

## RA Billing Management System (Version 1.0)

0	04.05.2017	Issued for Implementation	Rajesh Gupta	Suresh Khalkho	Rakesh Chaudhary
<b>Rev. No</b>	<b>Date</b>	<b>Purpose</b>	<b>Prepared by</b>	<b>Reviewed by</b>	<b>Approved by</b>

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## **1. INTRODUCTION**

A centralized web application for handling RA bills for the works executed by the contractor against each contract at EIL project site.

## **2. FEATURES**

- Web based system
- The package is designed in a simple modular way.
- The modules are self-explanatory.
- The package is developed by using ORACLE Relational Database Management System (RDBMS). Relational database approach represents various data elements of the system in the form of normalized relations and conventional files are termed as tables with the key elements and its attributes forming contents of the tables.
- Database approach helps in the integrity consistency and security of the data and avoids redundancy.
- The package can handle large volume of data.
- One point data entry system is provided which is carried over in the relevant modules.

## **3. SYSTEM REQUIREMENT**

This System is web based application. This can be accessed through a web browser with network connection in the client machine. However minimum system requirements of the client machine are as follows.

- **HARDWARE :**
  - ✓ Minimum Windows XP or higher Operating System.
  - ✓ Minimum 1 GB of Random Access Memory (RAM).
  - ✓ Minimum 50 GB of Hard Disk Capacity.
  - ✓ Laser Printer.
- **SOFTWARE :**
  - ✓ Google Chrome, Fire fox or Internet Explorer 9 or above
  - ✓ Acrobat Reader 5.0 and above.
- IP/VPN, Internet connectivity for Site users and intranet connectivity for HO users.

