CEYLON ELECTRICITY BOARD

STANDARD CONSTRUCTION COST 2021

Chairman
Distribution Coordination
Committee

Contents

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1 New Service Connections up to 42kVA

1.1 Connections from Overhead and UG Network (All tariff categories excluding service connections to Loads creating disturbances)

Rates for commercial estimation:

Service Type	Fixed Cost Rs	Covered length of the Service Connection within the Fixed Cost (m)	Cost of Extra length for service wire (l in meters)	
Overhead Connections:				
1P 30A	22,500.00	50	l>50	900.00
3P 30A	37,000.00			1,730.00
3P 60A	41,000.00			
UG Connections:				
1P 15A	69,000.00	5	l>5	5,000.00
1P 30A				
3P 30A	92,500.00			5,400.00
3P 60A	103,500.00			5,600.00

Table 1.1:1 Rates for Commercial Estimation – Overhead and UG Network

Notes on Overhead service connections:

1. For Domestic and Religious categories CEB shall bear the cost of development of the network up to the boundary of the land of the consumer. Cost of service connection beyond 50m inside the premises shall be borne by the consumer at given rate.

2. For single phase 30A connections (Other than Domestic and Religious categories) CEB shall bear the cost of development of the network up to the boundary of the land of the consumer. Cost of service connection beyond 50m inside the premises shall be borne by the consumer at given rate.

3. For three phase 30A and 60A connections (Other than Domestic and Religious categories) fixed charge is applicable up to 50m. Cost of service connection beyond 50m shall be borne by the consumer at given rate.

4. Fixed and the variable charges indicated above shall be used irrespective of the number of service poles or quantities of other standard materials required. Any additional materials/works other than those of standard retail supply service connections can be charged separately.

5. A single variable rate for length above 50m is applicable as indicated above. In an event where voltage drop becomes greater than 6% LV ABC to be used.

6. After the commercial estimation, the distribution network on public roads/areas shall be constructed as per CEB Distribution network norms, where the cost difference between CR part and actual estimate shall be met by CEB SYA funds which shall be governed by the available approval limits and availability of SYA funds.

Notes on UG service Connections:

1. Fixed Cost for Three Phase 30A & 60A connections are calculated:
    a. assuming the connection is given from Mini Feeder Pillar and
    b. the fixed cost includes termination kit, costs of labour, transport and overhead, etc.
    c. 1/5th of mini feeder pillar cost is included for 30A 3 Phase & 1/4th of Mini feeder pillar cost is included for 60A 3Phase connections.
2. Variable cost for three phase 30A is calculated including the cost of 35mm^2 XLPE, Al cable. Variable cost for three phase 60A is calculated including the cost of weighted average of 35 mm^2 and 70 mm^2 XLPE, Al cable.
3. The above fixed cost includes the cost of cable up to 5m. Variable cost will only be charged for length of cable beyond 5m distance. For Domestic and Religious customers CEB shall bear cost up to the boundary of the premises from mini feeder pillar/the distributor under the System Augmentation Fund.
4. 5m cable length is the length excluding up risers measured along feeding path. Additionally, all uprising components such as meter rise & cable length in mini feeder pillar (another 5m) is included in the estimate in the fixed charge. Any additional horizontal feeding distances shall be charged.
5. All the cable laying work for providing service connections is assumed to be done by contractors.
6. After the commercial estimation, the distribution network on public roads/areas shall be constructed as per CEB Distribution network norms, where the cost difference between CR part and actual estimate shall be met by CEB SYA funds which shall be governed by the available approval limits and availability of SYA funds.
7. All road reinstatement charges related to this development shall be paid by the customer.

1.2 Connections as Loop Services from Existing Service (Both UG & Overhead)

Service Type	Loop Services				
Service Connection Capacity	1P 15A	1P 30A	3P 15A	3P 30A	3P 60A
Fixed Cost Rs	8,500.00		21,000.00		22,000.00
Covered length of the Service Connection within the Fixed Cost (m)	2				
Cost of Extra length (l in meters)	l>2				
	170.00		620.00		1,150.00

Table 1.2:1 Rates for Commercial Estimation - Loop Services

Loop connections shall only be provided for the premises which are in a same building/structure.

1.3 Service Connection to Loads creating disturbances from existing (Low Voltage) Overhead Network (up to 42 kVA)

The provision of service connections to installations having equipment such as Welding Plants, Metal Crushers, Sawmills, Interlock Brick Making Machines, etc., which can cause adverse effects to the other customers.

The feeder or service wire which include these services should start from the transformer with suitable protection.

1.3.1 When the service can be provided through a service wire,

When the connection can be provided using a service wire (Should be XLPE insulated Service Wire), the variable cost for the line length shall be charged as per the table under clause 1.1 and the fixed cost shall be charged as per the table under clause 1.3.2.

