.net/energydata/

Production URL -

https://services.smartmetertexas.net/energydata/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameter

Energy Data Request

```
<xsd:complexType name="EnergyDataRequest">
         <xsd:sequence>
               <xsd:element minOccurs="1" name="trans_id">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                            </xsd:restriction>
                      </xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="requestorID">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="32"/>
                            </xsd:restriction>
                      </xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="requesterType">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="REP"/>
                                   <xsd:enumeration value="RES"/>
                                   <xsd:enumeration value="BUSINESS"/>
                                   <xsd:enumeration value="CSP"/>
                                   <xsd:enumeration value="TDSP"/>
                                   <xsd:enumeration value="REG"/>
                                   <xsd:enumeration value="rep"/>
                                   <xsd:enumeration value="res"/>
                                   <xsd:enumeration value="business"/>
                                   <xsd:enumeration value="csp"/>
                                   <xsd:enumeration value="tdsp"/>
                                   <xsd:enumeration value="reg"/>
                            </xsd:restriction>
```

```
</xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="requesterAuthenticationID">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1"/>
                   <xsd:maxLength value="18"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="startDate">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1"/>
                   <xsd:maxLength value="10"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="endDate">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1"/>
                   <xsd:maxLength value="10"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="deliveryMode">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:enumeration value="FTP"/>
                   <xsd:enumeration value="EML"/>
                   <xsd:enumeration value="API"/>
                   <xsd:enumeration value="ftp"/>
                   <xsd:enumeration value="eml"/>
                   <xsd:enumeration value="api"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
```

```
<xsd:element minOccurs="0" name="reportFormat">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="MARS"/>
                                   <xsd:enumeration value="CSV"/>
                                   <xsd:enumeration value="JSON"/>
                                   <xsd:enumeration value="mars"/>
                                   <xsd:enumeration value="csv"/>
                                   <xsd:enumeration value="json"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="version">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="A"/>
                                   <xsd:enumeration value="L"/>
                                   <xsd:enumeration value="a"/>
                                   <xsd:enumeration value="I"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="0" name="readingType">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="C"/>
                                   <xsd:enumeration value="G"/>
                                   <xsd:enumeration value="A"/>
                                   <xsd:enumeration value="c"/>
                                   <xsd:enumeration value="g"/>
                                   <xsd:enumeration value="a"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element maxOccurs="1" minOccurs="1" name="ESIIDList"</pre>
type="bons1:ESIIDList">
                </xsd:element>
```

Body Parameter Response –

```
Asynchronous Response
```

```
<xsd:complexType name="Acknowledgement">
                <xsd:sequence>
                       <xsd:element minOccurs="1" name="trans_id">
                             <xsd:simpleType>
                                    <xsd:restriction base="xsd:string">
                                          <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                                    </xsd:restriction>
                             </xsd:simpleType>
                       </xsd:element>
                       <xsd:element minOccurs="1" name="correlationId"</p>
type="xsd:string">
                       </xsd:element>
                       <xsd:element minOccurs="0" name="statusCode"</pre>
type="xsd:integer">
                       </xsd:element>
                       <xsd:element minOccurs="0" name="statusReason">
                             <xsd:simpleType>
                                    <xsd:restriction base="xsd:string">
                                          <xsd:maxLength value="256"/>
                                    </xsd:restriction>
                             </xsd:simpleType>
```

```
</ra>
</xsd:element>
</sd:element maxOccurs="1" minOccurs="1"

name="faultESIIDList" type="bons1:FaultESIIDList">
</xsd:element>

</xsd:sequence>
</xsd:complexType>
```

Synchronous Response - 15-Minutes Interval Data

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_MeterUsageSOAP"
xmlns:bons1="http://schemas.esb.ams.com/meterusagelib">
   <xsd:import namespace="http://schemas.esb.ams.com/meterusagelib"</p>
schemaLocation="IntervalEnergyDataList.xsd"/>
   <xsd:complexType name="IntervalEnergyDataResponse">
         <xsd:sequence>
                <xsd:element minOccurs="1" name="trans_id">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="esiid">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:maxLength value="64"/>
                                   <xsd:minLength value="17"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element maxOccurs="1" minOccurs="1" name="energyDataList"</pre>
type="bons1:IntervalEnergyDataList">
```

</xsd:element> </xsd:sequence> </xsd:complexType> </xsd:schema> <?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://schemas.esb.ams.com/meterusagelib" xmlns:bons0="http://schemas.esb.ams.com/meterusagelib"> <xsd:include schemaLocation="IntervalEnergyData.xsd"/> <xsd:complexType name="IntervalEnergyDataList"> <xsd:sequence maxOccurs="unbounded" minOccurs="1"> <xsd:element maxOccurs="unbounded" minOccurs="1"</pre> name="energyData" type="bons0:IntervalEnergyData"> </xsd:element> </xsd:sequence> </xsd:complexType> </xsd:schema> <?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://schemas.esb.ams.com/meterusagelib" xmlns:bons0="http://schemas.esb.ams.com/meterusagelib"> <xsd:complexType name="IntervalEnergyData"> <xsd:sequence> <xsd:element minOccurs="1" name="DT"> <xsd:simpleType> <xsd:restriction base="xsd:string"> <xsd:minLength value="1"/> <xsd:maxLength value="10"/>

</xsd:restriction>

```
</xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="RevTS">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="10"/>
                            </xsd:restriction>
                      </xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="RT">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="1"/>
                            </xsd:restriction>
                      </xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="RD" type="xsd:string">
               </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
```

Synchronous Response - Daily Registered Read

```
<xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="esiid">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:maxLength value="64"/>
                                   <xsd:minLength value="17"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="registeredReadList" type="bons1:DailyRegisteredReadList">
                </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.esb.ams.com/meterusagelib"
xmlns:bons0="http://schemas.esb.ams.com/meterusagelib">
   <xsd:include schemaLocation="DailyRegisteredRead.xsd"/>
   <xsd:complexType name="DailyRegisteredReadList">
         <xsd:sequence maxOccurs="unbounded" minOccurs="1">
                <xsd:element maxOccurs="unbounded" minOccurs="1"</pre>
name="registeredRead" type="bons0:DailyRegisteredRead">
                </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
```

<?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://schemas.esb.ams.com/meterusagelib" xmlns:bons0="http://schemas.esb.ams.com/meterusagelib"> <xsd:complexType name="DailyRegisteredRead"> <xsd:sequence> <xsd:element minOccurs="1" name="readDate"> <xsd:simpleType> <xsd:restriction base="xsd:string"> <xsd:minLength value="1"/> <xsd:maxLength value="10"/> </xsd:restriction> </xsd:simpleType> </xsd:element> <xsd:element minOccurs="1" name="revisionDate"> <xsd:simpleType> <xsd:restriction base="xsd:string"> <xsd:minLength value="1"/> <xsd:maxLength value="10"/> </xsd:restriction> </xsd:simpleType> </xsd:element> <xsd:element minOccurs="1" name="startReading" type="xsd:string"> </xsd:element> <xsd:element minOccurs="1" name="endReading" type="xsd:string"> </xsd:element> <xsd:element minOccurs="1" name="energyDataKwh" type="xsd:string"> </xsd:element> </xsd:sequence> </xsd:complexType> </xsd:schema>

</xsd:schema>

Synchronous Response – Monthly Billing Information

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_MeterUsageSOAP"
xmlns:bons1="http://schemas.esb.ams.com/meterusagelib">
   <xsd:import namespace="http://schemas.esb.ams.com/meterusagelib"</p>
schemaLocation="MonthlyBillingDataList.xsd"/>
   <xsd:complexType name="MonthlyBillingDataResponse">
         <xsd:sequence>
                <xsd:element minOccurs="1" name="trans_id">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="esiid">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:maxLength value="64"/>
                                   <xsd:minLength value="17"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element maxOccurs="1" minOccurs="1" name="billingDataList"</pre>
type="bons1:MonthlyBillingDataList">
                </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
```

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.esb.ams.com/meterusagelib"
xmlns:bons0="http://schemas.esb.ams.com/meterusagelib">
   <xsd:include schemaLocation="MonthlyBillingData.xsd"/>
   <xsd:complexType name="MonthlyBillingDataList">
         <xsd:sequence maxOccurs="unbounded" minOccurs="1">
               <xsd:element maxOccurs="unbounded" minOccurs="1"</pre>
name="billingData" type="bons0:MonthlyBillingData">
               </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://schemas.esb.ams.com/meterusagelib"
xmlns:bons0="http://schemas.esb.ams.com/meterusagelib">
   <xsd:complexType name="MonthlyBillingData">
         <xsd:sequence>
               <xsd:element minOccurs="1" name="startDate">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                  <xsd:minLength value="1"/>
                                  <xsd:maxLength value="10"/>
                            </xsd:restriction>
                      </xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="endDate">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                  <xsd:minLength value="1"/>
                                  <xsd:maxLength value="10"/>
                            </xsd:restriction>
                      </xsd:simpleType>
```

```
</xsd:element>
               <xsd:element minOccurs="1" name="revisionDate">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                  <xsd:minLength value="1"/>
                                  <xsd:maxLength value="10"/>
                            </xsd:restriction>
                      </xsd:simpleType>
               </xsd:element>
               <xsd:element minOccurs="1" name="actualkWh" type="xsd:string">
               </xsd:element>
               <xsd:element minOccurs="1" name="meteredKW" type="xsd:string">
               </xsd:element>
               <xsd:element minOccurs="1" name="billedKW" type="xsd:string">
               </xsd:element>
               <xsd:element minOccurs="1" name="meteredKVA" type="xsd:string">
               </xsd:element>
               <xsd:element minOccurs="1" name="billedKVA" type="xsd:string">
               </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
```

Return Status Codes –

The following table lists the Status Code and associated Description:

$\frac{\mathbf{SMART}\ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 21: Return Status Codes

• Example -

15-Minutes Interval Data

Request with no delivery mode (Synchronous response)

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</p>
xmlns:met="http://schemas.esb.ams.com/meterusagesource">
 <soapenv:Header/>
 <soapenv:Body>
   <met:processIntervalEnergyData>
     <EnergyDataRequest>
       <trans_id>A12</trans_id>
       <requestorID>CSPAPIUser1</requestorID>
       <requesterType>CSP</requesterType>
       <!--Optional:-->
       <requesterAuthenticationID>199999999999999/requesterAuthenticationID>
       <startDate>04/20/2019</startDate>
       <endDate>04/20/2019</endDate>
       <!--Optional:-->
       <!--<deliveryMode>JSON</deliveryMode>
:-->
       <!--Optional:-->
       <!-- <reportFormat>?</reportFormat>
       <version>L</version>
       <!--Optional:-->
```

Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
 <soapenv:Body>
   <NS1:processIntervalEnergyDataResponse
xmlns:NS1="http://schemas.esb.ams.com/meterusagesource">
     <IntervalEnergyDataSyncResponse>
       <trans_id>A12</trans_id>
       <esiid>10443720008107413</esiid>
       <energyDataList>
        <energyData>
          <DT>04/20/2019</DT>
          <RevTS>04/21/2019 09:49:58</RevTS>
          <RT>C</RT>
          <RD>.2-A..24-A..221-A..232-A..21-A..163-A..192-A..202-A......185-A..21-
A,.188-A,.174-A,.2-A,.214-A,.199-A,.19-A,.187-A,.18-A,.203-A,.192-A,.164-A,.196-
A,.196-A,.196-A,.212-A,.16-A,1.177-A,1.225-A,1.246-A,.325-A,.211-A,.191-A,.253-
A,.24-A,.197-A,.22-A,.222-A,.211-A,.234-A,.208-A,.18-A,.203-A,.221-A,.229-A,.236-
A,.254-A,.217-A,.275-A,.233-A,.239-A,.253-A,.271-A,.26-A,.286-A,.282-A,.168-A,.218-
A,.209-A,.762-A,.586-A,.222-A,.211-A,.708-A,.275-A,.474-A,.851-A,.475-A,.23-A,1.769-
A,1.566-A,1.492-A,.658-A,.92-A,.821-A,.763-A,.637-A,.668-A,.275-A,.666-A,.731-
A..307-A,1.17-A,.662-A,.246-A,.232-A,.56-A,.794-A,.353-A,.259-A,.193-A,.2-A,.199-
A,.223-A,.65-A,.714-A,.329-A</RD>
         </energyData>
       </energyDataList>
     </IntervalEnergyDataSyncResponse>
```

```
</NS1:processIntervalEnergyDataResponse>
</soapenv:Body>
</soapenv:Envelope>
```

Daily Registered Reads

```
Request with delivery mode email and report format CSV
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</p>
xmlns:met="http://schemas.esb.ams.com/meterusagesource">
 <soapenv:Header/>
 <soapenv:Body>
   <met:processDailyRegisteredReads>
     <EnergyDataRequest>
       <trans_id>A12</trans_id>
       <requestorID>CSPAPIUser1</requestorID>
       <requesterType>CSP</requesterType>
       <!--Optional:-->
       <requesterAuthenticationID>199999999999/requesterAuthenticationID>
       <startDate>04/20/2019</startDate>
       <endDate>05/20/2019</endDate>
       <!--Optional:-->
       <deliveryMode>EML</deliveryMode>
       <!--Optional:-->
       <reportFormat>CSV</reportFormat>
       <version>L</version>
       <!--Optional:-->
       <readingType>C</readingType>
       <ESIIDList>
        <!--1 or more repetitions:-->
        <ESIID>10443720008107413</ESIID>
       </ESIIDList>
       <SMTTermsandConditions>Y</SMTTermsandConditions>
     </EnergyDataRequest>
   </met:processDailyRegisteredReads>
 </soapenv:Body>
</soapenv:Envelope>
```

Response

Monthly Billing Information

Request with delivery mode FTP and Report format CSV

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</p>
xmlns:met="http://schemas.esb.ams.com/meterusagesource">
 <soapenv:Header/>
 <soapenv:Body>
   <met:processMonthlyBillingInformation>
     <EnergyDataRequest>
      <trans_id>A12</trans_id>
      <requestorID>CSPAPIUser1</requestorID>
      <requesterType>CSP</requesterType>
      <!--Optional:-->
      <requesterAuthenticationID>19999999999/requesterAuthenticationID>
       <startDate>04/20/2019</startDate>
       <endDate>05/20/2019</endDate>
      <!--Optional:-->
      <deliveryMode>FTP</deliveryMode>
       <!--Optional:-->
       <reportFormat>CSV</reportFormat>
       <version>L</version>
      <!--Optional:-->
       <readingType>C</readingType>
```

```
<ESIIDList>
    <!--1 or more repetitions:-->
    <ESIID>10443720008107413</ESIID>
    </ESIIDList>
    <SMTTermsandConditions>Y</SMTTermsandConditions>
    </EnergyDataRequest>

</met:processMonthlyBillingInformation>
    </soapenv:Body>
</soapenv:Envelope>
```

Response

3.2.1.2Meter Attributes

Function Description –

Get Meter Attributes for one or more ESIIDs, or all ESIIDs of one DUNs.

Test URL –

https://uatservices.smartmetertexas.net/MeterInformation/

Production URL -

https://services.smartmetertexas.net/MeterInformation/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

<u>Body Parameter</u> – Meter Attributes

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_MeterInformationSOAP"
xmlns:bons1="http://com.ibm.smtesb/meter">
      <xsd:element name="MeterSearchRequest">
            <xsd:complexType>
                   <xsd:sequence>
                   <xsd:element minOccurs="1" name="trans_id">
            <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="0"/>
                                      <xsd:maxLength value="32"/>
                                      <xsd:pattern value="[a-zA-Z0-9]+"/>
                               </xsd:restriction>
                         </xsd:simpleType>
      </xsd:element>
                                      <xsd:element minOccurs="1"</pre>
name="requestorID">
            <xsd:simpleType>
                   <xsd:restriction base="xsd:string">
                         <xsd:minLength value="1"/>
                         <xsd:maxLength value="100"/>
                   </xsd:restriction>
            </xsd:simpleType>
      </xsd:element>
      <xsd:element minOccurs="1" name="requesterType">
            <xsd:simpleType>
```

```
<xsd:restriction base="xsd:string">
                   <xsd:enumeration value="REP"/>
                   <xsd:enumeration value="RES"/>
                   <xsd:enumeration value="BUSINESS"/>
                   <xsd:enumeration value="CSP"/>
                   <xsd:enumeration value="TDSP"/>
                   <xsd:enumeration value="REG"/>
                   <xsd:enumeration value="rep"/>
                   <xsd:enumeration value="res"/>
                   <xsd:enumeration value="business"/>
                   <xsd:enumeration value="csp"/>
                   <xsd:enumeration value="tdsp"/>
                   <xsd:enumeration value="reg"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="requesterAuthenticationID">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:maxLength value="16"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="deliveryMode">
<xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:enumeration value="FTP"/>
                   <xsd:enumeration value="EML"/>
                   <xsd:enumeration value="API"/>
                   <xsd:enumeration value="ftp"/>
                   <xsd:enumeration value="eml"/>
                   <xsd:enumeration value="api"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="reportFormat">
<xsd:simpleType>
```

```
<xsd:restriction base="xsd:string">
                          <xsd:enumeration value="CSV"/>
                          <xsd:enumeration value="JSON"/>
                          <xsd:enumeration value="XML"/>
                          <xsd:enumeration value="csv"/>
                          <xsd:enumeration value="xml"/>
                          <xsd:enumeration value="json"/>
                   </xsd:restriction>
             </xsd:simpleType>
      </xsd:element>
      <xsd:element minOccurs="1" name="version">
                                                    <xsd:simpleType>
                                                           <xsd:restriction</pre>
base="xsd:string">
                                                           <xsd:enumeration value="A"/>
                                       <xsd:enumeration value="a"/>
                                       <xsd:enumeration value="L"/>
                                       <xsd:enumeration value="l"/>
                                                           </xsd:restriction>
                                                    </xsd:simpleType>
                                              </xsd:element>
      <xsd:element minOccurs="0" name="ESIIDMeterList">
             <xsd:complexType>
                   <xsd:sequence>
                          <xsd:element maxOccurs="unbounded" minOccurs="1"</p>
name="ESIIDMeter">
                                <xsd:complexType>
                                       <xsd:sequence>
                                              <xsd:element minOccurs="1"</pre>
name="esiid">
                                                    <xsd:simpleType>
                                                           <xsd:restriction</pre>
base="xsd:string">
                                                                 <xsd:minLength
value="9"/>
                                                                 <xsd:maxLength
value="64"/>
                                                           </xsd:restriction>
```

```
</xsd:simpleType>
                                             </xsd:element>
                                             <xsd:element minOccurs="0"
name="meterNumber">
                                                   <xsd:simpleType>
                                                          <xsd:restriction</pre>
base="xsd:string">
                                                                <xsd:minLength
value="1"/>
                                                                <xsd:maxLength
value="30"/>
                                                          </xsd:restriction>
                                                   </xsd:simpleType>
                                             </xsd:element>
                                       </xsd:sequence>
                                </xsd:complexType>
                          </xsd:element>
                   </xsd:sequence>
             </xsd:complexType>
      </xsd:element>
      <xsd:element minOccurs="0" name="SMTTermsandConditions">
                                                   <xsd:simpleType>
                                                          <xsd:restriction</pre>
base="xsd:string">
                                                          <xsd:enumeration value="Y"/>
                                       <xsd:enumeration value="N"/>
                                       <xsd:enumeration value="y"/>
                                       <xsd:enumeration value="n"/>
                                                          </xsd:restriction>
                                                   </xsd:simpleType>
                                             </xsd:element>
                   </xsd:sequence>
            </xsd:complexType>
      </xsd:element>
             </xsd:schema>
```

• Body Parameter Response -

Synchronous Response

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_MeterInformationSOAP"
xmlns:bons1="http://BIM_MeterInformationSOAP">
      <xsd:include schemaLocation="MeterData.xsd"/>
      <xsd:element name="MeterInformationResponse">
            <xsd:complexType>
                   <xsd:sequence>
                         <xsd:element minOccurs="1" name="trans_id">
                                <xsd:simpleType>
                                      <xsd:restriction base="xsd:string">
                                             <xsd:pattern value="[a-zA-Z0-</pre>
9]{1,32}"/>
                                      </xsd:restriction>
                                </xsd:simpleType>
                         </xsd:element>
                         <xsd:element minOccurs="1" name="esiid">
                                                   <xsd:simpleType>
                                                         <xsd:restriction
base="xsd:string">
                                                                <xsd:minLength
value="9"/>
                                                                <xsd:maxLength
value="64"/>
                                                         </xsd:restriction>
                                                   </xsd:simpleType>
                                             </xsd:element>
                         <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="MeterData"
type="bons1:MeterData">
</xsd:element>
                   </xsd:sequence>
            </xsd:complexType>
      </xsd:element>
```