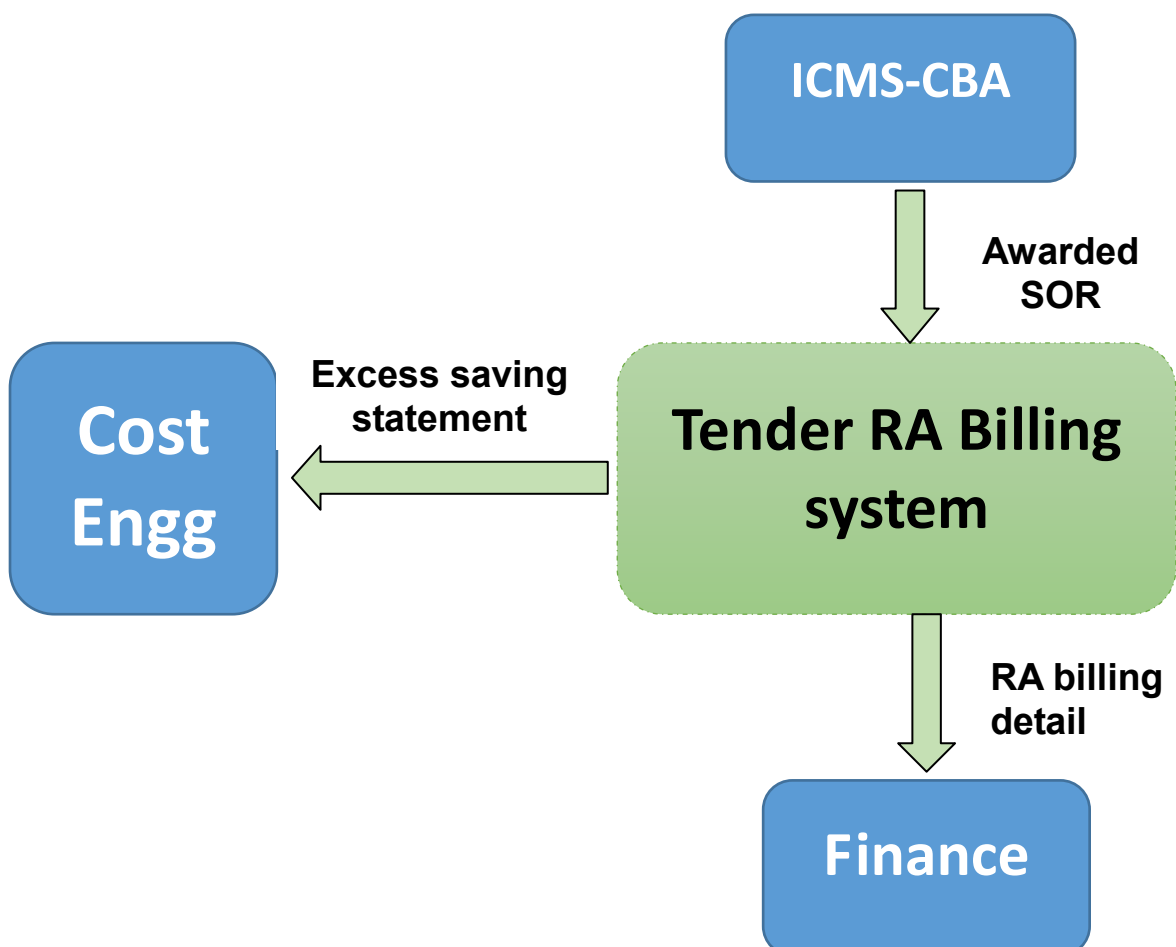
#### 4. BRIEF SYSTEM DETAILS

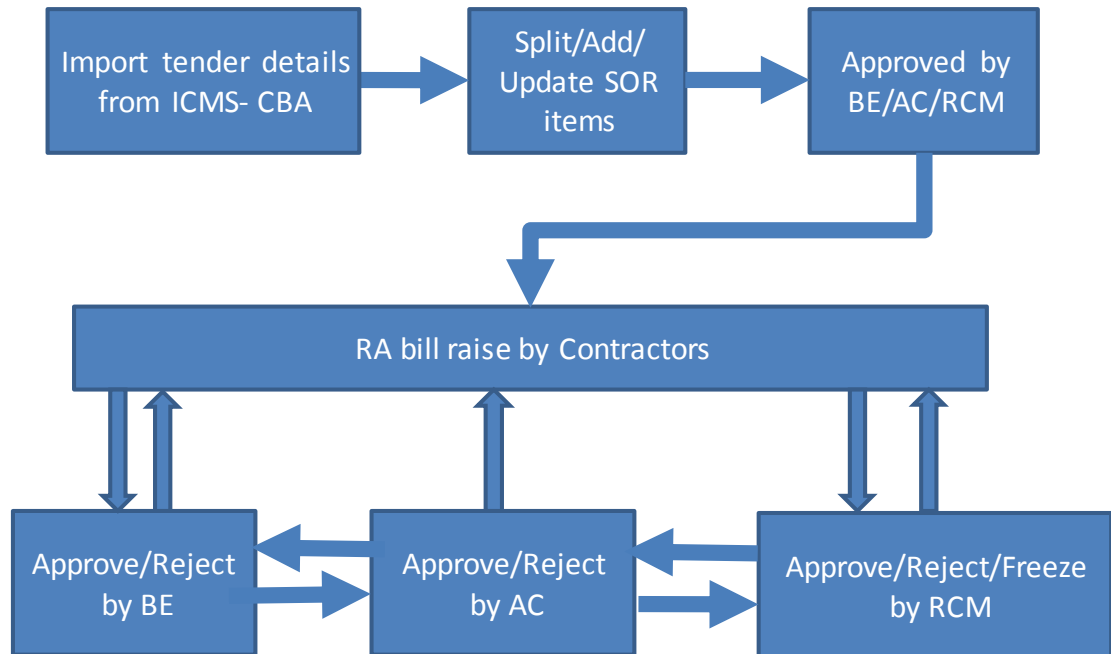
RA Billing System caters to the construction sites for keeping the records of RA bills generated by contractor during the execution of the item rate contract. All activities such as importing tender SOR data from HO, Splitting SOR items based on activity and payments milestones, assigning billing engineer and area coordinator against each contract, adding extra item, uploading measurement sheet by contractor for RA billing and approval of bills by EIL engineers are taken care of in a modular way.

Web address in the web browser

<http://www3.eil.co.in/rabilling/>

#### Overall Block Diagram





**Reports:**

Job No / Tender wise /Unit wise billing information (abstract)

Contractor wise billing information

Final Executed Quantities

Analysis Reports

## 5. OPERATING DETAILS

To start the application user has to type the following web address in the web browser

<http://www3.eil.co.in/rabilling/>

Once user types the above address, a web page will appear as shown below.

### Login Screen



This application supports following ROLES:

- RCM
- Area coordinators
- Billing Engineers
- Contractor

### **Role authorization, Username and password:**

- RCM can authorizes Billing Engineer and Area Coordinator against each Tender.
- Authorized EIL User has to use his/her EIL **Employee No.** as user Id and **EILDC Domain Password** as Password.
- Contractor user has to use **EIL HSE** username and password.

Following are the modules for various ROLES:

**RCM:**

- Populates Job data
- Add/Update Users (Billing Engineers and Area Coordinators)
- Add New SOR Item
- Approval/Editing of RA Bill
- Approval of Splitted Items added by Contractors
- Final Checklist updation
- % Edit
- Generate Output
  - Abstract
  - RA Bill

**Area Coordinator:**

- Populates Job data
- Approval of RA Bill
- Final Checklist updation
- Generate Output
  - Abstract
  - RA Bill

**Billing Engineer Module:**

- Populates Job data
- Edit Site Quantity
- Approval of RA Bill
- Final Checklist updation
- Generate Output
  - Abstract
  - RA Bill

**Contractor Module:**

- Split Activity
- RA Bill entry using Measurement Sheets
- Generate Output
  - Abstract
  - RA Bill



## Modules:

### A. Populates Job data:

This module is used to import / update awarded Tender SOR data from HO (ICMS – CBA software).

### Steps:

- Select job number
- Click on the **Populate Job Data from ICMS CBA** button.

**RA Billing Management System**

WELCOME NARA SAHAJ J VI Log Out

[Populate Job Data](#)
[Add /Edit Users](#)
[Add New SOR Item](#)
[Add/Edit Bill](#)
[Approve Splitted Items](#)
[Generate Output](#)
[Final Check list](#)

Populate Job data for Billing from ICMS CBA

Select Job Number:

**Populate Job Data from ICMS CBA**

This will update all awarded data with item details into RA billing system.

- B. **Add/Update Billing Engineer and Area Coordinator Users:** This module is used to assigning billing engineer and area coordinator against each contact.  
Only RCM can authorized the ROLE.

## RA Billing Management System

WELCOME NARASAIHA J VI
Log Out

Populate Job Data
Add /Edit Users
Add New SOR Item
Add/Edit Bill
Approve Splitted Items
Generate Output
Final Check list

**User Authorization**

Site Code :  Site Name :

Select Job Number :

Select Tender Number :

	Emp No.	Emp Name	Emp Role	Delete?
<a href="#">Edit</a>	A120	SHENGRA ANJURAG VIKAS	Area Coordinator ▾	<a href="#">Delete</a>
<a href="#">Edit</a>	C149	SHAIK AZEEM	Billing Engineer ▾	<a href="#">Delete</a>

Add Site Engineers
Add New Employee

### Steps:

- a. Select Job Number
- b. Select Tender Number
- c. Click on the link button “Add New Employee”, following screen will appear :

RA Billing Management System

WELCOME BHATNAGAR RAJIVI Log Out

Populate Job Data Add/Edit Users Add New SOR Item Add/Edit Bill Approve Splitted Items Generate Output

**User Authorization**

Site Code : 274 Site Name : VIJAIPUR PETROCHEMICAL COMPLEX II, GAIL

Select Job Number: A095  
Select Tender Number: A095/T-180/10-11/RKS/12 ( CIVIL & STRL - III UNITS )

**Add Employee**

Emp No.	Emp Name	Emp Role	Delete?
6724	PRASAD B B		Delete
7475	DE S K		Delete
B221	SINGH VIKRANT		
B342	PRASHANT CHAUHAN	Billing Engineer	
B675	SHARMA SHAILENDRA	Area Coordinator	
B745	DEEPAK KUMAR		
B808	MURALI SHANKAR SL		
B838	GANGULI ANURAG		
B921	JARARIA RAJESH		
B985	PRAKASH E		
C103	ASHUTOSH		
C106	SANDEEP KUMAR		

Add User

- d. Assign the role against employee number (employee number and site code are linked with CMIS database which is maintained by HO construction)
- e. Click button “Add User” to save record.
- f. Editing or deleting facility of users is also available in this module.