1.3.2 When larger feeder loads/lengths are involved

When larger feeder loads/lengths are involved or many similar service connections are expected for the same feeder, the fixed cost for such service connections are given in the table below:

Size of the service connection	60A, 3 ph.	30A, 3 ph.	30A, 1 ph.
No. of service connections (allowable)	2	4	4
Conductor	3-Ph ABC	3-Ph ABC	1-Ph ABC
Fixed cost per service connection to be charged from the customer Rs.	63,000.00	59,000.00	44,500.00
Customers share of the cost of the line on the road which is based on Standard Rates.	50%	25%	25%

Table 1.3:1 Rates for Commercial Estimation for Loads creating disturbances.

Notes:

1.3.2.(a) Considering the nature of the area and future growth, three phase or single-phase bundle conductors as required has to be constructed.

1.3.2.(b) Cost of fuse protection at transformer end and the cost of relevant service connection up to 50m has been included in the fixed cost in the table given above. Lengths beyond 50 m will be additionally charged as per the clause 1.1.

1.3.2.(c) The feeder portion on public roads (which shall be the length from transformer to pole connecting the service wire, based on standard construction rates) should be apportioned as per the above table and borne by the customer. Balance shall be absorbed by SYA funds.

1.3.2.(d) Depending on the available network whether to construct a new LV feeder with poles or second circuit on existing poles should be decided.

1.3.2.(e) When the subsequent customers under same category request services from already drawn feeder, this costing methodology without any change should be applied from the substation downwards.

1.3.2.(f) If a normal service connection is requested from this type of feeder due to unavoidable circumstances, that may be accommodated as per clause 1.1, exonerating CEB from any repercussions due to power quality in writing from the prospective customer.

1.4 Augmentation of Overhead Connections

Existing Service	Fixed Cost		Variable Cost beyond 50m
	30 A 3 Phase	60 A 3 Phase	
30 A, 1 Phase	35,500.00	39,000.00	1,310.00
30 A, 3 Phase	-	32,500.00	

Table 1.4:1 Rates for Commercial Estimation - Conversions Overhead Network

Notes:

1.4.(a) Above cost is calculated considering the cost involved in dismantling as well.

1.4.(b) In addition to the above cost, all the conditions in notes under clause 1.1 applies here also except the variable cost.

1.4.(c) In case of augmentation of Service Connections to disturbing loads, for the variable cost, the difference between the two applicable rates within the same year (existing and proposed) applicable for line will be charged in addition. If the customer had paid the 100% of line cost previously, he should not be charged again for the line.

1.5 Augmentation of UG Connections

Estimates for conversion of existing UG connections shall be prepared on case-by-case basis.

1.6 Augmentation of Loop Service Connections

Estimates for conversion of existing loop service connections shall be prepared on case by case subject to Clause 2.

2 Multiple Service Connections where Metering is at one location for Overhead and UG Systems

2.(a) This does not apply to overhead service connection to welding plants, metal crushers, sawmills etc. which falls under clause 1.3.

2.(b) These connections shall be provided by drawing a single load wire for the aggregated demand and using bus bar chambers, circuit breakers etc.

2.(c) The total demand shall be calculated by applying the diversity factors specified in planning guidelines.

2.(d) Generally, the owner or the applicant of the establishment pays the connection charges.

2.(e) In extraordinary circumstances CEB may meet the capacity & installation costs to facilitate multiple service connections in special cases or as augmentation works. The decision on such costs which is from CEB should be granted from the relevant approving authority.

2.(f) In case of above clause 2.(e), prospective customers shall be charged as per the applicable rate in clause 1.1. (e.g.: If the service would have to be taken in the absence of the multiple service connection is underground the UG service connection rates applies.)

2.1 Total Calculated demand is less than 42kVA

If the total calculated demand with all the diversity factors applied is less than 42kVA:

Generally, the owner or the applicant of the establishment pays the connection charges, decided by clause 1.1 for a 60A 3 Phase Connection, the additional connections given from the main connection shall be considered as loop services and the relevant rate shall be applied.

2.2 Multiple service connections above 42kVA

If the total calculated demand with all the diversity factors applied is more than 42kVA:

2.2.(a) If the owner or the applicant of the establishment pays the installation & capacity cost as per clauses 4 and 5, the secondary connections shall be costed as loop services and the relevant rate shall be applied. For any secondary connection which is larger than loop service extended from the main (aggregated) connection, actual cost for such secondary connection to be charged as per work estimate.

2.2.(b) If the main connection is given as per clause 2.(e), all successive customers have to be costed as per charges in clauses 1.1, 4 and 5.

3 Real Estate Development/Auction Lands

3.1 The electricity distribution system for this purpose should be designed for the whole land/area to cater the long-term power requirement (assume each block of land contains a house/ building) and enabling all the potential customers to get a service connection without additional poles or augmenting the already installed network.

3.2 For estimating the Total Electricity Demand, planning guidelines for Multiple Connections in a Single Development Scenario shall be followed by the Commercial Engineer. While generally complying with the provided factors, Provincial DGMs may use actual peak demands for extending an existing network if field tested data for a particular network is well below the given figures in exceptional situations.

