KASHMIR POWER DISTRIBUTION CORPORATION LIMITED

COST-DATA 2026-27

FOR

SUB-TRANSMISSION AND DISTRIBUTION WORKS

Comparison of Schedule of Rates for COST-DATA 2026-27 and Cost Data Rates 2024-25 for Distribution and Sub Transmission works

S. No.	Type of Line	Pole Height	No. of Poles	Span	Size of Conductor	Prop Cost Data Rates 2026-27 (Amt. in Lacs)	Cost Data Rates 2024-25 (Amt. In Lacs)	percentage change	Page No.
1	11 kV Line	9 Mtr. ST	12	104	50 mm² ACSR	7.14	6.25	14.36%	1
2	11 kV Line	9 Mtr. PCC	12	104	50 mm² ACSR	6.00	4.86	23.43%	1
3	11 kV Line	9 Mtr. ST	21	52	50 mm² ACSR	9.72	8.80	10.46%	3
4	11 kV Line	9 Mtr. PCC	21	52	50 mm² ACSR	7.57	6.27	20.73%	3
5	11 kV Line	9 Mtr. PCC	26	41	50 mm² ACSR	8.47	7.08	19.61%	5
6	11 kV Line	9 Mtr. ST	26	41	50 mm² ACSR	11.17	10.24	9.10%	5
7	11 kV Line	8 Mtr. ST	12	104	50 mm² ACSR	6.62	5.74	15.48%	7
8	11 kV Line	8 Mtr. PCC	12	104	50 mm² ACSR	5.74	4.63	24.06%	7
9	11 kV Line	8 Mtr. ST	21	52	50 mm² ACSR	8.66	7.77	11.46%	9
10	11 kV Line	8 Mtr. PCC	21	52	50 mm² ACSR	7.00	5.76	21.47%	9
11	11 kV AB Cable	8 Mtr. ST	20	50	70 mm² ABC	17.09	13.85	23.39%	11
12	11 kV AB Cable	8 Mtr. ST	20	50	95 mm² ABC	18.74	14.80	26.59%	11
13	11 kV AB Cable	8 Mtr. ST	20	50	120 mm² ABC	21.98	17.48	25.78%	11
14	11 kV AB Cable	8 Mtr. ST	20	50	185 mm² ABC	28.21	21.93	28.64%	11
15	11 kV AB Cable	8 Mtr. PCC	20	50	70 mm² ABC	15.67	12.11	29.39%	11
16	11 kV AB Cable	8 Mtr. PCC	20	50	95 mm² ABC	17.37	13.10	32.60%	11
17	11 kV AB Cable	8 Mtr. PCC	20	50	120 mm² ABC	20.71	15.87	30.50%	11
18	11 kV AB Cable	8 Mtr. PCC	20	50	185 mm² ABC	27.13	20.49	32.41%	11
19	11 kV AB Cable	9 Mtr. PCC	20	50	120 mm² ABC	21.13	16.24	30.10%	16
20	11 kV AB Cable	9 Mtr. ST	20	50	120 mm² ABC	22.85	18.33	24.63%	16
21	Installation of 11 kV Tapping Point					0.97	0.91	6.79%	18
22	Laying of Guard Netting on Distribution Lines					0.10	0.08	15.44%	20
23	Thickening of 1 Km Conductor from 20 mm² ACSR to 30 mm² ACSR								
	On 9 Mtr ST Pole					3.16	2.62	20.37%	22
	On 9 Mtr PCC Pole					2.88	2.27	27.29%	22
24	Thickening of Conductor from 30 mm² ACSR to 50 mm² ACSR								
	On 9 Mtr ST Pole					4.26	3.43	24.25%	23
	On 9 Mtr PCC Pole					4.07	3.15	29.43%	23
25	Thickening of 1 Km Conductor from								
	On 9 Mtr ST Pole	(30mm² ACSR to 70mm² AB Cable)				14.48	11.12	30.22%	24
	On 9 Mtr ST Pole	(50mm² ACSR to 120mm² AB Cable)				19.86	15.19	30.73%	25
	On 9 Mtr PCC Pole	(30mm² ACSR to 70mm² AB Cable)				14.44	10.97	31.68%	24
	On 9 Mtr PCC Pole	(50mm² ACSR to 120mm² AB Cable)				19.68	14.91	31.95%	25
26	LT 3 phase 4 Wire	8 Mtr. ST	11	93.5	50 mm² ACSR	6.37	5.34	19.37%	26
27	LT 3 phase 4 Wire	8 Mtr. PCC	11	93.5	50 mm² ACSR	5.72	4.49	27.42%	26
28	LT 3 phase 4 Wire	8 Mtr. ST	21	47	50 mm² ACSR	8.53	7.50	13.81%	28
29	LT 3 phase 4 Wire	8 Mtr. PCC	21	47	50 mm² ACSR	6.99	5.62	24.25%	28
30	LT 2 phase 3 Wire	8 Mtr. ST	11	93.5	50 mm² ACSR	5.38	4.60	16.82%	30
31	LT 2 phase 3 Wire	8 Mtr. PCC	11	93.5	50 mm² ACSR	4.63	3.67	26.14%	30
32	LT 2 phase 3 Wire	8 Mtr. ST	21	47	50 mm² ACSR	7.40	6.74	9.67%	32
33	LT 2 phase 3 Wire	8 Mtr. PCC	21	47	50 mm² ACSR	5.83	4.39	32.63%	32
34	LT 1 phase 2 Wire	8 Mtr. ST	15	67	50 mm² ACSR	5.06	4.63	9.29%	34
35	LT 1 phase 2 Wire	8 Mtr. PCC	15	67	50 mm² ACSR	3.98	3.26	22.17%	34
36	LT 1 phase 2 Wire	8 Mtr. ST	25	40	50 mm² ACSR	7.05	6.69	5.30%	36
37	LT 1 phase 2 Wire	8 Mtr. PCC	25	40	50 mm² ACSR	5.10	4.28	19.27%	36
38	Laying of Conductor for the purpose of Street Lighting					0.64	0.47	34.11%	38
39	LT AB Cable	8 Mtr. ST	20	50	50 mm² ABC	9.12	7.51	21.34%	39
40	LT AB Cable	8 Mtr. ST	20	50	70 mm² ABC	10.91	8.69	25.52%	39
41	LT AB Cable	8 Mtr. ST	20	50	120 mm² ABC	15.33	11.29	35.78%	39
42	LT AB Cable	8 Mtr. PCC	20	50	50 mm² ABC	7.56	5.66	33.66%	39
43	LT AB Cable	8 Mtr. PCC	20	50	70mm² ABC	9.43	6.91	36.60%	39
44	LT AB Cable	8 Mtr. PCC	20	50	120 mm² ABC	14.06	9.67	45.43%	39
45	Thickening of 1 Km Conductor from ACSR to 50 mm² LT-ABC								
	On 8 Mtr ST Pole					6.40	4.66	37.38%	43
	On 8 Mtr PCC Pole					6.33	4.50	40.72%	43
46	Installation of 25 kVA, 11/0.4 kV Distribution Substation					2.88	2.47	16.65%	44
47	Installation of 63 kVA, 11/0.4 kV Distribution Substation					4.29	3.77	13.76%	44
48	Installation of 100 kVA, 11/0.4 kV Distribution Substation					4.93	4.20	17.42%	44
49	Installation of 200 kVA, 11/0.4 kV Distribution Substation					8.30	6.52	27.31%	44
50	Installation of 250 kVA, 11/0.4 kV Distribution Substation					12.13	9.08	33.53%	44
51	Installation of 400 kVA, 11/0.4 kV Distribution Substation					20.50	14.18	44.50%	47
52	Installation of 630 kVA, 11/0.4 kV Distribution Substation					24.76	18.65	32.76%	47
53	Installation of 1 MVA, 11/0.4 kV Distribution Substation					39.55	29.80	32.73%	47

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54	Augmentation of 11/0.4 kV Distribution Transformer from 25 kVA to 63 kVA					3.40	2.98	14.07%	49
55	Augmentation of 11/0.4 kV Distribution Transformer from 63 kVA to 100 kVA					4.04	3.41	18.49%	49
56	Augmentation of 11/0.4 kV Distribution Transformer from 100 kVA to 250 kVA					11.30	8.36	35.11%	49
57	Augmentation of 11/0.4 kV Distribution Transformer from 250 kVA to 400 kVA					20.04	13.74	45.80%	49
58	Service Connection of Single Phase Line upto 4 kW Load					To be Decided Seperately	0.12		50
59	Service Connection of Single Phase Line above 4 kW to 8 kW Load						0.12		50
60	Service Connection of Three Phase Line upto 8 kW Load						0.15		51
61	Service Connection of Three Phase Line above 8 kW to 20 kW Load						0.15		51
62	Replacement of Single Phase Conventional Energy Meter by Smart Meter						0.12		52
63	Replacement of Three Phase Conventional Energy Meter by Smart Meter						0.15		52
64	33 kV Line	11 Mtr. ST	11	116	100 mm² ACSR	11.06	8.57	29.03%	53
65	33 kV Line	11 Mtr. PCC	11	116	100 mm² ACSR	9.76	6.93	40.83%	53
66	33 kV Line	11 Mtr. PCC	19	58	100 mm² ACSR	11.91	8.86	34.39%	55
67	33 kV Line	11 Mtr. ST	19	58	100 mm² ACSR	14.48	11.98	20.88%	55
68	33 kV Line	11 Mtr. ST Pole	24	41	Single Ckt 200mm² ACSR	23.81	18.68	27.44%	57
69	33 kV Line	11 Mtr. ST Pole(H Frame)	42	50	Double Ckt 200mm² ACSR	47.11	36.60	28.71%	57
70	33 kV Line	13 Mtr. ST Pole	19	58	Single Ckt 200mm² ACSR	22.76	17.83	27.68%	57
71	33 kV Line	13 Mtr. ST Pole(H Frame)	42	50	Double Ckt 200mm² ACSR	49.57	39.59	25.21%	57
72	33 kV Line	9 Mtr. ST	11	116	100 mm² ACSR	10.23	7.69	32.99%	60
73	33 kV Line	9 Mtr. PCC	11	116	100 mm² ACSR	9.40	6.61	42.23%	60
74	33 kV Line	9 Mtr. ST	21	58	100 mm² ACSR	13.59	10.98	23.81%	62
75	33 kV Line	9 Mtr. PCC	21	58	100 mm² ACSR	11.70	8.67	34.90%	62
76	Laying of Guard Netting on HV/EHV Lines Standard span					0.13	0.11	16.57%	64
77	Laying of Guard Netting on HV/EHV Lines Half span					0.10	0.09	14.84%	64
78	Thickening of 1 Km Conductor from 50mm² to 100 mm²								
	On 11 Mtr ST Pole					7.57	5.13	47.45%	66
	On 11 Mtr PCC Pole					7.08	4.52	56.56%	66
79	Thickening of 1 Km Conductor from 30/50 mm² ACSR to 100mm² ACSR								
	On 9 Mtr ST Pole					7.24	4.74	52.81%	67
	On 9 Mtr PCC Pole					6.97	4.42	57.62%	67
80	Thickening of 1 Km Conductor from 100mm² ACSR to 150mm² ACSR								
	On 9 Mtr ST Pole					10.27	7.03	46.23%	68
	On 9 Mtr PCC Pole					10.11	6.76	49.49%	68
81	Thickening of 1 Km Conductor from 100 mm² ACSR to 150/ 200 mm² ACSR								
	On 11 Mtr ST Pole from existing to to 150 mm²					11.60	8.42	37.68%	69
	On 11 Mtr ST Pole from existing to to 200 mm²					15.36	10.35	48.44%	69
82	Thickening of 1 Km Conductor from 150 mm² ACSR to 200 mm² ACSR								
	On 11 Mtr ST Pole					14.39	9.43	52.57%	70
	On 11 Mtr PCC Pole					14.12	9.01	56.70%	70
83	Thickening of 1 Km Conductor from 100 mm² ACSR to 200 mm² ACSR								
	On 11 Mtr ST Pole					14.39	9.43	52.57%	71
	On 11 Mtr PCC Pole					14.12	9.01	56.70%	71
84	Replacement of Pole by 16 Mtr ST Pole					0.59	0.57	4.28%	72
85	Replacement of Pole by 13 Mtr ST Pole					0.36	0.39	-5.69%	73
86	Construction of 3.15 MVA, 33/11 kV Substation					315.84	267.16	18.22%	74
87	Construction of 6.3 MVA, 33/11 kV Substation					378.35	306.20	23.56%	74
88	Construction of 10 MVA, 33/11 kV Substation					401.46	335.72	19.58%	74
89	Construction of 2 x 6.3 MVA, 33/11 kV Substation					559.51	443.01	26.30%	74
90	Construction of 2 x 10 MVA, 33/11 kV Substation					596.50	495.42	20.40%	74
91	Addition of Transformer of 3.15 MVA in 33/11 kV Substation					126.08	103.59	21.72%	83
92	Addition of Transformer of 6.3 MVA in 33/11 kV Substation					187.10	141.30	32.42%	83
93	Addition of Transformer of 10 MVA in 33/11 kV Substation					208.71	169.47	23.15%	83
94	Augmentation of 33/11 kV Substation from 3.15 MVA to 6.3 MVA					155.11	113.08	37.16%	85
95	Augmentation of 33/11 kV Substation from 6.3 MVA to 10 MVA					175.55	140.83	24.66%	85
96	Single Phase Service Connection for 25 KVA DTs					0.00	0.50	-100.00%	87
97	Single Phase Service Connection for ACSR					0.00	0.60	-100.00%	88
98	Estimate for laying of 1 Km of 33kV 300 mm² XLPE Cable, (Single Circuit, Single Core) Direct Burial					117.77	93.80	25.55%	89
99	Estimate for laying of 1 Km of 33kV 400 mm² XLPE Cable, (Single Circuit, Single Core) in HDPE Pipe					182.99	149.68	22.26%	90
100	Estimate for laying of 1 Km of 33kV 300 mm² XLPE Cable, (Double Circuit, Single Core)					199.48	158.00	26.25%	91
101	Estimate for laying of 1 Km of 33kV 300 mm² XLPE Cable, (Single Circuit, Three Core)					138.80	113.20	22.61%	92
102	Estimate for laying of 1 Km of 33kV 300 mm² XLPE Cable, (Double Circuit, Three Core)					206.46	168.14	22.80%	93
103	Estimate for laying of 1 Km of 11kV 185 mm² XLPE, (Single Circuit, Single Core)					65.68	53.36	23.09%	94

