

# UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION



## **COST DATA BOOK FOR RECOVERY OF EXPENSES & OTHER CHARGES FROM PROSPECTIVE CONSUMERS FOR TAKING ELECTRIC SUPPLY**

**(APPLICABLE TO ALL DISTRIBUTION LICENSEES IN UTTAR PRADESH)**

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## CHAPTER 1

### **STATEMENT OF OBJECTS AND REASONS**

- 1- Section 42 of the Electricity Act 2003 (herein after called “the Act”) provides that a distribution licensee shall develop and maintain an efficient, co-ordinated and economical distribution system in his area of supply and supply electricity in accordance with the provisions of the Act.
- 2- Section 46 of the Act provides that the State Commission may, by regulations, authorize a distribution licensee to charge from a person requiring a supply of electricity in pursuance of Section 43, any expenses reasonably incurred in providing any electric line or electrical plant for the purpose of giving that supply.
- 3- Section 47 of the Act provides that subject to the provisions of this section, a distribution licensee may require any person, who requires a supply of electricity in pursuance of Section 43, to give him reasonable security, as may be determined by regulations, for the payment to him of all monies which may become due to him -
  - (a) in respect of the electricity supplied to such person, or
  - (b) where any electric line or electrical plant or electric meter is to be provided for supplying electricity to such person, in respect of the provision of such line or plant or meter.
- 4- The U.P. Electricity Regulatory Commission (herein after called “the Commission”) has notified Electricity Supply Code 2005 (herein after called “the Code”). The third amendment was notified on 14-09-06 and the fourth amendment was notified on 14.06.08. It has the following provisions:
  - (i) Clause 4.2 of the Code enjoins upon a distribution licensee an obligation to upgrade/extend/strengthen the distribution system. The cost towards this to meet the enhanced demand of existing consumers as well as future growth shall be recovered from the consumers through tariff.
  - (ii) Clause 4.6 of the Code provides that,
    - (b) the estimate (for release of new connection ) shall include security deposit, charges of laying the service line, distribution mains (if required )

and material, and system loading charges etc. as determined by the licensee with the approval of the Commission every year.

(d) The above estimate shall be based on Rs/kW (or Rs/kVA) of the sanctioned / contracted load, or on Rs. per installation for specific bands of contractual load applied or sanctioned load at each voltage level up to 33kV voltage on which supply is to be given. Beyond 33 kV voltage level, the charges for laying shall be based on actual estimates of the licensees.

(iii) Clause(s) 4.11, 4.41, 4.42, 4.44 and 4.45 (B) of the Code provide for determination of fee for Tatkal temporary connection, processing charge for load reduction and load enhancement, fee for mutation of names and shifting charges with the approval of the Commission.

(iv) Clause 4.20 of the Code governs the incidence and modalities of security amount deposited by consumer.

5. Specific words and expressions carry the meaning assigned to them in the Act and /or the Code.
6. There will be one structure of charges for all the Distribution Licensees in the State.
7. The total charges payable by an applicant shall comprise of Processing Fee, Security, System Loading Charge and Line Charge. All the four components shall be clearly and separately mentioned in the Estimate and Receipts issued by the Licensee to the applicants.
8. Presently, the licensees are charging a part of the expenditure incurred or to be incurred to upgrade its system of supply from the applicants of new connection/ enhancement of load as System Loading Charges, and also recovering a part of it from consumers through tariff. Analysis of this charge is given in **Annexure 1.**
9. Reasonability and analysis of Security Amount is being enclosed at **Annexure 2.**
10. Details of Line Charges are enclosed at **Annexure-3 to 28.**
11. For conversion from H.P. to kW and from kVA to kW and vice versa, a factor of 0.746 and 0.90 respectively shall be taken, wherever necessary.

12. In case of any inconsistency between Cost Data Book and Electricity Supply Code, the Cost Data Book shall prevail.

**CHAPTER 2**  
**PROCESSING FEE**

<b>Sl.No.</b>	<b>Description</b>	<b>Processing Fee per connection (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>
1	Load upto 1 kW for BPL Consumer only	10
2	Load upto 1 kW for other than BPL Consumer	50
3	Load above 1 kW less than 5 kW	100
4	5 kW or more upto 50 kW / 56 kVA	200
5	Above 56 kVA upto 3000 kVA	1000
6	Above 3000 kVA upto 10000 kVA	5000
7	Above 10000 kVA	10000

**NOTE :-**

1. The processing fee shall be non-refundable and non-adjustable.
2. This fee shall be applicable for new connection, tatkal temporary connection, temporary connection, reduction and enhancement of load (depending on the final load), mutation of names and shifting of connection.
3. This shall be applicable for all the categories of prospective/ existing consumer.

**CHAPTER 3**  
**SECURITY**  
(Refer Annexure 2)

<b>Sl.No.</b>	<b>Description</b>	<b>Security (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>
1	Domestic Light & Fan for BPL Consumers and load upto 1 kW only	NIL
2	Domestic Light & Fan	350/ kW
3	Private Tube well	300/ HP
4	Non-Domestic Light & Fan, Light & Fan for Public and Private Institution	1000/ kW
5	Small and Medium Power, State Tube well, Panchayatiraj Tube well, Pumped Canal	1000/ kW
6	Large and Heavy Power, Public Waterworks, Railway Traction and Public Lighting	1200/ kVA

**NOTE:-**

1. Initial security at above rates is payable per kW/HP/kVA or part thereof as the case may be.
2. No security shall be charged if the connection is given / to be given through pre-paid meter.
3. No security shall be charged from
  - (A) BPL consumer
  - (B) Departmental consumer, if electricity bill is deducted from salary/pension.
4. 25% higher amount of security shall be charged from temporary connection of the respective category considering actual period of connection and expected amount of bill.
5. In case of enhancement of load, additional security shall be charged on incremental load as per provisions of the Code.
6. The security may be adjusted against any outstanding bill and refunded after permanent disconnection.

7. The security may be enhanced or reduced subsequently as per provisions of the Electricity Supply Code.
8. Interest on security shall be paid by the licensee to the consumer as per bank rate prescribed by the R.B.I. (Refer Clause 4.20(i) of the Code 2005).
9. For Security Amount being above Rupees fifty lacs (Rupees 50,00000 only), the payment of first Rupees fifty lacs(Rupees 50,00000 only) has to be made by way of Banker's Cheque, Cheque or Demand Draft & amount exceeding Rupees fifty lacs (Rupees 50,00000 only) may be paid by way of a Bank Guarantee if consumer so desires. The Security Amount for contracted load exceeding 10MW, the total security amount may continue to be paid by way of Bank Guarantee.

**CHAPTER 4**  
**SYSTEM LOADING CHARGES**

<b>Sl.No.</b>	<b>Description</b>	<b>Amount (in Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>
1	Load upto 1kW for BPL Consumer	NIL
2	Load upto 1kW for other than BPL Consumer	150/ kW
3	Load above 1 kW less than 5 kW	200/ kW
4	5 kW or more upto 50 kW/ 56 kVA	300/ kW
5	Above 56 kVA upto 10000 kVA	1000/ kVA
6	Supply on 132 kV and above	300/kVA subject to maximum limit of Rs. 30 lac

**NOTE :-**

1. No system loading charge shall be charged for temporary connection.
2. No system loading charge shall be charged from builder or promoter, who develops multistoried building or colony. However, it shall be charged at the time of release of connection at single point or multipoint, as the case may be, from the applicant.
3. System loading charges shall be charged from all the category of consumers except BPL.
4. For **enhancement of load**
  - a) For **enhancement of load at the same voltage level**, consumer shall have to deposit system loading charge for the difference of load i.e. (Load after enhancement – Existing load); as per the Cost Data Book of the category in which consumer falls after load enhancement.
  - b) In case **enhancement of load is done at a voltage higher than existing voltage**, the system loading charges for the total load after enhancement to be worked out based on Cost Data Book and credit shall be given for the already deposited system loading charges.
  - c) In case **enhancement of load is within or upto the earlier highest contracted load**, for which system loading charge have already been deposited, no further system loading charge shall be charged from the consumer.