</xsd:schema>

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_MeterInformationSOAP"
xmlns:bons0="http://com.ibm.smtesb/meter">
      <xsd:complexType name="MeterData">
            <xsd:sequence>
                   <xsd:element minOccurs="0" name="utilityCompanyId"
                         type="xsd:string">
                   </xsd:element>
                   <xsd:element minOccurs="1" name="ESIID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="17" />
                                      <xsd:maxLength value="64" />
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="meterSerialNumber">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1" />
                                      <xsd:maxLength value="30" />
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="utilityMeterId">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1" />
                                      <xsd:maxLength value="30" />
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="KWHMeterMultiplier"</p>
                         type="xsd:string">
```

```
</xsd:element>
<xsd:element minOccurs="1" name="configuredChannels"</p>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="manufacturerName">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1" />
                   <xsd:maxLength value="50" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="testDate"</pre>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="meterClass"</p>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="installationDate"</p>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="initialProvisionDate"</p>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="communicationIndicator">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1" />
                   <xsd:maxLength value="3" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="instrumentRated">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:length value="1" />
                   <xsd:enumeration value="Y" />
                   <xsd:enumeration value="N" />
```

```
<xsd:enumeration value="y" />
                   <xsd:enumeration value="n" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0"</pre>
      name="currentTransformersRatio">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0" />
                   <xsd:maxLength value="16" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0"</pre>
      name="potentialTransformersRatio">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0" />
                   <xsd:maxLength value="16" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="esiFirmwareVersion">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1" />
                   <xsd:maxLength value="16" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="HANProtocol">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0" />
                   <xsd:maxLength value="22" />
             </xsd:restriction>
      </xsd:simpleType>
```

```
</xsd:element>
<xsd:element minOccurs="1" name="smartEnergyProfile">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1" />
                   <xsd:maxLength value="22" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="intervalSetting"</pre>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="reverseFlowHandling">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:length value="1" />
                   <xsd:enumeration value="Y" />
                   <xsd:enumeration value="N" />
                   <xsd:enumeration value="y" />
                   <xsd:enumeration value="n" />
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="DGChannel"</pre>
      type="xsd:string">
</xsd:element>
<xsd:element minOccurs="1" name="disconnect">
      <xsd:simpleType>
             <xsd:restriction base="xsd:string">
                   <xsd:length value="1" />
                   <xsd:enumeration value="Y" />
                   <xsd:enumeration value="N" />
                   <xsd:enumeration value="y" />
                   <xsd:enumeration value="n"/>
             </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
```

```
<xsd:element minOccurs="0" name="meterStatus">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:enumeration value="E"/>
                                       <xsd:enumeration value="D" />
                                       <xsd:enumeration value="e"/>
                                       <xsd:enumeration value="d" />
                                       <xsd:minLength
value="0"></xsd:minLength>
                                      <xsd:maxLength</pre>
value="1"></xsd:maxLength>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0" name="meterPhases"</pre>
                         type="xsd:string">
                   </xsd:element>
                   <xsd:element minOccurs="0" name="meterModel">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="0" />
                                       <xsd:maxLength value="30" />
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
             </xsd:sequence>
      </xsd:complexType>
</xsd:schema>
```

o Acknowledgement Response

```
<xsd:element name="Acknowledgement">
             <xsd:complexType>
                   <xsd:sequence>
                          <xsd:element minOccurs="1" name="trans_id">
                                <xsd:simpleType>
                                       <xsd:restriction base="xsd:string">
                                             <xsd:pattern value="[a-zA-Z0-</pre>
9]{1,32}"/>
                                       </xsd:restriction>
                                </xsd:simpleType>
                          </xsd:element>
                          <xsd:element minOccurs="1" name="correlationId"</pre>
type="xsd:string">
                          </xsd:element>
                          <xsd:element minOccurs="0" name="statusCode"
type="xsd:integer">
                          </xsd:element>
                          <xsd:element minOccurs="0" name="statusReason">
                                <xsd:simpleType>
                                       <xsd:restriction base="xsd:string">
                                             <xsd:maxLength value="256"/>
                                       </xsd:restriction>
                                </xsd:simpleType>
                          </xsd:element>
                          <xsd:element maxOccurs="1" minOccurs="1"
name="faultESIIDs" type="bons1:FaultESIIDList">
                          </xsd:element>
                   </xsd:sequence>
             </xsd:complexType>
      </xsd:element>
</xsd:schema>
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	<pre>{"error":"Something went wrong. Please try again later."}</pre>

Table 22: Return Status Codes

• Example -

Meter Attributes

Request with Delivery mode EML and report format CSV

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</p>
xmlns:bim="http://BIM_MeterInformationSOAP">
  <soapenv:Header/>
  <soapenv:Body>
   <bim:prosessMeterInformation>
     <br/>
<br/>
dim:MeterSearchRequest>
       <trans id>123</trans id>
       <requestorID>CSPAPIUser1</requestorID>
       <requesterType>CSP</requesterType>
       <!--Optional:-->
       <requesterAuthenticationID>199999999999/requesterAuthenticationID>
       <!--Optional:-->
       <deliveryMode>EML</deliveryMode>
       <!--Optional:-->
       <reportFormat>csv</reportFormat>
       <version>L</version>
       <!--Optional:-->
       <ESIIDMeterList>
         <!--1 or more repetitions:-->
         <ESIIDMeter>
          <esiid>10443720008107413</esiid>
```

```
<!--Optional:-->

</ESIIDMeter>

</ESIIDMeterList>

<!--Optional:-->

<SMTTermsandConditions>y</SMTTermsandConditions>

</bim:MeterSearchRequest>

</bim:prosessMeterInformation>

</soapenv:Body>

</soapenv:Envelope>
```

Response

3.2.1.3Premise Attributes

Function Description –

Get Premise Attributes for one or more ESIIDs, or all ESIIDs of one DUNs.

Test URL –

https://uatservices.smartmetertexas.net/PremiseInformation/

Production URL -

https://services.smartmetertexas.net/PremiseInformation/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

Body Parameters – Premise Attributes

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_PremiseInformationSOAP"
xmlns:bons0="http://BIM_PremiseInformationSOAP"
xmlns:bons1="http://com.ibm.smtesb/premise">
      <xsd:import namespace="http://com.ibm.smtesb/premise"</pre>
schemaLocation="ESIIDList.xsd">
      </xsd:import>
      <xsd:complexType name="PremiseSearchRequest">
            <xsd:sequence>
                   <xsd:element minOccurs="1" name="trans_id">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                               </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requestorID">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="100"/>
                               </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requesterType">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="REP"/>
                                      <xsd:enumeration value="RES"/>
```

```
<xsd:enumeration value="BUSINESS"/>
                   <xsd:enumeration value="NON"/>
                   <xsd:enumeration value="CSP"/>
                   <xsd:enumeration value="TDSP"/>
                   <xsd:enumeration value="REG"/>
                   <xsd:enumeration value="rep"/>
                   <xsd:enumeration value="res"/>
                   <xsd:enumeration value="business"/>
                   <xsd:enumeration value="csp"/>
                   <xsd:enumeration value="tdsp"/>
                   <xsd:enumeration value="reg"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="requesterAuthenticationID">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:maxLength value="16"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="deliveryMode">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:enumeration value="FTP"/>
                   <xsd:enumeration value="EML"/>
                   <xsd:enumeration value="API"/>
                   <xsd:enumeration value="ftp"/>
                   <xsd:enumeration value="eml"/>
                   <xsd:enumeration value="api"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="reportFormat">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:enumeration value="CSV"/>
                   <xsd:enumeration value="JSON"/>
```

```
<xsd:enumeration value="csv"/>
                                       <xsd:enumeration value="json"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="version">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:enumeration value="A"/>
                                       <xsd:enumeration value="a"/>
                                       <xsd:enumeration value="L"/>
                                       <xsd:enumeration value="I"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element maxOccurs="1" minOccurs="0" name="ESIIDList"</pre>
type="bons1:ESIIDList">
                   </xsd:element>
                   <xsd:element minOccurs="1" name="SMTTermsandConditions">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:enumeration value="Y"/>
                                       <xsd:enumeration value="N"/>
                                       <xsd:enumeration value="y"/>
                                       <xsd:enumeration value="n"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
             </xsd:sequence>
      </xsd:complexType>
</xsd:schema>
```

- Body Parameter Response
 - Synchronous Response

<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"</pre>

```
targetNamespace="http://BIM_PremiseInformationSOAP"
xmlns:bons1="http://com.ibm.smtesb/premise">
      <xsd:import namespace="http://com.ibm.smtesb/premise"</pre>
schemaLocation="PremiseData.xsd"/>
      <xsd:element name="PremiseInformationResponse">
            <xsd:complexType>
                   <xsd:sequence>
                         <xsd:element minOccurs="1" name="trans_id">
                                <xsd:simpleType>
                                      <xsd:restriction base="xsd:string">
                                            <xsd:pattern value="[a-zA-Z0-</pre>
9]{1,32}"/>
                                      </xsd:restriction>
                                </xsd:simpleType>
                         </xsd:element>
                         <xsd:element minOccurs="1" name="esiid">
                                                   <xsd:simpleType>
                                                         <xsd:restriction
base="xsd:string">
                                                               <xsd:minLength
value="9"/>
                                                               <xsd:maxLength
value="64"/>
                                                         </xsd:restriction>
                                                   </xsd:simpleType>
                                            </xsd:element>
                         <xsd:element maxOccurs="1" minOccurs="1"
name="PremiseData" type="bons1:PremiseData">
                         </xsd:element>
                   </xsd:sequence>
            </xsd:complexType>
      </xsd:element>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
```

```
targetNamespace="http://com.ibm.smtesb/premise"
xmlns:bons0="http://com.ibm.smtesb/premise">
      <xsd:complexType name="PremiseData">
             <xsd:sequence>
                   <xsd:element minOccurs="0" name="utilityCompanyId"</p>
type="xsd:string">
                   </xsd:element>
                   <xsd:element minOccurs="1" name="ESIID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="17"/>
                                      <xsd:maxLength value="64"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="serviceVoltage">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="15"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="premiseStatus">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:length value="1"/>
                                      <xsd:enumeration value="A"/>
                                       <xsd:enumeration value="I"/>
                                      <xsd:enumeration value="a"/>
                                      <xsd:enumeration value="i"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="timeZone">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
```

```
<xsd:length value="3"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="fractionalHouseAddress">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0"/>
                   <xsd:maxLength value="10"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="leadingDirectional">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0"/>
                   <xsd:maxLength value="6"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="streetName">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1"/>
                   <xsd:maxLength value="40"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="streetType">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0"/>
                   <xsd:maxLength value="16"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="trailingDirectional">
      <xsd:simpleType>
```

```
<xsd:restriction base="xsd:string">
                   <xsd:minLength value="0"/>
                   <xsd:maxLength value="6"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="houseNumber">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0"/>
                   <xsd:maxLength value="50"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="0" name="unitDesignation">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="0"/>
                   <xsd:maxLength value="50"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="locality">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:minLength value="1"/>
                   <xsd:maxLength value="40"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
<xsd:element minOccurs="1" name="state">
      <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                   <xsd:length value="2"/>
                   <xsd:enumeration value="TX"/>
            </xsd:restriction>
      </xsd:simpleType>
</xsd:element>
```

```
<xsd:element minOccurs="1" name="zipcode">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:length value="5"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="zipcodePlus4">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:maxLength value="4"/>
                                       <xsd:minLength value="1"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="meterReadCycle"</pre>
type="xsd:string">
                   </xsd:element>
                   <xsd:element minOccurs="1" name="loadProfile">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="30"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0" name="rateClassCode">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:maxLength value="3"/>
                                       <xsd:minLength value="0"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0" name="AMSProfileEffectiveDate"</p>
type="xsd:string">
                   </xsd:element>
```

```
</xsd:sequence>
</xsd:complexType>
</xsd:schema>
```