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104	Estimate for laying of 1 Km of 11kV 185 mm² XLPE Cable, (Double Circuit, Single Core)					108.33	87.22	24.19%	95
105	Estimate for laying of 1 Km of 11kV 185 mm² XLPE Cable, (Single Circuit, Three Core)					79.50	65.73	20.95%	96
106	Estimate for laying of 1 Km of 11kV 185 mm² XLPE Cable, (Double Circuit, Three Core)					116.66	96.24	21.21%	97
107	Estimate for laying of Single Core 3P 4W LT underground cable					129.48	98.86	30.98%	98
108	Estimate for laying of 3½ Core 3P 4W LT underground cable					0.00	0.00		99
109	Estimate for laying of 2 Core 1P 2W LT underground cable					30.54	26.25	16.36%	100
110	Standard Estimate for Sub Distribution Pillar Feeder					0.88	0.71	23.56%	101
111	Estimate for Service Pillar Feeder for LT Underground Cable					0.26	0.23	13.48%	102
112	Standard Estimate 11KV HT metering CT and PT operated					2.22	1.84	20.66%	103
113	Standard Estimate 33KV HT metering CT and PT operated					2.34	2.17	7.68%	104
114	Estimate for Compact Packaged substation					56.29	40.36	39.48%	105
115	Estimate for providing RMU at 11kV level 3 way type,two Isolators and one Circuit Breaker					13.18	10.07	30.96%	106
116	Estimate for providing RMU at 11kV level 4 way type,two Isolators and two Circuit Breakers					19.42	13.62	42.58%	106
117	Estimate for providing RMU at 11kV level 4 way type,three Isolators and one Circuit Breakers					16.99	11.61	46.29%	106
118	Estimate for providing RMU at 33 kV level 3 way type,two Isolators and one Circuit Breaker					48.55	45.07	7.71%	107
119	Estimate for providing RMU at 33 kV level 4 way type,two Isolators and two Circuit Breaker					64.62	58.01	11.39%	107
120	Estimate for providing RMU at 33 kV level 4 way type,two Isolators and one Circuit Breaker					54.46	54.00	0.85%	107
121	Estimate for 250 KVA DG Set					39.73	34.40	15.51%	108
122	Estimate for Erection of 1 km street lighting on (50 No.s) 7 mtr long Octogonal pole.					32.56	25.78	26.33%	109
123	Estimate for Erection of 1 km street lighting on (40 No.s) 8 mtr long Octogonal pole.					30.17	23.80	26.81%	110
124	Estimate for Erection of 1 km street lighting on (35 No.s) 9 mtr long Octogonal pole.					34.68	28.44	21.97%	111
125	Estimate for Erection of 1 km of 33 kV line on 11 meter ST Poles, 105 mm² ACS/ XLPE, Dog Covered Conductor with a span of 40mtrs.					32.03	28.61	11.95%	112
126	Estimate for Erection of 1 km of 11 kV line on 9 meter ST Poles, 52.88 mm² ACS/ XLPE, Rabbit Covered Conductor with a span of 40mtrs.					17.76	15.89	11.76%	113
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Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour				
S.No. (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit	Basic Rates	
1	8 Mtr. Long Pole(PCC WL-250Kg)	No.	₹	3,850.00
2	9 Mtr. Long Pole(PCC WL-300Kg)	No.	₹	5,500.00
3	11 Mtr. Long Pole(PCC WL-360Kg)	No.	₹	7,480.00
4	8 Mtr. Long Pole (ST-410 SP15)	No.	₹	8,376.94
5	9 Mtr. Long Pole (ST-410 SP33)	No.	₹	11,618.52
6	11 Mtr. Long Pole(ST-410 SP56)	No.	₹	16,547.36
7	13 Mtr. Long Pole(ST-410 SP69)	No.	₹	20,198.83
8	16 Mtr. Long Pole(ST-410 SP80)	No.	₹	35,900.75
9	20 mm² ACSR Conductor (Squirrel)	km	₹	25,372.00
10	30 mm² ACSR Conductor (Weasel)	km	₹	38,593.96
11	50 mm² ACSR Conductor (Rabbit)	km	₹	64,286.28
12	100 mm² ACSR Conductor (Dog)	km	₹	1,40,414.73
13	150 mm² ACSR Conductor (Wolf)	km	₹	2,12,973.79
14	200 mm² ACSR Conductor (Panther)	km	₹	3,03,391.52
15	11 kV AL59 Alumunium Claded Steel conductor along with accessories (covered conductor)			
i)	31.6 mm² (Weasal)	Mtr	₹	126.50
ii)	52.88 mm² (Rabbit)	Mtr	₹	216.00
iii)	105 mm² (Dog)	Mtr	₹	389.00
16	33 kV AL59 Alumunium Claded Steel conductor along with accessories (covered conductor)			
i)	105 mm² (Dog)	Mtr	₹	492.00
ii)	158 mm² (Wolf)	Mtr	₹	618.00
iii)	212 mm² (Panther)	Mtr	₹	801.00
17	35 mm² AB (HT) Cable (3x35+1x70) mm² XLPE (11 kV)	km	₹	6,79,543.75
18	35 mm² AB (HT) Cable (3x35+1x35) mm² XLPE (11 kV)	km	₹	6,36,624.20
19	50 mm² AB (HT) Cable (3x50 + 1x70) mm² XLPE (11 kV)	km	₹	7,92,860.50
20	70 mm² AB (HT) Cable (3 x 70 + 1x70) mm² XLPE (11 kV)	km	₹	9,13,591.64
21	70 mm² AB (HT) Cable (3 x 70 + 1x95) mm² XLPE (11 kV)	km	₹	9,62,370.00
22	120 mm² AB (HT) Cable (3x120 + 1x95) mm² XLPE (11 kV)	km	₹	13,19,276.43
23	35 mm² AB (LT) Cable (3 x 35 + 1 x 16 + 1 x 25 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	₹	2,87,514.38
24	50 mm² AB (LT) Cable (3 x 50 + 1 x 16 + 1 x 35 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	₹	3,74,711.85
25	70 mm² AB (LT) Cable (3 x 70 + 1 x 16 + 1 x 50 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	₹	5,03,821.11
26	120 mm² AB (LT) Cable (3 x 120 + 1 x 25 + 1 x 95 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	₹	8,22,097.09
27	25 mm² Single-Core Cable,1.1kV Grade, XLPE un armoured FRLS type	Mtr	₹	92.20
28	35 mm² Single-Core Cable,1.1kV Grade, XLPE un armoured FRLS type	Mtr	₹	115.18
29	50 mm² Single-Core Cable, 1.1kV Grade, XLPE un armoured FRLS type	Mtr	₹	148.55
30	70 mm² Single-Core Cable, 1.1kV Grade, XLPE un armoured FRLS type	Mtr	₹	194.52
31	185 mm² Single-Core Cable, 1.1kV Grade, XLPE un armoured FRLS type	Mtr	₹	461.97
32	240 mm² Single-Core Cable,1.1k V Grade, XLPE un armoured FRLS type	Mtr	₹	557.96
33	400 mm² Single-Core Cable,1.1k V Grade, XLPE un armoured FRLS type	Mtr	₹	875.16
34	50 mm² Single Core Cable,1.1 k V Grade, XLPE armoured FRLS type	Mtr	₹	217.11
35	10 mm² Cable (2C) ,1.1k V Grade, Armoured, XLPE FRLS type	Mtr	₹	157.98
36	16 mm² Cable (2C) ,1.1k V Grade, Armoured, XLPE FRLS type	Mtr	₹	167.65
37	10 mm² Cable (4C) ,1.1kV Grade, XLPE armoured FRLS type	Mtr	₹	203.80
38	16 mm² Cable (4C) ,1.1kV Grade,XLPE armoured FRLS type	Mtr	₹	249.72
39	2 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	₹	159.59
40	4 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	₹	266.51
41	6 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	₹	370.87
42	12 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	₹	702.29
43	11 kV Heat Shrinkable Outdoor Cable Termination Kit 150 -185 mm² (3 core)	Set	₹	5,783.00
44	11 kV Heat Shrinkable Outdoor Cable Termination Kit 240-300 mm² (3 Core)	Set	₹	6,485.00
45	Straight Through Jointing Kit for 11 kV Cable 50-95 mm² (3 Core)	Set	₹	10,212.00
46	Straight Through Jointing Kit for 11 kV Cable 120-185 mm² (3 Core)	Set	₹	11,833.00
47	Straight Through Jointing Kit for 11 kV Cable 240- 300 mm² (3 Core)	Set	₹	14,520.00
48	25 kVA,11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound, and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	78,022.00
49	63 kVA ,11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound , and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	1,38,985.00
50	100 kVA 11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound , and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	1,81,830.00
51	200 kVA 11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound , and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	3,79,302.00
52	250 kVA 11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound , and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	6,55,857.00
53	400 kVA ,11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), (Copper wound), and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	12,05,658.00
54	630 kVA ,11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), (Copper wound), and with LV Cable Box having detachable Aluminium Gland plate	No.	₹	14,26,345.00
55	1 MVA ,11/0.433 kV, with automatic OLTC on 11 kV side (min 35 % & max 5%) with a provision of 3 phase backup supply Distribution Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound , and with LV Cable Box having detachable Aluminium Gland plate.Transformer should have arrangement for vertical take off of cable.	No.	₹	22,63,900.00
56	1 MVA ,11/0.433 kV, with normal tap changer OCTC on HV side Distribution Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound , and with LV Cable Box having detachable Aluminium Gland plate.Transformer should have arrangement for vertical take off of cable.	No.	₹	18,49,946.00

Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour				
S.No . (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit	Basic Rates	
57	1MVA ,33/0.433 kV, with automatic OLTC on 33 kV side (min 35 % & max 5%) with a provision of 3 phase backup supply Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No.	₹	26,48,764.00
58	1MVA ,33/0.433 kV, with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No.	₹	22,07,303.00
59	100 kVA,33/0.433 kV, 3-phase Distribution Transformers with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No	₹	4,64,100.00
60	250 kVA,33/0.433 kV,3-phase Distribution Transformers with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No.	₹	8,85,752.00
61	400 kVA ,33/0.433 kV, 3-phase Distribution Transformers with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No.	₹	13,80,979.00
62	630 kVA,33/0.433 kV, 3-phase Distribution Transformers with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No.	₹	17,91,312.00
63	3.15 MVA 33/11 kV, ONAN, Copper wound, Out-door Type, conventional Power Transformer, Oil Filled with OLTC , LV Box and all accessories including HT and LT Terminal connections	No.	₹	35,46,323.00
64	6.3 MVA 33/11 kV,ONAN, Copper wound, Out-door Type, conventional Power Transformer, Oil Filled with OLTC , LV Box and all accessories including HT and LT Terminal connections	No.	₹	70,09,466.00
65	10 MVA 33/11 kV ,ONAN, Copper wound, Out-door Type, conventional Power Transformer, Oil Filled with OLTC , LV Box and all accessories including HT and LT Terminal connections	No.	₹	73,48,198.00
66	LT Distribution Box made of 1.6mm thick CRCA (500x170x1000)mm for 25 kVA DTR with 1 No.40 Amp MCCB 3P 16 kA for incomer &1 no. 25 Amp adjustable MCCB 3P 16 kA/ 3 no.10 kA for Outgoing Circuits , 4 no. Al. Bus bar (20x5)mm for phase /neutral & 2 set earthing bolt M8x25	No.	₹	25,500.00
67	LT Distribution Box for 63 kVA DTR:- 2mm thick CRCA (1000x325x1010)mm with 1 no.adjustable 100 Amp MCCB 3P 16 kA for incomer & 1 no. fixed 100 Amp MCCB 3P 16 kA and 63 Amp MCCB 3P 16 kA 1 No.s for Outgoing Circuits, 04 no.Al. Bus Bar (25x8)mm for phase/neutral,earthing bolt (M10x35) 2 set &.6 no. link disconector 200 Amp	No.	₹	33,900.00
68	LT Distribution Box for 100 kVA DTR:- 2mm thick CRCA (1000x325x1010)mm with 1 no.adjustable 160 Amp MCCB 3P 16 kA for incomer & 2 no. fixed 100 Amp MCCB 3P 16 kA for Outgoing Circuits, 04 no.Al. Bus Bar (25x8)mm for phase/neutral,earthing bolt (M10x35) 2 set & 6 no. link disconector 200 Amp	No.	₹	34,500.00
69	LT Distribution Box for 200 kVA DTR:- 2mm thick CRCA (1545x325x1050)mm with 1 no.adjustable 315 Amp MCCB 3P 25 kA for incomer & 3 no. fixed 160 Amp MCCB 3P 16 kA for Outgoing Circuits, 04 no.Al. Bus Bar (40x10)mm for phase/neutral,earthing bolt (M10x35) 2 set & 9 no. link disconector 200 Amp	No.	₹	65,000.00
70	LT Distribution Box for 250 kVA DTR:- 2mm thick CRCA (1545x325x1050)mm with 1 no.adjustable 400 Amp MCCB 3P 36 kA for incomer & 1 no. fixed 200 Amp MCCB 3P 16 kA ,2no. 160 Amp MCCB 3p 16 KA for Outgoing Circuits, 04 no.Al. Bus Bar (40x10)mm for phase/neutral,earthing bolt (M10x35) 2 set & 9 no. link disconector 200 Amp	No.	₹	71,000.00
71	LT Distribution Box for 400 kVA DTR :-2mm thick CRCA (1600x325x1050)mm with 630 Amp MCCB 3P (36 KA) adjustable 1 No. for incomer & 200 Amp 3 P (16 KA) 4 No.s fixed for Outgoing Circuits ,04 no.Al. Bus Bar (40x15)mm for phase/neutral,earthing bolt (M10x35) 2 set & 12 no. link disconector 200 Amp	No.	₹	1,01,300.00
72	LT Distribution Box for 630 kVA DTR :-2mm thick CRCA (1750x325x1050)mm with 1000 Amp MCCB 3P (36 KA) adjustable 1 No. for incomer & 250 Amp MCCB 3 P (25 KA) 2 No.s fixed & 200 Amp MCCB 3 P (25 KA) 3 No.s for Out going, 04 no.Al. Bus Bar (40x15)mm for phase/neutral,earthing bolt (M10x35) 2 set & 15 no. link disconector 200 Amp	No.	₹	1,65,000.00
73	32 Amps TPN Switch Disconnector Fuse Unit with enclosure	No.	₹	3,498.00
74	63 Amps TPN Switch Disconnector Fuse Unit with enclosure	No.	₹	4,326.00
75	33 kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance	No.	₹	602.00
76	33 kV Polymeric composite Disc Insulator 36KV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	No.	₹	950.00
77	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	No.	₹	650.00
78	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	No.	₹	210.00
79	16 kN Polymer Shackle Insulators LT	No.	₹	60.00
80	G.I Mukey for Shackle Insulators with bolt of (50x6)mm	No.	₹	140.00
81	GI U-Clamps for Shackle Insulators	Kg	₹	120.00
82	11kV Polymer Type GO, AB Switch 3-Phase, 3-Pole,200 Amp, Vertical Type	Set	₹	9,350.00
83	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	₹	5,000.00
84	PG Clamps for 50 mm² ACSR Conductor	No.	₹	150.00
85	PG Clamps for 100 mm² ACSR Conductor	No.	₹	402.00
86	PG Clamps for 150 mm² ACSR Conductor	No.	₹	560.00
87	PG Clamps for 200 mm² ACSR Conductor	No.	₹	720.00
88	Suspension/Tension Clamp with eye hook	No.	₹	190.00
89	LT Line Spacers 3 p ,4 wire	No.	₹	66.00
90	LT Line Spacers 2 p ,3 wire	No.	₹	44.00
91	11 kV Gapless Surge Arrestor,9 kV ,10 kA ,LA with polymer housing, Stn. Type	Set	₹	8,279.00
92	33 kV Lightening Arrestor Stn. Type (33kV,10kA,Station class,ZnO,Polymer)	No.	₹	22,076.00
93	GI Barbed Wire for Anti Climbing	Kg	₹	120.00
94	Sundry items like aluminium lugs, Jumpers, binding Tape,	LS	₹	778.80
95	33/11 kV Danger Board/Plate with Clamps (enamaled)	No.	₹	111.10
96	Anti-Climbing Device with Clamps	No.	₹	230.00
97	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm 4 Mtr long	No.	₹	1,512.21

Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour				
S.No. (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit	Basic Rates	
98	Earthing of substation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mm x 3 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No.	₹	7,308.16
99	Earthing of RMU --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 50 mmx6 mm for connection of RMU body as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.(This type of earthing can also be used for Auxillary X-mers in 33/11 kV Substation)	No.	₹	7,935.36
100	Spike Earthing Rod 20mm 2,5 Mtr long with GI strip (25x3)mm	No.	₹	896.63
101	Earthing by way of 40 mm GI Pipe earthing 2.5 Mtr long . Job includes , excavation, enhancement material and Main Hole Chamber (500x450x600)mm with frame and cover.	No.	₹	6,944.16
102	Coil Earthing having 115 turns of Dia 50 mm	No.	₹	781.00
103	Red Oxide	Ltr.	₹	222.20
104	Aluminium Paint	Ltr.	₹	370.70
105	Galvanized Nuts and Bolts	kg	₹	120.00
106	GI V cross-arm with top Bracket including clamp	Kg	₹	120.00
107	GI Channel X-arm including clamps and braces	Kg	₹	120.00
108	GI Wire 6 SWG & 8 SWG	Kg	₹	120.00
109	Eye Bolts	No.	₹	120.00
110	Guard netting of single span for Distribution lines	Span	₹	6,688.00
111	Guard netting for 33/11 kV line (for 1/3 span 40 m)	Span	₹	6,720.00
112	Guard netting for 33/11 kV line (for Standard span of 116 m)	Span	₹	8,880.00
113	Guard netting for 33/11 kV line (for Half span 58 m)	Span	₹	7,260.00
114	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2No.), anchor plate (200x 200 x 6 mm), nut-bolts, 2 No. turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete (11 kV)	No.	₹	4,855.16
115	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2No.), anchor plate (300x300 x 8 mm), nut-bolts, 2 No. turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete (33kV)	No.	₹	5,255.16
116	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2No.), anchor plate (450x 450 x 10mm), nut-bolts, 2 No. turn-buckles, 1.8m long, 20 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No.	₹	5,855.16
117	Aluminium Jointing Sleeves 200 mm^2	No.	₹	234.98
118	Aluminium Jointing Sleeves 150 mm^2	No.	₹	195.26
119	Aluminium Jointing Sleeves 100 mm^2	No.	₹	178.20
120	Aluminium Jointing Sleeves 50 mm^2	No.	₹	165.35
121	Suspension Fitting (3 Bolt) for 33 kV line	No.	₹	541.20
122	Suspension Fitting (2 Bolt) for 11 kV line	No.	₹	326.27
123	Tension Fitting (6 Bolt) for 33 kV line	No.	₹	608.00
124	Tension Fitting (4 Bolt) for 11 kV line	No.	₹	425.00
125	Earth wire 7/4 mm sq.	Kg	₹	99.00
126	33 kV 10 kN Polymer Post Insulator 36kV,170kV Impulse,Creepage distance 1224m	No.	₹	1,473.33
127	33kV Isolator with Earthing Blade (36kV,800A,Outdoor,3 poles,25kA)	Set	₹	59,000.00
128	33kV Isolator without Earthing Blade (36kV,800A,Outdoor,3 poles,25kA)	Set	₹	52,000.00
129	11KV Isolator Double Break, 3-pole, 630 Amps, Horizontal Mounting Type , with earth switch	Set	₹	33,000.00
130	33 kV Current Transformer oil cooled (33 kV, 1Φ, 2 Ratio 3 Core, Outdoor Type) (1 No. per Φ) 400-200/5-5A,300-150/5-5A	No.	₹	45,000.00
131	33 kV /110 V Single Phase outdoor type Potential Transformers (1 No. per Φ)	No.	₹	26,675.00
132	150 mm GI pipe with required number of collars for road crossing incl. Termination points (6")	Mtr	₹	1,969.10
133	40 mm GI pipe with required number of collars for road crossing incl. Termination points (1 1/2")	Mtr	₹	393.61
134	Route Marker	No.	₹	162.80
135	Warning Tape	Km	₹	6,572.41
136	1 phase 2 wire, 415V, 1No. of 100 Amp incoming DP MCCB (Breaking Capacity 25kA) fitted with outgoing 04 No. 32 Amps SP MCBs for Service Connections, Distribution Service Pillar suitable for outdoor installation , made out of CRCA sheet painted through 7-tank process with PU painted Busbars 2P, Aluminium with heat shrinkable sleeves and adequate capacities complete with all accesories 4 way Distribution Service Pillar.	Job	₹	13,500.00
137	3 phase, 415V, 1No. of 250 Amp incoming 4P MCCB (Breaking Capacity 36 kA) fitted with outgoing 03 No. 100 Amps SP MCCBs, 1No.100Amps 3 pole MCCB for outgoing LT cables, Distribution feeder Pillar suitable for outdoor installation , made out of CRCA sheet painted through 7-tank process with PU painted Busbars 4P, Aluminium with heat shrinkable sleeves and adequate capacities complete with all accesories 4 way Distribution Feeder Pillar.	Job	₹	56,000.00
138	11 kV Electrical Insulating Rubber Mat 1mx2m ,2.5mm thick +/- 10%	No.	₹	1,694.00
139	Fire Extingiusher Co_2 Type of 4.5 kg capacity for control room	No.	₹	5,600.00
140	Stand with 3 Sand Bucket and Fire Extingiusher	Set	₹	5,593.23
141	Helmet	No.	₹	250.00
142	Safety/ Industrial Helmet with Straps ISI Mark, with Head lamp Bracket and Detachable and Interchangeable LED Headlamp alongwith charger/charging facility.	No.	₹	776.00
143	Electrical Safety Rubber Gloves for 33kV level (Class-4)	Pair	₹	6,102.00
144	Electrical Safety Rubber Gloves for 11kV level (Class-2)	Pair	₹	2,150.00
145	Safety Belt ISI Mark	No.	₹	1,825.00
146	Electrical Safety Shoes (Industrial type Black colour)	Pair	₹	1,127.00
147	Earthing /Discharge rod 5 mtr long with 25 mm sq Cu cable 15 mtr for one phase	No.	₹	14,400.00
148	HV Detectors all voltages upto 33kV	No.	₹	14,080.00
149	Alumunium Ladder 2*20 ' (Extendable with rope and pulley arrangement) 3 mm Thick	No.	₹	17,500.00
150	Lugs,Ferrules	No.	₹	891.00
151	T Clamps	No.	₹	1,050.00
152	G.I Pipe Structures for 33/11kV Substations (Single Transformer Bay+ Single Line Bay)			
i)	G.I Pipe with dia 150mm,5.9mm thick 3 m long (27 No.s) with G.I Base Plate 8mm Thick	No.	₹	7,755.30
ii)	Galvanized Steel Structures (900 Kg)	Kg	₹	120.00
iii)	Galvanized Nuts & Bolts (80 Kg)	Kg	₹	120.00
153	G.I Pipe Structures for 33/11kV Substations (Double Transformer Bay+ Single Line Bay)			
i)	G.I Pipe with dia 150mm,5.9mm thick 3 m long (42 No.s) with G.I Base Plate 8mm Thick	No.	₹	7,755.30
ii)	Galvanized Steel Structures (1500 Kg)	Kg	₹	120.00
iii)	Galvanized Nuts & Bolts (130 Kg)	Kg	₹	120.00

Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour			
S.No. (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit	Basic Rates
154	11 kV VCB Panel Board (12 kV, 1250A, 25 kA, indoor) with O/C, E/F relays (IEC61850), Mimic Diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port		
i)	(1+3)	Set	₹ 20,24,792.15
ii)	(1+4)	Set	₹ 25,30,990.19
iii)	(1+5)	Set	₹ 30,37,188.24
iv)	(2+4)	Set	₹ 30,41,851.26
v)	(2+6)	Set	₹ 40,49,584.31
vi)	(2+7)	Set	₹ 45,55,782.35
155	11 kV Bus Coupler with Adaptor Panel	Set	₹ 4,21,693.68
156	GI Flat (50 x8) mm/(75 x10)mm/(75x8)mm	Kg	₹ 120.00
157	a). Battery Bank 30 V,100 AH , of 15 No. cells of 2 V No., sealed maintenance free VRLA type,High impact Polyprophelene copolymer container,flame retardant. b). 30V,100 AH , Float-Cum-Boost Charger With Full wave rectification for 220 V, 1Phase, 50 HZ AC Input Supply .	No.	a). ₹43500 .00 b). ₹ 30000.00
158	Distribution Panel (30 V, DC) made of CRCA thickness No.t less than 2mm. Powder Coated, degree of protection IP 43 for 2 No. battery incoming supply with 2 No. 63 Amps DP MCBs for incoming supply Double busbar of adequate size, 12 No. DP DC MCB (0-32A) including indication lamps and cables and other accessories	No.	₹ 42,372.88
159	Distribution Panel (415 V, AC) made of CRCA thickness No.t less than 2mm. Powder Coated, degree of protection IP43. 200 Amps Switch Fuse disconnector for incoming supply and 5 No. TPN MCB's (16-125 Amps) and 5 No. DP MCBs (0-32A), rectangular busbar suitable for 200 Amps continuous Supply including indication lamps and cables and other accessories	No.	₹ 55,084.75
160	33 kV VCB (36 kV, 1250A, 26.2 kA, Outdoor Type)	No.	₹ 3,10,545.61
161	12 kV Capacitor Bank with VCB Panel with complete arrangement for connection with 11 kV incomer panel , Series Reactor, Isolator, RVT, Surge Arrestors, HT Cable with termination Kits, Control Cables, CRCA Cubicle Panel etc with structure, foundation & accessories.		
i)	1.2 MVAR	Set	₹ 8,11,016.80
ii)	2.4 MVAR	Set	₹ 12,02,542.37
iii)	3.6 MVAR	Set	₹ 16,08,050.85
162	Earthing of Power Transformer (Improvement/strengthening works only for augmentation works)	Item	₹ 11,135.21
163	MCCB - 200 Amps,36 kA,4P adjustable Ics=100% Icu at 415 (kA rms)	No.	₹ 18,166.00
164	MCCB - 40/63/100 Amps,36 kA,,4P adjustable	No.	₹ 7,521.00
165	MCCB - 160 Amps,36 kA,,4P adjustable	No.	₹ 10,718.00
166	MCCB - 250 Amps,36 kA,,4P adjustable	No.	₹ 20,400.00
167	MCCB - 400 Amps,36 kA,,4P adjustable	No.	₹ 22,563.00
168	MCCB - 630 Amps,36 kA,,4P adjustable	No.	₹ 30,623.00
169	MCCB - 200 Amps,36KA,3P adjustable	No.	₹ 14,895.00
170	MCCB -40/63/100 Amps,36 kA,,3P adjustable Ics=100% Icu at 415 (kA rms)	No.	₹ 6,024.00
171	MCCB - 160 Amps,36 kA,,3P adjustable	No.	₹ 9,103.00
172	MCCB - 250 Amps,36 kA,,3P adjustable	No.	₹ 16,733.00
173	MCCB - 400 Amps,36KA,3P adjustable	No.	₹ 18,362.00
174	MCCB - 630 Amps,36 kA,,3P adjustable	No.	₹ 25,098.00
175	3-Ø, 4-Wire Trivector Meter (Prodigy) Suitable with ring type CT 200 Amp	No.	₹ 13,200.00
176	Single Phase Smart Energy Meter 5-30 Amp/ 10-60 Amp, DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*	No.	To be decided Separetely
177	Polypropylene weather proof outdoor type Meter Box for Single Phase Meter along with Zinc plated clamps	No.	To be decided Separetely
178	Three Phase Smart Energy Meter 20-80 Amp, DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*	No.	To be decided Separetely
179	Polypropylene weather proof outdoor type Meter Box for Three Phase Meter along with Zinc plated clamps	No.	To be decided Separetely
180	Main Service Distribution Box (for 25 kVA DT's having 3 No. Of consumers)	No.	₹ 6,991.52
181	Misc Items such insulation tape, binding wire, screws, etc.	LS	₹ 111.50
182	ACSR to Cable Connector / Piericing connector	No.	₹ 187.00
183	Main Service Distribution Box (ACSR/ABC to consumers)	No.	₹ 3,897.92
184	Polypropylene weather proof outdoor type Meter Box for 3 Single Phase Meter along with Zinc plated clamps	No.	₹ 2,796.20
186	33kV C&R Panel along with O/C, E/F and Differential relays (IEC61850), mimic diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port	No.	₹ 4,50,000.00
187	Packaged Substation - 11kV Outdoor type Package Sub-Station consisting of 11/0.433kV, 400kVA Oil type transformer, RMU, LT panel inside GI sheet steel enclosure with all interconnections, fully type tested as per the IEC-62271-202 complete in all respect each consisting of following items & as per detailed technical specifications: A) 3 way Non - Extensible fully motorized RMU (breaking capacity 21KA for three second with 2No. 630 A load break switch and 1 No. 630 A tee off VCB with Self powered with O/C + E.F Relay, suitable rating C.T's etc. to complete as required to entire satisfaction of Engineer-in-charge. The Incoming LBS shall be offered with FPI & VCB must confirm to operating sequence of O-0.3Sec-CO-3min-CO. B) 1 No. 11 kV / 433V, 400 KVA three phase, DYN11, +5% to - 5% in steps of 2.5% at line end of HT side , off lead tap, oil cooled type transformer with Cu winding and standard fittings & with Level-II losses (as per IS1180 , year 2021 amd 4). C) 1 No. 433V, 800A LT devices with PVC sleeved Aluminum busbars for interconnection & LT panel. D) One No. 4pole 800A, 50 kA ACB Manual Fixed type with microprocessor Based LSIG Release along with 3phase 4 wire energy meter.E) 4 No. 4 Pole MCCBs Thermal Magnetic type of 250 Amp .each F) The provision for solid connection with Al. strips with heat shrinkable sleeves from Main L.T Bus Bar to each compartment of MCCB. G) The CSS HT compartment must be tested for Internal Arc of 21KA for 1 sec with IAC-A & B classification as per IEC62271-202. The CSS enclosure, RMU, VI, ACB, MCCB & Meter must be of same make for better life cycle optimization. All components should be suitable for altitude upto 2100 Meter	No.	₹ 39,95,000.00
i)	11 /0.433,100 kVA substation (Al Wound) with LT Panel having 200A Al. Busbar with 200A FP microprocessor based LSIG Protection MCCB as Incoming cum Outgoing	No.	₹ 28,65,000.00
ii)	11 /0.433,200 kVA substation (Al Wound) with LT Panel having 400A Al. Busbar with 400A FP microprocessor based LSIG Protection MCCB as Incoming & 4 nos 100 Amp FP MCCB TM Based as Outgoing	No.	₹ 32,85,000.00
iii)	11 /0.433,250 kVA substation (CU Wound) with LT Panel having 400A Al. Busbar with 400A FP microprocessor based LSIG Protection MCCB as Incoming & 4 nos 160 Amp FP MCCB TM Based as Outgoing	No.	₹ 34,15,000.00
iv)	11 /0.433,630 kVA substation (CU Wound) with LT Panel having 1200A Al. Busbar with 1200A FP microprocessor based LSIG Protection fixed ACB as Incoming & 4 nos 400 Amp FP MCCB TM Based as Outgoing	No.	₹ 44,55,000.00
v)	11 /0.433,1000 kVA substation (CU Wound) with LT Panel having 1600A Al. Busbar with 1600A FP microprocessor based LSIG Protection fixed ACB as Incoming & 4 nos 630 Amp FP MCCB TM Based as Outgoing	No.	₹ 57,55,000.00
188	wire mesh jali around the Packaged Sub-Station of size upto 8'x4' made out of wire mesh 1"x1"square including fixing in cement	L/S	₹ 64,322.04
189	wire mesh fencing around the Packaged RMU of size upto 8'x4' made out of wire mesh 1"x1"square including fixing in cement 1:2:4	L/S	₹ 32,161.36

Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour				
S.No. (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit	Basic Rates	
190	11 kV, Ring Main Unit ,SF6 Insulated, out-door type, Extensible/Non-Extensible type STC & breaking capacity 21KA for three second with SF6 insulated VCB with O/C + E/F Relay comprising of a)11kV 630 Amp Motorized isolator including earthing Switches with making capacity 52 kA, having mechanical ON/OFF, earth indications with fault current Indicator.b)11kV, 630 Amp motorized Spring operated, Circuit breakers with earthing switches, connecting the RMU to Supply transformer. VCB must meet 10000 ON-OFF mechanical operation, and the operating sequence must be O-0.3sec-CO-3Min-CO. Suitable CT shall be placed in Cable chamber for protection. The basic insulation level of RMU shall be 38KV(RMS) / 95KV(Peak) for suitability at higher altitude .c)Copper Bus Bar of 630 Amp rating.d). 1 No. Numerical Aux. Powered relay having Non directional O/C and E/F protection (for No. circuit breaker). Relay should have minimum 4-DI & 6-DO.d). The Circuit Breaker enclosures shall be outfitted with a communicable-type numerical (feeder protection) relay, i.e., one for No. circuit breaker. The relay shall also interface via an RS 485 port in order to send, as a minimum, real-time phase current , readings using the MODBUS protocol. e)Incoming Isolator having FPI with electrical reset Contact /facility. f) All necessary Potential free contacts for indications relevant to RMU monitoring and control .g)Capacitor voltage dividers serving Live-Line Cable indicators in No. breaker and Isolator. h)The RMU must be offered with a single-phase Auxiliary VT 11KV/230V AC, 500VA and 26AH, 24V battery with 7amps Battery Charger. i) The RMU (Gas tank +Cable chamber) must be Internal tested for 21KA for 1 sec duration with AFLR classification.			
i)	3 way type,two isolators and one Vaccum Circuit breaker Extensible	No.	₹	8,35,000.00
ii)	4 way type,two isolators and two Vaccum Circuit breakers Extensible	No.	₹	11,96,000.00
iii)	4 way type,three isolators and one Vaccum Circuit breakers Extensible	No.	₹	10,87,000.00
iv)	3 way type,two isolators and one Vaccum Circuit breaker Non-Extensible	No.	₹	7,75,000.00
v)	4 way type,two isolators and two Vaccum Circuit breakers Non-Extensible	No.	₹	11,25,000.00
vi)	4 way type,three isolators and one Vaccum Circuit breakers Non-Extensible	No.	₹	10,05,000.00
191	33 kV RING MAIN UNIT : Out-door type RMU, SF6 Insulated, Non-extensible type, at 33kV system voltage and breaking capacity 25kA for three second, with SF6 insulated VCB with O/C + E/F Relay system comprising of a)33kV, 630 Amp. motorized Isolators including earthing switches with making capacity 62.5kA, having mechanical ON/OFF b)33kV,630Amp motorized, spring operated, Circuit Breakers (CB) with earthing switches. VCB must meet 10000 ON-OFF mechanical operation, and the operating sequence must be O-0.3sec-CO-3Min-CO. Suitable CT shall be placed in Cable chamber for protection. (c). Cu Bus - Bar of 630 Amp. rating. d)One (1) No. Numerical Aux powered relay having Non-directional 0/C and E/F protection (for No. Circuit Breaker feeder). Relay should have minimum 4-DI & 6-DO. The relay shall also interface via an RS 232/485 port in order to send, as a minimum, real-time readings using the MODBUS protocol.e)Incoming Isolators shall have FPI with electrical reset contact / facility. f)All necessary potential-free contacts for indications relevant to RMU monitoring and control. g)Capacitor Voltage Dividers serving live-line cable indicators in No. Breaker & Isolator. h)The RMU must be offered with a single-phase Auxiliary VT 33KV/230V AC, 500VA and 26AH, 24V battery with 7amps Battery Charger. i)The RMU (Gas tank +Cable chamber) must be Internal tested for 25KA for 1 sec duration with AFLR classification. RMU shall have site replaceable bushings to have very less downtime in the event of bushing breakage and restoration can be done immediately without sending the RMU to OEM Works.			
i)	3 way type,two isolators and one Vaccum Circuit breaker Non-Extensible	No.	₹	32,95,000.00
ii)	4 way type,two isolators and two Vaccum Circuit breakers Non-Extensible	No.	₹	43,55,000.00
iii)	4 way type,three isolators and one Vaccum Circuit breakers Non-Extensible	No.	₹	37,00,000.00
iv)	3 way type,two isolators and one Vaccum Circuit breaker Extensible	No.	₹	33,98,000.00
v)	4 way type,two isolators and two Vaccum Circuit breakers Extensible	No.	₹	44,60,000.00
vi)	4 way type,three isolators and one Vaccum Circuit breakers Extensible	No.	₹	38,00,000.00
v)	1 way type one Vaccum Circuit breaker only	No.	₹	18,80,000.00
192	Boring by HDD Drilling			
i)	6"	Mtr	₹	1,050.00
ii)	5"	Mtr	₹	750.00
iii)	4"	Mtr	₹	650.00
193	7.0 mtr Long GI (65 micron DFT single dip) Octogonal poles uniformally tappered with thickness of 3mm with bottom/top Dia of 135 mm x 70mm & base plate 225x225x12mm/pcd 250 mm provided with proper door opened gear box for connections on the bottom side with G.I. Foundation Bolts (J Type) M16 x650 mm long (Set of 4 no.'s per pole)	No.	₹	13,600.00
194	8.0 mtr Long GI (65 micron DFT single dip) Octogonal poles uniformally tappered with thickness of 3mm with bottom/top Dia of 155 mm x 70mm & base plate of 260x260x16mm/pcd 250 mm provided with proper door opened gear box for connections on the bottom side with G.I. Foundation Bolts (J Type) M20x700 mm long (Set of 4 no.'s per pole)	No.	₹	15,600.00
195	Pre fabricate galvanized single way top bracket (1000mm long with 48.3 OD GI Pipe) to be fitted on top of Octogonal pole for holding lighting	No.	₹	1,550.00
196	9.0 mtr Long GI (65 micron DFT single dip) Octogonal poles uniformally tappered with thickness of 3mm with bottom/top Dia of 175 mm x 70mm & base plate of 275x275x16mm/pcd 250 mm provided with proper door opened gear box for connections on the bottom side with G.I. Foundation Bolts (J Type) M24x750 mm long (Set of 4 no.'s per pole)	No.	₹	17,500.00
197	Pre fabricated galvanized double way top bracket (1500mm long with 48.3 OD GI Pipe) to be fitted on top of Octogonal pole for holding lighting	No.	₹	2,100.00
198	DK thermoplastic cable Junction/ Termination T boxes 8"x10"of class IP55/IP65 fitted with two 2-5 Amp MCB strip,4-way terminal block / connectors Incl. copper lugs, Clamps ,nut & bolts washers etc (Hansel or equivalent make) or poles with two way type bracket to be fitted properly inside the door opened gear box provided on the bottom side of the pole.	No.	₹	1,100.00
199	Outdoor type LT control panel size 900mmX900mmX450mm having input main control of 100Amp MCCB with TPN Bus Bar with 40 Amp TPN MCB 4Nos for outgoing circuits,including astronomical switching with contactor of required capacity. The panel should be fitted with a digital composite voltmeter/amper meter/indicator set with selecter switch and backup protection system, thimbling and the panel shall further be provided with proper openings on front side as well as on rear side including its locking arrangement and also with required glands and 4No. angle iron legs for grouting the panel on bed , the panel shall also be provided with powder coat/PU paint. The item includes its thimble as required at taping point for incomming , out going and internal panel wiring complete unit.	No.	₹	45,724.80
200	Dust/rain/snow-proof canopy type mini-outdoor LT feeder panel of size 450X300mm with front door opening duly powdered colour coated with inbuilt 2No TPN 16-32 Amp MCCB,TPN busbars of same capacity installed on cement concrete block with 4 angle iron legs grouted in the cement concrete of termination of main 25sqmm cable and outgoing 25/16 sqmm cable circuits.	No.	₹	13,591.60
201	120/190 Watt LED Luminaries of IP 67 protection.	No.	₹	9,000.00
202	Surge Protector for the 120/190 watt LED type lighting fixture complete.	No.	₹	300.00

Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour				
S.No. (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit	Basic Rates	
B	**Particulars (CIVIL ITEMS .Complete Job With GST & Labour)**			
203	Cement bottoming 1:2:4 mix as per Standards 0.40 cum / pole for (8 Mtr ST Pole)	No.	₹	2,640.41
204	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole (9 Mtr ST Pole)	No.	₹	3,164.04
205	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole (11 MtrST Pole)	No.	₹	4,372.84
206	Cement bottoming 1:2:4 mix as per Standards 0.78 cum/pole (13 Mtr ST Pole)	No.	₹	5,135.18
207	Cement bottoming 1:2:4 mix as per Standards 0.88 cum/pole (16 Mtr ST Pole)	No.	₹	5,828.85
208	Stone Pad (300 mm x 300 mm x 75 mm)	No.	₹	246.36
209	Brick Masonary Chamber (900x900x1050) with RCC top Slab Cast Iron Cover in CI frame (38kg)	No.	₹	44,413.43
210	RCC Protective Cover (300x300x60)mm for under ground cables	Mtr	₹	791.53
211	RCC Protective Cover (600x250x60)mm for under ground cables	Mtr	₹	1,448.48
212	Reinstatement of roads (100M x0.7 M x0.2 M) =14Cum (M-25)	Cum	₹	9,911.10
213	Sand	Cum	₹	3,000.00
214	Mech. Carriage sand 30 Kms	Cum	₹	520.34
215	Head Load 100 Mtrs sand	Cum	₹	244.36
216	Back Filling	Cum	₹	218.40
217	Excavation in any type of soil	Cum	₹	592.90
218	Yard Lighting by way of Providing 2 No 12.5 Mtr long in two sections of 4 mm thick Highmast motorised polygonal double drum Winch Assembly with provision of both electrically (motorised and manually) along with Single Dome Avaition obstruction Light ,lightining arrestor 1m with 4 No.s of 200 W LED flood lights on each High Mast along with feeder pillar and cable complete with earthing , and foundations	No.	₹	2,17,658.50
219	Control Room Building	Sqm	₹	32,274.30
220	Borewell of (G.I 5" dia outer pipe and 1 " dia inner pipe) Medium Class B for motor	Mtr	₹	5,129.11
221	Submersible pump (1.5 HP) with Pannel Board	No.	₹	18,150.00
222	Submersible pump (1.0 HP) with Pannel Board	No.	₹	15,000.00
223	Shift Quarters for JE and SBA	Sqm	₹	25,479.16
224	Development of land by removing weeds, wild grass and endulation if any, ornamental land scaping and growing of ornamental trees in unbuilt areas and road sides and development of roads along with surface drains	Item	₹	4,42,750.00
225	Cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20 mm nominal size)	Cum	₹	6,591.25
226	Reinforced cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20 mm nominal size for foundations) including 15mm plastering (1:6)	Cum	₹	8,638.60
227	Cement Tiles of size 300mm length x250mm width x 37mm thick as a protective cover for underground cables.	No.	₹	186.51
228	Compound walling of identified land by way of Mass Concrete in Foundations and 228 mm Brick Wall of 2 M height	Rm	₹	14,930.31
b)	Gates(5 mtr &1.5 Mtr) with 3 no.Pillars (2.5x2x8)ft	Item	₹	2,15,095.38
229	Chainlink Fencing of 33 kV Yard of Substation by way of Mass Concrete in Foundations and chainlink fencing of 6 ft height	Rm	₹	10,748.12
b)	Fencing Gates(3.5 Mtr) with 2 no. Pillars ((2.5x2x8)ft	Item	₹	91,189.21
230	33/11 kV Power Transformer Foundation (3mx2.5mx1.5m)	Item	₹	3,30,936.00
231	33 kV Equipment Foundation & Gantry foundation (Single Transformer) Equipment Foundation	Job	₹	15,98,849.76
232	33 kV Equipment Foundation & Gantry foundation (Double Transformer) Equipment Foundation	Job	₹	22,18,384.74
233	Truss for Control Room Building (12M x10M)	sqm	₹	12,904.770
234	Reinforced Cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20 m Nominal size for foundations)	Cum	₹	7,104.35
235	Centering and shuttering including struttings, propping etc and removal of formwork.	Sqm	₹	628.95
236	15 mm cement plaster 1:4 (1 - cement: 4 -fine sand) for foundations.	Sqm	₹	327.85
237	Brick Masonary Chamber (900x900x1050) with RCC top Slab Cast Iron Cover I CI frame (38kg)	No.		44413.43
238	Constructing masonry chamber(600x600x900)mm.inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover & frame to be not less than 38 kg (weight of cover 23kg & weight of frame 15 kg) & RCC top slab 1:2:4 mix (1 cement :2 coarse sand : 4 graded stone aggregate 20 mm Nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand & : 10 graded stone aggregate 40 mm Nominal size) & inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design with common burnt clay F.P.S. (Non modular) bricks of class designation 7.5	No.	₹	29,513.72
239	Trench 750 mm (For Double X-mer 55 mtr & for Single X-mer 40 mtrs)	Rm	₹	15,925.90
240	Trench 500 mm (For Double X-mer 30 mtr & for Single X-mer 15 mtrs)	Rm	₹	12,783.84
241	HDPE Pipe Outer Dia 180 mm Inner Dia 152 mm for laying of 11/33 kV XLPE Cable including excavation ,Back filling and laying	Rm	₹	1,522.29
242	HDPE Pipe Outer Dia 160 mm Inner Dia 148 mm for laying of 11/33 kV XLPE Cable including excavation ,Back filling and laying	Rm	₹	1,455.29
243	HDPE Pipe Outer Dia 120 mm Inner Dia 108 mm for laying of 11 /33 kV XLPE Cable including excavation ,Back filling and laying	Rm	₹	1,314.29
244	HDPE Pipe Outer Dia 90 mm Inner Dia 78 mm for laying of 11 kV XLPE Cable including excavation ,Back filling and laying	Rm	₹	1,265.29
245	HDPE Pipe Outer Dia 50 mm Inner Dia 38 mm for laying of 11kV XLPE Cable including excavation ,Back filling and laying	Rm	₹	515.38
246	Earthing Electrode (3m long 40mm dia GI pipe) through GI Strip (50x6)mm 4 mtr.long Including labour and GST	No.	₹	3,204.98
247	Chemical Earthing (50mm dia G.I Pipe with Chemical bags) Including labour and GST	No	₹	11,046.55
248	Laying of RCC foundation for 7.0 mtr. Long Octagonal poles including proper curing. 0.55mX0.55mX0.8m (RCC with concrete ratio 1:1.5:3 with minimum 8 Nos. of 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C for fixing the pole).	Job	₹	6,301.86
249	Laying of RCC foundation for 8.0 mtr. Long Octagonal poles including proper curing. 0.585mX0.585mX1.0m (RCC with concrete ratio 1:1.5:3 with minimum 8 Nos. of 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C for fixing the pole).	Job	₹	8,624.86
250	Laying of RCC foundation for 9.0 mtr. Long Octagonal poles including proper curing. 0.6mX0.6mX1.2m (RCC with concrete ratio 1:1.5:3 with minimum 8 Nos. of 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C for fixing the pole).	Job	₹	10,628.41
	Material cost only (without GST)			
251	HDPE Pipe Outer Dia 180 mm Inner Dia 152 mm for laying of 11/33kV XLPE Cable (Material cost without GST)	Rm	₹	430.00
252	HDPE Pipe Outer Dia 160 mm Inner Dia 148 mm for laying of 11/33 kV XLPE Cable (Material cost without GST)	Rm	₹	363.00
253	HDPE Pipe Outer Dia 120 mm Inner Dia 108 mm for laying of 11/33kV XLPE Cable (Material cost without GST)	Rm	₹	222.00
254	HDPE Pipe Outer Dia 90 mm Inner Dia 78 mm for laying of 11kV XLPE Cable (Material cost without GST)	Rm	₹	173.00

Basic Rates for Cost Data 2026-27 (Material Cost only with out GST or other Taxes). Civil Items are with GST & Labour				
S.No. (A)	PARTICULARS (Material Cost only with out GST or other Taxes)	Unit		Basic Rates
255	HDPE Pipe Outer Dia 50 mm Inner Dia 38 mm for laying of 11kV XLPE Cable (Material cost without GST)	Rm	₹	141.00
256	33 kV, Single core 120 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	11,02,770.00
257	33kV, Single core 185 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	11,89,250.00
258	33kV, 3 core 185 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	32,89,170.00
259	11kV, 3 core 400 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	39,02,050.00
260	11kV, 3 core 300 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	31,35,130.00
261	11kV, 3 core 240 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	26,41,830.00
262	11kV, 3 core 185 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	21,80,250.00
263	11kV, 3 core 150 mm² Aluminium Flat strip Armoured XLPE Cable	Km	₹	18,77,950.00
264	25 mm² Single Core 1.1 kV Grade Armoured XLPE Cable	Km	₹	1,49,300.00
265	Heat Shrinkable Cable End termination kit for 11 kV 1C Cable Out Door Type 70 mm² to 95 mm²	No	₹	1,848.00
266	Heat Shrinkable Cable End termination kit for 11 kV 1C Cable Out Door Type 150 mm² to 240 mm²	No	₹	2,405.00
267	Heat Shrinkable Cable End termination kit for 33 kV 1C Cable Out Door Type 70 mm² to 185 mm²	No	₹	3,596.00
268	Heat Shrinkable Cable End termination kit for 33 kV 3C Cable Out Door Type 70 mm² to 95 mm²	No	₹	11,083.00
269	Straight Through Jointing Kit for 33 kV 1C Cable 120mm² to 150mm²	No	₹	11,616.00
270	Straight Through Jointing Kit for 11 kV 1C Cable 70mm² to 120 mm²	No	₹	4,412.00
271	Straight Through Jointing Kit for 33 kV 3C Cable 120mm² to 150 mm²	No	₹	31,193.00
272	Straight Through Jointing Kit for 33 kV 3C Cable 300mm²	No	₹	35,501.00
273	**HTLS Conductor**			
i)	100 mm²	Mtr	₹	748.00
ii)	150 mm²	Mtr	₹	851.40
iii)	200 mm²	Mtr	₹	1,229.00
274	33 kV Horn Gap Fuse Set	Set	₹	15,000.00
275	**Portable Gensets Single Phase Petrol/Diesel Type**			
i)	1.0 kVA Single phase Petrol type	No	₹	33,000.00
ii)	1.8 kVA Single phase Petrol type	No	₹	96,000.00
iii)	2.8 kVA Single phase Petrol type	No	₹	1,05,000.00
iv)	5.0 kVA Single phase Petrol type	No	₹	1,70,000.00
v)	5.5 kVA Single phase Petrol type	No	₹	2,15,000.00
vi)	3.5 kVA Single phase Diesel type	No	₹	1,77,456.20
vii)	5.0 kVA Single phase Diesel type	No	₹	1,95,000.00
viii)	7.5 kVA Single phase Diesel type	No	₹	2,55,000.00
ix)	10 kVA Single phase Diesel type	No	₹	3,35,000.00
276	**DG sets (CPCB-IV)**			
i)	62.5 KVA DG Set (4 cylinder) with inbuilt AMF Panel	No	₹	14,50,000.00
ii)	100 KVA DG set (6 cylinder) with inbuilt AMF Panel	No	₹	15,25,000.00
iii)	125 KVA DG set (6 cylinder) with inbuilt AMF Panel	No	₹	15,25,000.00
iv)	200 KVA DG set (6 cylinder) with separate AMF Panel	No	₹	23,28,500.00
v)	250KVA DG set (6 cylinder) with separate AMF Panel	No	₹	25,94,000.00
vi)	320 KVA DG set (6 cylinder) with separate AMF Panel	No	₹	29,96,000.00
viii)	400 KVA DG set (6 cylinder) with separate AMF Panel	No	₹	36,95,000.00
ix)	500 kVA DG set (6 cylinder) with separate AMF Pane	No	₹	43,50,000.00
277	**Servo Voltage Stabilizer Three Phase Oil Cooled P-P 190-450 V : P-N:110-260 V (With T-Oil)**			
i)	15 kVA	No.	₹	1,38,000.00
ii)	30 kVA	No.	₹	2,14,000.00
iii)	40 kVA	No.	₹	2,58,000.00
iv)	50 kVA	No.	₹	2,83,750.00
v)	60 kVA	No.	₹	3,37,000.00
vi)	75 kVA	No.	₹	4,12,000.00
vii)	90 kVA	No.	₹	4,60,000.00
viii)	100 kVA	No.	₹	5,01,800.00
ix)	125 kVA	No.	₹	4,49,000.00
x)	150 kVA	No.	₹	6,64,000.00
xi)	200 kVA	No.	₹	7,90,000.00
xii)	250 kVA	No.	₹	9,44,000.00
xii)	300 kVA	No.	₹	10,86,000.00
xiii)	400 kVA	No.	₹	14,77,000.00