3.3 Once the Total Electricity Demand is computed which is used for estimation purposes, capacity of the substation, its location and the associated LV network design should be decided by Planning Engineer considering the overall network.

3.4 The cost recovery estimate should include.

3.4.(a) Cost of the internal LV/MV distribution lines based on Standard Construction Rates calculated for Real Estate Development/Auction Lands which are given in clause 6.1.2 and 6.5.2. Any other combination not given in these clauses to be costed at actuals.

3.4.(b) Based on calculated kVA requirement, costs should be levied as per clause 4 and 5. If the total electricity demand is below 70kVA, then the proportional cost of 70kVA connection cost as mentioned in clause 4.1 shall be levied.

3.4.(c) If the immediate power requirement (Total Electricity Demand) of the considered development could be met from the existing distribution system, then physical changes can be postponed but the cost should be levied.

3.4.(d) The cost difference between CR part and actual estimate shall be met by CEB SYA funds.

3.4.(e) The individual connections to the houses shall be separately obtained according to clause 1.1.

4 Bulk Supply Connections above 42kVA

4.1 Overhead Bulk Supply Connections of 70kVA up to 100kVA

Metering of these bulk supplies are to be done at Low Voltage Level.

Capacity cost of providing a bulk supply connection shall be calculated based on a variable cost and a fixed cost.

$$Capacity\ cost = m \times Required\ kVA + c$$

For Overhead B/S Connections of 70kVA up to 100kVA, 'm' and 'c' values under Table 4.1:1 applies.

	Variable Cost "m" (Rs. /kVA)	Fixed Cost "c" (Rs.)
70kVA-100kVA	24,315.63	(1,096,600.00)

Table 4.1:1 Rates for new 70kVA-100kVA Bulk Supply Connections Overhead Network

In case of multiple connections please refer Clause 2.

Notes on Bulk Supply Connections of 70kVA up to 100kVA

4.1.1 This cost includes the cost of providing the requested supply inclusive of metering equipment if the customer premises are within 50m distance from existing LV line. Cost of LV line to be charged for connections beyond 50m off the existing line at given rates.

4.1.2 However, the total low voltage line lengths shall be less than 200 m for 70 kVA connections and 100 m for 95 kVA connections from the substation. If the customer premise is beyond the specified length here, a new substation along with a medium voltage line should be constructed.

a) The cost of substation shall be borne by CEB.
b) Customer shall bear 50% of the cost of new MV line from existing MV network up to the premises at the standard variable cost for MV lines mentioned in this circular.
c) The full cost of MV line beyond the boundary of the premises (if applicable) shall be paid by the customer.

4.1.3 The request for MV Insulated or partially insulated lines within the premises shall be accepted at actual costs.

4.1.4 Difference of the cost between the detailed construction estimate of the MV Insulated or partially insulated line and the calculated bare conductor MV line constructed under the same conditions, has to be charged from the customer in addition to the commercial estimate in case when customer requires approach road to be done with MV Insulated or partially insulated line.

4.2 Bulk Supply Connections of 70kVA & 112kVA from UG LV Network

	Category of Costing	70kVA	112kVA
a	Cost for providing single bulk supply (Within this cost fixed LV cable length from feeder pillar, end terminations, MCCB, bulk supply meter enclosure, current transformers and energy meter are included.)	2,015,000.00	2,623,000.00
b	Cost for providing multiple connections through Bulk Supply (Within this cost fixed LV cable length from feeder pillar, end terminations, MCCB and bus bar chamber are included.)	2,055,000.00	2,662,000.00

Table 4.2:1 Rates for new 70kVA & 112kVA Bulk Supply Connections UG Network

Notes:

4.2.1 These supplies can either be from the UG LV network or directly from Substations.

4.2.2 If the LV cable length exceeds 150m, the additional cable laying shall be charged on the actual cost.

4.2.3 In case of multiple connections please refer Clause 2.

4.3 Commercial Estimation Principle for Augmentations of Bulk Supplies of between 63kVA-100kVA in Overhead Networks

Augmentations shall be charged based on following principle.

$$\text{Cost} = \left[\text{Cost of Obtaining the Requested Capacity}\right] - \left[\text{Cost of Obtaining the Existing Capacity}\right] + \left[\text{Cost of removing the existing items (if applicable)}\right]$$

In addition to above the costs of augmentation/new MV and LV lines within the premises shall be charged as required by the new connection at standard rates. If the existing lines can be utilized as it is this does not arise.

Note:

To estimate the previous bulk supply connections (e.g. 63kVA) equation in clause 4.1 can be applied.

4.4 Commercial Estimation Principle for Augmentations of Bulk Supplies between 70kVA – 112kVA in 11kV UG Networks

Augmentations shall be charged based on following principle.

$$\text{Cost} = \text{Cost of obtaining the New kVA} - \text{Cost of obtaining the Exisiting kVA}$$

Notes:

4.4.1 The above depicts the commercial estimation principle only. This is subjected to the technical capability of providing a supply using the LV & MV network in the proximity as decided by the planning engineer up to the metering point.