C. **Add New SOR Item:** This module is used for adding new standard or non- standard SOR item against any SOR at the site. Contractor will add the items and RCM will approve / reject the same.

**Steps:**

- a. Select Job Number
- b. Select Tender Number, following screen will appear with SOR details:

Populate Job Data Add/Edit Users Add New SOR Item Add/Edit Bill Approve Splitted Items Generate Output Final Check list

**Add New SOR Item**

Select Job Number: A774  
Select Tender Number: A774-000-81-41-CFT-8102 ( CIVIL / STRUCTURAL WORKS FOR CHDT, SRU & OFFSITE )

S.No	Sub Job Number	Unit	Tender Number	Part Number	SOR Number	Contractor Code	LOI Number	LOI Date	
1	00	000	8102	0	A774-000-16-50-CI-SOR-8102-0-0M	F005			Select
2	00	000	8102	0	A774-000-81-41-CI-SOR-8102-0-1M	F005			Select

- c. Click on the button “Select ” to select the SOR against which user want to add new SOR item, all the SOR item will appear on the screen as show below:

S.No	Description	UOM	Rate	Quantity
1	ELECTRICAL :-			
2	E207.01.00 GI PIPES :-			
3	Supply and laying of following sizes of GI Pipes (medium) in required length fixed on steel, concrete or similar structure, laid in trenches, ready to be buried in concrete including cutting, threading, bending and similar work, supply of clamps, small iron structures, spacers and installation of seals, plugs, bootings etc., small civil work, including all labour and materials, as per approved drawings, specifications of this tender and directions of Engineer-in-Charge :-			
4	E207.01.01 40 mm NB :-	M	1230	800
5	E207.01.02 50 mm NB :-	M	1640	260
6	E207.01.03 65 mm NB :-	M	2050	70
7	E207.01.04 80 mm NB :-	M	2510	150
8	E207.01.05 100 mm NB :-	M	3390	150
9	E207.01.07 150 mm NB :-	M	5130	80
10	E402.00.00 EARTH ELECTRODES :-			
11	Supply, installation, testing and commissioning of GI earth electrodes, complete with earth pit as per std. T-51-0102 and all necessary materials including excavation of earth pit, filling with charcoal and salt, back filling, providing necessary brackets, connections, including all labour and materials, as per approved drawings, specifications of this tender and directions of Engineer-in-Charge :-			
12	E402.01.01 GI earth electrode as per std. T-51-0102 :-	NOS	15230	65
13	E403.00.00 EARTH STRIPS :-			
14	Supply, installation and connection of following GI earthing strip buried individually at a depth of 500 mm including welding at joints, providing anti-corrosive paint or bitumen and jute covering for welded portion, clamping and necessary hardware for connecting, excavation and refilling etc., including all labour and materials, as per approved drawings, specifications of this tender and directions of Engineer-in-Charge :-			
15	E403.02.02 50 x 6 mm :-	M	600	2200
16	E403.02.03 40 x 5 mm :-	M	510	250
17	E403.02.04 20 x 3 mm :-	M	370	460
18	E405.00.00 EARTH PLATES :-			
19	Supply, installation and connection of GI earth plates as per std. T-51-0103, complete with anchor bolts, including all labour and materials, as per approved drawings, specifications of this tender and directions of Engineer-in-Charge :-			
20	E405.01.01 GI earth plate as per std. T-51-0103 :-	NOS	1450	140
21	C001.12.00 Constructing 300mm x 300mm x 1200mm size GRID PILLARS in plain cement concrete of M-20 grade with 20mm and down size graded mine aggregate with 500mm below ground level and 700mm above ground including embedding steel plate 150mm x 150mm x 10mm thick with two nos. anchor bars of 12mm dia. 150 mm long on top of pillar for marking the permanent reference points, including earthwork in excavation, backfilling and spreading surplus earth, shuffling, tamping, ramming, vibrating, curing, and fine	EACH	100	1

d. Click on the button “Add New SOR Item”, following screen will appear.

**Add New Item**

SOR Number: A774-000-16-50-CI-SOR-8102-0-0M

Discipline: GENERAL CIVIL

Standard Item: ☒ Others Item: ☐

Sequence Number: --Select Sequence Number--

Activity:

Description:

Quantity:

Unit Of Measure:

Item Rate:

Close Save

e. User can add standard SOR items as well as other miscellaneous items.

f. Enter all the mandatory details in above screen and press “Save” button to add.

**D. Splitting and Approval of SOR Items for activity / payments:** This module is used for splitting the SOR item as per activities and payment condition. Contractor will split the SOR items based on the activities and payments condition and RCM will approve the same.

## Steps:

- Select Job Number
- Select Tender Number, following screen will appear with SOR details:

RA Billing-Split Activity - Google Chrome

www.eil.co.in/Rabilling/SplitActivity

**Split Activity**

Select Job Number: A774

Select Tender Number: A774-000-81-41-CF-T-8201 ( CIVIL STRUCTURAL WORKS FOR BUILDINGS FOR DHD)

S.No	Sub Job Number	Unit	Tender Part Number	SOR Number	Contractor LOI Code	LOI Number	LOI Date	
1	00	000	8201	0	A774-000-16-50-CF-SOR-8201-0-0M	B017		Select
2	00	000	8201	0	A774-000-81-41-CF-SOR-8201-0-1M	B017		Select

- Click on the "Select", following screen will appear with SOR item details:

nanagement System

RA Billing-Split Activity - Google Chrome

localhost:3000/Rabilling/SplitActivity

**Split Activity**

Select Job Number: A133

Select Tender Number: A133-000-16-47-CC-T-8000 ( INFRASTRUCTURE WORKS (PCC-1, RESID UPGRADE, CPCL)