Acknowledgement Response

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM PremiseInformationSOAP"
xmlns:bons1="http://com.ibm.smtesb/premise">
      <xsd:import namespace="http://com.ibm.smtesb/premise"</p>
schemaLocation="FaultESIIDList.xsd"/>
      <xsd:element name="Acknowledgement">
             <xsd:complexType>
                   <xsd:sequence>
                          <xsd:element minOccurs="1" name="trans_id">
                                <xsd:simpleType>
                                       <xsd:restriction base="xsd:string">
                                             <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                                       </xsd:restriction>
                                </xsd:simpleType>
                          </xsd:element>
                          <xsd:element minOccurs="1" name="correlationId"</p>
type="xsd:string">
                          </xsd:element>
                          <xsd:element minOccurs="0" name="statusCode"</pre>
type="xsd:integer">
                          </xsd:element>
                          <xsd:element minOccurs="0" name="statusReason">
                                <xsd:simpleType>
                                       <xsd:restriction base="xsd:string">
                                             <xsd:maxLength value="256"/>
                                       </xsd:restriction>
                                </xsd:simpleType>
                          </xsd:element>
                          <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="faultESIIDs" type="bons1:FaultESIIDList">
```

</xsd:element>

```
</xsd:sequence>
        </xsd:complexType>
        </xsd:element>
</xsd:schema>
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 23: Return Status Codes

Example –

Meter Attributes with Delivery mode EML and report format CSV

```
<!--Optional:-->
<requesterAuthenticationID>19999999999</requesterAuthenticationID>
      <!--Optional:-->
      <deliveryMode>EML</deliveryMode>
      <!--Optional:-->
      <version>L</version>
      <!--Optional:-->
      <ESIIDList>
        <!--1 or more repetitions:-->
        <ESIID>10443720008107413</ESIID>
      </ESIIDList>
      <SMTTermsandConditions>y</SMTTermsandConditions>
     </PremiseSearchRequest>
   </bim:processPremiseInformation>
 </soapenv:Body>
</soapenv:Envelope>
Response
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
 <soapenv:Body>
   <NS1:processPremiseInformationResponse
xmlns:NS1="http://BIM_PremiseInformationSOAP">
     <NS1:Acknowledgement>
      <trans id>1234</trans id>
      <correlationId>dba1daccb87811e9bcc30a04</correlationId>
      <statusCode>0000</statusCode>
      <statusReason>Request has been submitted successfully. The CSV
report will be delivered through EML</statusReason>
     </NS1:Acknowledgement>
   </NS1:processPremiseInformationResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

3.2.1.4Subscription – Scheduled Reports (New Subscription, or Unsubscribe / Cancel Subscription, or List of Existing Subscriptions)

Function Description –

Get the current status for Ad-Hoc or Subscription requests. Note: This is a synchronous function.

Test URL –

https://uatservices.smartmetertexas.net/ Subscription/

Production URL -

https://services.smartmetertexas.net/ Subscription /

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

- Body Parameter
 - New Subscription

```
</xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requestorID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requesterType">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="REP"/>
                                      <xsd:enumeration value="RES"/>
                                      <xsd:enumeration value="BUSINESS"/>
                                      <xsd:enumeration value="CSP"/>
                                      <xsd:enumeration value="TDSP"/>
                                      <xsd:enumeration value="REG"/>
                                      <xsd:enumeration value="rep"/>
                                      <xsd:enumeration value="res"/>
                                      <xsd:enumeration value="business"/>
                                      <xsd:enumeration value="csp"/>
                                      <xsd:enumeration value="tdsp"/>
                                      <xsd:enumeration value="reg"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0"
name="requesterAuthenticationID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="18"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
```

```
<xsd:element minOccurs="1" name="subscriptionType">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="REPENROLL"/>
                                      <xsd:enumeration value="CSPENROLL"/>
                                      <xsd:enumeration value="SCHEDULE"/>
                                      <xsd:enumeration value="SCHEDULES"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0"</pre>
name="historicalSubscriptionDuration">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:integer">
                                      <xsd:enumeration value="3"/>
                                      <xsd:enumeration value="6"/>
                                      <xsd:enumeration value="9"/>
                                      <xsd:enumeration value="12"/>
                                      <xsd:enumeration value="24"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="reportFormat">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="LSE"/>
                                      <xsd:enumeration value="CSV"/>
                                      <xsd:enumeration value="JSON"/>
                                      <xsd:enumeration value="XML"/>
                                      <xsd:enumeration value="lse"/>
                                      <xsd:enumeration value="csv"/>
                                      <xsd:enumeration value="json"/>
                                      <xsd:enumeration value="xml"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="dataType">
                         <xsd:simpleType>
```

```
<xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="DAILY"/>
                                      <xsd:enumeration value="INTERVAL"/>
                                      <xsd:enumeration value="daily"/>
                                      <xsd:enumeration value="interval"/>
                                      <xsd:enumeration value="MONTHLY"/>
                                      <xsd:enumeration value="monthly"/>
                                      <xsd:enumeration value="Historical 15 min.</p>
Interval LSE"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="deliveryMode">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="FTP"/>
                                      <xsd:enumeration value="EML"/>
                                      <xsd:enumeration value="API"/>
                                      <xsd:enumeration value="ftp"/>
                                      <xsd:enumeration value="eml"/>
                                      <xsd:enumeration value="api"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0" name="reportFrequency">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="DAILY"/>
                                      <xsd:enumeration value="daily"/>
                                      <xsd:enumeration value="MONTHLY"/>
                                      <xsd:enumeration value="monthly"/>
                                      <xsd:enumeration value="WEEKLY"/>
                                      <xsd:enumeration value="weekly"/>
                                      <xsd:enumeration value="YEARLY"/>
                                      <xsd:enumeration value="yearly"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
```

```
<xsd:element minOccurs="0" name="ESIIDs">
                         <xsd:complexType>
                                <xsd:sequence>
                                      <xsd:element maxOccurs="unbounded"</pre>
minOccurs="1" name="esiid">
                                            <xsd:simpleType>
                                                   <xsd:restriction
base="xsd:string">
                                                         <xsd:maxLength
value="64"/>
                                                         <xsd:minLength
value="9"/>
                                                   </xsd:restriction>
                                            </xsd:simpleType>
                                      </xsd:element>
                                </xsd:sequence>
                         </xsd:complexType>
                   </xsd:element>
                   <xsd:element minOccurs="1"
name="SMTTermsandConditions">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="Y"/>
                                      <xsd:enumeration value="N"/>
                                      <xsd:enumeration value="y"/>
                                      <xsd:enumeration value="n"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
            </xsd:sequence>
      </xsd:complexType>
</xsd:schema>
```

UnSubscription

<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"</pre>

```
targetNamespace="http://BIM_SubscriptionSOAP">
      <xsd:complexType name="UnSubscriptionRequest">
             <xsd:sequence>
                   <xsd:element minOccurs="1" name="trans_id">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                <xsd:minLength value="1"/>
                                       <xsd:maxLength value="32"/>
                                       <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requestorID">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="32"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0"</pre>
name="requesterAuthenticationID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="18"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="subscriptionNumber">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="32"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
```

```
<xsd:element minOccurs="0" name="ESIIDs">
                             <xsd:complexType>
                                   <xsd:sequence>
                                          <xsd:element maxOccurs="unbounded"</pre>
   minOccurs="1" name="esiid">
                                                <xsd:simpleType>
                                                       <xsd:restriction
   base="xsd:string">
                                                             <xsd:maxLength
   value="64"/>
                                                             <xsd:minLength
   value="9"/>
                                                       </xsd:restriction>
                                                </xsd:simpleType>
                                          </xsd:element>
                                   </xsd:sequence>
                            </xsd:complexType>
                      </xsd:element>
                      <xsd:element minOccurs="1"</pre>
   name="SMTTermsandConditions">
                             <xsd:simpleType>
                                   <xsd:restriction base="xsd:string">
                                          <xsd:enumeration value="Y"/>
                                          <xsd:enumeration value="N"/>
                                          <xsd:enumeration value="y"/>
                                          <xsd:enumeration value="n"/>
                                   </xsd:restriction>
                             </xsd:simpleType>
                      </xsd:element>
                </xsd:sequence>
         </xsd:complexType>
   </xsd:schema>

    List Subscriptions
```

<?xml version="1.0" encoding="UTF-8"?><xsd:schema

xmlns:xsd="http://www.w3.org/2001/XMLSchema"