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH STANDARD SPAN OF 104 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total cost of Material	**₹ 3,93,217.34**	**₹ 5,17,081.82**
A	Net cost of Material without Civil Items	**₹ 3,90,261.02**	**₹ 4,76,695.74**
B	GST @18% on Net Material cost on **(A)**	₹ 70,246.98	₹ 85,805.23
C	Labour charges for Normal Terrain for PCC P & STP	₹ 96,445.20	₹ 70,598.64
D	GST @18% on account of Labour charges on **(C)**	₹ 17,360.14	₹ 12,707.75
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,25,185.88	₹ 91,637.03
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 23,025.40	₹ 28,125.05
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 6,00,295.06**	**₹ 7,14,318.49**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 6,11,675.59**	**₹ 7,22,649.13**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH STANDARD SPAN OF 104 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	9 Mtr. Long Pole (PCC WL-300Kg , ST-410 SP33)	Nos	10	5500.00	55000.00	11618.52	116185.20
2	11 Mtr. Long Pole (PCC WL-360Kg, ST-410 SP 56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	136	120.00	16320.00	120.00	16320.00
4	GI Channel X-arm including clamps and braces	Kg	160	120.00	19200.00	120.00	19200.00
5	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
6	PG Clamps for 50 mm² ACSR Conductor	Nos	12	150.00	1800.00	150.00	1800.00
7	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	30	210.00	6300.00	210.00	6300.00
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	12	650.00	7800.00	650.00	7800.00
9	Galvanized Nuts and Bolts	Kg	12	120.00	1440.00	120.00	1440.00
10	Danger Plates with Clamps (enameled)	Nos	12	111.10	1333.20	111.10	1333.20
11	Anti-Climbing Device with Clamps	Nos	12	230.00	2760.00	230.00	2760.00
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3) mm	Nos	12	1512.21	18146.52	1512.21	18146.52
13	Red Oxide	Ltr.	12		0.00	222.20	2666.40
14	Aluminium Paint	Ltr.	12		0.00	370.70	4448.40
15	Cement bottoming 1:2:4 mix as per Standards 0.48 cum per pole	Nos	10		0.00	3164.04	31640.40
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/ pole	Nos	2		0.00	4372.84	8745.68
17	Stone Pad (300mm x300 mm 75 mm)	Nos	12	246.36	2956.32		0.00
18	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	165.35	496.05
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	4	4855.16	19420.64	4855.16	19420.64
20	Guard netting	Span	3	8880.00	26640.00	8880.00	26640.00
A1	**Total Material Cost**				**₹ 3,93,217.34**		**₹ 5,17,081.82**
A	**Net Cost of Material without Civil Items**				**₹ 3,90,261.02**		**₹ 4,76,695.74**

S.No	PARTICULARS	Unit	Unit Rate
1	Cost of 30 mm² ACSR Conductor	Km	₹ 38,593.96
2	Cost of 100 mm² ACSR Conductor	Km	₹ 1,40,414.73

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST/PC POLES, 50 MM² ACSR CONDUCTOR WITH HALF SPAN OF 52 METERS. (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total cost of Material	**₹ 4,93,979.53**	**₹ 7,04,505.91**
A	Net cost of Material without Civil Items	**₹ 4,88,805.97**	**₹ 6,35,643.47**
B	GST @18% on Net Material cost on **(A)**	₹ 87,985.07	₹ 1,14,415.82
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,24,156.72	₹ 97,825.53
D	GST @18% on account of Labour charges on **(C)**	₹ 22,348.21	₹ 17,608.60
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,61,155.42	₹ 1,26,977.54
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 28,839.55	₹ 37,502.96
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 7,57,309.07**	**₹ 9,71,858.82**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 7,71,959.57**	**₹ 9,83,402.23**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH HALF SPAN OF 52 METERS (Amount in Rs.)							
S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	19	5500.00	104500.00	11618.52	220751.88
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	289	120.00	34680.00	120.00	34680.00
4	GI Channel X-arm including clamps and braces	Kg	160	120.00	19200.00	120.00	19200.00
5	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
6	PG Clamps for 50 mm² ACSR Conductor	Nos	12	150.00	1800.00	150.00	1800.00
7	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	57	210.00	11970.00	210.00	11970.00
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	12	650.00	7800.00	650.00	7800.00
9	Galvanized Nuts and Bolts	kg	21	120.00	2520.00	120.00	2520.00
10	Danger Plates with Clamps (enameled)	Nos	21	111.10	2333.10	111.10	2333.10
11	Anti-Climbing Device with Clamps	Nos	21	230.00	4830.00	230.00	4830.00
12	Earthing Complete by GI Pipe 40 mm 3mtr long through GI Strip 25x3 mm	Nos	21	1512.21	31756.41	1512.21	31756.41
13	Red Oxide	Ltr.	21		0.00	222.20	4666.20
14	Aluminium Paint	Ltr.	21		0.00	370.70	7784.70
15	Cement bottoming 1:2:4 mix as per Standards 0.48 cum / pole	Nos	19		0.00	3164.04	60116.76
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum / pole	Nos	2		0.00	4372.84	8745.68
17	Stone Pad (300mm x300mm x75 mm)	Nos	21	246.36	5173.56		0.00
18	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	165.35	496.05
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	4855.16	24275.80
20	Guard netting	Span	4	7260.00	29040.00	7260.00	29040.00
A1	**Total Material Cost**				**₹ 4,93,979.53**		**₹ 7,04,505.91**
A	**Net Cost of Material without Civil Items**				**₹ 4,88,805.97**		**₹ 6,35,643.47**
S.No	**PARTICULARS**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST/PCC POLES,50 MM² ACSR CONDUCTOR WITH SPAN OF 41 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Cost of Material	**₹ 5,51,542.72**	**₹ 8,10,214.60**
A	Net Cost of Material without Civil Items	**₹ 5,45,137.36**	**₹ 7,25,531.96**
B	GST @18% on Material cost on **(A)**	₹ 98,124.72	₹ 1,30,595.75
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,40,094.85	₹ 1,13,255.54
D	GST @18% on account of Labour charges on **(C)**	₹ 25,217.07	₹ 20,386.00
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,81,843.11	₹ 1,47,005.69
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 32,163.10	₹ 42,806.39
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 8,47,142.46**	**₹ 11,17,258.27**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 8,63,673.66**	**₹ 11,30,622.42**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST/PCC POLES, 30/50/100/ MM² ACSR CONDUCTOR WITH SPAN OF 41 METERS. (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	24	5500.00	132000.00	11618.52	278844.48
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	365	120.00	43800.00	120.00	43800.00
4	GI Channel X-arm including clamps and braces	Kg	202	120.00	24240.00	120.00	24240.00
5	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
6	PG Clamps for 50 mm² ACSR Conductor	Nos	12	150.00	1800.00	150.00	1800.00
7	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	72	210.00	15120.00	210.00	15120.00
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	15	650.00	9750.00	650.00	9750.00
9	Galvanized Nuts and Bolts	kg	26	120.00	3120.00	120.00	3120.00
10	Danger Plates with Clamps (enameled)	Nos	26	111.10	2888.60	111.10	2888.60
11	Anti-Climbing Device with Clamps	Nos	26	230.00	5980.00	230.00	5980.00
12	Earthing Complete by GI Pipe 40 mm 3mtr long through GI Strip 25x3 mm	Nos	26	1512.21	39317.46	1512.21	39317.46
13	Red Oxide	Ltr.	26		0.00	222.20	5777.20
14	Aluminium Paint	Ltr.	26		0.00	370.70	9638.20
15	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	24		0.00	3164.04	75936.96
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum / pole	Nos	2		0.00	4372.84	8745.68
17	Stone Pad (300mm x300 mmx75 mm)	Nos	26	246.36	6405.36		0.00
18	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	165.35	496.05
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	4	4855.16	19420.64	4855.16	19420.64
20	Guard netting	Span	5	6720.00	33600.00	6720.00	33600.00
A1	**Total Material Cost**				**₹ 5,51,542.72**		**₹ 8,10,214.60**
A	**Net Cost of Material without Civil Items**				**₹ 5,45,137.36**		**₹ 7,25,531.96**

S.No	PARTICULARS	Unit	Unit Rate
1	Cost of 30 mm² ACSR Conductor	Km	₹ 38,593.96
2	Cost of 100 mm² ACSR Conductor	Km	₹ 1,40,414.73

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 11 kV LINE ON 8 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH STANDARD SPAN OF 104 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total cost of Material	**₹ 3,76,717.34**	**₹ 4,79,429.72**
A	Net Cost of Material without Civil Items	**₹ 3,73,761.02**	**₹ 4,44,279.94**
B	GST @18% on Material cost on **(A)**	₹ 67,276.98	₹ 79,970.39
C	Labour charges for Normal Terrain for PCC P & STP	₹ 91,795.71	₹ 65,087.01
D	GST @18% on account of Labour charges on **(C)**	₹ 16,523.23	₹ 11,715.66
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,19,150.83	₹ 84,482.94
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 22,051.90	₹ 26,212.52
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 5,74,365.15**	**₹ 6,62,415.29**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 5,85,197.04**	**₹ 6,70,095.56**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 11 kV LINE ON 8 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH STANDARD SPAN OF 104 METERS **(Amount in Rs.)**

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	10	3850.00	38500.00	8376.94	83769.40
2	11 Mtr. Long Pole(PCC WL-360Kg , ST-410 SP56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	136	120.00	16320.00	120.00	16320.00
4	GI Channel X-arm including clamps and braces	Kg	160	120.00	19200.00	120.00	19200.00
5	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
6	PG Clamps for 50 mm² ACSR Conductor	Nos	12	150.00	1800.00	150.00	1800.00
7	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	30	210.00	6300.00	210.00	6300.00
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	12	650.00	7800.00	650.00	7800.00
9	Galvanized Nuts and Bolts	kg	12	120.00	1440.00	120.00	1440.00
10	Danger Plates with Clamps (enameled)	Nos	12	111.10	1333.20	111.10	1333.20
11	Anti-Climbing Device with Clamps	Nos	12	230.00	2760.00	230.00	2760.00
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	12	1512.21	18146.52	1512.21	18146.52
13	Red Oxide	Ltr.	12		0.00	222.20	2666.40
14	Aluminium Paint	Ltr.	12		0.00	370.70	4448.40
15	Cement bottoming 1:2:4 mix as per Standards 0.40 cum/pole	Nos	10		0.00	2640.41	26404.10
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum / pole	Nos	2		0.00	4372.84	8745.68
17	Stone Pad (300mm x300mm x75 mm)	Nos	12	246.36	2956.32		0.00
18	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	165.35	496.05
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	4	4855.16	19420.64	4855.16	19420.64
20	Guard netting	Span	3	8880.00	26640.00	8880.00	26640.00
A1	**Total Material Cost**				**₹ 3,76,717.34**		**₹ 4,79,429.72**
A	**Net Cost of Material without Civil Items**				**₹ 3,73,761.02**		**₹ 4,44,279.94**

S.No	PARTICULARS	Unit		Unit Rate
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 11 kV LINE ON 8 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH HALF SPAN OF 52 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Cost of Material	**₹ 4,57,281.65**	**₹ 6,28,111.76**
A	Net cost of Material Without Civil Items.	**₹ 4,52,600.81**	**₹ 5,69,198.29**
B	GST @18% on Material cost on **(A)**	₹ 81,468.14	₹ 1,02,455.69
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,14,100.66	₹ 86,688.90
D	GST @18% on account of Labour charges on **(C)**	₹ 20,538.12	₹ 15,604.00
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,48,102.66	₹ 1,12,522.19
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 26,703.45	₹ 33,582.70
	Total Amount for Normal Terrain **(=A1+B+C+D+F)**	**₹ 7,00,092.02**	**₹ 8,66,443.05**
	Total Amount for Hilly Terrain /Congested areas **(=A1+B+E+F)**	**₹ 7,13,555.90**	**₹ 8,76,672.34**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 11 kV LINE ON 8 METER ST/PCC POLES, 50 MM² ACSR CONDUCTOR WITH HALF SPAN OF 52 METERS (Amount in Rs.)							
S.No	**PARTICULARS**	**Unit**	**Qty**	**PCC Poles**		**ST Poles**	
				Unit Rate	**Amount**	**Unit Rate**	**Amount**
1	8 Mtr. Long Pole (PCC WL-250Kg , ST-410 SP15)	Nos	19	3850.00	73150.00	8376.94	159161.86
2	11 Mtr. Long Pole (PCC WL-360Kg, ST-410 SP56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	289	120.00	34680.00	120.00	34680.00
4	GI Channel X-arm including clamps and braces	Kg	160	120.00	19200.00	120.00	19200.00
5	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
6	PG Clamps for 50 mm² ACSR Conductor	Nos	12	150.00	1800.00	150.00	1800.00
7	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	57	210.00	11970.00	210.00	11970.00
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	12	650.00	7800.00	650.00	7800.00
9	Galvanized Nuts and Bolts	kg	21	120.00	2520.00	120.00	2520.00
10	Danger Plates with Clamps (enameled)	Nos	21	111.10	2333.10	111.10	2333.10
11	Anti-Climbing Device with Clamps	Nos	21	230.00	4830.00	230.00	4830.00
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	21	1512.21	31756.41	1512.21	31756.41
13	Red Oxide	Ltr.	21		0.00	222.20	4666.20
14	Aluminium Paint	Ltr.	21		0.00	370.70	7784.70
15	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	19		0.00	2640.41	50167.79
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum / pole	Nos	2		0.00	4372.84	8745.68
17	Stone Pad (300mmx300mmx75 mm)	Nos	19	246.36	4680.84		0.00
18	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	165.35	496.05
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	4	4855.16	19420.64	4855.16	19420.64
20	Guard netting	Span	4	7260.00	29040.00	7260.00	29040.00
A1	**Total Material Cost**				**₹ 4,57,281.65**		**₹ 6,28,111.76**
A	**Net Cost of Material without Civil Items**				**₹ 4,52,600.81**		**₹ 5,69,198.29**

