

Service Application Process



Project Covered Application



6 major steps before energization.

For each step, the customer and Meralco have responsibilities to fulfill



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CUSTOMER DELIVERABLE

1.1

Submit initial requirements

MERALCO DELIVERABLE

Initial Requirements

Service Application can already proceed even with the initial submission of the following three important requirements:

- 1. SEC Registration or Latest General Information Sheet (GIS)**
- 2. Electrical Plan and Load Schedule**
- 3. Letter of request for electric connection and authorization letter (if applicable)**

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CUSTOMER DELIVERABLE

1.1

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MERALCO DELIVERABLE

1.2

Receives and reviews application

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1.1

Submit initial requirements

MERALCO DELIVERABLE

1.2

Receives and reviews application

2.1

- Surveys and advises customer on service entrance requirement
- Estimates the project cost and determines viability

Annex 1. Service Standards for Service Availability

Service Voltages	Secondary Nominal Voltages	Primary Nominal Voltages
	230 Volts, 400 Volts, 460 Volts	13.2 kV, 13.8 kV, 34.5 kV, 69 kV, 115 kV

Allowable Frequency Variations

- Nominal fundamental frequency shall be 60 Hz
- Meralco shall design and operate its system to assist the System Operator in maintaining the fundamental frequency within the limits of 59.7 Hz and 60.3 Hz during normal conditions



Annex 1. Service Standards for Service Availability

Service Voltages

Secondary Nominal Voltages

230 Volts, 400 Volts, 460 Volts

Primary Nominal Voltages

13.2 kV, 13.8 kV, 34.5 kV, 69 kV, 115 kV

Nominal Voltage

230 Volts, Single Phase (1Ø), Two (2)-Wire
230 Volts, Single Phase (1Ø), Three (3)-Wire
230 Volts, Three Phase (3Ø), Four (4)-Wire
400/230 Volts, Three Phase (3Ø), Four (4)-Wire (Grounded Wye)
460/265 Volts, Three Phase (3Ø), Four (4)-Wire (Grounded Wye)

Limitations

Maximum capacity of MERALCO-supplied transformer for non-residential secondary service applications :

230 Volts : 1000 kVA
400 Volts : 1000 kVA
460 Volts : 2000 kVA

Annex 1. Service Standards for Service Availability

Service Voltages	Secondary Nominal Voltages 230 Volts, 400 Volts, 460 Volts	Primary Nominal Voltages 13.2 kV, 13.8 kV, 34.5 kV, 69 kV, 115 kV
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Nominal Voltage

230 Volts, Single Phase (1Ø), Two (2)-Wire
230 Volts, Single Phase (1Ø), Three (3)-Wire
230 Volts, Three Phase (3Ø), Four (4)-Wire
400/230 Volts, Three Phase (3Ø), Four (4)-Wire (Grounded Wye)
460/265 Volts, Three Phase (3Ø), Four (4)-Wire (Grounded Wye)

Requirements

- service shall be metered at the secondary voltage side
- service entrance shall be located along the property line not more than 30 meters horizontal distance from nearest MERALCO’s secondary existing facilities
- Otherwise, the application shall be covered by a project study for the extension of facilities. (Related guidelines in accordance with ERC rules apply)

Annex 1. Service Standards for Service Availability

Service Voltages

Secondary Nominal Voltages

230 Volts, 400 Volts, 460 Volts

Primary Nominal Voltages

13.2 kV, 13.8 kV, 34.5 kV, 69 kV, 115 kV

Nominal Voltage

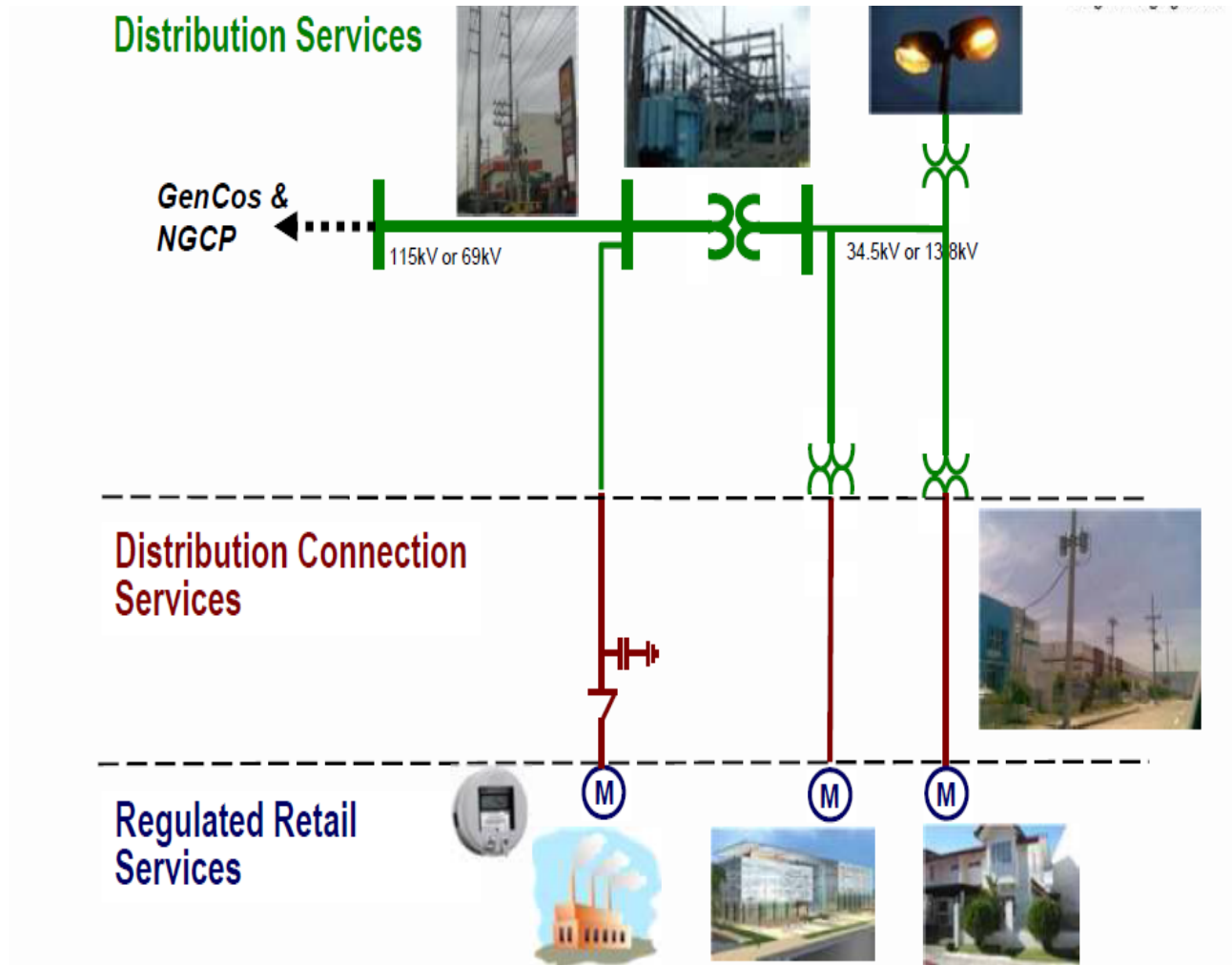
13.2/7.62 kV Three Phase (3 $\emptyset$), Four (4)-Wire (Grounded Wye)
13.8/7.97 kV Three Phase (3 $\emptyset$), Four (4)-Wire (Grounded Wye)
34.5/19.92 kV Three Phase (3 $\emptyset$), Four (4)-Wire (Grounded Wye)
69 kV Three Phase (3 $\emptyset$), Four (4)-Wire (Grounded Wye)
115 kV Three Phase (3 $\emptyset$), Four (4)-Wire (Grounded Wye)

Requirements

- service shall be metered at the primary voltage side
- applicant shall provide space, as determined by MERALCO, for the installation of the necessary metering facilities
- applicant shall provide, install and maintain all electrical facilities after the metering point (i.e., transformers, distribution facilities, main primary service protection, etc.)