4.4.2 If the existing LV cable is adequate for the new supply, cable cost may be exempted. Otherwise, new cable has to be charged.

4.4.3 This is applicable to getting bulk supplies up to 200kVA without a substation.

4.4.4 This will not be applicable for getting higher capacities with a substation.

5 Bulk Supply Connections above 100kVA for OH and above 112kVA for UG

5.1 Bulk Supplies from 100kVA to 1 MVA for Overhead Connections

Metering of the bulk supplies from 100kVA to 1MVA are to be done at Low Voltage Level.

Capacity cost of providing a bulk supply connection shall be calculated based on a variable cost and a fixed cost.

$$Capacity\ Cost = m \times Required\ kVA + c$$

For B/S Connections from Overhead Network, 'm' and 'c' values under (i) or (ii) in Table 5.6:1 applies. In case of multiple connections please refer Clause 2.

Note:

5.1.1 The above cost schedule is inclusive of the costs of the following items too:

- 5.1.1.(a) Current Transformers.
- 5.1.1.(b) MCCBs & Bus Bar Chamber.
- 5.1.1.(c) Crimp type Sockets (at the Transformer LV Terminals and MCCBs)
- 5.1.1.(d) PVC insulated Cu Cables (This cost is valid up to 10m from Transformer LV Terminals to the MCCB. Any cable length that exceeds 10m will be charged from the customer.)
- 5.1.1.(e) Bulk Supply Meter Box.
- 5.1.1.(f) 4 Nos. of Concrete Earthing System with 50 mm^2 Cables (30m) with compression lugs, Earth rods and exothermic materials.
- 5.1.1.(g) Cost of constructing the Tap-Off from the existing MV.

5.1.2 In case of Overhead connections, for buildings which are electrically and physically separated from each other but within a single land, separate bulk supplies less than 1MVA each can be given up to a total sum of 2MVA per such land. However, this should be approved by the Addl.GM on the recommendation of relevant Provincial DGM.

5.1.3 Customer shall provide the transformer plinth and meter cubicle for housing bulk supply meter box and MCCB as per the CEB guidelines.

5.1.4 If a new MV line has to be constructed for bulk supply connection, 50% of the MV line construction cost up to the customer boundary shall be charged by the consumer and the balance will be borne by CEB under system augmentation funds. If any MV line length has to be constructed within the customer premises, the total cost of that line length shall be charged from the customer.

5.1.5 The request for MV Insulated or partially insulated lines within the premises shall be accepted at actual costs.

5.1.6 Difference of the cost between the detailed construction estimate of the MV Insulated or partially insulated line and the calculated bare conductor MV line constructed under the same conditions, has to be charged from the customer in addition to the commercial estimate in case when customer requires approach road to be done with MV Insulated or partially insulated line.

5.2 Bulk Supply Connections above 1MVA for Overhead Connections

Estimates for bulk supply connections above 1MVA shall be prepared on cost recoverable, case by case basis considering the capacity of the supply requested, the distance from the network (from technically feasible point of the network) and cost of installation of necessary equipment in providing the connection.

5.3 Bulk Supplies from 113kVA to 200 kVA for Underground Connections – 11kV

Metering of the bulk supplies from 113kVA to 200kVA are to be done at Low Voltage Level.

Cost of providing a bulk supply connection shall be calculated based on a variable cost and a fixed cost.

$$Cost = (m \times Required\ kVA) + (k \times Required\ kVA \times length\ along\ path) + c$$

For B/S Connections from UG Network, 'm', 'k' and 'c' values under (iii) or (iv) in Table 5.6:1 applies.

There shall be two options to provide this connection as follows.

a) Customer provides the substation room. This cost includes the proportional cost of MV substation and MV cables as per clause 5.4.

b) Customer does not provide the substation room and depending on the electricity distribution network conditions and physical constraints this supply could be provided as per the discretion of CEB. This cost includes the proportional cost of MV 400kVA substation and MV line and the variable LV cable up to customer metering point.

Note:

5.3.1 Capacities described here is only provided from a substation not from LV feeder pillars.

5.3.2 LV Cable is not included in the cost.

5.3.3 In case of multiple connections please refer Clause 2.

5.4 Bulk Supply Connections above 201kVA up to 1MVA for Underground Connections – 11kV

Metering of the bulk supplies from 201kVA to 1MVA are to be done at Low Voltage Level. Customer needs to provide the substation room (suitable for RMU type) for this category.

Cost of providing a bulk supply connection shall be calculated based on a variable cost and a fixed cost.

$$Cost = (m \times Required\ kVA) + c$$

For B/S Connections from UG Network, 'm' and 'c' values under (v) in Table 5.6:1 applies.

This cost includes the 11kV cables (100% of satellite, 25% ring and radial), RMU, Transformer, MCCB, Bus bar chamber etc. except metering equipment. LV load cable must be brought to the metering point by the customer.