S.No	Sub Job Number	Unit	Tender Part Number	SOR Number	Contractor LOI Code	LOI Number	LOI Date	
1			8000	0	A133-000-16-44-CC-SOR-8000-0-0M	0009		Select
2			8000	0	A133-000-16-47-CC-SOR-8000-0-1M	0009		Select
3			8000	0	A133-000-16-48-CC-SOR-8000-0-1M	0009		Select
4			8000	0	A133-000-16-49-CC-SOR-8000-0-0M	0009		Select
5			8000	0	A133-000-16-50-CC-SOR-8000-0-0M	0009		Select
6			8000	0	A133-000-16-41-CC-SOR-8000-0-0M	0009		Select

S.No	Activity Name	Description	Split Details	LOI Code	Quantity														
1	7000.00.00	INFORMATION TECHNOLOGY SERVICES -																	
2	7002.00.00	Supply & Laying of OFC Cable -																	
3	7002.83.00	Supply, Laying, testing of 6 core, multi mode (OM3), armoured cable, supply includes all cable accessories like clamps, cable ties, nut bolts etc. to lay the cable as per the specifications of this tender and directions of the Engineer-in-Charge -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity Percentage</th> <th>Split</th> <th>LOI Code</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>35</td> <td>Split</td> <td>M</td> <td>210</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td></td> <td></td> <td>100</td> </tr> </tbody> </table>	S.No	Activity Percentage	Split	LOI Code	Quantity	1	35	Split	M	210	2	Final payment			100	
S.No	Activity Percentage	Split	LOI Code	Quantity															
1	35	Split	M	210															
2	Final payment			100															
4	7003.00.00	Supply, installation, termination of panel shelves -																	
5	7003.81.00	Supply, installation, termination and certification of 1U panel shelves including face plate, LC duplex adapters, pig tails, fusion splice kit etc. as per the specifications of this tender and directions of the Engineer-in-Charge -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity Percentage</th> <th>Split</th> <th>LOI Code</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>35</td> <td>Split</td> <td>NOS</td> <td>15750</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td></td> <td></td> <td>2</td> </tr> </tbody> </table>	S.No	Activity Percentage	Split	LOI Code	Quantity	1	35	Split	NOS	15750	2	Final payment			2	
S.No	Activity Percentage	Split	LOI Code	Quantity															
1	35	Split	NOS	15750															
2	Final payment			2															
6	7004.00.00	Supply, installation of patch cord -																	
7	7004.83.00	Supply, installation of 2 mtr LC-LC multi mode OM3 Low Smoke Zero Halogen patch cord as per the specifications of this tender and directions of the Engineer-in-Charge -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity Percentage</th> <th>Split</th> <th>LOI Code</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>35</td> <td>Split</td> <td>NOS</td> <td>1890</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td></td> <td></td> <td>4</td> </tr> </tbody> </table>	S.No	Activity Percentage	Split	LOI Code	Quantity	1	35	Split	NOS	1890	2	Final payment			4	
S.No	Activity Percentage	Split	LOI Code	Quantity															
1	35	Split	NOS	1890															
2	Final payment			4															
8	7012.00.00	Supply and Laying of GI pipe -																	
9	7012.81.00	Supply and Laying of GI pipe as per the specifications of this tender and directions of the Engineer-in-Charge -																	
10	7012.81.01	Supply and Laying of GI pipe of following sizes OD 25 mm. -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity Percentage</th> <th>Split</th> <th>LOI Code</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>35</td> <td>Split</td> <td>M</td> <td>473</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td></td> <td></td> <td>25</td> </tr> </tbody> </table>	S.No	Activity Percentage	Split	LOI Code	Quantity	1	35	Split	M	473	2	Final payment			25	
S.No	Activity Percentage	Split	LOI Code	Quantity															
1	35	Split	M	473															
2	Final payment			25															
11	7020.00.00	Supply, Laying, Testing of UTP cables -																	
12	7020.83.00	Supply, Laying, Testing of CAT6 LSZH UTP cable 305m bar as per the specifications of this tender and directions of the Engineer-in-Charge -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity Percentage</th> <th>Split</th> <th>LOI Code</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>35</td> <td>Split</td> <td>BOR</td> <td>21000</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td></td> <td></td> <td>12</td> </tr> </tbody> </table>	S.No	Activity Percentage	Split	LOI Code	Quantity	1	35	Split	BOR	21000	2	Final payment			12	
S.No	Activity Percentage	Split	LOI Code	Quantity															
1	35	Split	BOR	21000															
2	Final payment			12															
13	7024.00.00	ISITC of VO -																	

- Clicking on Split Button, following screen will appear

RA Billing-Split Activity - Google Chrome

localhost:3089/RABilling/SplitActivity

Select Job Number: A133

Select Tender Number: A133-000-16-47-CC-T-8000 ( INFRASTRUCTURE WORKS EPCC-1, RESID UPGRADE, CPCL)

S.No	Sub Job Number	Tender Part Number	SOR Number	Contractor OT Code	LOI Number	LOI Date	
1		8000	0 A133-000-16-44-CC-SOR-8000-0-OM	0009			Select
2		8000	0 A133-000-16-47-CC-SOR-8000-0-1M	0009			Select
3		8000	0 A133-000-16-48-CC-SOR-8000-0-1M	0009			Select
4		8000	0 A133-000-16-49-CC-SOR-8000-0-0M	0009			Select
5		8000	0 A133-000-16-58-CC-SOR-8000-0-OM	0009			Select
6		8000	0 A133-000-20-41-CC-SOR-8000-0-0M	0009			Select

Activity description: Supply,Laying, testing of 6 core, multi mode (OM3), armoured cable, supply includes all cable accessories like clamps, cable ties, nut bolts etc. to lay the cable as per the specifications of this tender and directions of the Engineer-in-Charge. -

Activity Percentage: 95

Split Activity

S.No	Activity Description	Activity Percentage
1		
2		
3		

Submit

Description Percentage: 95

Final payment: 0

Cancel

e. Enter the activities and percentage

f. Press button "Submit" to save records.

g. After entering the activity details and percentage, flowing screen will appear:



RA Billing-Split Activity - Google Chrome  
localhost:3089/RABilling/SplitActivity

Select Job Number: A133  
Select Tender Number: A133-000-16-47-CC-T-8000 ( INFRASTRUCTURE WORKS EPCC-1, RESID UPGRADE, CPCL)