Annex 2. Standard Connection Facilities

DISTRIBUTION BUSINESS SEGMENT



Annex 2. Standard Connection Facilities

- Assets used to provide Distribution Connection Services
- Minimum facilities necessary to establish a connection for a typical customer within a customer segment
 - **Service drop for residential customers**
 - **Service drop and distribution transformer (if any) for non-residential customers**

Annex 2. Standard Connection Facilities

3 Major Customer Segments

SEGMENT	CONNECTION
Low Voltage Service	$\leq$ 460 volts
Distribution Voltage Service	3.6kV – 34.5 kV
Sub-transmission Voltage Service	69kV – 115kV

Annex 2. Standard Connection Facilities

A. Low Voltage Service: $\leq$ 460 volts

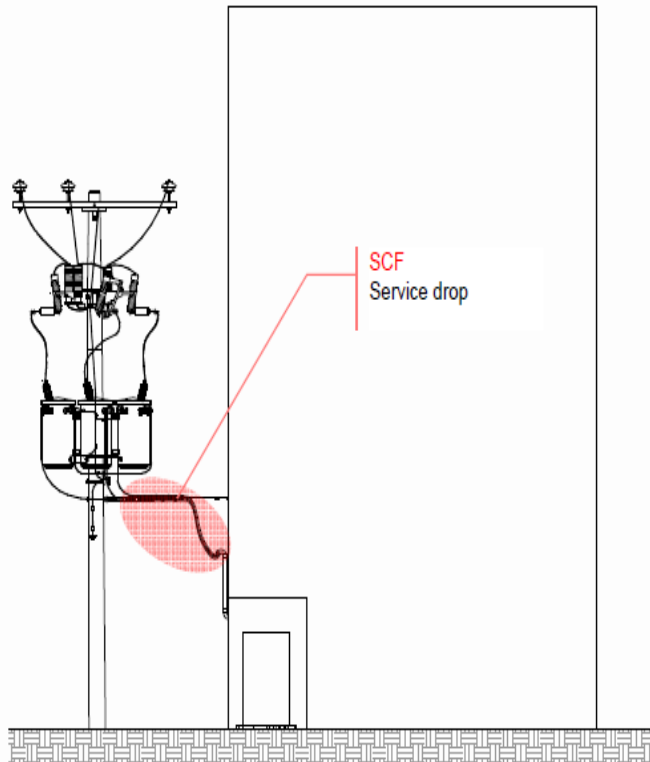
Customer Segment	SCF	Customer Type
a. Overhead (OH) / Underground (UG) Installations, Residential and Non-residential customers	Service drop/cable 	Residential, General Service A & B, Medium-Very Large General Power, Metered Streetlights
b. OH / UG Installations, Residential and Non-residential customers, Multi-metering Installations	Service drop/cable (owned by customers) 	Residential, General Service A & B, Medium-Very Large General Power