Note:

5.4.1 Though this is categorized as 201-1000kVA the capacities down to 113kVA can be given as shown in clause 5.3.

5.4.2 In case of multiple connections please refer clause 2.

5.5 Bulk Supply Connections above 1MVA up to 16MVA for Underground Connections -11kV

Metering of the bulk supplies from 1MVA to 16MVA are to be done at Medium Voltage Level. Customer needs to provide the substation room (suitable for MV switchgear panels) for this category.

This cost includes the ring cables from the 11kV ring underground cable network up to the substation including two ring panels, bus section panel, earthing system and the radial cable cost and panel.

$$\boldsymbol{Cost = CAP \times [(L_{Radial} \times M_{Radial}) + C_{Radial}] + [(L_{Ring} \times M_{Ring}) + C_{Ring}]}$$

Where,

CAP $-$ *Requested Capacity in MVA*

L_{Radial} $-$ *Radial Cable Length*

L_{Ring} $-$ *Ring Cable Length*

Radial Cable Cost Calculation Parameters		
Radial Cable	**M Radial per (m) per (MVA)**	**C Radial per (MVA)**
400 sqmm 1C XLPE	6,399	4,415,413
240 sqmm 3C XLPE	6,239	4,493,541
Ring Cable Cost Calculation Parameters		
Ring Cable	**M Ring per (m)**	**C Ring**
240 sqmm 3C XLPE	22,074	9,906,885

Cost of metering panels to be included separately according to the number of connections.

Above equation is meant for a new radial cable installation. When there is no radial cable to be laid, costing shall be done for the proportional cost of the nearest existing radial cable assuming the existing cable is to be laid now at present costs.

If the nearest cable cannot be identified, the average of two adjacent radial cables can be considered for cost calculation. In case of two different sizes are involved the average of two C_{Radial} shall be taken.

Ring Cable length defined in the above equation is length of the two Ring cables from ring to the customer premises.

5.6 Applicable Rates & Notes

Connection Type & Voltage		Category by Capacity		Variable Cost/kVA "m" (Rs. /kVA)	Line Cost "k" (Rs. /kVA/m)	Fixed Cost "c" (Rs.)
Bulk Supply Connections through Overhead Network	11kV	(i)	100kVA - 1MVA	4,218.17		793,600.00
	33kV	(ii)	100kVA - 1MVA	4,132.60		921,700.00
Bulk Supply Connections through UG Network	11kV	(iii)	113kVA - 200kVA Substation Room is Provided by the customer	16,654.00	95.00	-
		(iv)	113kVA - 200kVA Substation Room is not provided by the customer	9,204.00		2,010,094.00
		(v)	201kVA to 1MVA	9,204.00		2,010 ,974.00

Table 5.6:1 Rates for Bulk Supply Connections above 100kVA

Common Notes for Overhead and Underground Connections:

1. Unless otherwise specified, the customer should provide the substation room/buildings and space/land with access as directed by the planning engineer. The requirement should be agreed at the building planning stage of the intended construction.
2. This methodology is applicable for a single bulk supply which is generally provided as single supply to one premises. Integrated condominium type developments may provide many connections, however from a single point of connection.
3. When a bulk supply service is requested by a customer, the request must be investigated by the Provincial Commercial unit and shall submit the requirement to the Provincial Planning & Development unit for recommendations. For Bulk Supplies of more than 1MVA, this procedure will elevate to Divisional Level.
    a. The Planning & Development unit shall assess the commercial requirement and provide the technical proposal up to the metering point, based on the following.
        i. Shall check if any new developments are required to fulfill technical requirements.
        ii. For bulk supplies up to 1MVA, shall investigate whether the excess capacity of the transformer can be utilized to draw additional feeders from the transformer to extend the existing distribution network or whether a higher capacity transformer is suitable to achieve the above.
    b. The Commercial unit shall issue an estimate according to the customer requirement upon the provision of technical proposal.
    c. Based on the Commercial estimate and technical proposal, detailed estimates have to be prepared covering the full development required for the job. The total job shall have combined funding.
    d. This combined funding shall be from customer paid amount as per the commercial estimate and system augmentation funds which is the difference between total cost of the detailed estimates less the commercial estimate.
4. When the excess transformer capacity is utilized in order to extend the LV distribution network, special attention must be given when placing the transformer, to minimize the possibility of shifting in the future. However, this should not prevent a customer from obtaining the requested service.
5. If a customer requests for a dedicated Bulk Supply (no other tapping), then the cost of providing that bulk supply should be fully charged from the customer.

Specific Notes to Overhead Networks

1. If any MV line length is constructed within the customer premises, the total cost of constructing that line length will be charged from the customer.
2. The standard MV line arrangement is to use bare conductors. If MV Insulated or partially insulated lines are requested by the customer, then the difference of the cost between the detailed construction estimate of the MV Insulated or partially insulated line and the calculated bare conductor MV line constructed under the same conditions has to be charged from the customer in addition to the commercial estimate.
3. If MV Insulated or partially insulated lines are to be constructed due to the requirement of CEB, the cost of constructing of such lines shall be borne by CEB and the customer shall only be charged as per the above table.