S.No	Split Job Number	Unit	Tender Part Number	SOR Number	Contractor OT Code	OT Number	OT Date	Select
1			8000	0	A133-000-16-44-CC-SOR-8000-0-0M	0009		Select
2			8000	0	A133-000-16-47-CC-SOR-8000-0-1M	0009		Select
3			8000	0	A133-000-16-48-CC-SOR-8000-0-1M	0009		Select
4			8000	0	A133-000-16-49-CC-SOR-8000-0-0M	0009		Select
5			8000	0	A133-000-16-50-CC-SOR-8000-0-0M	0009		Select
6			8000	0	A133-000-20-41-CC-SOR-8000-0-0M	0009		Select

S.No	Sequence No	Description	Split Details	UOP	Rate	Quantity																
1	T000.00.00	INFORMATION TECHNOLOGY SERVICES -																				
2	T002.00.00	Supply / Laying of OFC Cable -																				
3	T002.03.00	Supply, Laying, testing of 6 core, multi mode OM3, armoured cable, supply includes all cable accessories like clamps, cable ties, nut bolts etc. to lay the cable as per the specifications of this tender and directions of the Engineer-in-Charge. -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity</th> <th>Percentage</th> <th>Approval</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>test activity 1</td> <td>35</td> <td>Pending</td> </tr> <tr> <td>2</td> <td>test activity 3</td> <td>25</td> <td>Pending</td> </tr> <tr> <td>3</td> <td>Final payment</td> <td>5</td> <td></td> </tr> </tbody> </table>	S.No	Activity	Percentage	Approval	1	test activity 1	35	Pending	2	test activity 3	25	Pending	3	Final payment	5		M	210	100
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4	T003.00.00	Supply, installation, termination of panel shelves -																				
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8	T012.00.00	Supply and Laying of GI pipe -																				
9	T012.01.00	Supply and Laying of GI pipe as per the specifications of this tender and directions of the Engineer-in-Charge. -																				
10	T012.01.01V01	Supply and Laying of GI pipe of following sizes OD 25 mm. -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity</th> <th>Percentage</th> <th>Approval</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>95</td> <td>Split</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td>5</td> <td></td> </tr> </tbody> </table>	S.No	Activity	Percentage	Approval	1		95	Split	2	Final payment	5		M	473	25				
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12	T020.03.00	Supply, Laying, Testing of CAT6 LSZH UTP cable 305m box as per the specifications of this tender and directions of the Engineer-in-Charge. -	<table border="1"> <thead> <tr> <th>S.No</th> <th>Activity</th> <th>Percentage</th> <th>Approval</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>95</td> <td>Split</td> </tr> <tr> <td>2</td> <td>Final payment</td> <td>5</td> <td></td> </tr> </tbody> </table>	S.No	Activity	Percentage	Approval	1		95	Split	2	Final payment	5		BOX	21000	12				
S.No	Activity	Percentage	Approval																			
1		95	Split																			
2	Final payment	5																				

**RCM's Activity approval/Rejection screen:** RCM can approved or reject the splitted activities entered by contractor. Screen is show below.

## RA Billing Management System

WELCOME NARASAI AH J VI Log Out

Populate Job Data Add/Edit Users Edit Site Qty Add New SOR Item Add/Edit Bill Approve Splitted Items Generate Output

Approve/Reject Splitted activities (Submitted by Contractor)

Select Job Number: A133  
Select Tender Number: A133-000-16-47-CC-T-8000 ( INFRASTRUCTURE WORKS EPCC-1, RESID UPGRADE, CPCL)

S.No	SOR Number	Sequence Number	Activity Description	Percentage	RCM (Approval Status)	Reject
1	A133-000-16-44-CC-SOR-8000-0-0M	PP.TT.AA.TEST	Split Activities as desired	95	N	
2	A133-000-20-41-CC-SOR-8000-0-0M	T002.03.00	test activity 2	35	N	
3	A133-000-20-41-CC-SOR-8000-0-0M	T002.03.00	test activity 1	35	N	
4	A133-000-20-41-CC-SOR-8000-0-0M	T002.03.00	test activity 3	25	N	

Approve



RAB: Measurement Sheet - Google Chrome

www3.eil.co.in/Rabilling/RAB\_Msheet\_Entry.aspx?refId=35&seqNo=E104.01.01&actId=6551&tendSorId=1157&RSnc

[Click here to download the sample Measurement Sheet template](#)

**Instructions**

1. Only .xlsx file may be uploaded.
2. Do not add any Formula in the .xlsx file.
3. Do not add/change the cell positions of the text, otherwise data will not be upload.
4. Insert the new row for the measurements and enter **valid SOR sequence No and Unit**
5. Unit is Mandatory field, else that row will not be considered

**MEASUREMENT SHEET**

Sequence Number E104.01.01

[Browse Measurement Sheet](#)  No file chosen

Measurement sheet entry not found.

- e. Click on the button “Choose File” to upload the measurement sheet in standard excel format (User can download the standard measurement sheet format by clicking the link “**Click here to download the sample Measurement Sheet template**” from the above screen).
- f. Press button “Close” or “Close with Refresh” to go into the main screen to upload measurement sheet for another item. If user press “Close” button, it will save the data but it will not show the total quantity in the main screen. If user press “Close with Refresh” button, it will save the data and it will show the total quantity in the main screen but it will take extra time for refresh whole page. It is suggested that “Close with Refresh” button can be used for last record for fast data retrieval.
- g. After uploading all the measurement sheet , enter the bill number and period of the measurement in the screen show below :



- h. After entering all the Measurement Sheets and enter Bill number and billing period, click on the button “Submit to Billing Engineer” for approval of the bill.