**Explanation**

In case system loading charge for new load are lower than what is already paid by the consumer, no refund shall be made.

## CHAPTER 5

### LINE CHARGES

Sl. No.	Description	Fixed Charge per connection (for line up to 40 meter) (in Rs.)		Variable Line Charge beyond 40 meters (in Rs.)
1	2	3		4
1	a. Private Tube well and Pumping set (where transformer is to be installed)	Consumer does not provide meter	30700 (Annex-3)	150 per meter (Annex-3)
		Consumer provide meter	25000 (Annex-3)	
1	b. Private Tube well and Pumping set (where transformer is not to be installed)	Consumer does not provide meter (for load above 7 HP)	7725 (Annex-7)	<b>For Rural Areas only</b> a. For 3-Phase LT line Rs. 110 per meter (Annex-16) b. For 1-Phase LT line Rs. 70 per meter (Annex-16)  <b>For Other Areas</b> a. For 3-Phase LT line Rs. 360 per meter (Annex-15) b. For 1-Phase LT line Rs. 200 per meter (Annex-15)
		Consumer provide meter (for load above 7 HP)	2000 (Annex-7)	
		Consumer does not provide meter (for load 7 HP & below)	6025 for 3-Phase (Annex-7)	
			1450 for 1-Phase (Annex-7)	
		Consumer provide meter (for load 7	300 for 3 Phase & 1 Phase	

		HP & below)	(Annex-7)			
2	In villages and having load upto 2 kW for domestic and non-domestic Light and Fan (including cost of meter )	800 ( Annex-4)		For Line above 40 meter, charges mentioned at Sl.No. 3 will be applicable.		
3	Load below 5 kW but not covered under Sl. No. 2 above.	Consumer does not provide meter	1450 (Annex-5)	For District HQ	510 per meter	(Annex-14)
		Consumer provide meter	300 (Annex-5)	For area other than District HQ.	200 per meter	(Annex-15)
4	Load 5 kW or more but below 25 kW	Consumer does not provide meter	7725 (Annex-6)	For District HQ.	670 per meter	(Annex-14)
		Consumer provide meter	2000 (Annex-6)	For area other than District HQ.	360 per meter	(Annex-15)
5	Load 25 kW or more upto 50 kW	Metering equipment provided by the licensee	15000 (Annex-8)	For District HQ.	670 per meter	(Annex-14)
				For area other than District HQ.	360 per meter	(Annex-15)
6	Load above 50 kW/56 kVA up to 200kVA	Line installed by the licensee	127400 (Annex-9)	A. For Over Head Line in District HQ	640 per meter	(Annex-18)

				B. For Over Head line in area other than District HQ.	210 per meter (Annex-18)
				C. For Underground Line	1400 per meter (Annex-19)
		Line installed by the consumer	62200 (Annex-9)	15% of the amount calculated at serial No. A, B, C above.	
7	Load above 200 kVA up to 1MVA	Line installed by the licensee	158000 (Annex-10)	A. For Over Head Line in District HQ	640 per meter (Annex-18)
				B. For Over Head line in area other than District HQ.	210 per meter (Annex-18)
				C. For Underground Line	1400 per meter (Annex-19)
		Line installed by the consumer	66800 (Annex-10)	15% of the amount calculated at serial No. A, B, C above.	
8	Load above 1MVA upto 3MVA	Line installed by the licensee	166300 (Annex-11)	A. For Over Head line in District HQ.	640 per meter (Annex-18)
				B. For Over Head line in area other than District HQ.	210 per meter (Annex-18)
				C. For Underground line	1400 per meter (Annex-19)
		Line installed by the consumer	68000 (Annex-11)	15% of the amount calculated at serial No. A, B, C above.	

9	Load above 3 MVA upto 4 MVA	Line installed by the licensee	336700 (Annex-12)	A. For Over Head Line in District HQ	900 per meter	(Annex-24)
				B. For Over Head line in area other than District HQ.	370 per meter	(Annex-24)
				C. For Underground line	1850 per meter	(Annex-25)
		Line installed by the consumer	193300 (Annex-12)	15% of the amount calculated at serial No. A, B, C above.		
10	Load above 4MVA upto 10 MVA	Line installed by the licensee	368100 (Annex-13)	A. For Over Head line in District HQ	900 per meter	(Annex-24)
				B. For Over Head line in area other than District HQ.	370 per meter	(Annex-24)
				C. For Underground line	2540 per meter	(Annex-25)
		Line installed by the consumer	195800 (Annex-13)	08% of the amount calculated at serial No. A, B, C above.		
11	Load above 10 MVA	As per actual estimate. If line installed by the consumer, 5% of the cost of Line installation and full cost of metering system shall be charged.				

**NOTE:**

1. Cable shall be provided by the consumer for load upto 50 kW as per actual requirement, subject to maximum limit of 50 meters. In case the applicant's premise is beyond 40 meters, the licensee shall erect additional poles and charges shall be recovered from consumer under variable line charges for additional length beyond 40 meters.
2. Meter board shall be provided by the consumer for load upto 50 kW.
3. Meters and metering cubical (including CT, PT) shall be provided by the licensee. However the consumer has an option to provide meter below load of 25 kW.
4. The schedule of charges shall be taken upto the point of supply (as defined in clause 2.2 (qq) of the Electricity Supply Code) and these charges shall form part of the estimate and the line upto this point shall be maintained by the distribution licensee. All installation beyond point of supply shall be installed and maintained by the consumer.
5. In case of enhancement of load, labour & overhead charge shall be charged as below:-
  - (A) If the load is in the same band of load as mentioned in the above table Nil
  - (B) If the load is in the higher band of load labour & overhead charge for higher load
6. In case of shifting of connection, line charge shall be charged as per above schedule based on the additional length of line along with actual cost of dismantling.
7. For giving connection through 11 kV independent feeder, Rs. 4.46 lacs in urban area and Rs. 4.21 lacs in rural area will be additionally charged for the cost of circuit breaker and double pole.
8. For giving connection through 33 kV independent feeder, Rs. 20.24 lacs shall be additionally charged for 33 kV feeder bay including circuit breaker.
9. 40 meters line shall be clear aerial distance suitable for sagging between last pole of distribution mains and bracket/ rag bolt at consumer end. Beyond 40 meters length of line, the licensee shall bear cost of line in multiple of 40 meters for a group of 3 consumers provided all the charges for new connection is paid.
10. Additional length of line shall be the shortest clear route distance between the nearest available distribution mains and the last pole/point near consumer's premise. Required up gradation of the nearest available distribution mains is responsibility of the distribution licensee/supplier and nothing shall be charged for this purpose. Fraction of meter shall be ignored in measuring length of line.

11. Line charge for temporary connection shall be charged as per above schedule subject to adjustment of the cost of cable and other materials received back after deducting 10% depreciation.
12. The licensee shall not charge processing fee, line charge and security from its permanent employees and pensioners for one connection during their period of service or on retirement.
13. In case the applicant withdraws his application after making payment of Line charge and no work has been undertaken, the line charge shall be refunded as under.
 

15 days from the date of deposit	=	75%
30 days from the date of deposit	=	50%
60 days from the date of deposit	=	25%
After 60 days the date of deposit	=	Nil
14. Line charges in case of Railway crossing shall be charged as per actual expenses wherever applicable.
15. The above schedule of rates is based on lines constructed on Steel Tubular Pole in District Headquarter and PCC Pole in areas other than District Headquarter. Construction work shall be undertaken accordingly.
16. If required, double metering arrangement may be done by the licensees at their own cost and security.
17. Concreting material (brick ballast, sand, cement) and labour shall be provided by the consumer for the P.T.W. connection. However, actual requirement of material etc. shall be communicated by the licensee to the consumer while offering terms and conditions for PTW connections.
18. Any subsidy for PTW consumer in respect of new connection shall be deducted from line charge.
19. LT loads upto 50 kW released on LT, shall be developed by the licensee only, for which no supervision charges shall be applicable. However, if the supply is released on HT and metering is done on LT side on the transformer provided by the applicant and billing as per LT tariff on the request of the consumer, such work may be done by applicant, if so desired by him on the deposition of 15% supervision charges.
20. Consumer having load above 1 MVA may opt for connection at 33kV.
21. The Cost Data Book shall be effective from 01.4.2010. However, the connections which could not be released till then due to any reason what so ever shall not be reopened and such the connections shall be released on the basis of previous conditions.
22. Consumer shall provide separate earthing at the metering point.