Specific Notes to UG Networks

1. All the above costs are without Municipal Council road reinstatement charges. Customer must pay for and arrange the Municipal Council road reinstatement charges according to the actual length of cable laying which arises due to the particular supply connection.
2. Supplies above 16MVA will have to be estimated on case by case.

5.7 Commercial Estimation Principle for Augmentations

5.7.1 Commercial Estimation Principle for Augmentations of Bulk Supplies from 100kVA to 1 MVA for Overhead Connections

This costing principle is valid for augmentation of LT metered bulk supply connections up to 1MVA capacity.

Cost of augmenting within the same voltage shall be calculated as follows,

$$\text{Cost} = \text{m} \times (\text{New kVA} - \text{Exisiting kVA}) + \text{Cost of removing the existing items (if applicable)}$$

For B/S Connections from Overhead Network, "m'' should be taken from Table 5.6:1.

In addition to above the costs of augmentation/new MV and LV lines within the premises shall be charged as required by the new connection at standard rates. If the existing lines can be utilized as it is this does not arise.

5.7.2 Commercial Estimation Principle for Augmentations of Bulk Supplies between 113kVA – 16MVA in 11kV UG Networks

Cost of augmenting within the same voltage shall be calculated as follows,

$$\text{Cost} = \text{Cost of Obtaining the New kVA} - \text{Cost of Obtaining the Exisiting kVA}$$

Notes:

a) The above depicts the commercial estimation principle only. This is subjected to the technical capability of providing a supply using the LV & MV network in the proximity as decided by the planning engineer up to the metering point.
b) If the existing LV cable is adequate for the new supply, cable cost may be exempted. Otherwise, the cost of new cable has to be charged from the customer.

c) If the above cost becomes less than the applicable "c" (Fixed cost relevant to the requested capacity in table 5.6:1) in extra ordinary situations, the fallback situation should be charging that 'c' from the customer.

6 LV New Lines / Conversions / Combined Runs

6.1 Aerial Bundled Conductor (ABC) LV line cost per km

6.1.1 Overhead Lines except for Real Estate Development/Auction Lands

Conductor	3x95+70mm²	3x70+54.6mm²	3x95+70+16mm²	3x70+54.6+16mm²	50+54.6mm²
Cost (Rs)	2,142,000.00	1,900,000.00	2,359,000.00	2,036,000.00	1,580,000.00
Second Circuit cost (Rs)	1,323,000.00	920,000.00	1,329,000.00	974,000.00	-

Table 6.1:1 Rates for ABC lines except for Real Estate Development/Auction Lands

6.1.2 Overhead Lines for Real Estate Development/Auction Lands

Conductor	3x70+54.6+16mm²
Cost (Rs)	2,319,000.00

Table 6.1:2 Rate for ABC LV line for Real Estate Development/Auction Lands

6.2 Bare Overhead LV line cost per km

Conductor	FLY - 7/3.40 mm, 3 Phase	WASP- 7/4.39 mm, 3 Phase
Cost (Rs)	1,657,000.00	1,853,000.00
Second Circuit cost (Rs)	747,000.00	911,000.00

Table 6.2:1 Rates for LV Bare Conductors

6.3 LV Line Conversion Cost per km

Conductor	FLY - 7/3.40 mm, 3 Phase		WASP- 7/4.39 mm, 3 Phase
	1 Ph. to 3 Ph.	2 Ph. to 3 Ph.	Changing Conductor 3 Ph. Fly
Cost (Rs)	505,000.00	329,000.00	490,000.00

Table 6.3:1 Rates for LV Bare Line Conversions

6.4 Combined run of LV Line on existing MV Line

Conductor	FLY 7/3.40mm 3 Ph.	WASP 7/4.39mm 3 Ph.	ABC 70x3+54.6mm^2 3 Ph.	ABC 95x3+70mm^2 3 Ph.
Combined Run on 11kV/33kV line cost (Rs)	1,054,000.00	1,265,000.00	1,122,000.00	1,493,000.00

Table 6.4:1 Rates for Combined Runs

6.5 Combined run of LV Line on MV Line When Both are Simultaneously Constructed

6.5.1 Overhead Lines except for Real Estate Development/Auction Lands

	LV Conductor (Single Circuit)			
MV Line	**3x95+70mm^2**	**3x70+54.6mm^2**	**95x3+70+16mm^2**	**3x70+54.6+16mm^2**
Raccoon 11kV Single Circuit line Cost (Rs)	5,258,000.00	4,855,000.00	5,264,000.00	4,909,000.00
Raccoon 33kV Single Circuit line Cost (Rs)	5,793,000.00	5,390,000.00	5,799,000.00	5,444,000.00

Table 6.5:1 New Combined Runs except for Real Estate Development/Auction Lands

6.5.2 Overhead Lines for Real Estate Development/Auction Lands

	LV Conductor (Single Circuit)
MV Line	**3x70+54.6+16mm^2**
Raccoon 11kV Single Circuit line Cost (Rs)	5,251,000.00
Raccoon 33kV Single Circuit line Cost (Rs)	5,740,000.00

Table 6.5:2 Rate for New Combined Runs for Real Estate Development/Auction Lands

Note 1

Span of Combined circuit lines are reduced to the span required for LV. Therefore, no additional LV poles are introduced.