## F. Approval / rejection of RA Bill entered by Contractor:

### a) Approval or rejection by Billing Engineer:

#### Steps:

- Select Job Number
- Select Tender Number, following screen will appear:

- After clicking on Select link, following screen will appear:

## RA Billing Management System

WELCOME PAL DEBASISH										Log Out							
Populate Job Data    Edit Site Qty    Add/Edit Bill    Generate Output    Final Check list																	
Add/Update Billing																	
Select Job Number		A774															
Select Tender Number		8201 ( CIVIL, STRUCTURAL, WORKS FOR BUILDINGS FOR DHCT )															
Old Bills																	
S.No	BILL Sequence No	Added Qty	BILL Number	BILL Period													
1	1	29-Mar-2017	Test Bill/2017/01	02-Mar-2017 to 29-Mar-2017 <span style="color: red;">Select</span>													
S.No	SNOR No	Sequence No	Description	SNOR Qty	Rate	Split Details											
1	A774-000-16-50-CS-SOR-8201-S-0M	A605.00.00	Providing pointing over masonry														
2	A774-000-16-50-CS-SOR-8201-S-0M	EE	ELECTRICAL														
3	A774-000-16-50-CS-SOR-8201-S-0M	E194.00.00	MISCELLANEOUS CONTROL GEAR														
4	A774-000-16-50-CS-SOR-8201-S-0M	E194.01.00	ATC miscellaneous control gear														
5	A774-000-16-50-CS-SOR-8201-S-0M	E194.01.01	Weight of the unit up to 5 kg	NO5	6	998	S.No	Activity	Percentage	Qty (upto Prev. Bill)	Amount (upto Prev. Bill)	Cost, Current Qty	Total Quantity	Total Amount	RF	AC	RCM
							1		60%	6	6	71	71	53948	Qty received 71	71	71
6	A774-000-16-50-CS-SOR-8201-S-0M	E194.01.02	Weight of the unit above 5 kg. Incl upto 20 kg	NO5	3	1450											
	A774-000-16-50-CS-SOR-8201-S-0M																

Scroll the screen for sending it for further approval:

The screenshot shows the 'Estimate' window with a list of items. The items are organized into columns: Item ID, Description, Unit, and Quantity. The items are listed as follows:

Item ID	Description	Unit	Quantity
477	A774-000-01-45-CF- S0R-0201-0-1M	C034.20.01V06	1
478	A774-000-01-45-CF- S0R-0201-0-1M	C034.21.00	1
479	A774-000-01-45-CF- S0R-0201-0-1M	C034.21.02V01	1
480	A774-000-01-45-CF- S0R-0201-0-1M	C034.22.00	1
481	A774-000-01-45-CF- S0R-0201-0-1M	C034.22.02V01	1
482	A774-000-01-45-CF- S0R-0201-0-1M	C170.00.00	1
483	A774-000-01-45-CF- S0R-0201-0-1M	C170.01.00V01	1
484	A774-000-01-45-CF- S0R-0201-0-1M	C170.01.00V02	1
485	A774-000-01-45-CF- S0R-0201-0-1M	C184.00.00	1
486	A774-000-01-45-CF- S0R-0201-0-1M	C184.01.00	1
487	A774-000-01-45-CF- S0R-0201-0-1M	C184.01.01V02	1
488	A774-000-01-45-CF- S0R-0201-0-1M	C184.05.00	1
489	A774-000-01-45-CF- S0R-0201-0-1M	C184.05.01V01	1
490	A774-000-01-45-CF- S0R-0201-0-1M	C189.00.00	1
491	A774-000-01-45-CF- S0R-0201-0-1M	C189.01.00	1
492	A774-000-01-45-CF- S0R-0201-0-1M	C189.01.01V05	1

At the bottom of the window, there is a button labeled 'Send for Approval to AC/RCM'. A callout bubble points to this button with the text: 'Click on the button to approve and send it to AC/RCM'.

**b) Approval / Rejection by Area Coordinator :**

### Steps:

- a. Select Job Number
- b. Select Tender Number, following screen will appear:

After clicking on Select link, following screen will appear:

Scroll to the end of the screen to submit it to RCM:

### c) Approval / Rejection by RCM :

#### Steps:

- Select Job Number
- Select Tender Number, following screen will appear:

After clicking on the Select link, following screen will appear:

Item No.	Description	Unit	Quantity
478	A774-000-01-41-CF- SOR-0201-S-1M C054.21.00 Providing stoneware Gully Trap		
479	A774-000-01-41-CF- SOR-0201-S-1M C054.21.02V01 All materials including cement supplied by contractor EACH	2	5200
480	A774-000-01-41-CF- SOR-0201-S-1M C054.22.00 Construction of inspection chamber manholes		
481	A774-000-01-41-CF- SOR-0201-S-1M C054.22.02V01 All materials including cement supplied by contractor EACH	2	27000
482	A774-000-01-41-CF- SOR-0201-S-1M C170.00.00 Overhead Drinking Water Tank		
483	A774-000-01-41-CF- SOR-0201-S-1M C170.01.00V01 Clean agent for buildings EACH	1	0000
484	A774-000-01-41-CF- SOR-0201-S-1M C170.01.00V02 Clean agent for buildings EACH	1	12000
485	A774-000-01-41-CF- SOR-0201-S-1M C104.00.00 Portable/hotkey mounted Extinguishers		
486	A774-000-01-41-CF- SOR-0201-S-1M C104.01.00 SI of portable CO2 Extinguisher		
487	A774-000-01-41-CF- SOR-0201-S-1M C104.01.01V02 Capacity - Kg NOS	14	3250
488	A774-000-01-41-CF- SOR-0201-S-1M C104.05.00 SI of portable CO2 Extinguisher		
489	A774-000-01-41-CF- SOR-0201-S-1M C104.05.01V01 Capacity - Kg NOS	12	5000
490	A774-000-01-41-CF- SOR-0201-S-1M C100.00.00 SI of valve assembly		
491	A774-000-01-41-CF- SOR-0201-S-1M C100.01.00 SI of Gate valve assembly		
492	A774-000-01-41-CF- SOR-0201-S-1M C100.01.01V15 Dia _____ mm. Pipe class _____	EACH	2 4500

Remarks (If Any) \_\_\_\_\_

Approve All Generate Bill

Previous Comments

After Clicking on **Approve All** button, data entry by contractor will freeze and following success screen will appear:

www3.eil.co.in says:  
Items approved successfully

OK

Clicking on the **Generate Bill** button following success screen will appear:

www3.eil.co.in says:  
Bill generated successfully

☐ Prevent this page from creating additional dialog:

OK

G. **Generate Output:** This module is used to **generate Measurement Sheet, RA bill abstract and Excess Saving Statement.**

**Steps:**

- Select Job Number
- Select Tender Number, following screen will appear with RA bill details:

- Click on the link button “Measurement Sheet” to generate complete measurement sheet for selected RA bill
- Click on the link button “Abstract” to generate RA bill abstract for selected RA bill
- Click on the button “Generate Excess Saving Statement” for tender abstract.