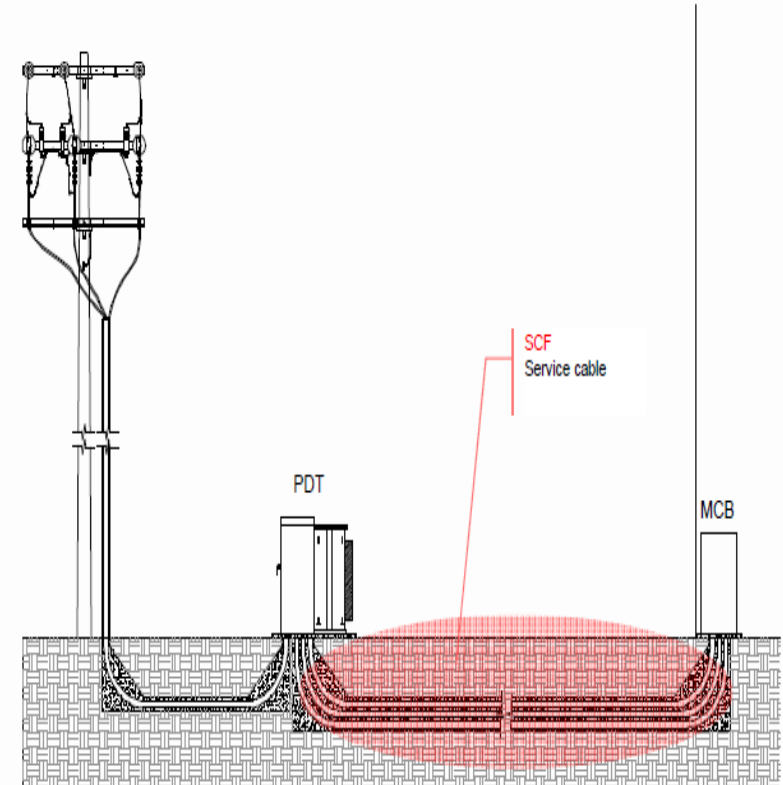
SCF for non-residential

Annex 2. Standard Connection Facilities

A. Low Voltage Service: ≤ 460 volts



Low-Voltage Service, Three-phase, Overhead Installation



Low-Voltage Service, Three-phase, Underground Installation

Annex 2. Standard Connection Facilities

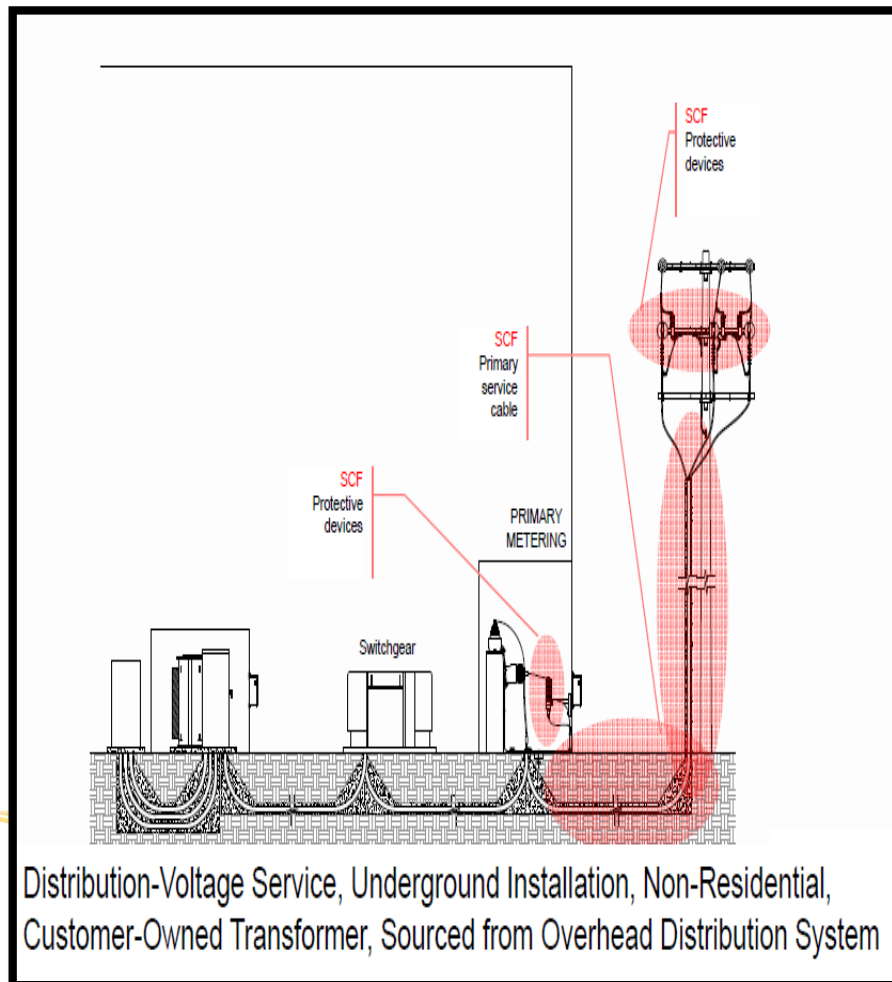
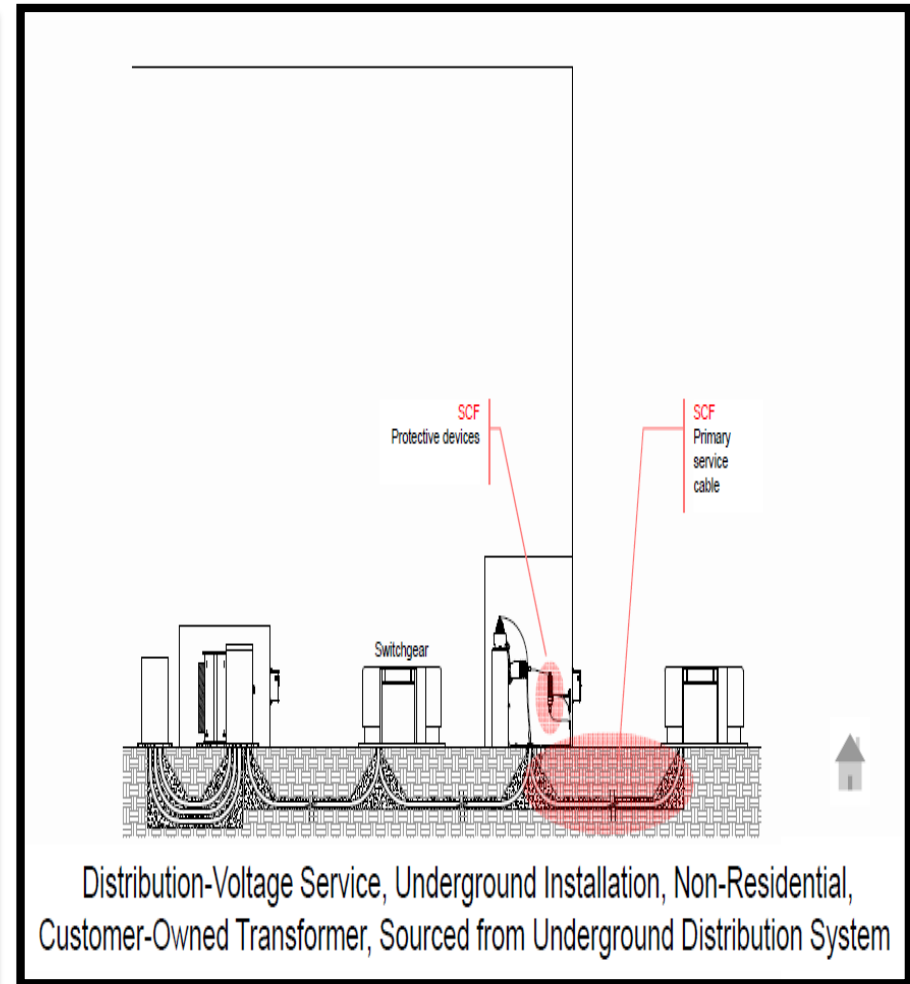
B. Distribution Voltage Service: 3.6 kV to 34.5 kV

Customer Segment	SCF	Customer Type
a. OH/ UG installations, Residential, Customer-owned transformers	Primary service conductor 	Residential
b. OH/UG installations, Non-residential, Customer-owned transformers	Protective devices, Primary cables 	Medium, Large and Very Large General Power