```
targetNamespace="http://BIM_SubscriptionSOAP">
      <xsd:complexType name="SubscriptionRequest">
             <xsd:sequence>
             <xsd:element minOccurs="1" name="trans_id">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                      <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requestorID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0"
name="requesterAuthenticationID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="18"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1"</pre>
name="SMTTermsandConditions">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="Y"/>
                                       <xsd:enumeration value="N"/>
                                       <xsd:enumeration value="y"/>
                                       <xsd:enumeration value="n"/>
```

- Body Parameter Response -
 - New Subscription Response

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_SubscriptionSOAP"
xmlns:bons1="http://com.smt.csp.subscription/NewSubscription">
      <xsd:import namespace="http://com.smt.csp.subscription/NewSubscription"</pre>
schemaLocation="CustomerESIIDFaultList.xsd">
      </xsd:import>
      <xsd:import namespace="http://com.smt.csp.subscription/NewSubscription"</pre>
schemaLocation="CustomerDUNSFaultList.xsd">
      </xsd:import>
      <xsd:complexType name="NewSubscriptionResponse">
            <xsd:sequence>
                   <xsd:element minOccurs="0" name="trans_id">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0" name="subscriptionNumber">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
```

```
<xsd:minLength value="1"/>
                                         <xsd:maxLength value="32"/>
                                   </xsd:restriction>
                             </xsd:simpleType>
                      </xsd:element>
                      <xsd:element minOccurs="1" name="statusCode"</pre>
   type="xsd:integer"/>
                      <xsd:element minOccurs="1" name="statusReason">
                             <xsd:simpleType>
                                   <xsd:restriction base="xsd:string">
                                         <xsd:minLength value="1"/>
                                         <xsd:maxLength value="256"/>
                                   </xsd:restriction>
                             </xsd:simpleType>
                      </xsd:element>
                      <xsd:element maxOccurs="1" minOccurs="1"</pre>
   name="customerESIIDFaultList" type="bons1:CustomerESIIDFaultList">
                      </xsd:element>
                      <xsd:element maxOccurs="1" minOccurs="1"</pre>
   name="customerDUNSFaultList" type="bons1:CustomerDUNSFaultList">
                      </xsd:element>
                </xsd:sequence>
         </xsd:complexType>
   </xsd:schema>
  Unsubscription Response
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_SubscriptionSOAP"
xmlns:bons1="http://com.smt.csp.subscription/UnSubscription">
   <xsd:import namespace="http://com.smt.csp.subscription/UnSubscription"</p>
schemaLocation="UnSubscriptionESIIDsFaultList.xsd">
   </xsd:import>
   <xsd:complexType name="UnSubscriptionResponse">
```

<xsd:sequence>

```
<xsd:element minOccurs="0" name="trans_id">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="statusCode" type="xsd:integer"/>
                <xsd:element minOccurs="1" name="statusReason">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="256"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="UnSubscriptionESIIDsFaultList" type="bons1:UnSubscriptionESIIDsFaultList">
                </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
```

List Subscriptions Response

```
<xsd:element minOccurs="0" name="trans_id">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="statusCode" type="xsd:string"/>
                <xsd:element minOccurs="1" name="statusReason">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="256"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element maxOccurs="1" minOccurs="1" name="subscriptionList"</pre>
type="bons1:SubscriptionList">
                </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://com.smt.csp.subscription/Subscription"
xmlns:bons1="http://com.smt.csp.subscription/Subscription">
   <xsd:include schemaLocation="Subscription.xsd"/>
   <xsd:complexType name="SubscriptionList">
         <xsd:seauence>
                <xsd:element maxOccurs="unbounded" minOccurs="1"</pre>
name="subscription" type="bons1:Subscription">
                </xsd:element>
         </xsd:sequence>
```

```
</xsd:complexType>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://com.smt.csp.subscription/Subscription">
<xsd:complexType name="Subscription">
         <xsd:sequence>
                <xsd:element minOccurs="0" name="subscriptionNumber">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="10"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="0" name="startDate" type="xsd:string">
                </xsd:element>
                <xsd:element minOccurs="1" name="reportFormat">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="LSE"/>
                                   <xsd:enumeration value="CSV"/>
                                   <xsd:enumeration value="JSON"/>
                                   <xsd:enumeration value="XML"/>
                                   <xsd:enumeration value="lse"/>
                                   <xsd:enumeration value="csv"/>
                                   <xsd:enumeration value="json"/>
                                   <xsd:enumeration value="xml"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="deliveryType">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
```

```
<xsd:enumeration value="FTP"/>
                                   <xsd:enumeration value="EML"/>
                                   <xsd:enumeration value="API"/>
                                   <xsd:enumeration value="ftp"/>
                                   <xsd:enumeration value="eml"/>
                                   <xsd:enumeration value="api"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="dataType">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="DAILY"/>
                                   <xsd:enumeration value="INTERVAL"/>
                                   <xsd:enumeration value="daily"/>
                                   <xsd:enumeration value="interval"/>
                                   <xsd:enumeration value="MONTHLY"/>
                                   <xsd:enumeration value="monthly"/>
                                   <xsd:enumeration value="Historical 15 min</pre>
Interval LSE"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="status" type="xsd:string"/>
                <xsd:element minOccurs="1" name="lastSuccessfulReportDate"</p>
type="xsd:string"/>
         </xsd:sequence>
   </xsd:complexType>
   </xsd:schema>
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 24: Return Status Codes

• Example -

New Subscription

Request

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:bim="http://BIM_SubscriptionSOAP">
 <soapenv:Header/>
 <soapenv:Body>
   <br/>
<br/>
dim:newSubscription>
     <newSubscriptionRequest>
       <trans_id>7292019324</trans_id>
       <requestorID>bobby@123</requestorID>
       <requesterType>RES</requesterType>
       <subscriptionType>SCHEDULE</subscriptionType>
       <reportFormat>CSV</reportFormat>
       <dataType>INTERVAL</dataType>
       <deliveryMode>EML</deliveryMode>
       <!--Optional:-->
       <reportFrequency>DAILY</reportFrequency>
       <!--Optional:-->
```

```
<ESIIDs>
    <!--1 or more repetitions:-->
    <esiid>10443720002506579001</esiid>
    </ESIIDs>
    <SMTTermsandConditions>Y</SMTTermsandConditions>
    </newSubscriptionRequest>
    </bim:newSubscription>
    </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
 <soapenv:Body>
   <NS1:newSubscriptionResponse
xmlns:NS1="http://BIM SubscriptionSOAP">
     <newSubscriptionResponse>
      <trans id>7292019324</trans id>
      <statusCode>0001</statusCode>
      <statusReason>Failure</statusReason>
      <customerESIIDFaultList>
        <customerESIIDFault>
          <esiid>10443720002506579001</esiid>
          <reasonCode>Subcription is already
active:10443720002506579001</reasonCode>
        </customerESIIDFault>
      </customerESIIDFaultList>
     </newSubscriptionResponse>
   </NS1:newSubscriptionResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

UnSubscription

Request

<soapenv:Envelope

```
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:bim="http://BIM_SubscriptionSOAP">
 <soapenv:Header/>
 <soapenv:Body>
   <br/>
<br/>
dim:unSubscription>
     <unSubscriptionRequest>
       <trans_id>862019</trans_id>
       <requestorID>bobby@123</requestorID>
       <!--Optional:-->
       <requesterAuthenticationID>?</requesterAuthenticationID>
<subscriptionNumber>8F77A7E0277400D8E0530A040322F226</subscriptio
nNumber>
       <!--Optional:-->
       <ESIIDs>
        <!--1 or more repetitions:-->
        <esiid>10443720002506579001</esiid>
       </ESIIDs>
       <SMTTermsandConditions>Y</SMTTermsandConditions>
     </unSubscriptionRequest>
   </bim:unSubscription>
 </soapenv:Body>
</soapenv:Envelope>
Response
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
 <soapenv:Body>
   <NS1:unSubscriptionResponse
xmlns:NS1="http://BIM_SubscriptionSOAP">
     <unSubscriptionResponse>
       <trans_id>862019</trans_id>
       <statusCode>0001</statusCode>
       <statusReason>Failure</statusReason>
       <unsubscriptionESIIDsFaultList>
        <unSubscriptionESIIDsFault>
          <esiid>10443720002506579001</esiid>
```

List Subscriptions

Request

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:bim="http://BIM_SubscriptionSOAP">
 <soapenv:Header/>
 <soapenv:Body>
   <br/>
<br/>
dim:subscription>
     <subscriptionRequest>
       <trans_id>862019</trans_id>
       <requestorID>bobby@123</requestorID>
       <!--Optional:-->
       <reguesterAuthenticationID>?</reguesterAuthenticationID>
       <SMTTermsandConditions>Y</SMTTermsandConditions>
     </subscriptionRequest>
   </bim:subscription>
 </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<statusReason>Success</statusReason>
      <subscritpionList>
        <subscription>
<subscriptionNumber>8F10E261E2E50046E0530A0403228C2E</subscriptio
nNumber>
          <startDate>2019-08-02T10:27:48</startDate>
          <reportformat>CSV</reportformat>
          <deliveryType>EML</deliveryType>
          <dataType>MON</dataType>
          <status>ACT</status>
          <lastSuccessfulReportDate/>
        </subscription>
        <subscription>
<subscriptionNumber>8F1B5C285D4D00FCE0530A040322436C</subscripti</p>
onNumber>
          <startDate>2019-08-02T22:57:41</startDate>
          <reportformat>CSV</reportformat>
          <deliveryType>EML</deliveryType>
          <dataType>MON</dataType>
          <status>ACT</status>
          <lastSuccessfulReportDate/>
        </subscription>
      </subscritpionList>
     </subscriptionResponse>
   </NS1:subscriptionResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

- 3.2.1.5CSP Agreement (New Energy Data Sharing Agreement, or List ESIIDs per Energy Data Sharing Agreement, or Terminate Energy Data Sharing Agreements)
 - Function Description –

Update an existing subscription on a one subscription per request basis.

Test URL –

https://uatservices.smartmetertexas.net/CSPAuthorization/

Production URL -

https://services.smartmetertexas.net/CSPAuthorization/

Method –

SMT will provide all API services using the POST method. The entire request payload / message needs to be included in the Body Parameter.

- Body Parameters Request
 - New Agreement

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP"
xmlns:bons1="http://com.smt.csp.authorization/NewAgreement">
      <xsd:import namespace="http://com.smt.csp.authorization/NewAgreement"</pre>
schemaLocation="ESIIDMeterPUCTNumberList.xsd">
      </xsd:import>
      <xsd:complexType name="NewAgreement">
            <xsd:sequence>
            <xsd:element minOccurs="1" name="trans_id">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                      <xsd:pattern value="[a-zA-Z0-9]+"/>
                               </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
```

```
<xsd:element minOccurs="1" name="requestorID">
                          <xsd:simpleType>
                                 <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="32"/>
                                 </xsd:restriction>
                          </xsd:simpleType>
                    </xsd:element>
                   <xsd:element minOccurs="1"</pre>
name="requesterAuthenticationID">
                          <xsd:simpleType>
                                 <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="18"/>
                                 </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                    <xsd:element minOccurs="1" name="retailCustomerEmail">
                          <xsd:simpleType>
                                 <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="64"/>
                                       <xsd:pattern value="[a-z0-9._%+-]+@[a-z0-</pre>
9.-]+\.[a-z]\{2,4\}"/>
                                 </xsd:restriction>
                          </xsd:simpleType>
                    </xsd:element>
                    <xsd:element minOccurs="1" name="agreementDuration">
                          <xsd:simpleType>
                                 <xsd:restriction base="xsd:integer">
                                       <xsd:enumeration value="3"/>
                                       <xsd:enumeration value="6"/>
                                       <xsd:enumeration value="9"/>
                                       <xsd:enumeration value="12"/>
                                       <xsd:enumeration value="24"/>
                                       <xsd:enumeration value="36"/>
```

```
</xsd:restriction>
                           </xsd:simpleType>
                    </xsd:element>
                    <xsd:element minOccurs="0"</pre>
 name="customerLanguagePreference">
                           <xsd:simpleType>
                                 <xsd:restriction base="xsd:string">
                                       <xsd:enumeration value="ENGLISH"/>
                                       <xsd:enumeration value="SPANISH"/>
                                       <xsd:enumeration value="english"/>
                                       <xsd:enumeration value="spanish"/>
                                 </xsd:restriction>
                           </xsd:simpleType>
                    </xsd:element>
                    <xsd:element maxOccurs="1" minOccurs="1"</pre>
 name="customerMeterList" type="bons1:ESIIDMeterPUCTNumberList">
                    </xsd:element>
                    <xsd:element minOccurs="1"</pre>
 name="SMTTermsandConditions">
                           <xsd:simpleType>
                                 <xsd:restriction base="xsd:string">
                                       <xsd:enumeration value="Y"/>
                                        <xsd:enumeration value="N"/>
                                       <xsd:enumeration value="y"/>
                                       <xsd:enumeration value="n"/>
                                 </xsd:restriction>
                           </xsd:simpleType>
                    </xsd:element>
              </xsd:sequence>
       </xsd:complexType>
 </xsd:schema>
Terminate Agreement
```