Sample files are shown below:

**Measurement Sheet Output in Excel:**

Job Number: A774										
Tender Number: A774-000-B1-42-CP-T-6201 ( CIVIL STRUCTURAL WORKS FOR BUILDINGS FOR CHDT)										
MEASUREMENT SHEET										
Contractor Name: BRIDGE AND ROOF COMPANY (INDIA) LTD. (2017)										
RA Bill : From 01-Apr-2017 To 30-Apr-2017 and Running Account Bill No. 1										
SORTS No.	SORTS No.	Items	UOM	NO.	Length	Breadth	Quantity	Unit Wt.	Dis.	Total
							Height/Depth			
1	5001 B1	Earth work in EXCAVATION below ground level for all kinds of works in ALL								
2	1	F1 TYPE FOOTING (Dist B1 to H1): (8.5*8.75*2.1, 15*2*0.6*2*1/2)*6.95	Cum	5	11.65	8	1.50			139.80
3	2	F1 TYPE FOOTING (Dist H1 to H3): (8*8*2.5*2.5)	Cum	5	11.70	11.20	1.50			195.58
4	3	F1 TYPE FOOTING (Dist H3 to H4): (2.5*8*2.5)	Cum	5	25	10.20	1.50			381.50
5	4	Weld	Cum	200	5	5	5			200
6										
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## RA billing Abstract Output in Excel:

Job Number: A774													
Tender Number: A774-000-B1-41-CF-T-8201 ( CIVIL STRUCTURAL WORKS FOR BUILDINGS FOR DHDT)													
ABSTRACT FOR MEASUREMENTS AND PAYMENT													
Contractor Name: BRIDGE AND ROOF COMPANY (INDIA) LTD.(B017)													
RA Bill : From 01-Apr-2017 To 30-Apr-2017 and Running Account Bill No: 1													
SOR S. No	SOR Item No.	Items	UOM	SOR Quantity	SOR Rate	Part Rate	Executed Qty			Amount in Rs.			Remarks
							Up to Prev. Bill	Since Prev. Bill	Up to Date	Up to Prev. Bill	Since Prev. Bill	Up to Date	
9		Earth work in EXCAVATION below ground level for all kinds of works in ALL TYPES OF SOILS EXCEPT SOFT ROCK AND HARD ROCK as classified in specification for a depth upto 1.5m including removal of vegetation, shrubs and debris, cutting and dressing of sides in slopes, leveling, grading and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works and disposal or stacking of excavated material within a lead of 100m, as directed including providing temporary supports to existing service lines like water pipes, sewage pipes, electric overhead and underground cables etc. all complete, but excluding shoring and strutting.	Cum	4500	220	99%	0	518.86	0	0.00	518861.24	0.00	
10		Earth work in EXCAVATION below ground level for all kinds of works in ALL TYPES OF SOILS EXCEPT SOFT ROCK AND HARD ROCK as classified in specification for a depth beyond 1.5m and upto and inclusive of 1.5m including removal of vegetation, shrubs and debris, cutting and dressing of sides in slopes, leveling, grading and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works and disposal or stacking of excavated material within a lead of 100m, as directed including providing temporary supports to existing service lines like water pipes, sewage pipes, electric overhead and underground cables etc. all complete, but excluding shoring and strutting.	Cum	2100	216	99%	0	511.51	0	0.00	729162	0.00	
11		Providing and laying PLAIN CEMENT CONCRETE for all depths below and upto ground level in foundations, drains, fittings, run-suspended floors, pavements & ramps or any other works etc. including shuttering, ramming, ramming, vibrating, curing etc. all as specified in any shape, position, thickness and											

## Tender Abstract Output in Excel:

Job Number: A774													
Tender Number: A774-000-B1-41-CF-T-8201 ( CIVIL STRUCTURAL WORKS FOR BUILDINGS FOR DHDT)													
ABSTRACT FOR MEASUREMENTS AND PAYMENT													
Contractor Name: BRIDGE AND ROOF COMPANY (INDIA) LTD.(B017)													
SOR S. No	SOR Item No.	Items	UOM	SOR Quantity	SOR Rate	Part Rate	Executed Qty			Amount in Rs.			Remarks
							Up to Prev. Bill	Since Prev. Bill	Up to Date	Up to Prev. Bill	Since Prev. Bill	Up to Date	
1	A000.00.00	ARCHITECTURE -											
2	A002.00.00	FLOOR FINISHING -											
3	A002.01.00	Providing and laying average											
4	A002.01.01	CEMENT SUPPLIED BY THE	Sq.M.	150	370	100%							
5	A002.01.00	Providing and laying average											
6	A002.03.01	CEMENT SUPPLIED BY THE	Sq.M.	1052	780	100%							
7	A002.04.00	Providing and laying 125mm high											
		18mm thick, CEMENT SUPPLIED											

**H. % Edit:** This module is used by RCM to define the percentage increase or decrease on total work applicable on all **standard** items of SOR. RCM will define percentage value before processing of any RA bill and calculation for same will reflect on the outputs of Abstract and Excess Saving Statement.