Annex 2. Standard Connection Facilities

B. Distribution Voltage Service: 3.6 kV to 34.5 kV



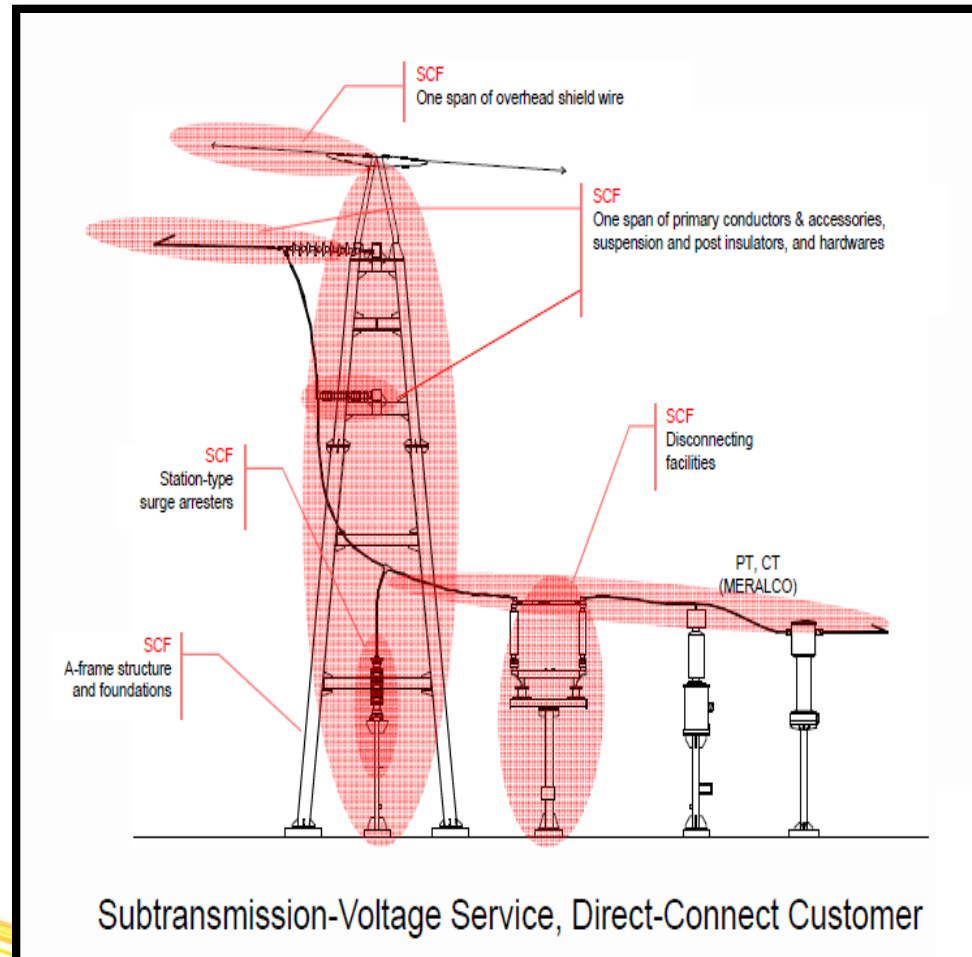
Annex 2. Standard Connection Facilities

C. Sub-transmission Voltage Service: **69 kV to 115 kV**

Customer Segment	SCF	Customer Type
<ul style="list-style-type: none"> - Non-residential customers connected at subtransmission voltage (69kV or 115 kV) 	Protective devices, Disconnecting facilities,  One span HV lines and hardware, A-frame structure and foundations	Extra Large General Power

Annex 2. Standard Connection Facilities

C. Sub-transmission Voltage Service: 69 kV to 115 kV



Project Covered Application

6 major steps before energization.

For each step, the customer and Meralco have responsibilities to fulfill



CUSTOMER DELIVERABLE

1.1

Submit initial requirements

2.2

- Signifies intention to proceed with project (thru MOA, if applicable)
- Sign-off on project Gantt chart by both parties

MERALCO DELIVERABLE

1.2

Receives and reviews application

2.1

- Surveys and advises customer on service entrance requirement
- Estimates the project cost and determines viability

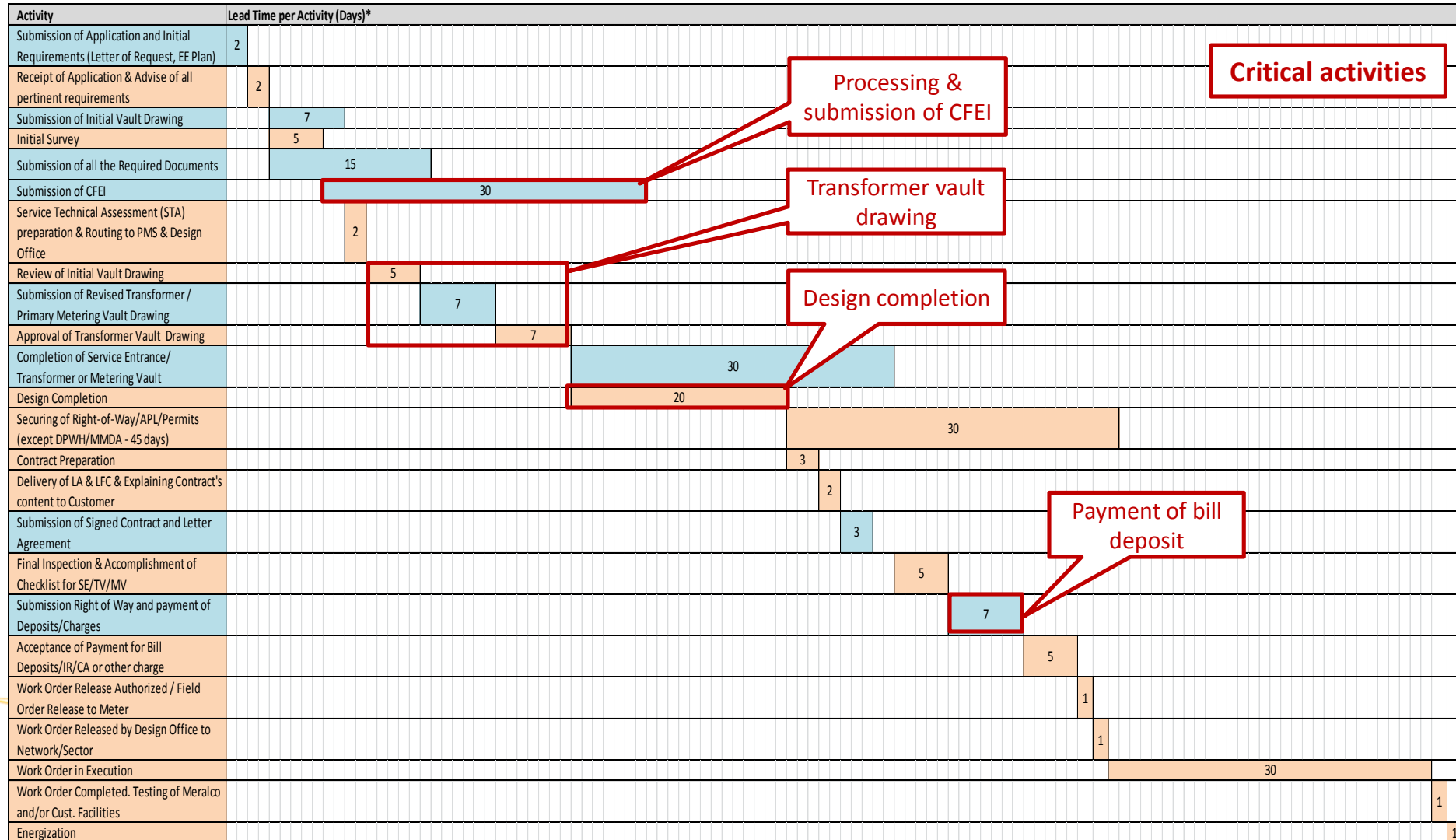
Annex 3. Estimated Lead Time per Activity

NO	ACTIVITY	PRECEDING ACTIVITY	LEAD TIME (DAYS)*
1	Submission of Application and Initial Requirements (Letter of Request, EE Plan)	N/A	2
2	Receipt of Application & Advise of all pertinent requirements	1	2
3	Submission of Initial Vault Drawing	2	7
4	Initial Survey	2	5
5	Submission of all the Required Documents	2	15
6	Submission of CFEI	4	30
7	Service Technical Assessment (STA) preparation & Routing to PMS & Design Office	3	2
8	Review of Initial Vault Drawing	7	5
9	Submission of Revised Transformer / Primary Metering Vault Drawing	8	7
10	Approval of Transformer Vault Drawing	9	7
11	Completion of Service Entrance/ Transformer or Metering Vault	10	30
12	Design Completion	10	20
13	Securing of Right-of-Way/APL/Permits (except DPWH/MMDA - 45 days)	12	30
14	Contract Preparation	12	3
15	Delivery of LA & LFC & Explaining Contract's content to Customer	14	2
16	Submission of Signed Contract and Letter Agreement	15	3
17	Final Inspection & Accomplishment of Checklist for SE/TV/MV	11	5
18	Submission Right of Way and payment of Deposits/Charges	17	7
19	Acceptance of Payment for Bill Deposits/IR/CA or other charge	18	5
20	Work Order Release Authorized / Field Order Release to Meter	19	1
21	Work Order Released by Design Office to Network/Sector	20	1
22	Work Order in Execution	21	30
23	Work Order Completed. Testing of Meralco and/or Cust. Facilities	22	1
24	Energization	23	1