## ANNEXURE-1

### Analysis of Expenditure on System Upgradation

The earlier order for system loading charges was issued by the UPPCL on 01.01.2005. The charges varies from Rs. 150/kVA to Rs. 800/kVA for LT consumer, Rs. 858/kVA for 11kV and 33 kV consumer and Rs. 286/kVA with maximum limit of Rs 28.60 lacs for 132 kV. The prevailing order was issued through Cost Data Book vide letter no. Secretary/UPERC/Cost Data Book-2007/-1127 Dated 7 September, 2007. The present charges varies from Rs. 150/- to Rs. 300/- per kW for LT consumer, Rs. 1000/kVA for 11 kV and 33 kV consumer and Rs. 300/kVA with maximum limit of 30 lacs for consumer having supply on 132 kVA and above.

Up gradation of system includes the following:

(A) Construction /increasing capacity of distribution substation, secondary substation and primary substation.

(B) Strengthening construction of L.T., 11kV, 33kV, 132 kV and 220kV lines.

#### A. (i) **L.T. Substations**

Cost of substation with Double Pole of ST Pole  
(Based on stock issue rates of RESSPO of UPPCL)

	<b>Capacity</b>	<b>Cost of substation (Rs.)</b>
1	25 kVA	95549
2	63 kVA	194340
3	100kVA	212520
4	250kVA	328020
<b>Total</b>	<b>438kVA</b>	<b>830429</b>

Cost per kVA

$830429/438 = \text{Rs.1896/kVA}$

**(ii) Secondary Substations**

	<b>Capacity</b>	<b>Cost of substation (Rs. Lac)</b>
1	3MVA	98.272
2	5MVA	122.55
3	8MVA	146.11
4	10 MVA	157.22
<b>Total</b>	<b>26 MVA</b>	<b>524.15</b>

Cost Per kVA  $52415000/26000 = \text{Rs } 2016/\text{kVA}$

**(iii) Primary Substations**

	<b>Capacity</b>	<b>Cost (Rs. Lac)</b>
1	20MVA	317
2	40MVA	520
3	63 MVA	665
<b>Total</b>	<b>123 MVA</b>	<b>1502</b>

Cost Per kVA  $150200000/123000 = \text{Rs. } 1221/\text{kVA}$

Total cost of per kVA capacity addition from primary to LT is Rs.1896 + 2016 + 1221 = Rs. 5133/- per kVA. In addition to this, there will be expenditure on lines too. Taking equal amount for Lines from 132kV to LT, total expenditure per kVA will be Rs. 5133x2 = **Rs.10266**

Hence charges for system enhancement proposed in Cost Data Book as System Loading Charge Rs 100/kW at lowest level to Rs. 1000/kVA maximum is only a small part of total expenditure and hence justified. Though the liability of the licensee in respect of strengthening of system decreases on higher voltage but for social reasons, the rates of System Loading Charge are higher at higher voltage to cross-subsidize the consumers having lower load which shall be phased out in future.

**DETERMINATION OF SECURITY AMOUNT**

Section 4.20 of the Electricity Supply Code 2005 provides that a security deposit to cover the estimated power consumption for two months shall be made by all consumer/applicant. Sample calculation based on metered tariff (at April 2008 tariff), is given below on assumptions prescribed by the Commission as far as possible.

**A. Domestic Light Fan**

Present rate	-	Rs. 300/kW
Assumed load	-	5 kW
Load factor	-	0.3
Monthly consumption	-	5 x 0.3 x 14 x 30 630 units
Monthly bill	-	60 x 5 + 200x3.00+430x3.30 2319
Bi-monthly bill/kW	-	2319 x 2/5 Rs. 927.60 say Rs. 928

Security of **Rs. 350/kW** is justified with the scope of increase in future.

**B. Non Domestic Light & Fan**

Present rate	-	Rs. 800/kW
Assumed load	-	5 kW
Load factor	-	0.5
Monthly consumption	-	5 x 0.5 x 14 x 30 1050 unit
Monthly bill	-	5 x 100 + 1050 x 4.30 Rs.5015
Bi- monthly bill/ kW	-	5015 x 2/5 Rs. 2006

Security of **Rs. 1000/kW** is justified with the scope of increase in future

**C. P.T.W.**

Present rates	-	Rs 300/H.P.
Assumed load	-	5 H.P.
Load factor	-	0.5
Monthly consumption	-	5 x 0.746 x 0.5 x 14 x 30 783 units
Monthly bill	-	5 x 15 + 783 x 0.75 Rs. 662

Bi- monthly bill /H.P. - 662 x 2/5  
Rs. 265

Security of **Rs. 300/H.P.** is justified.

**D. Public Lighting**

Present rate - Rs. 1000/kW  
Bi-monthly bill / kW - For Gram Panchayat-Rs 2000  
- For Nagar Palika -Rs 2500  
- For Nagar Nigam-Rs 3000

Security of **Rs. 1200/kW** is justified with the scope of increase in future

**E. Small and Medium Power**

Present rate Rs. 800/kW or 2 x 450 (Rs. 900/H.P.) whichever is higher.  
Assumed load - 10 H.P.  
Load factor - 0.5  
Monthly consumption -  $10 \times 0.746 \times 0.5 \times 10 \times 30$   
1119 units  
Monthly bill -  $10 \times 100 + 1119 \times 4.30$   
Rs. 5812  
Bi-monthly/HP -  $5812 \times 2/10$   
Rs.1162

Security of **Rs. 1000/kW** is justified with the scope of increase in future

**F. State Tube Well**

Present rate - Rs. 800/kW  
Monthly bill - Rs. 800/H.P.  
Bi-monthly bill - Rs. 1600/H.P.

Security of **Rs. 1000/ kW** is justified.

**G. Large & Heavy Power**

Present rate - Rs. 1000/ kVA  
Assumed load - 100 kW (111 kVA at 0.9 P.F.)  
Load factor - 0.5  
Monthly consumption -  $100 \times 0.5 \times 10 \times 30$   
15000 units  
Monthly bill -  $210 \times 111 + 15000 \times 4$   
83310  
Bi-monthly bill/kVA - Rs.1501.08 say 1501

Security of **Rs.1200/kVA** is justified with the scope of increase in future

**H. Public Water Work**

Present rate	-	Rs. 1000/kVA
Assumed Load	-	10kW
Load factor	-	0.5
Monthly consumption	-	$10 \times 0.5 \times 14 \times 30$ 2100 units
Monthly bill	-	$10 \times 90 + 2100 \times 4$ 9300
Bi-monthly bill/kW	-	$9300 \times 2/10$ 1860

Security of **Rs.1200/kVA** is justified with the scope of increase in future

**I. Railway Traction**

Present rate	-	Rs 1000/kVA
Assumed load	-	100kVA
Load factor	-	0.5
Monthly consumption	-	$100 \times 0.9 \times 0.5 \times 24 \times 30$ 32400 units
Monthly bill	-	$100 \times 180 + 32400 \times 3.25$ Rs.123300
Bi- monthly/kVA	-	$123300 \times 2/100 =$ Rs. 2466

Security of **Rs.1200/kVA** is justified with the scope of increase in future

**ANNEXURE -3**

**Line Charge For Private Tube Well and Pump Set**

<b>A. Fixed charge per connection for line upto 40 meter and metering.</b>		
(I)	Consumer does not provide meter - (As per Annexure-7)	Rs. 7725
(II)	Consumer provide meter (As per Annexure-7)	Rs. 2000
<b>B. Fixed charge per connection for transformer.</b>		
	Cost of 25 kVA S/S on PCC Pole (As per Annexure-26)	Rs. 85778
	Cost of concreting of poles (As per Annexure-26)	(-) Rs. 964
	Cost of concreting of stays (As per Annexure -26)	(-) Rs. 392
	Labour & overhead charges	(-) Rs.15,925
	Cost of 25 kVA s/s excluding Cost of concreting and labour	Rs.68497
	Assuming 3 connections on one 25 kVA sub-station, cost per connection	Rs. 22832 say Rs. 23000
<b>C. Total fixed charge (A+B)</b>		
(a)	Consumer does not provide meter = 7725 + 23000 = 30725	<b>say Rs. 30700</b>
(b)	Consumer provide meter = 2000 + 23000 = 25000	<b>say Rs. 25000</b>
<b>D. Variable charge</b>		
	Cost of 1 km 11 kV line on PCC Pole (Annexure-18)	Rs. 207312
	Cost of concreting of poles (Annexure – 18)	(-) Rs. 8194
	Cost of concreting of stays (Annexure-18)	(-) Rs. 392
	Labour & overhead charge (Annexure-18)	(-) Rs. 47303
	Cost of 1 km line excluding cost of concreting and labour charges	Rs. 151423
	<b>Cost of 11kV line per meter</b>	<b>151.423 say Rs. 150/-</b>

Note: Consumer shall pay total charges under deposit scheme.