<?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://BIM_CSPAuthorizationSOAP" xmlns:bons1="http://com.smt.csp.authorization/TerminateAgreement">

```
<xsd:import
namespace="http://com.smt.csp.authorization/TerminateAgreement"
schemaLocation="AgreementList.xsd">
      </xsd:import>
      <xsd:complexType name="TerminateAgreement">
             <xsd:sequence>
             <xsd:element minOccurs="1" name="trans_id">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requestorID">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="32"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0"</pre>
name="requesterAuthenticationID">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="18"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="agreementList" type="bons1:AgreementList">
                   </xsd:element>
                   <xsd:element minOccurs="1"
name="SMTTermsandConditions">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:enumeration value="Y"/>
                                       <xsd:enumeration value="N"/>
                                       <xsd:enumeration value="v"/>
                                       <xsd:enumeration value="n"/>
                                </xsd:restriction>
```

</xsd:simpleType>
</xsd:element>
</xsd:sequence>
</xsd:complexType>

</xsd:schema>

My Agreements (including Status)

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP"
xmlns:bons1="http://com.smt.csp.authorization/NewAgreement">
      <xsd:complexType name="MyAgreements">
            <xsd:sequence>
                   <xsd:element minOccurs="1" name="trans_id">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:pattern value="[a-zA-Z0-</pre>
9]{1,32}"></xsd:pattern>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="requestorID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0"
name="requesterAuthenticationID">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="18"/>
```

```
</xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="0" name="agreementNumber"</p>
type="xsd:integer">
                   </xsd:element>
                   <xsd:element minOccurs="0" name="statusReason">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="PEN"/>
                                      <xsd:enumeration value="ACT"/>
                                      <xsd:enumeration value="COM"/>
                                      <xsd:enumeration value="NACOM"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1"</pre>
name="SMTTermsandConditions">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:enumeration value="Y"/>
                                      <xsd:enumeration value="N"/>
                                      <xsd:enumeration value="y"/>
                                      <xsd:enumeration value="n"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
             </xsd:sequence>
      </xsd:complexType>
</xsd:schema>
```

List ESIIDs per Agreement

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP">
```

```
<xsd:complexType name="AgreementESIIDs">
         <xsd:sequence>
                <xsd:element minOccurs="1" name="trans_id">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:pattern value="[a-zA-Z0-9]{1,32}"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="requestorID">
                       <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="32"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="0" name="requesterAuthenticationID">
                       <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="18"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="agreementNumber"</pre>
type="xsd:integer"/>
                <xsd:element minOccurs="1" name="SMTTermsandConditions">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:enumeration value="Y"/>
                                   <xsd:enumeration value="N"/>
                                   <xsd:enumeration value="y"/>
                                   <xsd:enumeration value="n"/>
                             </xsd:restriction>
                       </xsd:simpleType>
```

```
</xsd:element>
</xsd:sequence>
</xsd:complexType>
</xsd:schema>
```

- Body Parameters Response -
 - New Agreement Response

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP">
<xsd:complexType name="NewAgreementResponse">
            <xsd:sequence>
            <xsd:element minOccurs="1" name="trans_id">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                      <xsd:pattern value="[a-zA-Z0-9]+"/>
                               </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="agreementNumber"</pre>
type="xsd:integer">
                   </xsd:element>
                   <xsd:element minOccurs="1" name="statusCode">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                      <xsd:maxLength value="4"/>
                               </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="statusReason">
```

<xsd:simpleType>

<xsd:restriction base="xsd:string">

```
<xsd:maxLength value="256"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
             </xsd:sequence>
       </xsd:complexType>
 </xsd:schema>
Terminate Agreement
 <?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP"
xmlns:bons1="http://com.smt.csp.authorization/TerminateAgreement">
       <xsd:import
 namespace="http://com.smt.csp.authorization/TerminateAgreement"
 schemaLocation="TerminateInitiatedList.xsd">
       </xsd:import>
       <xsd:import
 namespace="http://com.smt.csp.authorization/TerminateAgreement"
 schemaLocation="AgreementFaultList.xsd">
       </xsd:import>
       <xsd:complexType name="TerminateAgreementResponse">
             <xsd:sequence>
             <xsd:element minOccurs="1" name="trans_id">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
```

<xsd:pattern value="[a-zA-Z0-9]+"/>

```
</xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="statusCode">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:maxLength value="4"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="statusMessage">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:maxLength value="128"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element maxOccurs="1" minOccurs="1"</p>
name="terminateInitiatedList" type="bons1:TerminateInitiatedList">
                   </xsd:element>
                   <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="agreementFaultList" type="bons1:AgreementFaultList">
                   </xsd:element>
             </xsd:sequence>
      </xsd:complexType>
</xsd:schema>
```

My Agreements (including Status)

<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP"
xmlns:bons0="http://com.smt.csp.authorization/MyAgreements">

```
<xsd:import namespace="http://com.smt.csp.authorization/MyAgreements"</pre>
schemaLocation="AgreementStatusList.xsd">
      </xsd:import>
      <xsd:complexType name="MyAgreementsResponse">
             <xsd:sequence>
             <xsd:element minOccurs="1" name="trans_id">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:minLength value="1"/>
                                      <xsd:maxLength value="32"/>
                                      <xsd:pattern value="[a-zA-Z0-9]+"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="statusCode">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:maxLength value="4"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="statsReason">
                         <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                      <xsd:maxLength value="256"/>
                                </xsd:restriction>
                         </xsd:simpleType>
                   </xsd:element>
                   <xsd:element maxOccurs="1" minOccurs="1"</pre>
name="agreementStatusList" type="bons0:AgreementStatusList">
                   </xsd:element>
             </xsd:sequence>
      </xsd:complexType>
```

```
</xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://com.smt.csp.authorization/MyAgreements"
xmlns:bons0="http://com.smt.csp.authorization/MyAgreements">
      <xsd:include schemaLocation="AgreementStatus.xsd"/>
      <xsd:complexType name="AgreementStatusList">
            <xsd:sequence maxOccurs="unbounded" minOccurs="1">
                  <xsd:element maxOccurs="unbounded" minOccurs="1"</p>
name="agreementStatus" type="bons0:AgreementStatus">
                  </xsd:element>
            </xsd:sequence>
      </xsd:complexType>
      </xsd:schema>
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://com.smt.csp.authorization/MyAgreements"
xmlns:bons0="http://com.smt.csp.authorization/MyAgreements">
      <xsd:complexType name="AgreementStatus">
            <xsd:sequence>
            <xsd:element minOccurs="1" name="agreementNumber"
type="xsd:integer">
                  </xsd:element>
                  <xsd:element minOccurs="1" name="startDate">
                         <xsd:simpleType>
                               <xsd:restriction base="xsd:string">
                                     <xsd:minLength value="1"/>
                                     <xsd:maxLength value="10"/>
                               </xsd:restriction>
                         </xsd:simpleType>
                  </xsd:element>
```

```
<xsd:element minOccurs="1" name="endDate">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="10"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="CSPName">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="100"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1"</pre>
name="requesterAuthenticationID">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="18"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="retailCustomerEmail">
                          <xsd:simpleType>
                                <xsd:restriction base="xsd:string">
                                       <xsd:minLength value="1"/>
                                       <xsd:maxLength value="64"/>
                                       <xsd:pattern value="[a-z0-9._%+-]+@[a-z0-</pre>
9.-]+\.[a-z]\{2,4\}"/>
                                </xsd:restriction>
                          </xsd:simpleType>
                   </xsd:element>
                   <xsd:element minOccurs="1" name="agreementDuration">
```

<xsd:simpleType> <xsd:restriction base="xsd:string">

<xsd:enumeration value="Pending Customer Authorization"/>

Authorization Confirmed"/>

in 30 days or less"/>

Terminated by CSP"/>

<xsd:enumeration value="Active -</pre>

<xsd:enumeration value="Active - Expiring</pre>

<xsd:enumeration value="Active - Expiring"</pre>

in 15 days or less"/>

Authorization Confirmed"/>

<pr

Rejected"/> < xsd:enumeration value="Non Active -

Timed Out"/> </pr

Reported as SPAM"/>

<xsd:enumeration value="Non Active Terminated by Customer"/>

<xsd:enumeration value="Non Active -</pre>

<xsd:enumeration value="Non Active -</pre>

Expired"/>

<xsd:enumeration value="Non Active Moved Out"/>

</xsd:restriction> </xsd:simpleType>

</xsd:element>

</xsd:sequence> </xsd:complexType>

</xsd:schema>

List ESIIDs per Agreement