Common Note

A concession of Rs. 75,000.00 is provided for estimates prepared under 6.1, 6.2, 6.4 & 6.5 if funding is done through Decentralized Budget, Provincial Council Budget and similar Rural Electrification schemes.

7 MV New Lines

(These rates are applicable only for Pole Line Constructions)

7.1 Bare Conductors MV Line Cost per km.

Following rates are calculated for constructing 1km MV line with 27 poles and 3 struts.10.0 m (RC or PS) poles to be used in MV construction as far as possible. However, 13% of 11.0 m PS poles are estimated for special construction where clearances cannot be maintained by 10.0 m poles. (E.g., Road crossings, Urban areas)

7.1.1 11 kV Network

Code	7/4.09 mm RACOON	37/2.79 mm LYNX	19/3.76 mm ELM
Single Circuit on 10m Pole Cost (Rs)	2,869,000.00	-	-
Single Circuit on 11m Pole Cost (Rs)	3,322,000.00	4,628,000.00	4,194,000.00
Single Circuit on 13m Pole Cost (Rs)	4,385,000.00	5,701,000.00	5,282,000.00
Double Circuit on 13m Pole Cost (Rs)	-	9,148,000.00	8,365,000.00

Table 7.1:1 Rates for 11kV Bare Overhead Lines

7.1.2 33 kV Network

Code	7/4.09 mm RACOON	37/2.79 mm LYNX	19/3.76 mm ELM
Single Circuit on 10m Pole Cost (Rs)	3,165,000.00	-	-
Single Circuit on 11m Pole Cost (Rs)	3,624,000.00	4,925,000.00	4,517,000.00
Single Circuit on 13m Pole Cost (Rs)	4,703,000.00	6,003,000.00	5,581,000.00
Double Circuit on 13m Pole Cost (Rs)	-	9,869,000.00	9,035,000.00

Table 7.1:2 Rates for 33kV Bare Overhead Lines

7.2 Aerial Bundled Conductors (ABC) MV Line Cost per km.

Since 35 m span is used in MV ABC construction, 11.0 m PS poles to be used in MV construction as far as possible. However, 13% of 13.0 m PS poles are estimated for special construction where clearances cannot be maintained by 11.0 m poles. (E.g., Road crossings, Urban areas)

7.2.1 11 kV Network

Line	95mm^2 ABC	150mm^2 ABC
Single Circuit on 11 m Pole Cost (Rs)	8,152,000.00	10,327,000.00
Single Circuit on 13 m Pole Cost (Rs)	9,068,000.00	11,087,000.00
Double Circuit on 11m Pole Cost (Rs)	13,613,000.00	18,440,000.00
Double Circuit on 13m Pole Cost (Rs)	14,529,000.00	19,201,000.00

Table 7.2:1 Rates for 11kV ABC Lines

7.2.2 33 kV Network

Line	95mm² ABC	150mm² ABC
Single Circuit on 11 m Pole Cost (Rs)	10,792,000.00	12,539,000.00
Single Circuit on 13 m Pole Cost (Rs)	11,483,000.00	13,343,000.00
Double Circuit on 11 m Pole Cost (Rs)	18,754,000.00	22,456,000.00
Double Circuit on 13 m Pole Cost (Rs)	19,445,000.00	23,261,000.00

Table 7.2:2 Rates for 33kV ABC Lines

8 Cost of Installation of MV Metering Equipment

11 kV cost (Rs)	1,612,000.00
33 kV cost (Rs)	1,790,000.00

Table 7.2 :1 Rates for MV Metering Equipment

9 Cost of Installation of Guard

Cradle Guard (20m span with 3m width)

11 kV cost (Rs)	182,000.00
33 kV cost (Rs)	187,000.00

Table 9:1 Rates for Cradle Guard

Note 1

Poles are not included for this cost.

10 Other Charges

Other charges for miscellaneous services.