**ANNEXURE- 4****Fixed Line Charge for domestic & non-domestic connection in village  
Load upto 2 kW**

<b>Sl. No</b>	<b>Particulars</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty.</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	2 x 4 mm <sup>2</sup> PVC cable with catenary arrangement	Mtr.	30	50	1500
2	1Ph- 2 W electro-static meter with meter box	No.	500	1	500
3	Labour & overhead charges		300	L.S.	300
4	<b>Total</b>				<b>2300</b>
<b>N.B:-</b> Cable shall be provided by consumer.					

**Amount chargeable to consumer**      2300 – 1500 = **Rs. 800**

**ANNEXURE- 5****Fixed Line Charge  
Load below 5 kW**

<b>Sl. No</b>	<b>Particulars</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty.</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	2 x 6 mm <sup>2</sup> PVC cable with catenary arrangement	Mtr.	44	50	2200
2	1Ph- 2 W electro-static meter with meter box	No.	1150	1	1150
3	Labour & overhead charges		300	L.S.	300
4	<b>Total</b>				<b>3650</b>
<b>N.B:-</b> 1. Cable shall be provided by consumer. 2. Meter may be provided by the licensee or consumer.					

**Amount chargeable to consumer**

(A) Meter provided by licensee      3650 - 2200      = **Rs.1450**

(B) Meter provided by consumer      3650 - 2200 - 1150 = **Rs.300**

**Fixed Line Charge**  
**Load 5 kW or more but below 25 kW**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
1	4 x 25 mm <sup>2</sup> armoured PVC cable with catenary arrangement	Mtr.	150	50	7500
2	3 Ph - 4 W static meter 30-60 A with meter box	No.	5725	1	5725
3	Labour & overhead charges		2000	L.S.	2000
4	<b>Total</b>				<b>15225</b>
<b>N.B:-</b> 1. Cable shall be provided by consumer. 2. Meter may be provided by the licensee or consumer.					

**Amount chargeable to consumer**

<b>(A) Meter provided by licensee</b>	15225 – 7500	= <b>Rs. 7725</b>
<b>(B) Meter provided by consumer</b>	15225 – 7500 – 5725	= <b>Rs. 2000</b>

## ANNEXURE- 7

### Fixed Line Charge

**PTW connection for load above 7 HP where only cable connection is required**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
1	4 x 25 mm <sup>2</sup> armoured PVC cable with catenary arrangement	Mtr.	150	50	7500
2	3 Ph - 4 W static meter 30-60 A with meter box	No.	5725	1	5725
3	Labour & overhead charges		2000	L.S.	2000
4	<b>Total</b>				<b>15225</b>
<b>N.B:-</b> 1. Cable shall be provided by consumer. 2. Meter may be provided by the licensee or consumer.					

#### Amount chargeable to consumer

(A) Meter provided by licensee	15225 – 7500	= Rs. 7725
(B) Meter provided by consumer	15225 – 7500 – 5725	= Rs. 2000

**PTW connection for load 1 HP to 7HP where only cable connection is required**

Sl. No.	Particulars	Unit	Qty.	Single Phase		Three Phase	
				Rate	Amount (Rs.)	Rate	Amount (Rs.)
1	2	3	4	5	6	7	8
1	4 x 10 mm <sup>2</sup> PVC cable with catenary arrangement	Mtr.	50			55	2750
2	2 x 6 mm <sup>2</sup> PVC cable with catenary arrangement	Mtr.	50	44	2200		
3	3 Ph - 4 W static meter 30-60 A with meter box	No.	1			5725	5725
4	1Ph- 2 W electro-static Meter with meter box	No.	1	1150	1150		
5	Labour & overhead charges		L.S.	300	300	300	300
6	<b>Total</b>				3650		8775
<b>N.B:-</b> 1.Cable shall be provided by consumer 2. Meter may be provided by the licensee or consumer.							

#### Amount chargeable to consumer

	<u>Three Phase</u>	<u>Single Phase</u>
(A) Meter provided by licensee	8775 - 2750 = Rs. 6025	3650 - 2200 = Rs.1450
(B) Meter provided by consumer	8775- 2750 - 5725 = Rs. 300	3650 - 2200-1150 = Rs.300

Note: For PTW connections, the supply shall be provided as follows:

Load for PTW or Pumping Set	Type of Supply
7 HP or below	Single Phase / Three Phase
Above 7 HP	Three Phase

**ANNEXURE - 8****Fixed Line Charge****Load 25 kW or more upto 50 kW (56 kVA)**

<b>Sl.No</b>	<b>Particulars</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty.</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	3.5 x 35 mm <sup>2</sup> armoured PVC cable with catenary arrangement	Mtr.	225	50	11250
2	3 Ph - 4 W static LT TVM with metering cubicle	No.	12000	1	12000
3	Labour & overhead charges		3000	L.S.	3000
4	<b>Total</b>				<b>26250</b>
<b>N.B:-</b> Cable shall be provided by consumer.					

**Amount chargeable to consumer****26250-11250 = Rs.15000**

## ANNEXURE-9

**Fixed Line Charge****Load above 50 kW/ 56 kVA upto 200 kVA**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
<b>A</b>	<b>Service Line Installation</b>				
1	3 x 70 mm <sup>2</sup> 11 kV XLPE cable	Mtr.	412	50	20600
2	I/D & O/D cable jointing kit suitable for 3x70 mm <sup>2</sup> XLPE cable	No.	6000	2	12000
3	GI Pipe 6" dia	Mtr.	700	8	5600
4	Earthing complete	No.	394	4	1576
5	Stay Set complete	No.	930	4	3720
6	ACSR Dog Conductor	Mtr.	56.13	60	3368
7	11 KV Pin Insulator	No.	33	6	198
8	11 KV Pin with nut	No.	88	6	528
9	11 KV Disc Insulator with fitting	Set	343	3	1029
10	Top Channel M.S. 100x50x2240 mm	No.	940	1	940
11	Droper Channel M.S. 100x50x2000 mm	No.	840	1	840
12	PCC Pole 8.5 Mtr.	No.	1850	2	3700
13	Concreting of support	No.	482	2	964
14	Number plate	No.	62	1	62
15	Danger board with clamp	No.	216	1	216
16	Barbed wire	Kg.	76	4	304
17	Aluminium tape	Kg.	144	1	144
18	Stone pad 300x300x75mm	No.	80	2	160
19	Concreting of Stay	No.	196	4	784
20	Clamp with bolt & nut	No.	142	16	2272
21	<b>Sub Total</b>				<b>59005</b>
22	Labour and overhead charges			L.S.	17702
23	<b>Sub Total service line installation</b>				<b>76707</b>
<b>B</b>	<b>Metering System</b>				
24	3 Ph - 4 W static TVM 11 kV	No.	4000	1	4000
25	11 kV Pilfer proof metering cubicle	No.	35000	1	35000
26	<b>Sub Total</b>				<b>39000</b>
27	Labour and overhead charges			L.S.	11700
28	<b>Sub Total metering system</b>				<b>50700</b>
29	<b>Total service line + metering</b>				<b>127407</b>