WELCOME DAS ARVIT KJ Log Out

Populate Job Data Add/Edit Users Add New SOIR Item Add/Edit Bill Approve Split Item Generate Output Final Check List % Edit

Define percentage as per contract

Select Job Number: 6774

NOTE: For decrease enter negative value

S.No	Item Description	Percentage
1	1001 ( INSTRUMENTATION WORKS FOR DHD PROJECT NRI)	-5
2	3000 (HOOK-UP AND WIRING WORKS FOR DHD-NRI)	0 Edit
3	3001 ( MECHANICAL WORKS FOR DHD UNIT, DHD PROJECT NRI)	0 Edit
4	3002 ( MECHANICAL WORKS FOR SRU (UTILITIES OFFSITE & TANKS))	0 Edit
5	5025 ( CIVIL & MECHANICAL WORKS FOR FLOATING ROOF TANKS)	0 Edit
6	5101 ( BORED CAST-IN-SITU- PILES AND RCC WORKS FOR DHD)	0 Edit
7	5102 ( CIVIL /STRUCTURAL WORKS FOR DHD SRU & OFFSITE)	0 Edit
8	5103 ( PILING AND RCC WORKS FOR DHD PROJECT NRI)	0 Edit
9	5201 ( CIVIL /STRUCTURAL WORKS FOR BUILDINGS FOR DHD)	2.34
10	5202 ( CIVIL /STRUCTURAL WORKS FOR 33 KV SUBSTATION)	0 Edit

**Calculation on Outputs (Abstract and Excess Saving Statement) :**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
22														
23			Providing and laying BRICK MASONRY WITH BRICKS OF CLASS 5.0 (i.e. cement mortar 1:6 (1 Cement : 6 Sand) in one or more brick thickness and in any shape (excluding circular/corner brick masonry) at all depths below plinth level including the cost of materials, labour, scaffolding/ staging, sampling & testing, soaking of bricks, cutting and laying of bricks, providing recesses, making openings of any shape & size, finishing the joints flush below ground level and making out the joints above ground level, sealing the gap between masonry and soffit of beam/slab, embedding the fixings & fixtures, curing, etc. all complete as per specifications. ALL MATERIALS INCLUDING CEMENT SUPPLIED BY THE CONTRACTOR. -	Sq.m	13000	500	95%	0	74.66	0	5.00	55477.75	55477.75	
24			Supervising and mixing of approved brand of BI-POLAR CONCRETE PENETRATING CORROSION INHIBITING ADMIXTURE in concrete as per manufacturer's specification for protection of reinforcement against corrosion. Supply of admixture in Contractor's scope. -	Cum	50	9790	95%	0	30.04	0	5.00	155138.32	155138.32	
25				kg	52000	420	95%	0	93.02	0	5.00	285384.88	285384.88	
26														
27														
28														
29														
30														
31														
32														
33														
34														

**I. Final Checklist :**

Populate Job Data Add/Edit Users Add New SOIR Item Add/Edit Bill Approve Split Item Generate Output Final Check List

Update Check List

Select Job Number: 6774

Select Tender Number: 6774-000-BJ-45-CU-T-0101 ( BORED CAST-IN-SITU- PILES AND RCC WORKS FOR DHD)

S.No/Activities Completed

	BE	AC	RCM
1 Processing of Final Time Extension.			
2 Processing of all Extra Claims and approval by Competent Authority.			
3 No Claim and No Dues Certificates from Contractor.			
4 Site Clearance Certificate from Contractor.			
5 Final variation (excess/saving) Statement.			
6 Material Reconciliation Statement (for Owner supplied materials) and return of surplus material.			
7 Material Issue Voucher (MIV)/Return Voucher (RMV) Statement (for Owner supplied Material). To be approved by EL Stores Dept.			
8 Return of materials taken on loan from Owner's stores, if any.			
9 Handing over of excess materials/spare of Package Units after commissioning (supplied by Contractor and if required as per contract provisions).			
10 Validity of Contract Performance Security as per contract (normally to cover one year defect liability period plus 90 days from the date of completion of works mentioned in the completion Certificate).			
11 Submission of 6 nos. of copies of As-built Drawings (signed by EIL and Contractor along with soft copy).			
12 Bill measurement to be signed by RCM/authorized signatories of contractor (check with POA submitted by the contractor), Write name, designation, and date below signature. Alternative put seal, date below Signatures.			
13 Issue of Completion Certificate by EIL. (Attach this certificate in Final Bill forwarded to owner System Completion Certificate/Mechanical Completion certificate, wherever applicable, to be issued prior to issue of this certificate).			
14 No Objection Certificate(S) from Statutory Authorities/ Govt. Bodies, if required, as per contract.			
15 All measurements have been last checked.			
16 Check that all deficiencies/punch points have been corrected /attended to, deviations approved & NCR resolved.			
17 Return of Gate Passes to Owner/Security Dept. if issued.			
18 Recovery of crane charges.			
19 Construction Power Supply disconnection certificate.			
20 Recovery if shortfall in deployment of key Construction Personnel.			

Submit Freeze Check List

## 6. ERROR MESSAGES

Error messages will be displayed while input parameters are wrongly filled or some validation fails.

Login failed:

If Valid Employee number and Password in not mentioned, following screen will appear:





Invalid Split error message:

**RA Billing Management System**

RA Billing Management System - Google Chrome

localhost:3080/RABilling/SplitActivity

**Split Activity**

Select Sub Number: A095  
Select Tender Number: A095/T-180/10-11/RKS/12 ( CIVIL & STRL - III UNITS )

S.No	Sub Sub Number	Unit	Tender Part Number	SOM Number	Contractor Code	Contractor Name	Contractor Date	Select
1	00	010	12	0	A095-010-16-47-SR120-1M	8012		Select
2	00	010	12	0	A095-010-16-48-SR120-2M	8012		Select
3	00	010	12	0	A095-010-16-50-SR120-0M	8012		Select

S.No	Description	Split Details	UOM	Rate	Quantity
1	EE ELECTRICAL -				
2	E207.00.00 GI PPES -				
3	E207.01.00 Supply and laying of 40 mm NB, -				
4	E207.01.01 40 mm NB, -		M	500	150
5	E207.01.02 50 mm NB, -		M	600	70
6	E207.01.03 65 mm NB, -		M	850	100
7	E207.01.04 80 mm NB, -		M	1000	150
8	E207.01.05 100 mm NB, -		M	1200	100
9	E207.01.07 150 mm NB, -		M	1500	50
10	E402.00.00 EARTH ELECTRODES -				

**Split Activity**

Activity description: 40 mm NB, -

Activity Percentage: 95

**Split Activity**

S.No Activity Description Activity Percentage

1 1 100

Submit

Error: Percentage breakup does not match actual value. Kindly correct

Description Percentage

Final Payment

Cancel