* Actual lead time per activity may vary depending on situation

Annex 3. Estimated Lead Time per Activity

Estimated time of 113 days * to energize



* Actual lead time per activity may vary depending on situation

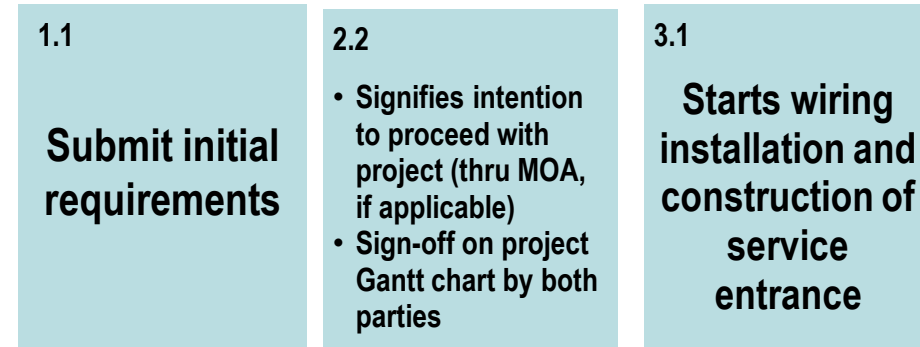
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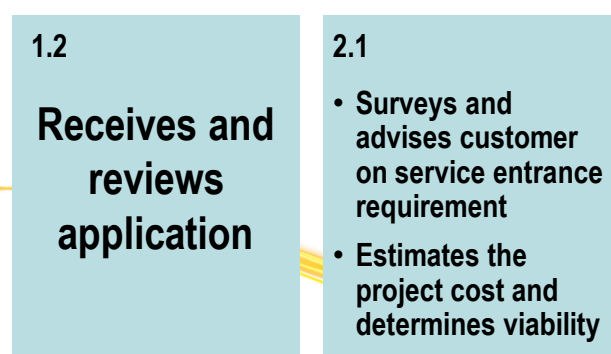
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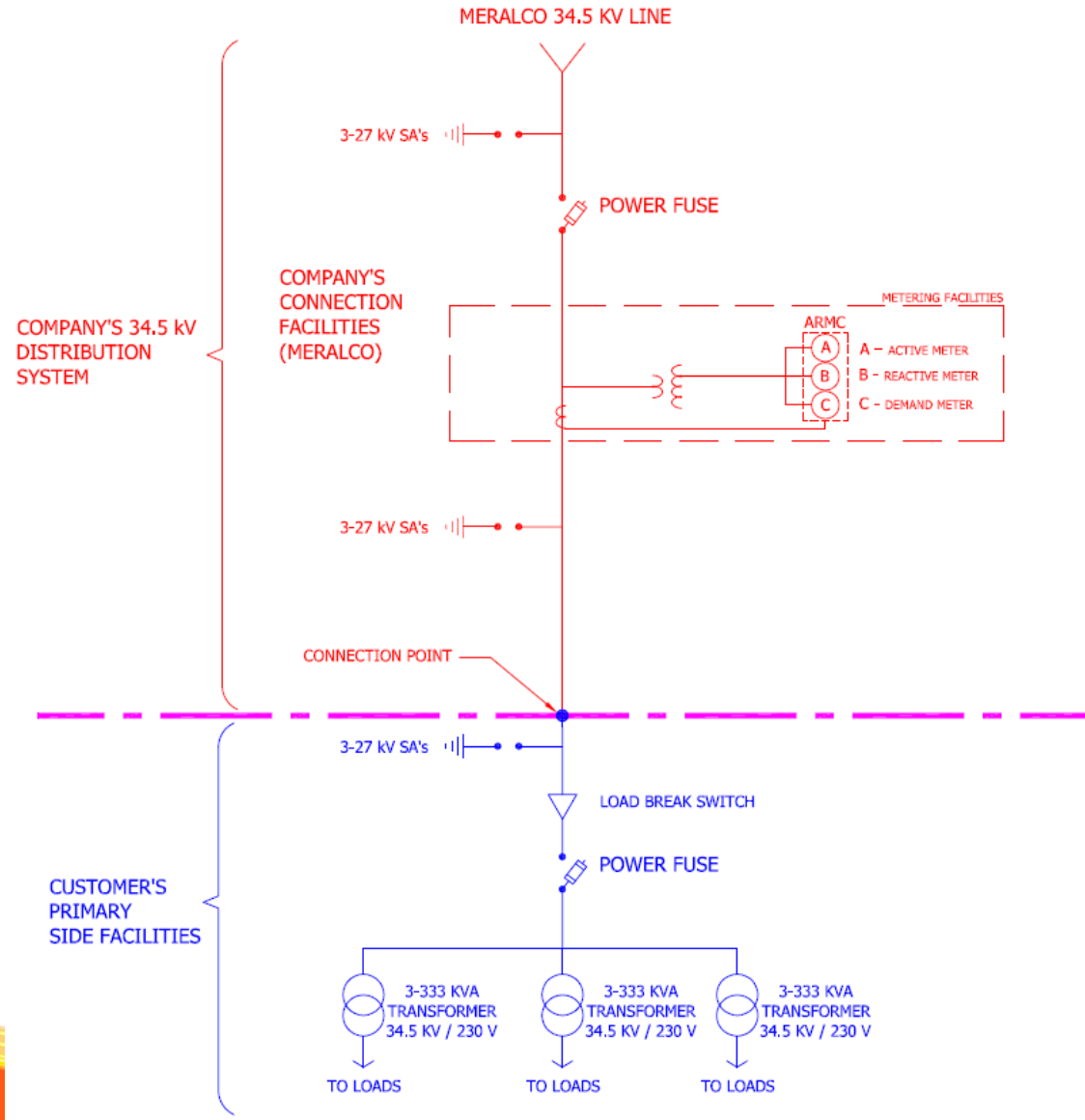


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Annex 4. Connection Point of Customer Facilities to Meralco's Distribution System

The Single-Line Diagram shows the arrangement and the facilities at the Connection Point for the connection of Customer's Primary-Side Facilities with the Company's Distribution System.