**Amount chargeable to consumer**(A) Line installed by licensee Rs. 127407 say **Rs. 127400**(B) Line installed by consumer  $76707 \times 0.15 + 50700 = 62206.05$  say **Rs. 62200**

**Fixed Line Charge  
Load above 200 kVA up to 1 MVA**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
<b>A</b>	<b>Service Line Installation</b>				
1	3 x 120 mm <sup>2</sup> 11 kV XLPE cable	Mtr.	507	50	25350
2	I/D & O/D cable jointing kit suitable for 11kV 3x120 mm <sup>2</sup> XLPE cable	No.	6000	2	12000
3	GI Pipe 6" dia	Mtr.	700	8	5600
4	Earthing complete	No.	394	4	1576
5	Stay Set complete	No.	930	4	3720
6	ACSR Dog Conductor	Mtr.	56.13	60	3368
7	11 kV Pin Insulator	No.	33	6	198
8	11 kV Pin with nut	No.	88	6	528
9	11 kV Disc Insulator with fitting	Set	343	3	1029
10	Top Channel M.S. 100x50x2240 mm	No.	940	1	940
11	Droper Channel M.S. 100x50x2000 mm	No.	840	1	840
12	ST Pole 11 Mtr.	No.	11220	2	22440
13	Concreting of support	No.	482	2	964
14	Number plate	No.	62	1	62
15	Danger board with clamp	No.	216	1	216
16	Barbed wire	Kg.	76	4	304
17	Aluminium tape	Kg.	144	1	144
18	Stone pad 300x300x75mm	No.	80	2	160
19	Concreting of Stay	No.	196	4	784
20	Clamp with bolt & nut	No.	142	16	2272
21	<b>Sub Total</b>				<b>82495</b>
22	Labour & overhead charges			L.S.	24749
23	<b>Sub Total service line installation</b>				<b>107244</b>
<b>B</b>	<b>Metering System</b>				
24	3 Ph - 4 W static TVM 11 kV	No.	4000	1	4000
25	11 kV Pilfer proof metering cubicle	No.	35000	1	35000
26	<b>Sub Total</b>				<b>39000</b>
27	Labour & overhead charges			L.S.	<b>11700</b>
28	<b>Sub Total metering system</b>				<b>50700</b>
29	<b>Total service line + metering</b>				<b>157944</b>

**Amount chargeable to consumer-**

**(A) Line Installed by licensee** Rs. 157944 say **Rs. 158000**

**(B) Line Installed by consumer**  $107244 \times 0.15 + 50700 = 66786.60$  say **Rs.66800**

**Fixed Line Charge  
Load above 1 MVA upto 3 MVA**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
<b>A</b>	<b>Service Line Installation</b>				
1	3 x 185 mm <sup>2</sup> 11 kV XLPE cable	Mtr.	635	50	31750
2	I/D & O/D cable jointing kit suitable for 11kV 3x185 mm <sup>2</sup> XLPE cable	No.	6000	2	12000
3	GI Pipe 6" dia	Mtr.	700	8	5600
4	Earthing complete	No.	394	4	1576
5	Stay Set complete	No.	930	4	3720
6	ACSR Dog Conductor	Mtr.	56.13	60	3368
7	11 kV Pin Insulator	No.	33	6	198
8	11 kV Pin with nut	No.	88	6	528
9	11 kV Disc Insulator with fitting	Set	343	3	1029
10	Top Channel M.S. 100x50x2240 mm	No.	940	1	940
11	Droper Channel M.S. 100x50x2000 mm	No.	840	1	840
12	ST Pole 11 Mtr.	No.	11220	2	22440
13	Concreting of support	No.	482	2	964
14	Number plate	No.	62	1	62
15	Danger board	No.	216	1	216
16	Barbed wire	Kg.	76	4	304
17	Aluminium tape	Kg.	144	1	144
18	Stone pad 300x300x75mm	No.	80	2	160
19	Concreting of Stay	No.	196	4	784
20	Clamp with bolt & nut	No.	142	16	2272
21	<b>Sub Total</b>				<b>88895</b>
22	Labour & overhead charges			L.S.	26669
23	<b>Sub Total service line installation</b>				<b>115564</b>
<b>B</b>	<b>Metering System</b>				
24	3 Ph - 4 W static TVM 11 kV	No.	4000	1	4000
25	11 kV Pilfer proof metering cubical	No.	35000	1	35000
26	<b>Sub Total</b>				<b>39000</b>
27	Labour & overhead charges			L.S.	11700
28	<b>Sub Total metering system</b>				<b>50700</b>
29	<b>Total service line + metering</b>				<b>166264</b>

**Amount chargeable to consumer**

**(A) Line Installed by licensee** Rs. 166264 say **Rs. 166300**

**(B) Line Installed by consumer**  $115564 \times 0.15 + 50700 = 68034.6$  say **Rs. 68000**

**Fixed Line Charge  
Load above 3MVA upto 4MVA**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
<b>A</b>	<b>Service Line Installation</b>				
1	3 x 120 mm <sup>2</sup> 33 kV XLPE cable	Mtr.	767	50	38350
2	I/D & O/D cable jointing kit suitable for 33 kV 3x120 mm <sup>2</sup> XLPE cable	No.	15000	2	30000
3	GI Pipe 6" dia	Mtr.	700	8	5600
4	Earthing complete	No.	394	4	1576
5	Stay Set complete	No.	930	4	3720
6	ACSR Dog Conductor	Mtr.	56.13	60	3368
7	33 kV Pin Insulator	No.	240	6	1440
8	33 kV Pin with nut	No.	185	6	1110
9	Disc Insulator 70 KN	No.	315	12	3780
10	33 kV Disc fitting	No.	370	3	1110
11	Top Channel M.S. 125x65x3200 mm	No.	1436	1	1436
12	Droper Channel M.S. 100x50x2600 mm	No.	1090	1	1090
13	ST Pole 11 Mtr	No.	11220	2	22440
14	Concreting of support	No.	482	2	964
15	Number plate	No.	62	1	62
16	Danger board with clamp	No.	216	1	216
17	Barbed wire	Kg.	76	4	304
18	Aluminium tape	Kg.	144	1	144
19	Stone pad 300x300x75mm	No.	80	2	160
20	Concreting of Stay	No.	196	4	784
21	Clamp with bolt & nut	No.	142	16	2272
22	<b>Sub Total</b>				<b>119926</b>
23	Labour & overhead charges			L.S.	35978
24	<b>Sub Total service line installation</b>				<b>155904</b>
<b>B</b>	<b>Metering System</b>				
25	3 Ph - 4 W static TVM 33 kV	No.	4000	1	4000
26	33 kV Pilfer proof metering cubical	No.	135100	1	135100
27	<b>Sub Total</b>				<b>139100</b>
28	Labour & overhead charges			L.S.	41730
29	<b>Sub Total metering system</b>				<b>180830</b>
30	<b>Total service line + metering</b>				<b>3336734</b>

**Amount chargeable to consumer**

(A) Line Installed by licensee Rs. 336734 say **Rs. 336700**

(B) Line Installed by consumer  $155904 \times 0.15 + 180830 = 193302.32$  say **Rs. 193300**