```
<?xml version="1.0" encoding="UTF-8"?><xsd:schema
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://BIM_CSPAuthorizationSOAP"
xmlns:bons0="http://com.smt.csp.authorization/AgreementESIIDs">
   <xsd:import namespace="http://com.smt.csp.authorization/AgreementESIIDs"</p>
schemaLocation="AgreementESIIDList.xsd">
   </xsd:import>
   <xsd:complexType name="AgreementESIIDsResponse">
         <xsd:sequence>
         <xsd:element minOccurs="1" name="trans id">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="32"/>
                                   <xsd:pattern value="[a-zA-Z0-9]+"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="statusCode">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:maxLength value="4"/>
                            </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="statsReason">
                      <xsd:simpleType>
                            <xsd:restriction base="xsd:string">
                                   <xsd:maxLength value="256"/>
                            </xsd:restriction>
                      </xsd:simpleType>
```

</xsd:element> <xsd:element maxOccurs="1" minOccurs="1"</pre> name="agreementESIIDList" type="bons0:AgreementESIIDList"> </xsd:element> </xsd:sequence> </xsd:complexType> </xsd:schema> <?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://com.smt.csp.authorization/AgreementESIIDs" xmlns:bons0="http://com.smt.csp.authorization/AgreementESIIDs"> <xsd:include schemaLocation="AgreementESIID.xsd"/> <xsd:complexType name="AgreementESIIDList"> <xsd:sequence maxOccurs="unbounded" minOccurs="1"> <xsd:element maxOccurs="unbounded" minOccurs="1"</pre> name="agreementESIID" type="bons0:AgreementESIID"> </xsd:element> </xsd:sequence> </xsd:complexType> </xsd:schema> <?xml version="1.0" encoding="UTF-8"?><xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" targetNamespace="http://com.smt.csp.authorization/AgreementESIIDs" xmlns:bons0="http://com.smt.csp.authorization/AgreementESIIDs"> <xsd:complexType name="AgreementESIID"> <xsd:sequence> <xsd:element minOccurs="1" name="ESIID"> <xsd:simpleType>

```
<xsd:restriction base="xsd:string">
                                   <xsd:minLength value="9"/>
                                   <xsd:maxLength value="64"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="meterNumber">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:minLength value="1"/>
                                   <xsd:maxLength value="18"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="PUCTRORNumber"</p>
type="xsd:integer">
                </xsd:element>
                <xsd:element minOccurs="1" name="status">
                      <xsd:simpleType>
                             <xsd:restriction base="xsd:string">
                                   <xsd:maxLength value="10"/>
                             </xsd:restriction>
                      </xsd:simpleType>
                </xsd:element>
                <xsd:element minOccurs="1" name="startDate">
                </xsd:element>
                <xsd:element minOccurs="1" name="endDate">
                </xsd:element>
         </xsd:sequence>
   </xsd:complexType>
   </xsd:schema>
```

Return Status Codes –

The following table lists the Status Code and associated Description:

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
401	Authorization failure
403	<pre>{"error":"Basic authentication header is missing."}</pre>
400	{"error":"Please provide username."}
400	{"error":"Please provide password."}
401	{"error":"Incorrect username or password."}
500	{"error":"Something went wrong. Please try again later."}

Table 25: Return Status Codes

• Example -

New Agreement

Request

```
<!--1 or more repetitions:-->
              <customerMeter>
                <ESIID>10204049799602671</ESIID>
                <meterNumber>148239922</meterNumber>
                <PUCTRORNumber>10004</PUCTRORNumber>
              </customerMeter>
            </customerMeterList>
            <SMTTermsandConditions>Y</SMTTermsandConditions>
           </newAgreementReguest>
         </bim:newAgreement>
       </soapenv:Body>
      </soapenv:Envelope>
      Response
      <soapenv:Envelope
      xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
       <soapenv:Body>
         <NS1:newAgreementResponse
      xmlns:NS1="http://BIM_CSPAuthorizationSOAP">
           <newAgreementResponse>
            <trans_id>CSP123</trans_id>
            <agreementNumber>119720</agreementNumber>
            <statusCode>ACK</statusCode>
            <statusReason>Success</statusReason>
           </newAgreementResponse>
         </NS1:newAgreementResponse>
       </soapenv:Body>
      </soapenv:Envelope>
My Agreements
      Request
      <soapenv:Envelope
      xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
      xmlns:bim="http://BIM_CSPAuthorizationSOAP">
        <soapenv:Header/>
       <soapenv:Body>
         <br/>
<br/>
dim:myAgreements>
           <myAgreementsRequest>
            <trans_id>MyA1234</trans_id>
```

```
<requestorID>CSPAPIUser1</requestorID>
      <!--Optional:-->
<requesterAuthenticationID>19999999999</requesterAuthenticationID>
      <!--Optional:-->
      <!-- <agreementNumber?</agreementNumber>
-->
      <!--Optional:-->
      <!-- <statusReason>?</statusReason>
:-->
      <SMTTermsandConditions>Y</SMTTermsandConditions>
     </myAgreementsRequest>
   </bim:myAgreements>
 </soapenv:Body>
</soapenv:Envelope>
Response
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
 <soapenv:Body>
   <NS1:myAgreementsResponse
xmlns:NS1="http://BIM_CSPAuthorizationSOAP">
     <myAgreementsResponse>
      <trans_id>MyA1234</trans_id>
      <statusCode>0000</statusCode>
      <statusReason>Success</statusReason>
      <agreementStatusList>
        <agreementStatus>
          <agreementNumber>118360</agreementNumber>
          <startDate>07/11/2019</startDate>
          <endDate>08/06/2019</endDate>
          <CSPName>cspbrand1</CSPName>
<requesterAuthenticationID>19999999999</requesterAuthenticationID>
<retailCustomerEmail>uat1cspagremeent@mailinator.com</retailCustomerE</pre>
mail>
```

```
<status>Non Active - Terminated by CSP</status>
               </agreementStatus>
               <agreementStatus>
                 <agreementNumber>118518</agreementNumber>
                 <startDate>07/15/2019</startDate>
                 <endDate>10/15/2019</endDate>
                 <CSPName>cspbrand1</CSPName>
      <requesterAuthenticationID>19999999999</requesterAuthenticationID>
       <retailCustomerEmail>donnytest@mailinator.com</retailCustomerEmail>
                 <status>Active - Authorization Confirmed</status>
               </agreementStatus>
               <agreementStatus>
                 <agreementNumber>119720</agreementNumber>
                 <startDate>08/07/2019</startDate>
                 <endDate>08/07/2020</endDate>
                 <CSPName>cspbrand1</CSPName>
      <requesterAuthenticationID>19999999999</requesterAuthenticationID>
       <retailCustomerEmail>rahulp24@gmail.com</retailCustomerEmail>
                 <status>Pending - Customer Authorization</status>
               </agreementStatus>
             </agreementStatusList>
            </myAgreementsResponse>
          </NS1:myAgreementsResponse>
        </soapenv:Body>
      </soapenv:Envelope>
List ESIIDs of an Agreement
      Request
      <soapenv:Envelope
      xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
      xmlns:bim="http://BIM_CSPAuthorizationSOAP">
        <soapenv:Header/>
        <soapenv:Body>
          <bim:agreementESIIDs>
```

```
<agreementESIIDsRequest>
      <trans_id>A123</trans_id>
      <requestorID>CSPAPIUser1</requestorID>
      <!--Optional:-->
<requesterAuthenticationID>19999999999</requesterAuthenticationID>
      <agreementNumber>118518</agreementNumber>
      <SMTTermsandConditions>Y</SMTTermsandConditions>
     </agreementESIIDsRequest>
   </bim:agreementESIIDs>
 </soapenv:Body>
</soapenv:Envelope>
Response
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
 <soapenv:Body>
   <NS1:agreementESIIDsResponse
xmlns:NS1="http://BIM_CSPAuthorizationSOAP">
     <agreementESIIDsResponse>
      <trans_id>A123</trans_id>
      <statusCode>0000</statusCode>
      <statusReason>Success</statusReason>
      <AgreementESIIDList>
        <agreementESIID>
          <ESIID>10204049799602671</ESIID>
          <meterNumber>148239922</meterNumber>
          <PUCTRORNumber>10004</PUCTRORNumber>
          <status>Active</status>
          <startDate>07/15/2019</startDate>
          <endDate>10/15/2019</endDate>
        </agreementESIID>
      </AgreementESIIDList>
     </agreementESIIDsResponse>
   </NS1:agreementESIIDsResponse>
 </soapenv:Body>
</soapenv:Envelope>
```

Terminate Agreement

Request <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:bim="http://BIM_CSPAuthorizationSOAP"> <soapenv:Header/> <soapenv:Body>

dim:terminateAgreement> <terminateAgreementRequest> <trans_id>T1234</trans_id> <requestorID>CSPAPIUser1</requestorID> <!--Optional:--> <requesterAuthenticationID>19999999999/requesterAuthenticationID> <agreementList> <!--1 or more repetitions:--> <agreement> <agreementNumber>119720</agreementNumber> <retailCustomerEmail>rahulp24@gmail.com</retailCustomerEmail> </agreement> </agreementList> <SMTTermsandConditions>Y</SMTTermsandConditions> </terminateAgreementRequest> </bim:terminateAgreement> </soapenv:Body> </soapenv:Envelope> Response <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"> <soapenv:Body> <NS1:terminateAgreementResponse xmlns:NS1="http://BIM_CSPAuthorizationSOAP"> <terminateAgreementResponse> <trans_id>T1234</trans_id> <statusCode>0001</statusCode>

<statusReason>Agreement termination failed</statusReason>

<agreementFaultList>
<agreement>
<agreementNumber>119720</agreementNumber>

</NS1:terminateAgreementResponse>
</soapenv:Body>
</soapenv:Envelope>

3.3 FTPS Overview

The following information provides a general overview of the SMT FTPS services:

- The FTPS services will be based on a per DUNS basis
- For a ROR, two folders will be provided to support the daily LSE file processes and ad-hoc and subscription requests.
 - Example
 - Folder Name "intervaldata" Contains the LSE files SMT received from the TDSPs.
 - Example file: 957877905IntervalData20100122123001980.lse.002.799530915
 - Folder Name "adhocusage" Contains the SMT generated CSV/LSE/XML files for the ad-hoc usage requests
 - Example files:
 - IntervalMeterUsagecfd024ab76ee195c3c326fe9.CSV.8286294561000
 IntervalMeterUsagecfd024ab76ee195c3c326fe9.lse.8286294561000
 DailyMeterUsage00122c501ff160ca73ad74a7.CSV.799530915
- For all other SMT entity accounts, one folder will be provided to support ad-hoc and subscription requests.
 - o Example -
 - Folder Name "adhocusage" Contains the SMT generated CSV/LSE/XML files for the ad-hoc usage requests
 - Example files:
 - IntervalMeterUsagecfd024ab76ee195c3c326fe9.CSV.82862945 61000

IntervalMeterUsagecfd024ab76ee195c3c326fe9.lse.828629456 1000

DailyMeterUsage00122c501ff160ca73ad74a7.CSV.799530915

- Any FTP client tool which supports FTPS can be used to connect with SMT's FTPS service
 - o Example -
 - Core FTP, CURL etc.

4 Integration

4.1 Web Portal

The following information provides the requirements to integrate with SMT User Interface (UI):

- Access to the SMT portal UI will require user credentials (e.g. ID and password) associated with an SMT Entity Account
- The SMT user will be able to retrieve information, in which they have been authorized, on an ad-hoc basis
- The SMT user will be able to download information, in which they have been authorized, to their individual computer in either a CSV or Green Button file format
- The SMT user will be able to subscribe information to be sent to them through their individual e-mail on a periodic basis and in a CSV or Green Button file format

4.2 FTPS

The following information provides the requirements to integrate with SMT:

- FTPS integration will require the use of the Transport Layer Security (TLS) protocol
- A signed SSL certificate from a certificate authority will be required for mutual authentication
- A set of FTP credentials (e.g. ID and password) will be required for each DUNS
- Port 21 will need to be enabled to access FTP services using ftp.smartmetertexas.biz.
- The port ranges 35000 to 35100 for ftp data channel, associated with ftp.smartmetertexas.biz, need to be enabled through the network.
- CURL Commands to Connect and Download Files:
 - To List FTP folders

curl -kG --ftp-method nocwd --ftp-ssl --cert <myclientcert>.cert --key <mykey>.pfx -u <userName>:<password> ftp://ftp.smartmetertexas.biz/

To List Files in a Folder

curl -kG --ftp-method nocwd --ftp-ssl --cert <myclientcert>.cert --key <mykey>.pfx -u <userName>:<password> ftp://ftp.smartmetertexas.biz/intervaldata/

• To Download a File

curl -kG --ftp-method nocwd --ftp-ssl --cert <myclientcert>.cert --key <mykey>.pfx
 -u <userName>:<password> ftp://ftp.smartmetertexas.biz/intervaldata/abc.asc -o abc.asc

• SMT CURL Example -