Annex 5. List of Meralco and Customer Assets

MERALCO FACILITIES

Facilities	Quantity
27kV Surge Arrester	6 Units
Fuse Cut-Out or Power Fuse	3 Units
34.5kV Current Transformer (CT)	3 Units
34.5kV Potential Transformer (PT)	3 Units
Meter and Accessories	1 Set
Metering Pole	1 Unit

CUSTOMER FACILITIES

Facilities	Quantity
27kV Surge Arrester	3 Units
Load Break Switch	1 Unit
Fuse Cut-Out or Power Fuse	3 Units
Transformer, 3-333 kVA, 34.5kV/230V	3 Banks
Concrete Flat form	3 Units
Poles	9 Units
Meter and accessories	3 Units
High Voltage Wire, Insulated, 36 kV, 1 – 50 mm	175 m/phase
Breakers, 4 – 2000A, 2 – 1600A, 1 – 1000A	7 Units
Three phase lines 250 mm ²	7 wires/phase

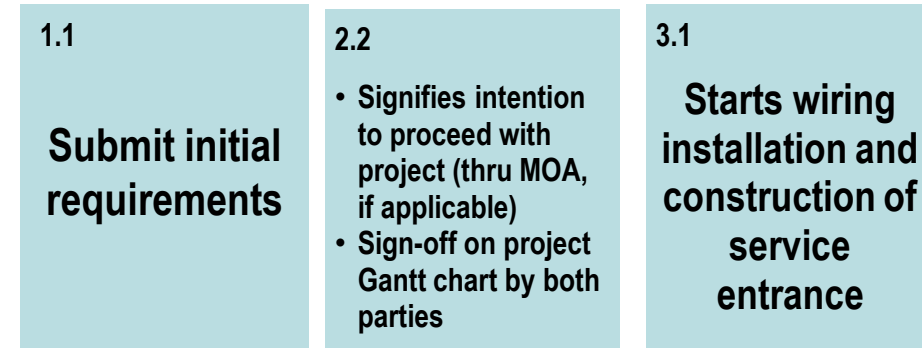
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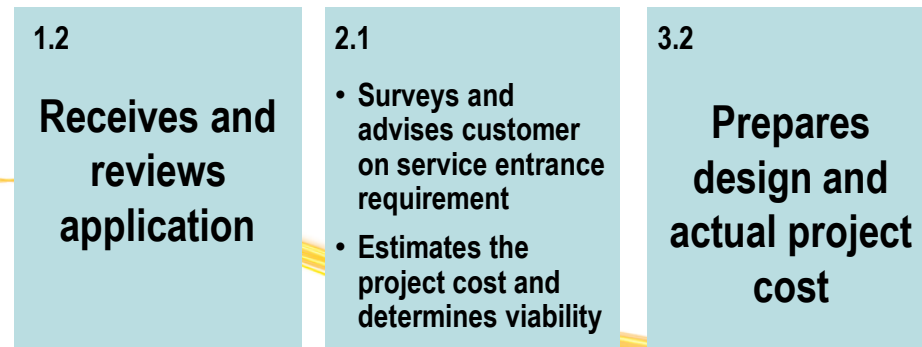
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MERALCO DELIVERABLE



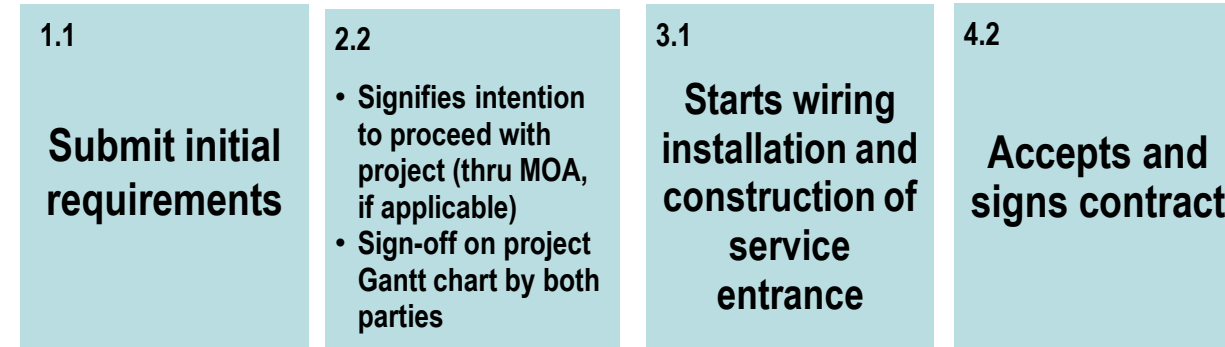
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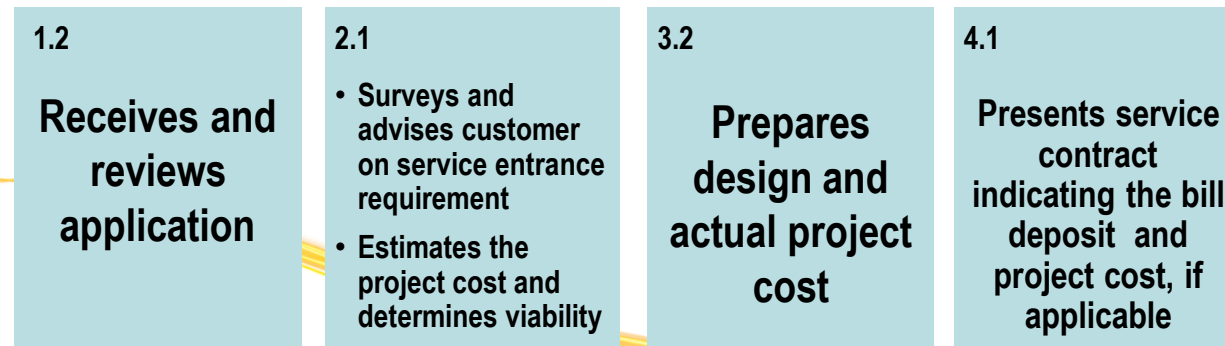
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MERALCO DELIVERABLE



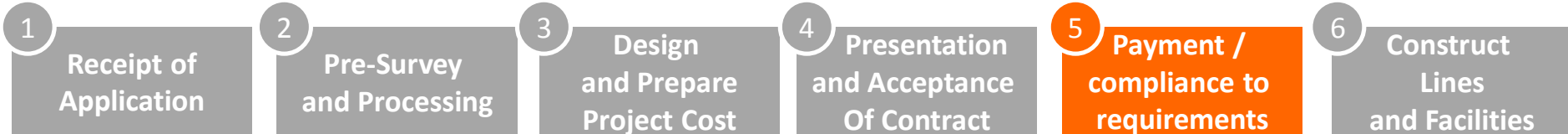
Annex 6. Contracts

Customer	Required Contracts
Captive	Long form contract / ASEE
	Line extension agreement (if applicable) * either cash advance or CIAC
Contestable	Connection agreement (FABD – Fixed Asset Boundary Document)
	DWSA (Distribution Wheeling Service Agreement)
	Line extension agreement (if applicable) * either cash advance or CIAC