S.No	**PARTICULARS**	**Unit**		**Unit Rate**
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 11 kV ABC ON 8 MTRS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS . (Amount in Rs.)									
S.NO	PARTICULARS	PCC Pole				ST Pole			
		70 mm²	95 mm²	120 mm²	185 mm²	70 mm²	95mm²	120 mm²	185 mm²
A1	Total Cost of Material	₹ 11,69,930.70	₹ 12,96,669.70	₹ 15,45,586.45	₹ 20,23,988.94	₹ 13,24,438.92	₹ 14,51,177.92	₹ 17,00,094.67	₹ 21,78,497.16
A	Net cost of Material without Civil items	₹ 11,65,003.50	₹ 12,91,742.50	₹ 15,40,659.25	₹ 20,19,061.74	₹ 12,70,583.46	₹ 13,97,322.46	₹ 16,46,239.21	₹ 21,24,641.70
B	GST @18% on **(A)**	₹ 2,09,700.63	₹ 2,32,513.65	₹ 2,77,318.67	₹ 3,63,431.11	₹ 2,28,705.02	₹ 2,51,518.04	₹ 2,96,323.06	₹ 3,82,435.51
C	Labour charges for Normal Terrain PCC & STP	₹ 1,00,889.30	₹ 1,11,864.90	₹ 1,33,421.09	₹ 1,74,850.75	₹ 68,357.39	₹ 75,175.95	₹ 88,567.67	₹ 1,14,305.72
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 18,160.07	₹ 20,135.68	₹ 24,015.80	₹ 31,473.13	₹ 12,304.33	₹ 13,531.67	₹ 15,942.18	₹ 20,575.03
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,30,954.32	₹ 1,45,200.64	₹ 1,73,180.58	₹ 2,26,956.27	₹ 88,727.89	₹ 97,578.38	₹ 1,14,960.84	₹ 1,48,368.83
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 68,735.21	₹ 76,212.81	₹ 90,898.90	₹ 1,19,124.64	₹ 74,964.42	₹ 82,442.03	₹ 97,128.11	₹ 1,25,353.86
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 15,67,415.91**	**₹ 17,37,396.74**	**₹ 20,71,240.90**	**₹ 27,12,868.57**	**₹ 17,08,770.09**	**₹ 18,73,845.61**	**₹ 21,98,055.69**	**₹ 28,21,167.28**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 15,79,320.85**	**₹ 17,50,596.80**	**₹ 20,86,984.59**	**₹ 27,33,500.96**	**₹ 17,16,836.26**	**₹ 18,82,716.37**	**₹ 22,08,506.68**	**₹ 28,34,655.35**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 70 MM², 11 kV ABC ON 8 MTS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole (PCC WL-250Kg , ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole (PCC WL-300Kg , ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	70 mm² AB (HT) Cable (3 x 70 + 1x95)mm² XLPE(11 kV, 3C + Earth)	km	1.05	962370.00	1010488.50	962370.00	1010488.50
4	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	2339.00	2339.00	2339.00	2339.00
5	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates with Clamps (enameled)	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20		---	222.20	4444.00
11	Aluminium Paint	Ltr.	20		---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	18		0.00	2640.41	47527.38
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2		0.00	3164.04	6328.08
14	Stone Pad (300 mm x300mm x75 mm)	Nos	20	246.36	4927.20		0.00
15	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	5534.00	5534.00	5534.00	5534.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 11,69,930.70**		**₹ 13,24,438.92**
A	**Net Cost of Material without Civil Items**				**₹ 11,65,003.50**		**₹ 12,70,583.46**

S.No	Particulars	Unit		Unit Rate	Particulars	Unit	Unit Rate
1	Cost of 70 mm² AB (HT) Cable(3x70+1x70) mm² XLPE (11 kV)	Km		₹ 9,13,591.64	Mid Span Straight Through Jointing Kit for 11 kV ABC 50-70mm²	Set	₹ 5,534.00
2	Cost of 95 mm² AB (HT) Cable (3x95+1x95) mm² XLPE(11 kV)	Km		₹ 10,82,718.57	Mid Span Straight Through Jointing Kit for 11 kV ABC 95-120mm²	Set	₹ 6,065.00
	185 mm² AB (HT) Cable (3x185+1x120) mm² XLPE(11 kV, 3C + Earth)	Km		1774372.13	Mid Span Straight Through Jointing Kit for 11 kV ABC 185mm²	Set	₹ 6,790.00
3	Cost of 120 mm² AB Cable (3x120+1x95) mm² XLPE(11 kV)	Km		₹ 13,19,276.43	Heat Shrinkable Outdoor Cable Termination Kit for11 kV ABC 150-185 mm²	Set	₹ 3,264.00
	Heat Shrinkable Outdoor Cable Termination Kit for11 kV ABC 95 - 120 mm²	Set		₹ 2,712.00	Heat Shrinkable Outdoor Cable Termination Kit for11 kV ABC 240-300 mm²	Set	₹ 3,450.00

COST OF MATERIAL FOR ERECTION OF 1 KM OF 95 mm², 11 kV ABC ON 8 MTS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)							
S.No	**PARTICULARS**	**Unit**	**Qty**	**PCC Poles**		**ST Poles**	
				Unit Rate	**Amount**	**Unit Rate**	**Amount**
1	8 Mtr. Long Pole (PCC WL-250Kg, ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole (PCC WL-300Kg, ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	95 mm² AB (HT) Cable (3x95+1x95)mm² XLPE(11 kV, 3C + Earth)	km	1.05	1082718.57	1136854.50	1082718.57	1136854.50
4	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	2712.00	2712.00	2712.00	2712.00
5	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates with Clamps (enameled)	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20		---	222.20	4444.00
11	Aluminium Paint	Ltr.	20		---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40cum /pole	Nos	18		0.00	2640.41	47527.38
13	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos	2		0.00	3164.04	6328.08
14	Stone Pad (300mm x 300mm x75 mm)	Nos	20	246.36	4927.20		0.00
15	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	5534.00	5534.00	5534.00	5534.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 12,96,669.70**		**₹ 14,51,177.92**
A	**Net Cost of Material without Civil Items**				**₹ 12,91,742.50**		**₹ 13,97,322.46**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 120 mm², 11 kV ABC ON 8 MTS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	120 mm² AB (HT) Cable (3x120 + 1x95) mm² XLPE(11 kV, 3C + Earth)	km	1.05	1319276.43	1385240.25	1319276.43	1385240.25
4	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	2712.00	2712.00	2712.00	2712.00
5	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates with Clamps (enameled)	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20		---	222.20	4444.00
11	Aluminium Paint	Ltr.	20		---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	18		0.00	2640.41	47527.38
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2		0.00	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	20	246.36	4927.20		0.00
15	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	6065.00	6065.00	6065.00	6065.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 15,45,586.45**		**₹ 17,00,094.67**
A	**Net Cost of Material without Civil Items**				**₹ 15,40,659.25**		**₹ 16,46,239.21**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 185 MM², 11 kV ABC ON 8 MTS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS. (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole (PCC WL-250Kg , ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole (PCC WL-300Kg , ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	185 mm² AB (HT) Cable (3x185+1x120) mm² XLPE(11 kV, 3C + Earth)	km	1.05	1774372.13	1863090.74	1774372.13	1863090.74
4	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	3264.00	3264.00	3264.00	3264.00
5	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
6	Galvanized Nuts and Bolts	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates with Clamps (enameled)	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20		---	222.20	4444.00
11	Aluminium Paint	Ltr.	20		---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40cum /pole	Nos	18		0.00	2640.41	47527.38
13	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos	2		0.00	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	20	246.36	4927.20		0.00
15	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	6065.00	6065.00	6065.00	6065.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 20,23,988.94**		**₹ 21,78,497.16**
A	**Net Cost of Material without Civil Items**				**₹ 20,19,061.74**		**₹ 21,24,641.70**

ABSTRACT OF COST FOR ERECTION OF 1 KM OF , 120 mm² 11 kV ABC ON 9 MTRS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)			
S.NO	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Cost of Material	**₹ 15,75,286.45**	**₹ 17,67,868.45**
A	Net cost of Material without Civil Items	**₹ 15,70,359.25**	**₹ 17,04,587.65**
B	GST @18% on (**A**)	₹ 2,82,664.67	₹ 3,06,825.78
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,37,249.40	₹ 92,900.03
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 24,704.89	₹ 16,722.00
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,78,149.72	₹ 1,20,584.24
F	Overheads @ 5% (1.5% T&P, 3% Contingency,0.5% Insurance) on **(A+B)**	₹ 92,651.20	₹ 1,00,570.67
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 21,12,556.60**	**₹ 22,84,886.93**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 21,28,752.03**	**₹ 22,95,849.14**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 120 mm², 11 kV ABC ON 9 MTS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS. (Amount in Rs.)							
S.No	**PARTICULARS**	**Unit**	**Qty**	**PCC Poles**		**ST Poles**	
				Unit Rate	**Amount**	**Unit Rate**	**Amount**
1	8 Mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	0	3850.00	0.00	8376.94	0.00
2	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	20	5500.00	110000.00	11618.52	232370.40
3	120 mm² AB (HT) Cable (3x120 + 1x95) mm² XLPE(11 kV, 3C + Earth)	km	1.05	1319276.43	1385240.25	1319276.43	1385240.25
4	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	2712.00	2712.00	2712.00	2712.00
5	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates with Clamps (enameled)	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20		---	222.20	4444.00
11	Aluminium Paint	Ltr.	20		---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	0		0.00	2640.41	0.00
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	20		0.00	3164.04	63280.80
14	Stone Pad(300 mm x 300 mm x 75 mm)	Nos	20	246.36	4927.20		0.00
15	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	6065.00	6065.00	6065.00	6065.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 15,75,286.45**		**₹ 17,67,868.45**
A	**Net Cost of Material without Civil Items**				**₹ 15,70,359.25**		**₹ 17,04,587.65**
S.No	**Particulars**	**Unit**		**Unit Rate**	**Particulars**	**Unit**	**Unit Rate**
1	Cost of 70 mm² AB (HT) Cable (3x70+1x70)mm² XLPE (11 kV)	Km		₹ 9,13,591.64	Mid Span Straight Through Jointing Kit for 11 kV ABC 50-70mm²	Set	₹ 5,534.00
2	Cost of 70 mm² AB (HT) Cable (3 x 70 + 1x95) mm² XLPE(11 kV)	Km		₹ 9,62,370.00	Mid Span Straight Through Jointing Kit for 11 kV ABC 95-120mm²	Set	₹ 6,065.00
3	Cost of 95 mm² AB (HT) Cable (3x95 +1x95)mm² XLPE(11 kV)	Km		₹ 10,82,718.57	Heat Shrinkable Outdoor Cable Termination Kit for 11 kV ABC 50-70 mm²	Set	₹ 2,339.00
	Heat Shrinkable Outdoor Cable Termination Kit for 11 kV ABC 95- 120 mm²	Set		₹ 2,712.00	Heat Shrinkable Outdoor Cable Termination Kit for 11 kV ABC 150-185 mm²	Set	₹ 3,264.00

ABSTRACT OF COST FOR ERECTION OF 11 kV TAPPING POINT AT MID SPAN (Amount in Rs.)			
S.No	**PARTICULARS**	**ST Pole**	**Amount**
A1	Total Cost of Material	**₹**	**70,094.36**
A	Net cost of Material without Civil Items	**₹**	**63,766.28**
B	GST @18% on **(A)**	₹	11,477.93
C	Labour charges for Normal Terrain for STP	₹	10,253.62
D	GST @18% on account of Labour charges on **(C)**	₹	1,845.65
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹	13,309.20
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹	3,762.21
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹**	**97,433.78**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹**	**98,643.70**

COST OF MATERIAL FOR ERECTION OF 11 kV TAPPING POINT AT MID SPAN
(Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	ST Poles	
				Unit Rate	Amount
1	9 Mtr.Long Pole (ST-410 SP33)	No	2	11618.52	23237.04
2	GI V cross-arm with top Bracket including clamp	Kg	34	120.00	4080.00
3	GI Channel/Angle Iron including clamps	Kg	52	120.00	6240.00
4	11kV GO, AB Switch 3-Phase, 3-Pole, 200 Amp, Vertical Type	Set	1	9350.00	9350.00
5	50 mm² ACSR Conductor	Mtr	15	64.29	964.29
6	PG Clamps for 50 mm² ACSR Conductor	No	3	150.00	450.00
7	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	No	6	210.00	1260.00
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	No	3	650.00	1950.00
9	Galvanized Nuts and Bolts	kg	1	120.00	120.00
10	Danger Plates with Clamps (enameled)	No	2	111.10	222.20
11	Anti-Climbing Device with Clamps	No	2	230.00	460.00
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip.25x3 mm (for 2 No ST poles and 1 No GO Switch)	No	3	1512.21	4536.63
13	Red Oxide	Ltr.	2	222.20	444.40
14	Aluminium Paint	Ltr.	2	370.70	741.40
15	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	No	2	3164.04	6328.08
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	2	4855.16	9710.32
A1	**Total Amount**				**₹ 70,094.36**
A	**Net Cost of Material without Civil Items**				**₹ 63,766.28**
S.No	**Particulars**	**Unit**		**Unit Rate**	
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96	
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73	
Note:-	**11 kV G.O Set may be installed for 1 transformer at tapping point. However if transformers are more than one ,than 11 kV Isolators may be installed.**				

ABSTRACT / COST FOR GUARD NETTING OF SINGLE SPAN FOR DISTRIBUTION LINES (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	GI Channel X-arm including clamps and braces	Kgs	33	120.00	3960.00
2	Galvanized Nuts and Bolts	Kgs	3	120.00	360.00
3	GI Wire 6 SWG & 8 SWG	Kgs	16	120.00	1920.00
4	Eye Bolts	Nos.	4	120.00	480.00
A	**Total Material Cost**	**---**	**---**		**₹ 6,720.00**
B	GST @18% on account of Material Cost **(A)**				1209.60
C	Labour charges for Normal Terrain	---	---		1003.30
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				180.59
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	---	---		1302.28
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---		396.48
	Total Amount for Normal Terrain (=A+B+C+D+F)				**₹ 9,509.97**
	Total Amount for Hilly Terrain /Congested areas (=A+B+E+F)				**₹ 9,628.36**

ABSTRACT / COST FOR SINGLE GUY FOR DISTRIBUTION LINES. (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Item	1	4855.16	4855.16
A	**Total Material Cost**	**---**	**---**		**₹ 4,855.16**
B	GST @18% on account of Material Cost **(A)**				873.93
C	Labour charges for Normal Terrain	---	---		678.27
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				122.09
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	---	---		880.39
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---		286.45
	Total Amount for Normal Terrain (=A+B+C+D+F)				**₹ 6,815.90**
	Total Amount for Hilly Terrain /Congested areas (=A+B+E+F)				**₹ 6,895.93**

ABSTRACT / COST FOR THICKENING OF 11kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 20MM² (SQUIRREL) to 30MM² (WEASAL). (Amount in Rs.)

S.NO	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	30 mm² ACSR Conductor (Weasel)	Km	3.09	38593.96	119255.34	3.09	38593.96	119255.34
2	9 Mtr. Long Pole(PCC WL-300kg , ST-410 SP33)	Nos	4	5500.00	22000.00	4	11618.52	46474.08
3	GI V cross-arm with top Bracket including clamp	Kg	58	120.00	6960.00	58	120.00	6960.00
4	PG Clamps for 30 mm² ACSR Conductor	Nos	12	150.00	1800.00	12	150.00	1800.00
5	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	12	210.00	2520.00	12	210.00	2520.00
6	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	6	650.00	3900.00	6	650.00	3900.00
7	Galvanized Nuts and Bolts	Kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	3	165.35	496.05
12	Red Oxide	Ltr.		0.00		4	222.20	888.80
13	Aluminium Paint	Ltr.		0.00		4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.48cum/pole	Nos		0.00		4	3164.04	12656.16
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	4	246.36	985.44			0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6 mm), nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
A1	**Total Cost of Material**				**₹ 1,90,085.87**			**₹ 2,28,602.27**
A	**Net cost of Material without Civil Items**				**₹ 1,89,100.43**			**₹ 2,15,946.11**
B	GST @18% on Material cost on **(A)**				₹ 34,038.08			₹ 38,870.30
C	Labour charges for Normal Terrain for PCC P & STP				₹ 44,986.99			₹ 30,232.45
D	GST @18% on account of Labour charges on **(C)**			---	₹ 8,097.66	---	---	₹ 5,441.84
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**				₹ 58,393.11			₹ 39,241.72
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**			---	₹ 11,156.93	---	---	₹ 12,740.82
G	**Total Amount for Normal Terrain (=A1+B+C+D+F)**			---	**₹ 2,88,365.52**	---	---	**₹ 3,15,887.68**
H	**Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)**			**---**	**₹ 2,93,673.98**	**---**	**---**	**₹ 3,19,455.11**
Note:	**Write back to credit material for 20 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**					---	---	---
	1. Length of Pole, its unit rate and amount may vary as per the Poles of existing Line.							
	2. Dismentalling Charges of existing conductor shall be permissible as per norms / 60% of Erection charges							

ABSTRACT / COST FOR THICKENING OF 11kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 30 MM² (WEASEL) TO 50 MM² (RABBIT) . (Amount in Rs.)