**Fixed Line Charge**  
**Load above 4 MVA upto 10 MVA**

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
<b>A</b>	<b>Service Line Installation</b>				
1	3 x 300 mm <sup>2</sup> 33 kV XLPE cable	Mtr.	1250	50	62500
2	I/D & O/D cable jointing kit suitable for 33 kV 3x300 mm <sup>2</sup> XLPE cable	No.	15000	2	30000
3	GI Pipe 6" dia	Mtr.	700	8	5600
4	Earthing complete	No.	394	4	1576
5	Stay Set complete	No.	930	4	3720
6	ACSR Dog Conductor	Mtr.	56.13	60	3368
7	33 kV Pin Insulator	No.	240	6	1440
8	33 kV Pin with nut	No.	185	6	1110
9	Disc Insulator 70 KN	No.	315	12	3780
10	33 kV Disc fitting	No.	370	3	1110
11	Top Channel M.S. 125x65x3200 mm	No.	1436	1	1436
12	Droper Channel M.S. 100x50x2600 mm	No.	1090	1	1090
13	ST Pole 11 Mtr	No.	11220	2	22440
14	Concreting of support	No.	482	2	964
15	Number plate	No.	62	1	62
16	Danger board with clamp	No.	216	1	216
17	Barbed wire	Kg.	76	4	304
18	Alluminium tape	Kg.	144	1	144
19	Stone pad 300x300x75mm	No.	80	2	160
20	Concreting of Stay	No.	196	4	784
21	Clamp with bolt & nut	No.	142	16	2272
22	<b>Sub Total</b>				<b>144076</b>
23	Labour & overhead charges			L.S.	43223
24	<b>Sub Total service line installation</b>				<b>187299</b>
<b>B</b>	<b>Metering System</b>				
25	3 Ph - 4 W static TVM 33 kV	No.	4000	1	4000
26	33 kV Pilfer proof metering cubical	No.	135100	1	135100
27	<b>Sub Total</b>				<b>139100</b>
28	Labour & overhead charges			L.S.	41730
29	<b>Sub Total metering system</b>				<b>180830</b>
30	<b>Total service line + metering</b>				<b>368129</b>

**Amount chargeable to consumer**

**(A) Line installed by licensee** Rs. 368129 say **Rs. 368100**

**(B) Line installed by consumer**  $187299 \times 0.08 + 180830 = 195813.92$  say **Rs. 195800**

**ANNEXURE-14**

**Cost analysis of one kilometer of LT Single & 3-Phase line on ST Pole**

Sl. No.	Particulars	Unit	Rate	LT 3-Phase		LT 1- Phase	
				Qty.	Amount (Rs.)	Qty.	Amount (Rs.)
1	2	3	4	5	6	7	8
1	ST Pole 11 Mtr.	No.	11220	25	280500	25	280500
2	Stone pad 300x300x75mm	No.	80	25	2000	25	2000
3	LT. clamp with bolt & nut	No.	123	75	9225	50	6150
4	Earth wire clamp	No.	148	25	3700	25	3700
5	LT Shakle Insulator	No.	20	75	1500	50	1000
6	Bolts & Nut for shakle insulatar	Kg.	92	30	2760	20	1840
7	Loop guard complete 3-Phase	No.	22	50	1100		
8	Loop guard complete 1-Phase	No.	16			50	800
9	Phase wire ACSR Dog	Km.	56133	3.09	173451	1.03	57817
10	Neutral cum earth wire	Kg.	67	157	10519	157	10519
11	Aluminium binding wire	Kg.	117	8	936	4	468
12	Jointing sleeve for ACSR Dog	No.	49	3	147	1	49
13	Spacer LT PVC	No.	50	75	3750	50	2500
14	Extra for stay at angle location	No.	930	8	7440	8	7440
15	Concreting of support	No.	482	25	12050	25	12050
16	Earthing complete	No.	394	8	3152	8	3152
17	Concreting of Stay	No.	196	8	1568	8	1568
18	<b>Sub Total</b>				<b>513798</b>		<b>391553</b>
19	Labour & overhead charges			L.S.	154139	L.S.	117666
20	<b>Total</b>				<b>667937</b>		<b>509219</b>

**Cost of 3 Phase LT line per meter**  $667937 \times 0.001 = 667.937$

**say Rs. 670/-**

**Cost of 1- Phase LT line per meter**  $509219 \times 0.001 = 509.219$

**say Rs. 510/-**

**ANNEXURE-15**

**Cost analysis of one kilometer of LT Single & 3-Phase line on PCC Pole**

Sl. No.	Particulars	Unit	Rate	LT. 3-Phase		LT 1- Phase	
				Qty.	Amount (Rs.)	Qty.	Amount (Rs.)
1	2	3	4	5	6	7	8
1	PCC Pole 8.5 Mtr.	No.	1850	25	46250	25	46250
2	Stone pad 300x300x75mm	No.	80	25	2000	25	2000
3	LT clamp with bolt & nut	No.	123	75	9225	50	6150
4	Earth wire clamp	No.	148	25	3700	25	3700
5	LT Shakle Insulator	No.	20	75	1500	50	1000
6	Bolt & Nut for shakle insulator	Kg.	92	30	2760	20	1840
7	Loop guard complete 3-Phase	No.	22	50	1100		
8	Loop guard complete 1-Phase	No.	16			50	800
9	Phase wire ACSR Dog	Km.	56133	3.09	173451	1.03	57817
10	Neutral cum earth wire	Kg.	67	157	10519	157	10519
11	Aluminium binding wire	Kg.	117	8	936	4	468
12	Jointing sleeve for ACSR Dog	No.	49	3	147	1	49
13	Spacer LT PVC	No.	50	75	3750	50	2500
14	Extra for stay at angle location	No.	930	8	7440	8	7440
15	Concreting of support	No.	482	25	12050	25	12050
16	Earthing complete	No.	394	8	3152	8	3152
17	Concreting of Stay	No.	196	8	1568	8	1568
18	<b>Sub Total</b>				<b>279548</b>		<b>157303</b>
19	Labour & overhead charges			L.S.	83864	L.S.	47191
20	<b>Total</b>				<b>363412</b>		<b>204494</b>

**Cost of 3-Phase LT line per meter**  $363412 \times 0.001 = 363.412$   
**Cost of 1-Phase LT line per meter**  $204494 \times 0.001 = 204.494$

**say Rs. 360**  
**say Rs. 200**

**ANNEXURE-16**

**Cost analysis of one kilometer of LT Single & 3-Phase line on PCC Pole in Rural Areas for PTW & Pumping Set**

Sl. No.	Particulars	Unit	Rate	LT 3-Phase		LT 1- Phase	
				Qty.	Amount (Rs.)	Qty.	Amount (Rs.)
1	2	3	4	5	6	7	8
1	PCC Pole 8.5 Mtr.	No.	1850	13	24050	13	24050
2	Stone pad 300x300x75mm	No.	80	13	1040	13	1040
3	LT clamp with bolt & nut	No.	123	39	4797	13	1599
4	Earth wire clamp	No.	148	13	1924	13	1924
5	LT Shakle Insulator	No.	20	39	780	13	260
6	Bolt & Nut for shakle insulator	Kg.	92	12	1104	4	368
7	Loop guard complete 3-Phase	No.	22	26	572		
8	Loop guard complete 1-Phase	No.	16			26	416
9	Phase wire ACSR Weasel	Km.	18600	3.09	57474	1.03	19158
10	Neutral cum earth wire	Kg.	67	157	10519	157	10519
11	Aluminium binding wire	Kg.	117	3	351	1	117
12	Jointing sleeve for Weasel	No.	49	3	147	1	49
13	Spacer LT PVC	No.	50	39	1950	39	1950
14	Extra for stay at angle location	No.	930	3	2790	3	2790
15	Concreting of support	No.	482	3	1446	3	1446
16	Earthing complete	No.	394	3	1182	3	1182
17	Concreting of Stay	No.	196	3	588	3	588
18	<b>Sub Total</b>				<b>110714</b>		<b>67456</b>
19	Labour & overhead charges			L.S.	30257	L.S.	20060
20	<b>Total</b>				<b>140971</b>		<b>87516</b>

<b>Variable Charge</b>	<b>(3-Phase LT Line)</b>	<b>(1-Phase LT Line)</b>
<b>Cost of 1 Km LT line on PCC Pole</b>	<b>140971</b>	<b>87516</b>
<b>Cost of concreting of support</b>	<b>(-) 1446</b>	<b>(-) 1446</b>
<b>Cost of concreting of Stay</b>	<b>(-) 588</b>	<b>(-) 588</b>
<b>Labour &amp; overhead charges</b>	<b>(-) 30257</b>	<b>(-) 20060</b>
<b>Cost of 1 Km. LT line excluding cost of concreting and labour charges</b>	<b>-----</b>	<b>-----</b>
	<b>108680</b>	<b>65422</b>
<b>Cost of LT line per meter</b>	<b>108.68</b>	<b>65.422</b>
<b>Say</b>	<b>Rs. 110</b>	<b>Rs. 70</b>