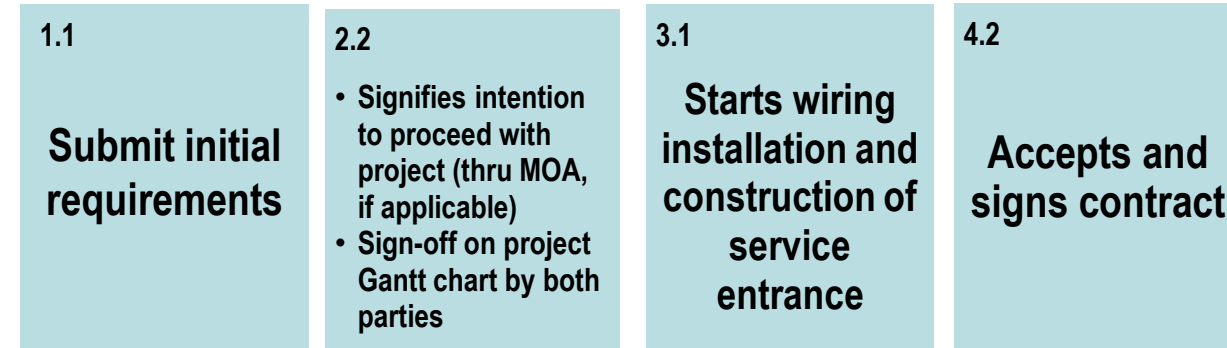
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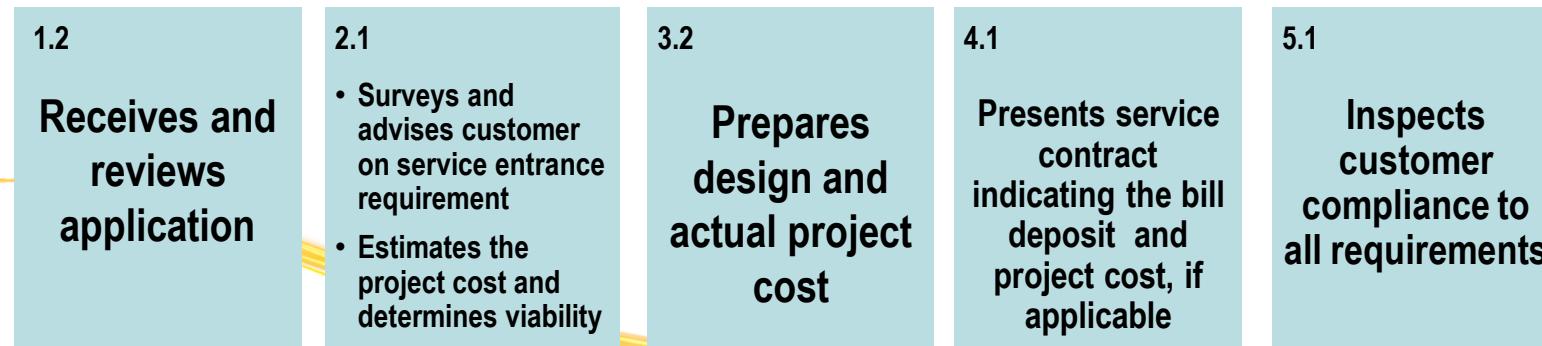
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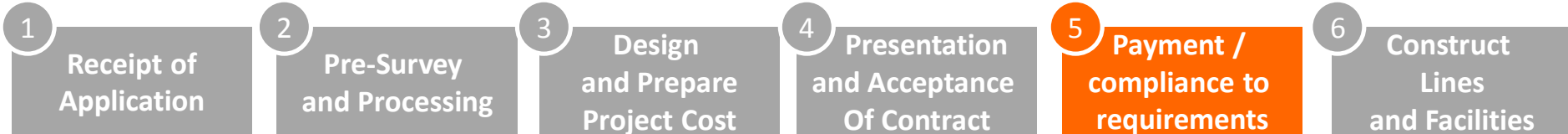
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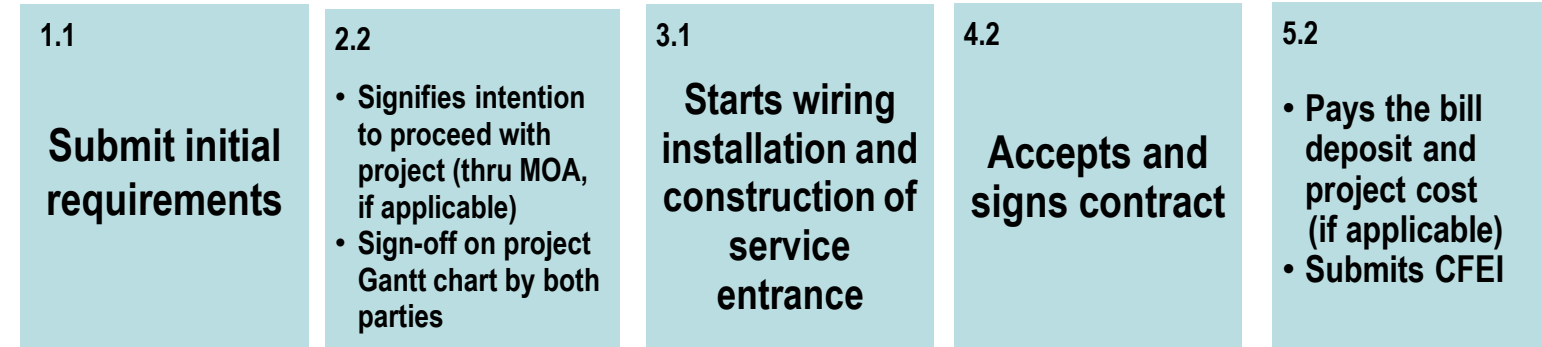
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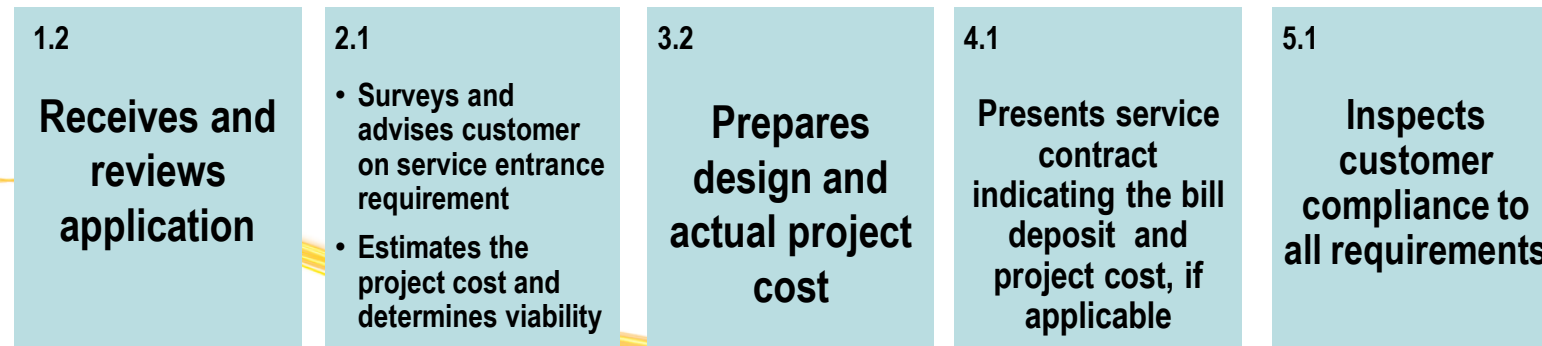
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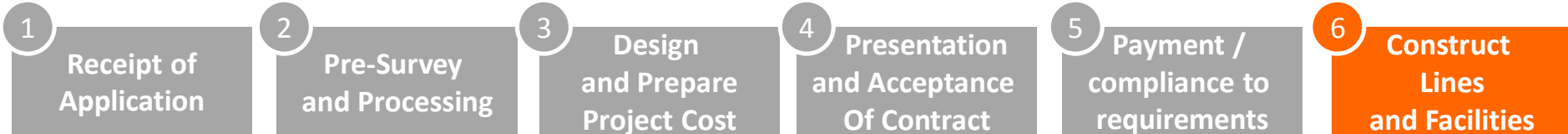
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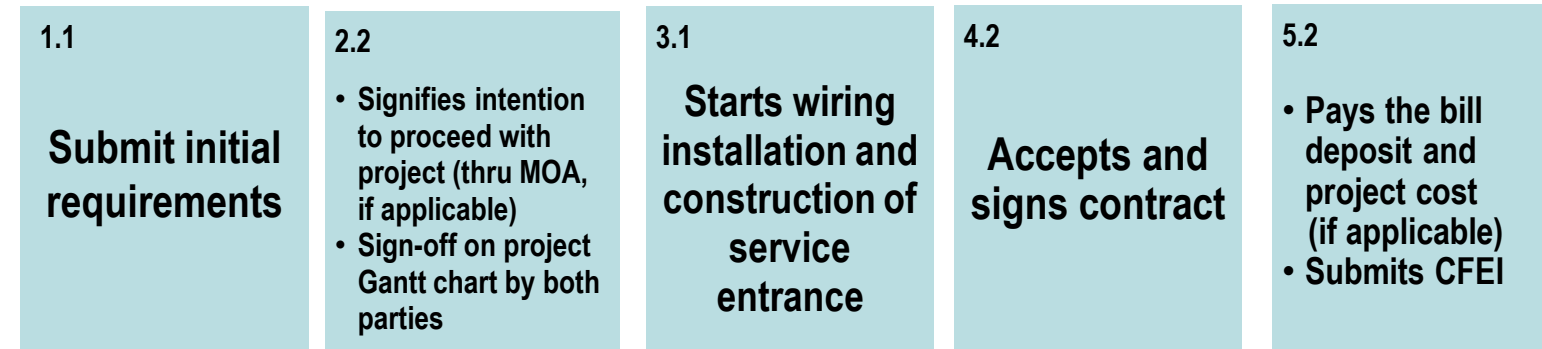