No	Type of Charge	Charge (Rs.)
1.	Disconnection at the customer's request	3,000.00
2.	Reconnection at the customer's request	3,000.00
3.	Reconnection after a statutory disconnection	3,000.00
4.	Testing of an energy meter used at 230 V	4,000.00
5.	Testing of a three-phase energy meter (less than 42 kVA)	5,250.00
6.	Testing of an energy or energy/demand meter and associated equipment used at 400 V	13,300.00
7.	Testing of an energy or energy/demand meter associated equipment (used at voltages higher than 400 V)	13,300.00
8.	Installation testing	CCE*
9.	Changing an account name and/or the tariff category	Free of charge
10.	Changing an energy or energy/demand meter	Free of charge for changing defective meters. For other cases CCE* shall apply.
11.	Provision of temporary electricity supply	CCE*
12.	Augmentation of an existing electricity supply	CCE* for the cases not addressed by this circular
13.	Issuing an estimate for shifting of poles/lines/transformer/any other electrical plant	2,500.00 (Deductible from the estimate)
14.	Shifting of poles/lines/transformer/any other electrical plant	CCE*
15.	Clearing of way leaves	CCE* based on compensation charges decided by Divisional Secretaries and cost of removing way leaves.
16.	Issuing a clearance report for buildings	10,000.00 (Deductible from the estimate)
17.	Issuing a duplicate bill	Free of charge
18.	Grid interconnection of generation facility	CCE*

19.	Delays in Payment – Bulk Supply Customers 15 days after issuing the bill to the customer, a monthly interest rate of 0.90% will be charged to the bill from the 16th day onwards. If customer fails to pay the bill and interest thereon within 30 days from issuing the bill, supply will be disconnected upon disconnection order. Reconnection of the supply will be given upon the payment of outstanding amount together with said interest on the outstanding amount until the day of reconnection and Reconnection processing fee.	
20.	Delays in Payment – Ordinary Supply Customers After 30 days period, if a disconnection order is issued, a monthly interest rate mentioned in Clause 20 will be charged from the customer on the outstanding amount effective from the date of issuing the disconnection order. If supply is disconnected, reconnection of the supply will be given upon the payment of outstanding amount together with interest and a reconnection processing fee.	
21.	Repair of damages to Service connection wire Responsibility of removing way leaves along the path of service connection wire rests with the customer. Cost of repair to service wire damaged due to non-removal of way leaves shall be charged from the respective customers.	CCE*
22.	Net Metering/Net Accounting/Net Plus Schemes Application Processing Charge (Rs) -Contract Demand ≤42kVA Application Processing Charge (Rs) -Contract Demand >42kVA	 5,600.00 15,300.00
	Connection Charges for Net Metering/Net Accounting/Net Plus Schemes (Contract Demand ≤ 42kVA) 1 Phase Connection Cost (Rs) 3 Phase Connection Cost (Rs)	 16,000.00 32,300.00
23.	Standard Rate for Ordinary Supply Customers to change over to the time-of-day tariff, one time charge for re programming the meter. 1 Phase Connection Cost (Rs) 3 Phase Connection Cost (Rs) Based on availability, the existing single rate meter shall be replaced with a Programmable 3 phase 3 wire meter or a Direct Connected Single-Phase Static meter free of charge.	 11,000.00 12,300.00
24.	Converting TOU accounts to Ordinary Supply accounts	Free of charge
25.	Application fee for a new Bulk Supply Connection	2,000.00 (Will be set off from the estimate)
26.	Professional fee of independent professional who conduct investigations for the purposes of individual power quality assessment under section 36(a) of Electricity (Distribution) Performance Standard Regulations (The customer who applies for investigation shall make a deposit equal to this amount to	15,000.00

	the distribution licensee for individual power quality assessment)	
27.	Re-fixing of finalized accounts	CCE* (Excluding Meter Cost)
28.	Issuing a detailed Account Statement	Free of cost, if available in Web. Otherwise Rs. 100.00 per page
29.	Providing Load Profile and Other Data in Smart Meters	Free of charge if such facility is supported in the meter and remote reading facility is also available.

** CCE – Case by Case Estimation by the Licensee based on Standard Construction Cost – 2021 and Catalogue & Price List of Materials 2021 issued by CEB.*

31. Shifting of Bulk Supply Connections Associated with the Transformers (100kVA and above)

Shifting of existing Bulk Supply Connections within the premises or to a different premise under the same customer due to factory expansion, environmental considerations and other acceptable reasons shall be considered on case-by-case basis.

The approving authority for such shifting shall be within the relevant administrative boundaries and estimate approving limits. In case of administrative boundary changes or the estimate approving limit is exceeded, then the approval of the appropriate higher authority must be obtained.

Following costing policy should be applied when shifting of Bulk Supply Connection Associated -with a transformer within the same premises or to the different premises. The shifting cost to be recovered from the customer as per the price formula given below.

$$\text{Total cost of shifting the bulk supply connection} = \left[\text{Actual cost for providing new bulk supply connection as per work estimate}\right] - \left[\text{Rebate for the usable items (T/F, L/A, DDLOs, CT/PT unit and Metering equipment)}\right]$$

When the new premise is in a different administrative boundary, request for shifting the connection shall be made to the administrative unit where the new connection is required and total cost of shifting the BS connection shall be charged by the same administrative unit. Relevant material and labour costs to be transferred between two units following usual accepted procedure.