## ANNEXURE-17

## Cost of material for Double Pole Structure with PCC/ST Pole for 11 kV line

Sl. No.	Particulars	Unit	Rate	PCC Pole		ST Pole	
				Qty.	Amount (Rs.)	Qty.	Amount (Rs.)
1	2	3	4	5	6	7	8
1	ST Pole 11 Mtr.	No.	11220			2	22440
2	PCC Pole 8.5 Mtr.	No.	1850	2	3700		
3	Stone pad 300x300x75mm	No.	80	2	160	2	160
4	Top Channel	No.	940	1	940	1	940
5	Cross bracing M.S. Angle	Set	1877	1	1877	1	1877
6	Clamp with bolt & nut	No.	142	12	1704	12	1704
7	Barbed wire	Kg.	76	4	304	4	304
8	Danger board with clamp	No.	216	1	216	1	216
9	Concreting of PCC Pole	No.	482	2	964		
10	Concreting of ST Pole	No.	482			2	964
11	Earthing complete	No.	394	2	788	2	788
12	F Bracket	No.	123	3	369	3	369
13	11kV Disc Insulators B&C type with fittings	Set	343	6	2058	6	2058
14	11 kV Pin Insulator with pin	No.	121	3	363	3	363
15	PG clamp	No.	71	6	426	6	426
16	Stay Set complete	No.	930	6	5580	6	5580
17	Concreting of Stay	No.	196	6	1176	6	1176
18	Number plate	No.	62	1	62	1	62
19	<b>Total</b>				<b>20687</b>		<b>39427</b>

**Cost analysis of one kilometer of 11 kV line on PCC Pole/ ST Pole**

Sl. No	Particulars	Unit	Rate	PCC Pole		ST Pole	
				Qty.	Amount (Rs.)	Qty.	Amount (Rs.)
1	2	3	4	5	6	7	8
1	ST Pole 11 Mtr.	No.	11220			25	280500
2	PCC Pole 8.5 Mtr.	No.	1850	17	31450		
3	Stone pad 300x300x75mm	No.	80	17	1360	25	2000
4	X-arm M.S. Angle 65x65x6mm V Type	No.	470	17	7990	25	11750
5	Cross arm holding clamp	No.	81	17	1377	25	2025
6	11 kV Pin Insulator with pin	No.	121	51	6171	75	9075
7	F-bracket	No.	123	17	2091	25	3075
8	ACSR Rabbit conductor	Km.	30500			3.09	94245
9	ACSR Weasel conductor	Km.	18600	3.09	57474		
10	Aluminium tape	Kg.	144	1	144	1	144
11	Aluminium binding wire	Kg.	117	2	234	4	468
12	Jointing sleeve for ACSR Rabbit	No.	49			3	147
13	Jointing sleeve for ACSR Weasel	No.	49	3	147		
14	Danger board with clamp	No.	216	17	3672	25	5400
15	Concreting of Stay	No.	196	2	392	2	392
16	Barbed wire	Kg.	76	34	2584	50	3800
17	Extra for stay at angle location	No.	930	2	1860	5	4650
18	Extra with stay at Road crossing	No.	6430	1	6430	2	12860
19	Sectional D/P on STP ( Annexure 17)	No.	39427			1	39427
20	Sectional D/P on PCC ( Annexure 17 )	No.	20687	1	20687		
21	Concreting of PCC Pole	No.	482	17	8194		
22	Concreting of ST Pole	No.	482			25	12050
23	Earthing complete	No.	394	17	6698	25	9850
24	Number plate	No.	62	17	1054	25	1550
25	<b>Sub Total</b>				<b>160009</b>		<b>493408</b>
26	Labour & overhead charges			L.S.	48003	L.S.	148022
27	<b>Total</b>				<b>208012</b>		<b>641430</b>

**Cost of 11 kV line per meter on PCC Pole**

208012 x 0.001 = 208.012

**say Rs.210**

**Cost of 11 kV line per meter on ST Pole**

641430 x 0.001 = 641.430

**say Rs.640**

## ANNEXURE-19

## Cost analysis of 1 kilometer 11 kV underground line

Sl. No.	Particulars	Unit	Rate	11kV 3X120 mm <sup>2</sup>		11kV 3X185 mm <sup>2</sup>	
				Qty.	Amount	Qty.	Amount
1	2	3	4	5	6	7	8
1	11kV XLPE cable 3x120 mm <sup>2</sup>	Km.	507000	1.1	557700		
2	11kV XLPE cable 3x185 mm <sup>2</sup>	Km.	635000			1.1	698500
3	Cable jointing kit straight through	No.	9200	2	18400	2	18400
4	Cable jointing kit out door	No.	6000	2	12000	2	12000
5	G.I Pipe 6" dia	Mtr.	700	20	14000	20	14000
6	<b>Sub Total</b>				<b>602100</b>		<b>742900</b>
7	Connection charges			L.S.	180630	L.S.	222870
8	<b>Total</b>				<b>782730</b>		<b>965770</b>
9	Road restoration charges for pucca road crossing	Km.	1540000	0.2	308000	0.2	308000
10	Road restoration charges for footpath side	Km.	385000	0.8	308000	0.8	308000
11	<b>Grand Total</b>				<b>1398730</b>		<b>1581770</b>

Cost of underground 11kV line per meter with 3 x 120 mm<sup>2</sup> cable  $1398730 \times 0.001 = 1398.73$  say Rs. 1400

Cost of underground 11kV line per meter with 3 x 185 mm<sup>2</sup> cable  $1581770 \times 0.001 = 1581.77$  say Rs. 1580

**Cost of material for Single Support on PCC Pole 9 Mtr. for 33 kV line**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty.</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	PCC Pole 9 Mtr.	No	2700	1	2700
2	V-type cross arm	No.	941	1	941
3	Cross arm holding clamp with bolts & nuts	No.	271	1	271
4	F-bracket	No.	204	1	204
5	33 kV Pin Insulator	No.	240	3	720
6	33 kV Pin with nut	No.	185	3	555
7	Armour rod with ferrule for Dog	Set	130	3	390
8	Stone pad 300x300x75 mm	No.	80	1	80
9	Number plate	No.	62	1	62
10	Danger board with clamp	No.	216	1	216
11	Barbed wire	Kg.	76	2	152
12	Bolt, nut & washer	Kg.	92	1	92
13	Aluminium binding wire	Kg.	117	0.5	59
14	Earthing complete	No.	394	1	394
15	Concreting of support	No.	513	1	513
16	<b>Total</b>				<b>7349</b> <b>say 7350</b>

**ANNEXURE-21****Cost of material for Sectional Double Pole Structure on PCC Pole 9 Mtr. for 33 kV line**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty.</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	PCC Pole 9 Mtr.	No.	2700	2	5400
2	M.S. Angle Iron 65x65x6mm bracing with 4 clamps	Set	3956	1	3956
3	Top Channel 125x65mm 3200mm with clamps	No.	1436	1	1436
4	Stone pad 300x300x75 mm	No.	80	2	160
5	11kV Disc Insulator B&S type	No.	315	24	7560
6	Disc fitting for Dog/Raccoon	No.	370	6	2220
7	33 kV Pin Insulator	No.	240	3	720
8	33 kV Pin with nut	No.	185	3	555
9	Earth wire clamp with bolt & nut	No.	160	1	160
10	PG Clamp for Dog	No.	121	12	1452
11	E Bracket	No.	197	3	591
12	Number plate	No.	62	1	62
13	Danger board with clamp	No.	216	1	216
14	Barbed wire	Kg.	76	4	304
15	Aluminium tape	Kg.	144	1	144
16	Bolt, nut & washer	Kg.	92	3	276
17	Stay Set complete	No.	1730	8	13840
18	Concreting of support	No.	513	2	1026
19	Earthing complete	No.	394	2	788
20	Concreting of stay	No.	196	8	1568
21	<b>Total</b>				<b>42434</b> <b>Say 42430</b>