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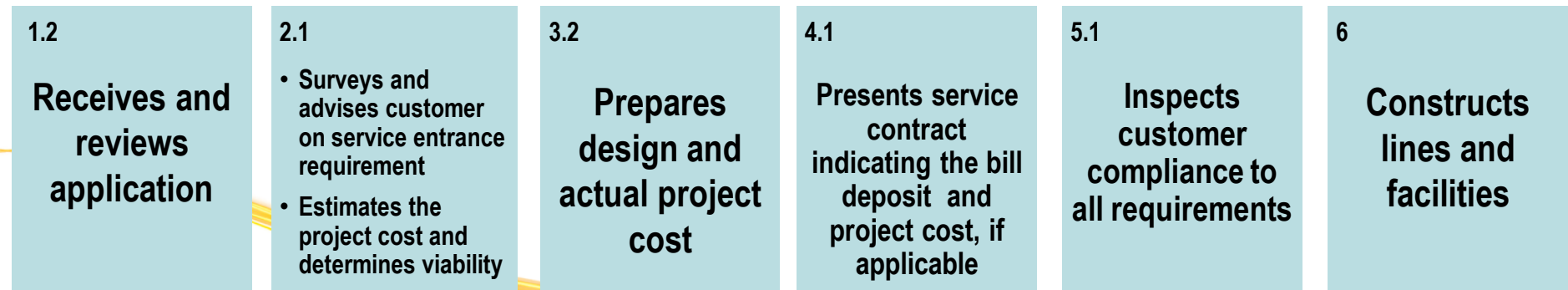
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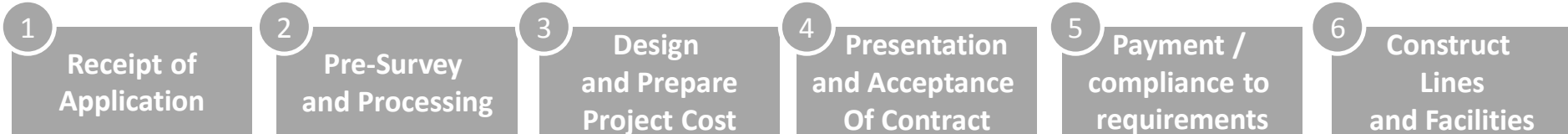
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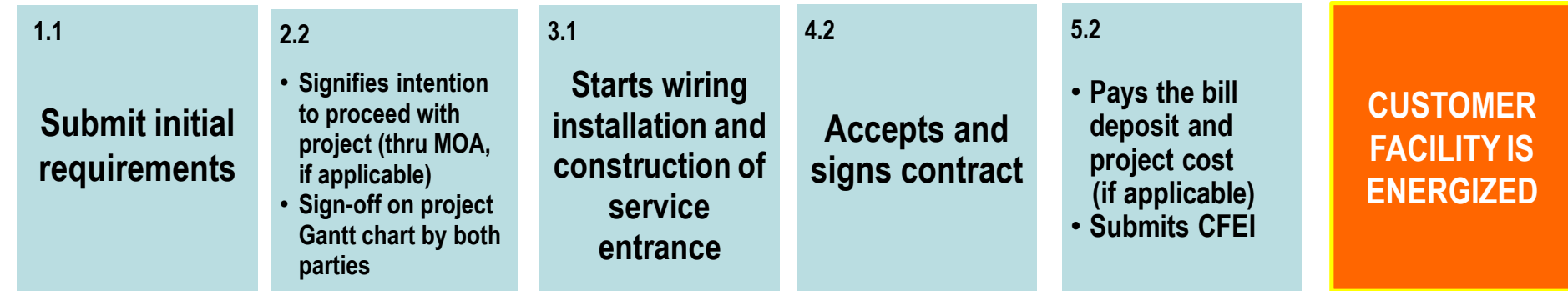
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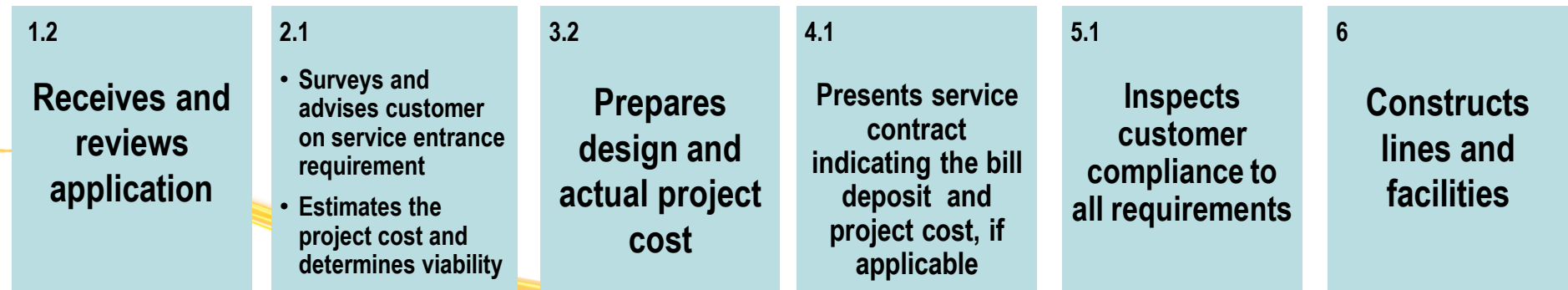


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PROJECT COMPLETED



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Thank You!