```
C:\>curl -kG --ftp-method nocwd --ftp-ssl --cert --
drwx----- 1 dir group
                                                         1024 Jul 09 2016 adhocusage
drwx----- 1 dir group
                                                                       1024 Oct 10 04:30 intervaldata
C:\>curl -kG --ftp-method nocwd --ftp-ssl --cert www.svc670926.cert --key gear.5001_w3svc670926_cert.pfx -u amanimategy:paffiredfile4 ftp://ftp.smartmetertexas.biz/intervaldata/
-rw------ 1 file group 69716 Jul 21 12:41 007923311IntervalData20190721120710101.lse.001.787476634.asc
-rw----- 1 file group
                                                                       70906 Jul 22 12:54 007923311IntervalData20190722122732101.lse.001.787476634.asc
-rw----- 1 file group
                                                                       66839 Jul 23 12:55 007923311IntervalData20190723122616101.lse.001.787476634.asc
C:\>curl -kG --ftp-method nocwd --ftp-ssl --cert games w3svc670926.cert --key games w3svc670926_cert.pfx -u and was selected was
ftp://ftp.smartmetertexas.biz/intervaldata/007923311IntervalData20190721120710101.lse.001.787476634.asc -o 007923311IntervalData20190721120710101.lse.001.787476634.asc
  % Total % Received % Xferd Average Speed Time Time Time Current
                                                                        Dload Upload Total Spent Left Speed
```

Figure 1: SMT CURL Example

4.3 API

The following information provides the requirements to integrate with SMT:

- API integration will require the use of the Transport Layer Security (TLS) protocol version
 1.2 and later.
 - Note: SMT will no longer support all SSL versions, the TLS versions 1.0 and 1.1.
- A signed SSL certificate from a certificate authority will be required for mutual authentication
- A basic authentication with service ID credentials (e.g. ID and password) will be required
 - Note: The service IDs can be used to support the SMT Entity Account or on a per DUNS basis for that SMT Entity Account
- The service ID user name must be equivalent to the requestor ID in the message payload
- Port 443 will need to be enabled to access API services using https://services.smartmetertexas.net

Basic Access Authentication is a method for an HTTP user agent (client) to provide a
user name and password when making a request. In basic HTTP authentication, a
request contains a header field of the form Authorization: Basic <credentials>, where
credentials is the base64 encoding of id and password joined by a single colon (:).

Example –

```
Request Headers:
    Content-Type: "application/json"
    Authorization: "Basic TkVXVERTUFVTRVIxOnBhc3N3b3Jk"

User-Agent: "PostmanRuntime/7.15.2"
    Accept: "*/*"
    Cache-Control: "no-cache"
    Postman-Token: "500200a1-115e-4a56-a380-4495d881a168"
    Host: "uatservices.smartmetertexas.net"
    Accept-Encoding: "gzip, deflate"
    Content-Length: 307
    Connection: "keep-alive"
```

Figure 2: Basic Access Authentication Example

- CURL Commands to access the SMT REST API
 - o curl -i **-u <apiuser:password>** POST -H "Accept:application/json" 'https://uatservices.smartmetertexas.net/odr/' -v --key "<cert.key>" --cert "<cacert.pem:password>" --tlsv1.2 -k -d @payload.json
 - Example for ODR REST API –

Request

curl -u NEWTDSPUSER1:password POST -H "Accept:application/json" 'https://uatservices.smartmetertexas.net/odr/' --key "C:/SMT2.0/API/DataPower/Stage_Skytap/myNaesb.key" --cert "C:/SMT2.0/API/DataPower/Stage_Skytap/NAESB_Stage.pem:password" --tlsv1.2 -k -d @C:/RESTAPI/odrrequest.json

odrrequest.json file

```
{
"trans_id": "123",
"requesterType": "TDSP",
"requesterAuthenticationID": "1039940674000",
"requestorID": "NEWTDSPUSER1",
"deliveryMode": "API",
"ESIID": "10443720009004455",
"SMTTermsandConditions": "Y"
}
```

Response

$\frac{\mathbf{SMART}\;\mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

5 Glossary of Terms

Term	Description
Competitive Service Provider (CSP)	Provides energy usage services to retail customers, excluding the sale of electric energy to the retail customers in the areas of Texas that is open to retail competition. To support the CSP's service offerings, the CSP may obtain access to a retail customer's energy data from SMT after SMT has received confirmation from the customer that the CSP data sharing agreement has been approved
DUNS Number	A proprietary system developed and regulated by Dun & Bradstreet (D&B) that assigns a unique numeric identifier, referred to as a "DUNS number" to a single business entity.
Electric Reliability Council of Texas (ERCOT)	Manages the flow of electric power, as the independent system operator (ISO) for Texas, to more than 25 million Texas customers.
Electric Service Identifier ID (ESI ID)	A 17-digit number found on an electric bill that is unique to a property address in the State of Texas.
Information Technology (IT) Service Provider	A company which provides business and technical expertise to enable organizations in the creation, management and optimization of or access to information and business processes. The IT service provider may directly support an organization based on the organizations governance and standards, or indirectly support an organization "on behalf of" the organization utilizing its own governance and standards.
Public Utility Commission of Texas (PUCT)	Regulates the state's electric utilities, implements legislation related to those utilities, and offers customer assistance in resolving customer complaints.
REP of Record (ROR)	A REP who has an active agreement with a retail customer for the purpose of buying electricity at retail. With this active agreement, the ROR has access to the retail customer's energy usage.
Retail Electric Provider (REP)	Sells electric energy to retail customers in the areas of Texas where the sale of electricity is open to retail competition. A REP buys wholesale electricity, delivery service, and related services, prices electricity for customers, and seeks customers to buy electricity at retail.

$\frac{\mathbf{SMART}\ \mathbf{METER}}{\mathbf{TEXAS^{TM}}}$

Smart Meter Texas (SMT) Entity Account	A dedicated account on the SMT portal belonging to either a Residential Customer, Small Commercial Business, ROR, CSP, TDU, ERCOT, OPUC or the PUCT. A single DUNS for a ROR, CSP or TDU is required for validation during the SMT portal registration process. The entity account will have a minimum of one DUNS that will be associated with the customer ESI IDs based on the services being provided by the entity, but may elect to have many DUNS associated with the entity account capable of performing customer services based on its unique identity. If an entity wants to further segment their organization, SMT will support the creation of multiple entity accounts representing one or more DUNS for each entity account.
Smart Meter Texas (SMT) Entity User Types	Each entity account will support up to 100 administrators and an unlimited number of end users. The SMT Entity Administrator , using a unique set of credentials (e.g. ID and Password) for that entity account, will be responsible for managing the entity account information and profile, DUNS information and profile, manage integration services with SMT, manage alerts and/or notifications received from SMT related to cyber security and operational events, generating the appropriate integration service credentials using the SMT 2.0 portal, and manage the end users requesting access on a per DUNS basis. The SMT entity end user , using a unique set of credentials for that entity account, will be responsible for requesting access to one or more DUNS from the SMT entity administrator and managing customer-related services associated on a per DUNS basis. The SMT entity users can be those individuals directly associated with the entity, or those individuals providing services on their behalf.
Smart Meter Texas (SMT) Portal	A website operated and managed by AEP Texas Company, CenterPoint Energy Houston Electric LLC., Oncor Electric Company LLC., and Texas-New Mexico Power Company to store energy usage data, meter and premise attribution, and provide data access services (e.g. FTP, web service, download) to Residential Customers, Small Business Customers, RORs, CSPs, TDUs, ERCOT, OPUC and PUCT.
Texas Office of Public Utility Counsel (OPUC)	Represents residential and small commercial customers in electric utility matters.
Transmission and Distribution Utility (TDU)	Delivers energy and provides energy usage metering services through their Transmission and Distribution facilities to a specific premise (e.g. home or business).

Table 26: Glossary of Terms