S.NO	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	50 mm² ACSR Conductor (Rabbit)	Km	3.09	64286.28	198644.61	3.09	64286.28	198644.61
2	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	4	5500.00	22000.00	4	11618.52	46474.08
3	GI V cross-arm with top Bracket including clamp	Kg	58	120.00	6960.00	58	120.00	6960.00
4	PG Clamps for 50 mm² ACSR Conductor	Nos	12	150.00	1800.00	12	150.00	1800.00
5	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	12	210.00	2520.00	12	210.00	2520.00
6	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	6	650.00	3900.00	6	650.00	3900.00
7	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	165.35	496.05	3	165.35	496.05
12	Red Oxide	Ltr.		0.00		4	222.20	888.80
13	Aluminium Paint	Ltr.		0.00		4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos		0.00		4	3164.04	12656.16
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	4	246.36	985.44	0		0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
A1	**Total Cost of Material**				**₹ 2,69,475.14**			**₹ 3,07,991.54**
A	**Net cost of Material without Civil Items**				**₹ 2,68,489.70**			**₹ 2,95,335.38**
B	GST @18% on Material cost on **(A)**				₹ 48,328.15			₹ 53,160.37
C	Labour charges for Normal Terrain for PCC P & STP				₹ 62,584.95			₹ 40,017.94
D	GST @18% on account of Labour charges on **(C)**			---	₹ 11,265.29	---	---	₹ 7,203.23
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**				₹ 81,235.27			₹ 51,943.29
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**			---	₹ 15,840.89	---	---	₹ 17,424.79
	Total Amount for Normal Terrain (=A1+B+C+D+F)			---	**₹ 4,07,494.42**	---	---	**₹ 4,25,797.87**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)			**---**	**₹ 4,14,879.45**	**---**	**---**	**₹ 4,30,519.99**
Note:-	**Write back to credit material for 30 mm² ACSR Conductor- Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**						---	---
	1. Length of Pole, its unit rate and amount may vary as per the Poles of existing Line.							
	2. Dismentalling Charges of existing conductor shall be permissible as per norms / 60% of Erection charges							

ABSTRACT/COST FOR REPLACEMENT OF 11 kV 1 CIRCUIT KM ACSR 30MM² CONDUCTOR BY 70MM² 11 kV AB CABLE . (Amount in Rs.)

S.NO	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	70 mm² AB (HT) Cable (3x70 + 1x95) mm² XLPE (11 kV, 3C + Earth)	km	1.05	962370.00	1010488.50	1.05	962370.00	1010488.50
2	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	2339.00	2339.00	1	2339.00	2339.00
3	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	20	190.00	3800.00
4	9 Mtr. Long Pole (PCC WL-300Kg , ST-410 SP33)	Nos	4	5500.00	22000.00	4	11618.52	46474.08
5	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	5534.00	5534.00	1	5534.00	5534.00
6	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
7	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
8	Red Oxide	Ltr.				4	222.20	888.80
9	Aluminium Paint	Ltr.				4	370.70	1482.80
10	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos				4	3164.04	12656.16
11	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	4	246.36	985.44	0		0.00
12	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
13	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip.25x3mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
14	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
A1	**Total Cost of Material**				**₹ 10,77,315.98**			**₹ 11,15,832.38**
A	**Net cost of Material without Civil Items**				**₹ 10,76,330.54**			**₹ 11,03,176.22**
B	GST @18% on Material cost on **(A)**				₹ 1,93,739.50			₹ 1,98,571.72
C	Labour charges for Normal Terrain for PCC P & STP				₹ 92,887.00			₹ 57,806.00
D	GST @18% on account of Labour charges on **(C)**			---	₹ 16,719.66	---	---	₹ 10,405.08
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**				₹ 1,20,567.00			₹ 75,032.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**			---	₹ 63,504.00	---	---	₹ 65,087.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)			---	**₹ 14,44,166.14**	---	---	**₹ 14,47,702.18**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)			**---**	**₹ 14,55,126.48**	**---**	**---**	**₹ 14,54,523.10**
Note:	**Write back to credit material for 30 mm² ACSR Conductor and Cross Arms -Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**						---	---
	1. Length of Pole, its unit rate and amount may vary as per the Poles of existing Line.							
	2. Dismentalling Charges of existing conductor shall be permissible as per norms/60% of Erection charges							

ABSTRACT/COST FOR REPLACEMENT OF 11kV 1 CIRCUIT KM ACSR 50 MM² CONDUCTOR BY 120 MM² 11 kV AB CABLE. (Amount in Rs.)

S.NO	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	120 mm² AB Cable (3X120+1X95)mm² XLPE (11kV, 3C+ Earth)	km	1.05	1319276.43	1385240.25	1.05	1319276.43	1385240.25
2	Heat Shrinkable Outdoor Cable Termination Kit	Set	1	2712.00	2712.00	3	2712.00	8136.00
3	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	20	190.00	3800.00
4	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	6	5500.00	33000.00	6	11618.52	69711.12
5	Mid Span Straight Through Jointing Kit for 11 kV ABC	Set	1	6065.00	6065.00	1	6065.00	6065.00
6	Danger Plates with Clamps (enameled)	Nos	6	111.10	666.60	6	111.10	666.60
7	Anti-Climbing Device with Clamps	Nos	6	230.00	1380.00	6	230.00	1380.00
8	Red Oxide	Ltr.				6	222.20	1333.20
9	Aluminium Paint	Ltr.				6	370.70	2224.20
10	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos				6	3164.04	18984.24
11	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	6	246.36	1478.16	0		0.00
12	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
13	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip.25x3mm	Nos	6	1512.21	9073.26	6	1512.21	9073.26
14	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
A1	**Total Cost of Material**				**₹ 14,68,171.07**			**₹ 15,31,369.67**
A	**Net cost of Material without Civil Items**				**₹ 14,66,692.91**			**₹ 15,12,385.43**
B	GST @18% on Material cost on **(A)**				₹ 2,64,004.72			₹ 2,72,229.38
C	Labour charges for Normal Terrain for PCC P & STP				₹ 1,26,282.00			₹ 78,947.00
D	GST @18% on account of Labour charges on **(C)**			---	₹ 22,730.76	---	---	₹ 14,210.46
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**				₹ 1,63,914.00			₹ 1,02,473.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**			---	₹ 86,535.00	---	---	₹ 89,231.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)			---	**₹ 19,67,723.56**	---	---	**₹ 19,85,987.51**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)			**---**	**₹ 19,82,624.80**	**---**	**---**	**₹ 19,95,303.05**
Note:-	**Write back to credit material for 50 mm² ACSR Conductor and Cross Arms -Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**							
	1. Length of Pole, its unit rate and amount may vary as per the Poles of existing Line.							
	2. Dismentalling Charges of existing conductor shall be permissible as per norms/60% of Erection charges							

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 3P4W 50MM² LT LINE ON 8 METER ST/PCC POLES WITH STANDARD SPAN OF 93.5 METERS

(Amount in Rs.)

S.No	PARTICULARS	PCC Pole	ST Pole
		Amount	Amount
A1	Total Material Cost	**₹ 3,58,792.72**	**₹ 4,45,675.93**
A	Net cost of Material without Civil Items	**₹ 3,56,082.76**	**₹ 4,15,584.16**
B	GST @18% on Material cost on **(A)**	₹ 64,094.90	₹ 74,805.15
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,08,855.00	₹ 78,005.00
D	GST @18% on account of Labour charges on **(C)**	₹ 19,593.90	₹ 14,040.90
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,41,294.00	₹ 1,01,250.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 21,009.00	₹ 24,519.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 5,72,345.52**	**₹ 6,37,045.98**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 5,85,190.62**	**₹ 6,46,250.08**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 3 PHASE 4 WIRE 50MM² LT LINE ON 8 METER PCC/ST POLE WITH STANDARD SPAN OF 93.5 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg ,ST-410 SP15)	Nos	9	3850.00	34650.00	8376.94	75392.46
2	9 Mtr. Long Pole(PCC WL-300Kg ,ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	GI U-Clamps for Shackle Insulators	Kg	44	120.00	5280.00	120.00	5280.00
4	50 mm² ACSR Conductor	km	4.12	64286.28	264859.47	64286.28	264859.47
5	16 kN Polymer Shackle Insulators	Nos	44	60.00	2640.00	60.00	2640.00
6	Galvanized Nuts and Bolts.	kg	6	120.00	720.00	120.00	720.00
7	Danger Plates with Clamps (enameled)	Nos	11	111.10	1222.10	111.10	1222.10
8	Anti-Climbing Device with Clamps	Nos	11	230.00	2530.00	230.00	2530.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	11	1512.21	16634.31	1512.21	16634.31
10	Red Oxide	Ltr.	11	---	---	222.20	2444.20
11	Aluminium Paint	Ltr.	11	---	---	370.70	4077.70
12	Cement bottoming 1:2:4 mix as per Standards 0.40cum /pole	Nos	9	---	---	2640.41	23763.69
13	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos	2	---	---	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	No	11	246.36	2709.96		0.00
15	Aluminium Jointing Sleeve	No	4	165.35	661.40	165.35	661.40
16	LT Line Spacers	No	20	66.00	1320.00	66.00	1320.00
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	3	4855.16	14565.48	4855.16	14565.48
A1	**Total Material Cost**				**₹ 3,58,792.72**		**₹ 4,45,675.93**
A	**Net Cost of Material without Civil Items**				**₹ 3,56,082.76**		**₹ 4,15,584.16**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 3P4W 50MM² LT LINE ON 8 METER ST/PCC POLES WITH HALF SPAN OF 47 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Material Cost	**₹ 4,35,469.74**	**₹ 5,97,491.85**
A	Net cost of Material without Civil Items	**₹ 4,30,296.18**	**₹ 5,40,995.98**
B	GST @18% on Material cost on **(A)**	₹ 77,453.31	₹ 97,379.28
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,35,888.00	₹ 1,07,063.00
D	GST @18% on account of Labour charges on **(C)**	₹ 24,459.84	₹ 19,271.34
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,76,383.00	₹ 1,38,968.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 25,387.00	₹ 31,919.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 6,98,657.90**	**₹ 8,53,124.47**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 7,14,693.06**	**₹ 8,65,758.13**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 3 PHASE 4 WIRE 50MM² LT LINE ON 8 METER PCC/ST POLES WITH HALF SPAN OF 47 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	19	3850.00	73150.00	8376.94	159161.86
2	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	GI U-Clamps for Shackle Insulators	Kg	84	120.00	10080.00	120.00	10080.00
4	50 mm² ACSR Conductor	km	4.12	64286.28	264859.47	64286.28	264859.47
5	16 kN Polymer Shackle Insulators	Nos	84	60.00	5040.00	60.00	5040.00
6	Galvanized Nuts and Bolts.	kg	11	120.00	1320.00	120.00	1320.00
7	Danger Plates with Clamps (enameled)	Nos	21	111.10	2333.10	111.10	2333.10
8	Anti-Climbing Device with Clamps	kg	21	230.00	4830.00	230.00	4830.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	21	1512.21	31756.41	1512.21	31756.41
10	Red Oxide	Ltr.	21	---	---	222.20	4666.20
11	Aluminium Paint	Ltr.	21	---	---	370.70	7784.70
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	19	---	---	2640.41	50167.79
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2	---	---	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	No	21	246.36	5173.56		0.00
15	Aluminium Jointing Sleeves	No	4	165.35	661.40	165.35	661.40
16	LT Line Spacers	No	15	66.00	990.00	66.00	990.00
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 4,35,469.74**		**₹ 5,97,491.85**
A	**Net Cost of Material without Civil Items**				**₹ 4,30,296.18**		**₹ 5,40,995.98**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 2P 3W 50MM² LT LINE ON 8 METER ST/PCC POLES WITH STANDARD SPAN OF 93.5 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Material Cost	**₹ 2,89,640.51**	**₹ 3,76,523.72**
A	Net cost of Material without Civil Items	**₹ 2,86,930.55**	**₹ 3,46,431.95**
B	GST @18% on Material cost on **(A)**	₹ 51,647.50	₹ 62,357.75
C	Labour charges for Normal Terrain for PCC P & STP	₹ 88,891.00	₹ 66,550.00
D	GST @18% on account of Labour charges on **(C)**	₹ 16,000.38	₹ 11,979.00
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,15,381.00	₹ 86,382.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 16,929.00	₹ 20,439.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 4,63,108.38**	**₹ 5,37,849.47**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 4,73,598.00**	**₹ 5,45,702.47**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 2 PHASE 3 WIRE 50MM² LT LINE ON 8 METER PCC/ST POLES WITH STANDARD SPAN OF 93.5 METERS **(Amount in Rs.)**

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	9	3850.00	34650.00	8376.94	75392.46
2	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	GI U-Clamps for Shackle Insulators	Kg	33	120.00	3960.00	120.00	3960.00
4	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
5	16 kN Polymer Shackle Insulators	Nos	33	60.00	1980.00	60.00	1980.00
6	Galvanized Nuts and Bolts.	kg	6	120.00	720.00	120.00	720.00
7	Danger Plates with Clamps (enameled)	Nos	11	111.10	1222.10	111.10	1222.10
8	Anti-Climbing Device with Clamps	Nos	11	230.00	2530.00	230.00	2530.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	11	1512.21	16634.31	1512.21	16634.31
10	Red Oxide	Ltr.	11	---	---	222.20	2444.20
11	Aluminium Paint	Ltr.	11	---	---	370.70	4077.70
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	9	---	---	2640.41	23763.69
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2	---	---	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	No	11	246.36	2709.96		0.00
15	Aluminium Jointing Sleeve	No	3	165.35	496.05	165.35	496.05
16	LT Line Spacers	No	12	44.00	528.00	44.00	528.00
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	3	4855.16	14565.48	4855.16	14565.48
A1	**Total Material Cost**				**₹ 2,89,640.51**		**₹ 3,76,523.72**
A	**Net Cost of Material without Civil Items**				**₹ 2,86,930.55**		**₹ 3,46,431.95**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 2P3W 50MM² LT LINE ON 8 METER ST/PCC POLES WITH HALF SPAN OF 47 METERS

(Amount in Rs.)

S.No	PARTICULARS	PCC Pole	ST Pole
		Amount	Amount
A1	Total Material Cost	₹ **3,64,759.53**	₹ **5,26,781.64**
A	Net cost of Material without Civil Items	₹ **3,59,585.97**	₹ **4,70,285.77**
B	GST @18% on Material cost on **(A)**	₹ 64,725.47	₹ 84,651.44
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,11,903.00	₹ 85,075.00
D	GST @18% on account of Labour charges on **(C)**	₹ 20,142.54	₹ 15,313.50
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,45,250.00	₹ 1,10,427.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Inssurance) on **(A+B)**	₹ 21,216.00	₹ 27,747.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	₹ **5,82,746.54**	₹ **7,39,568.57**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	₹ **5,95,951.00**	₹ **7,49,607.07**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 2 PHASE 3 WIRE 50MM² LT LINE ON 8 METER PCC/ST POLES WITH HALF SPAN OF 47 METERS (Amount in Rs.)