## ANNEXURE-22

## Cost of material for Single Line Support on ST Pole 11 Mtr. for 33 kV line

Sl. No.	Particulars	Unit	Rate	Qty.	Amount (Rs.)
1	2	3	4	5	6
1	ST Pole 11 Mtr.	No.	11220	1	11220
2	V type cross-arm	No.	941	1	941
3	Packing piece and clamp for above with bolts & nuts	No.	395	1	395
4	F bracket	No.	204	1	204
5	33 kV Pin Insulator	No.	240	3	720
6	33 kV Pin with nut	No.	185	3	555
7	Earth wire clamp with bolt & nut	No.	160	1	160
8	Amour rod with ferules for Dog	Set	130	3	390
9	Stone pad 300x300x75 mm	No.	80	1	80
10	Number plate	No.	62	1	62
11	Danger board with clamp	No.	216	1	216
12	Barbed wire	Kg.	76	2	152
13	Bolt, nut & washer	Kg.	92	1	92
14	Aluminium paint	Ltr.	225	1	225
15	Red oxide paint	Ltr.	170	1	170
16	Aluminium binding wire	Kg.	117	0.5	59
17	Concreting of support	No.	513	1	513
18	Earthing complete	No.	394	1	394
19	<b>Total</b>				<b>16548</b> <b>Say 16550</b>

**Cost of material for Section Double Pole Structure on ST11 Mtr. for 33 KV Line**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>Rate</b>	<b>Qty.</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1	ST Pole 11 Mtr.	No.	11220	2	22440
2	M.S. Angle Iron 65x65x6 mm bracing with 4 clamps	Set	3956	1	3956
3	Top channel 125x65mm 3200mm with clamp	No.	1436	1	1436
4	Stone pad 300x300x75 mm	No.	80	2	160
5	11kV Disc Insulator B&S type	No.	315	24	7560
6	Disc fitting for Dog / Raccoon	No.	370	6	2220
7	33 kV Pin Insulator	No.	240	3	720
8	33 kV Pin with nut	No.	185	3	555
9	Earth wire clamp with bolt & nut	No.	160	1	160
10	PG clamp for Dog	No.	121	12	1452
11	E-bracket	No.	197	3	591
12	Number plate	No.	62	1	62
13	Danger board with clamp	No.	216	1	216
14	Barbed wire	Kg.	76	4	304
15	Aluminium tape	Kg.	144	1	144
16	Aluminium paint	Ltr.	225	2	450
17	Bolt, nut & washer	Kg.	92	3	276
18	Red oxide paint	Ltr.	170	2	340
19	Stay Set complete	No.	1730	8	13840
20	Concreting of support	No.	513	2	1026
21	Earthing complete	No.	394	2	788
22	Concreting of Stay	No.	196	8	1568
23	<b>Total Cost</b>				<b>60264</b> <b>Say 60260</b>

**ANNEXURE-24**

**Cost analysis of one kilometer of 33 kV line with ACSR Dog Conductor on ST Pole and PCC Pole**

Sl. No.	Particulars	Unit	Rate	ST Pole 11 Mtr.		PCC Pole 9 Mtr.	
				Qty.	Amount.	Qty.	Amount
1	2	3	4	5	6	7	8
1	Cost of Single Support as per Annexure 20 & 22						
	ST Pole 11 Mtr.	No.	16550	25	413750		
	PCC Pole 9 Mtr.	No.	7350			10	73500
2	Extra cost of section and heavy angle points on Double Pole as per Annexure- 21 & 23						
	ST Pole 11 Mtr.	No.	60260	1	60260		
	PCC Pole 9 Mtr.	No.	42430			0.5	21215
3	Extra cost of stay at right angle	No.	1730	4	6920	2	3460
4	ACSR Dog Conductor	Km.	56133	3.09	173451	3.09	173451
5	GS/GI Earthwire	Kg.	59	127	7493	127	7493
6	Aluminium jointing sleeve	No.	49	3	147	3	147
7	Earthing complete	No.	394	6	2364	3	1182
8	Extra cost of Road/ Communication lines / 11 kV lines crossing	No.	6430	4	25720	0.5	3215
9	Tree cutting compensation			L.S.	660	L.S.	660
10	<b>Sub Total</b>				<b>690765</b>		<b>284323</b>
11	Labour & overhead charges			L.S.	207230	L.S.	85297
12	<b>Total</b>				<b>897995</b>		<b>369620</b>

**Cost of 33 kV line per meter on ST Pole**     $897995 \times 0.001 = 897.995$  say Rs. 900

**Cost of 33 kV line per meter on PCC Pole**     $369620 \times 0.001 = 369.62$  say Rs. 370

## Cost analysis of 1 kilometer 33 kV underground line

Sl. No.	Particulars	Unit	Rate	33kV 3X120 mm <sup>2</sup>		33kV 3X300 mm <sup>2</sup>	
				Qty.	Amount	Qty.	Amount
1	2	3	4	5	6	7	8
1	33kV XLPE cable 3x120 mm <sup>2</sup>	Km.	767000	1.10	843700		
2	33kV XLPE cable 3x300 mm <sup>2</sup>	Km.	1250000			1.10	1375000
3	Cable jointing kit straight through	No.	32000	2	64000	2	64000
4	Cable jointing kit out door	No.	15000	2	30000	2	30000
5	G.I Pipe 6" dia	Mtr	700	20	14000	20	14000
6	<b>Sub Total</b>				<b>951700</b>		<b>1483000</b>
7	Connection charges			L.S.	286000	L.S.	445000
8	<b>Total</b>				<b>1237700</b>		<b>1928000</b>
9	Road restoration charges for pucca road crossing	Km.	1540000	0.2	308000	0.2	308000
10	Road restoration charges for footpath side	Km.	385000	0.8	308000	0.8	308000
11	<b>Grand Total</b>				<b>1853700</b>		<b>2544000</b>

Cost of 33 kV line per meter with 3 x 120 mm<sup>2</sup> cable = 1853700 x 0.001 = 1853.7 say Rs. 1850  
 Cost of 33 kV line per meter with 3 x 185 mm<sup>2</sup> cable = 2544000 x 0.001 = 2544 say Rs. 2540

## Cost analysis of 25 kVA S/S on PCC Pole

Sl. No.	Particulars	Unit	Rate	Qty	Amount (Rs.)
1	2	3	4	5	6
1	PCC Pole 8.5 Mtr.	No.	1850	2	3700
2	Stone pad 300x300x75 mm	No.	80	2	160
3	Top Channel	No.	940	1	940
4	Dropper channel	No.	840	1	840
5	M.S. Angle 75 x 75 x 6x 2028mm	No.	609	2	1218
6	M.S. T- off channel	No.	764	1	764
7	Clamp with bolt & nut	No.	142	11	1562
8	11 kV Disc Insulator with fitting	No.	343	3	1029
9	11 kV Pin Insulator with pin	No.	121	3	363
10	Transformer 25 kVA	No.	46530	1	46530
11	11 kV T.P.M.O.	Set	8527	1	8527
12	Danger board with clamp	No.	216	1	216
13	Stay Set complete	No.	930	2	1860
14	Earthing complete	No.	394	2	788
15	Concreting of stay	No.	196	2	392
16	Concreting of support	No.	482	2	964
17	<b>Total</b>				<b>69853</b>
18	Labour & overhead charges			L.S.	15925
19	<b>Grand Total</b>				<b>85778</b>

**Cost of Pre Paid Meter**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>Qty.</b>	<b>Rate (Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Single Phase Pre Paid Meter	No.	1	6000
2	Three Phase Pre Paid Meter	No.	1	12000

Token charges (extra) for code generation for pre paid meter = Rs. 20 per token

## Rate of 11 kV Ring Main Unit

Sl. No.	Particulars	Unit	Qty.	Rate (Rs.)
1	2	3	4	5
1	Load up to 200 kVA 11 kV – 21kA – 3 sec-95 BIL-50 Hz 3 way Ring Main Unit	No.	1	325000
2	Load above 200 kVA and up to 1000 kVA 11 kV – 21kA – 3 sec-95 BIL-50 Hz 3 way Ring Main Unit	No.	1	510000

Note: If load is increased at a later date upto 200 kVA no additional cost of RMU shall be charged. However if load is increased above 200 kVA, additional charges payable shall be as specified as serial no. 2 minus the charges already paid for RMU by the consumer.