S.NO	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg ,ST-410 SP15)	Nos	19	3850.00	73150.00	8376.94	159161.86
2	9 Mtr. Long Pole(PCC WL-300Kg ,ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	GI U-Clamps for Shackle Insulators	Kg	63	120.00	7560.00	120.00	7560.00
4	50 mm² ACSR Conductor	km	3.09	64286.28	198644.61	64286.28	198644.61
5	16 kN Polymer Shackle Insulators	Nos	63	60.00	3780.00	60.00	3780.00
6	Galvanized Nuts and Bolts.	kg	11	120.00	1320.00	120.00	1320.00
7	Danger Plates	Nos	21	111.10	2333.10	111.10	2333.10
8	Anti-Climbing Device with Clamps	Nos	21	230.00	4830.00	230.00	4830.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	21	1512.21	31756.41	1512.21	31756.41
10	Red Oxide	Ltr.	21	---	---	222.20	4666.20
11	Aluminium Paint	Ltr.	21	---	---	370.70	7784.70
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	19	---	---	2640.41	50167.79
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2	---	---	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	No	21	246.36	5173.56		0.00
15	Aluminium Jointing Sleeve	No	3	165.35	496.05	165.35	496.05
16	LT Line Spacers	No	10	44.00	440.00	44.00	440.00
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 3,64,759.53**		**₹ 5,26,781.64**
A	**Net Cost of Material without Civil Items**				**₹ 3,59,585.97**		**₹ 4,70,285.77**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 1P2W 50MM² LT LINE ON 8 METER ST/PCC POLES WITH STANDARD SPAN OF 67 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Material Cost	**₹ 2,48,226.13**	**₹ 3,60,934.48**
A	Net cost of Material without Civil Items	**₹ 2,44,530.73**	**₹ 3,21,328.33**
B	GST @18% on Material cost on **(A)**	₹ 44,015.53	₹ 57,839.10
C	Labour charges for Normal Terrain for PCC P & STP	₹ 77,443.00	₹ 58,193.00
D	GST @18% on account of Labour charges on **(C)**	₹ 13,939.74	₹ 10,474.74
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,00,521.00	₹ 75,535.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on (A+B)	₹ 14,427.00	₹ 18,958.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 3,98,051.40**	**₹ 5,06,399.32**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 4,07,189.66**	**₹ 5,13,266.58**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 1 PHASE 2 WIRE 50MM² LT LINE ON 8 METER PCC/ST POLES WITH STANDARD SPAN OF 67 METERS (Amount in Rs.)							
S.No	**PARTICULARS**	**Unit**	**Qty**	**PCC Poles**		**ST Poles**	
				Rate	**Amount**	**Rate**	**Amount**
1	8 Mtr. Long Pole(PCC WL-250Kg ,ST-410 SP15)	Nos	15	3850.00	57750.00	8376.94	125654.10
2	GI U-Clamps for Shackle Insulators	Kg	30	120.00	3600.00	120.00	3600.00
3	50 mm² ACSR Conductor	km	2.06	64286.28	132429.74	64286.28	132429.74
4	16 kN Polymer Shackle Insulators	Nos	30	60.00	1800.00	60.00	1800.00
5	Galvanized Nuts and Bolts.	Kg	8	120.00	960.00	120.00	960.00
6	Danger Plates with Clamps (enameled)	Nos	15	111.10	1666.50	111.10	1666.50
7	Anti-Climbing Device with Clamps	Nos	15	230.00	3450.00	230.00	3450.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	15	1512.21	22683.15	1512.21	22683.15
9	Red Oxide	Ltr.	15		---	222.20	3333.00
10	Aluminium Paint	Ltr.	15	---	---	370.70	5560.50
11	Cement bottoming 1:2:4 mix as per Standards 0.40cum /pole	Nos	15	---	---	2640.41	39606.15
12	Stone Pad (300 mm x 300 mm x 75 mm)	No	15	246.36	3695.40		0.00
13	Aluminium Jointing Sleeve	No	2	165.35	330.70	165.35	330.70
14	LT Line Spacers	No	10	44.00	440.00	44.00	440.00
15	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	4	4855.16	19420.64	4855.16	19420.64
A1	**Total Material Cost**				**₹ 2,48,226.13**		**₹ 3,60,934.48**
A	**Net Cost of Material without Civil Items**				**₹ 2,44,530.73**		**₹ 3,21,328.33**

S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 1P2W 50MM² LT LINE ON 8 METER ST/PCC POLES WITH MINIMUM SPAN OF 40 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Material Cost	**₹ 3,16,777.99**	**₹ 5,04,625.24**
A	Net cost of Material without Civil Items	**₹ 3,10,618.99**	**₹ 4,38,614.99**
B	GST @18% on Material cost on **(A)**	₹ 55,911.42	₹ 78,950.70
C	Labour charges for Normal Terrain for PCC P & STP	₹ 1,00,920.00	₹ 80,749.00
D	GST @18% on account of Labour charges on **(C)**	₹ 18,165.60	₹ 14,534.82
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,30,994.00	₹ 1,04,812.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 18,327.00	₹ 25,878.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 5,10,102.00**	**₹ 7,04,737.75**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 5,22,010.40**	**₹ 7,14,265.93**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 1 PHASE 2 WIRE LT 50mm² LINE ON 8 METER PCC/ST POLES WITH MINIMUM SPAN OF 40 METERS (Amount in Rs.)							
S.No	**PARTICULARS**	**Unit**	**Qty**	**PCC Poles**		**ST Poles**	
				Unit Rate	**Amount**	**Unit Rate**	**Amount**
1	8 mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	25	3850.00	96250.00	8376.94	209423.50
2	GI U-Clamps for Shackle Insulators	Kg	50	120.00	6000.00	120.00	6000.00
3	50 mm² ACSR Conductor	km	2.06	64286.28	132429.74	64286.28	132429.74
4	16 kN Polymer Shackle Insulators	Nos	50	60.00	3000.00	60.00	3000.00
5	Galvanized Nuts and Bolts.	kg	13	120.00	1560.00	120.00	1560.00
6	Danger Plates with Clamps (enameled)	Nos	25	111.10	2777.50	111.10	2777.50
7	Anti-Climbing Device with Clamps	Nos	25	230.00	5750.00	230.00	5750.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	25	1512.21	37805.25	1512.21	37805.25
9	Red Oxide	Ltr.	25		---	222.20	5555.00
10	Aluminium Paint	Ltr.	25	---	---	370.70	9267.50
11	Cement bottoming 1:2:4 mix as per Standards 0.40cum /pole	Nos	25	---	---	2640.41	66010.25
12	Stone Pad (300 mm x 300 mm x 75 mm)	No	25	246.36	6159.00		0.00
13	Aluminium Jointing Sleeve	No	2	165.35	330.70	165.35	330.70
14	LT Line Spacers	No	10	44.00	440.00	44.00	440.00
15	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	5	4855.16	24275.80	4855.16	24275.80
A1	**Total Material Cost**				**₹ 3,16,777.99**		**₹ 5,04,625.24**
A	**Net Cost of Material without Civil Items**				**₹ 3,10,618.99**		**₹ 4,38,614.99**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 30 mm² ACSR Conductor	Km		₹ 38,593.96			
2	Cost of 100 mm² ACSR Conductor	Km		₹ 1,40,414.73			

ABSTRACT / COST FOR LAYING OF 1 KM OF 30MM² ACSR CONDUCTOR FOR STREET LIGHTING ON DISTRIBUTION LINES (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	30 mm² ACSR Conductor	Km	1.03	38593.96	39751.78
2	GI U-Clamps for Shackle Insulators	Kgs	25	120.00	3000.00
3	16 kN Polymer Shackle Insulators	Nos	25	60.00	1500.00
A	**Total Material Cost**	---	---	---	**₹ 44,251.78**
B	GST @18% on **(A)**				₹ 7,965.32
C	Labour charges for Normal Terrain	---	---	---	₹ 7,385.62
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 1,329.41
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	---	---	---	₹ 9,586.54
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 2,610.85
	Total Amount for Normal Terrain (=A+B+C+D+F)				**₹ 63,542.98**
	Total Amount for Hilly Terrain /Congested areas (=A+B+E+F)				**₹ 64,414.49**

ABSTRACT OF COST FOR ERECTION OF 1 KM OF LT ABC ON 8 METERS PCC/ ST POLE WITH AN AVERAGE SPAN OF 50 METERS (Amount in Rs.)

S.No	PARTICULARS	PCC Pole			ST Pole		
		50 mm²	70 mm²	120 mm²	50 mm²	70 mm²	120 mm²
A1	Total Material Cost	**₹ 5,48,211.48**	**₹ 6,83,776.21**	**₹ 10,18,214.98**	**₹ 7,02,719.70**	**₹ 8,38,284.43**	**₹ 11,72,723.20**
A	Net cost of Material without Civil Items	**₹ 5,43,284.28**	**₹ 6,78,849.01**	**₹ 10,13,287.78**	**₹ 6,48,864.24**	**₹ 7,84,428.97**	**₹ 11,18,867.74**
B	GST @18% on Material cost on **(A)**	₹ 97,791.17	₹ 1,22,192.82	₹ 1,82,391.80	₹ 1,16,795.56	₹ 1,41,197.21	₹ 2,01,396.19
C	Labour charges for Normal Terrain for PCCP & STP	₹ 66,063.00	₹ 82,548.00	₹ 1,23,216.00	₹ 45,550.00	₹ 55,067.00	₹ 78,545.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 11,891.34	₹ 14,858.64	₹ 22,178.88	₹ 8,199.00	₹ 9,912.06	₹ 14,138.10
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 85,750.00	₹ 1,07,147.00	₹ 1,59,934.00	₹ 59,124.00	₹ 71,477.00	₹ 1,01,951.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 32,054.00	₹ 40,052.00	₹ 59,784.00	₹ 38,283.00	₹ 46,281.00	₹ 66,013.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 7,56,010.99**	**₹ 9,43,427.67**	**₹ 14,05,785.67**	**₹ 9,11,547.27**	**₹ 10,90,741.70**	**₹ 15,32,815.50**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 7,63,806.65**	**₹ 9,53,168.03**	**₹ 14,20,324.79**	**₹ 9,16,922.27**	**₹ 10,97,239.64**	**₹ 15,42,083.40**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 50 MM², LT ABC ON 8 METERS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg ,ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole(PCC WL-300Kg ,ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	50 mm² AB (LT) Cable (3 x 50 + 1 x 16 + 1 x 35 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	1.05	374711.85	393447.44	374711.85	393447.44
4	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
5	Straight Through Cable Jointing Kit	Set	1	570.00	570.00	570.00	570.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20	---	---	222.20	4444.00
11	Aluminium Paint	Ltr.	20	---	---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40cum /pole	Nos	18	---	---	2640.41	47527.38
12	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos	2	---	---	3164.04	6328.08
13	Stone Pad (300 mm x 300 mm x 75 mm)	No	20	246.36	4927.20		0.00
14	Insulating Piercing Connectors	No	40	187.00	7480.00	187.00	7480.00
15	PG Clamps	No	0	150.00	0.00	150.00	0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	4	4855.16	19420.64	4855.16	19420.64
A1	**Total Material Cost**				**₹ 5,48,211.48**		**₹ 7,02,719.70**
A	**Net Cost of Material without Civil Items**				**₹ 5,43,284.28**		**₹ 6,48,864.24**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 70 mm² AB Cable (3x70+1x16+1x50 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 5,03,821.11	Straight Through Jointing Kit for 1.1 kV ABC 16-35mm²	Set	₹ 378.00
2	Cost of 95 mm² AB Cable (3x95+1x16+1x70 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 6,48,961.87	Straight Through Jointing Kit for 1.1 kV ABC 50-95mm²	Set	₹ 570.00
3	Cost of 120 mm² AB Cable (3x120+1x25+1x95 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 8,22,097.09	Straight Through Jointing Kit for 1.1 kV ABC 120-185mm²	Set	₹ 819.00
	Bare Messenger						
1	35 mm² AB (LT) Cable (3 x 35 + 1 x 16 + 1 x 25) mm² XLPE (1.1kV, 3+1 C, Al)	km		₹ 2,71,150.75			
2	50 mm² AB (LT) Cable (3 x 50 + 1 x 16 + 1 x 35) mm² XLPE (1.1kV, 3+1 C, Al)	km		₹ 3,53,342.59			
3	70 mm² AB (LT) Cable (3 x 70 + 1 x 16 + 1 x 50) mm² XLPE (1.1kV, 3+1 C, Al)	km		₹ 4,75,108.19			
4	95 mm² AB (LT) Cable (3 x95 + 1 x 16 + 1 x70) mm² XLPE (1.1kV, 3+1 C, Al)	km		₹ 6,08,576.30			
5	120 mm² AB (LT) Cable (3 x 120 + 1 x 25 + 1 x 95) mm² XLPE (1.1kV, 3+1 C, Al)	km		₹ 7,79,882.71			

COST OF MATERIAL FOR ERECTION OF 1 KM OF 70 MM², LT ABC ON 8 METERS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)

S.NO	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	8 Mtr. Long Pole(PCC WL-250Kg ,ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole(PCC WL-300Kg ,ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	70 mm² AB (LT) Cable (3 x 70 + 1 x 16 + 1 x 50 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	1.05	503821.11	529012.17	503821.11	529012.17
4	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
5	Straight Through Cable Jointing Kit	Set	1	570.00	570.00	570.00	570.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates with Clamps (enameled)	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20	---	---	222.20	4444.00
11	Aluminium Paint	Ltr.	20	---	---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	18	---	---	2640.41	47527.38
12	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2	---	---	3164.04	6328.08
13	Stone Pad (300 mm x 300 mm x 75 mm)	No	20	246.36	4927.20		0.00
14	Insulating Piercing Connectors	No	40	187.00	7480.00	187.00	7480.00
15	PG Clamps	No	0	150.00	0.00	150.00	0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6 mm), nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	4	4855.16	19420.64	4855.16	19420.64
A1	**Total Material Cost**				**₹ 6,83,776.21**		**₹ 8,38,284.43**
A	**Net Cost of Material without Civil Items**				**₹ 6,78,849.01**		**₹ 7,84,428.97**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 50 mm² AB Cable (3x50+1x16+1x35 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 3,74,711.85			
2	Cost of 120 mm² AB Cable (3x120+1x25+1x95 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 8,22,097.09			

COST OF MATERIAL FOR ERECTION OF 1 KM OF 120 MM², LT ABC ON 8 METERS PCC/ ST POLE WITH MINIMUM SPAN OF 50 METERS (Amount in Rs.)							
S.NO	**PARTICULARS**	**Unit**	**Qty**	**PCC Poles**		**ST Poles**	
				Unit Rate	**Amount**	**Unit Rate**	**Amount**
1	8 Mtr. Long Pole(PCC WL-250Kg ,ST-410 SP15)	Nos	18	3850.00	69300.00	8376.94	150784.92
2	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	2	5500.00	11000.00	11618.52	23237.04
3	120 mm² AB (LT) Cable (3 x 120 + 1 x 25 + 1 x 95 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	km	1.05	822097.09	863201.94	822097.09	863201.94
4	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	190.00	3800.00
5	Straight Through Cable Jointing Kit	Set	1	819.00	819.00	819.00	819.00
6	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	120.00	1200.00
7	Danger Plates	Nos	20	111.10	2222.00	111.10	2222.00
8	Anti-Climbing Device with Clamps	Nos	20	230.00	4600.00	230.00	4600.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	20	1512.21	30244.20	1512.21	30244.20
10	Red Oxide	Ltr.	20	---	---	222.20	4444.00
11	Aluminium Paint	Ltr.	20	---	---	370.70	7414.00
12	Cement bottoming 1:2:4 mix as per Standards 0.40 cum /pole	Nos	18	---	---	2640.41	47527.38
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	2	---	---	3164.04	6328.08
14	Stone Pad (300 mm x 300 mm x 75 mm)	No	20	246.36	4927.20		0.00
15	Insulating Piercing Connectors	No	40	187.00	7480.00	187.00	7480.00
16	PG Clamps	No	0	560.00	0.00	560.00	0.00
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	4	4855.16	19420.64	4855.16	19420.64
A1	**Total Material Cost**				**₹ 10,18,214.98**		**₹ 11,72,723.20**
A	**Net Cost of Material without Civil Items**				**₹ 10,13,287.78**		**₹ 11,18,867.74**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 50 mm² AB Cable (3x50+1x16+1x35 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 3,74,711.85			
2	Cost of 70 mm² AB Cable (3x70+1x16+1x50 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 5,03,821.11			

ABSTRACT/COST FOR REPLACEMENT OF 1 CKT. KM ACSR 30MM² (WEASEL) CONDUCTOR BY 50 MM² LT AB CABLE (Amount in Rs.)

S.No	PARTICULARS	Unit	PCC Pole			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	50 mm² AB (LT) Cable (3x50 + 1 x 16 + 1 x 35 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	KM	1.05	374711.85	393447.44	1.05	374711.85	393447.44
2	Straight Through Cable Jointing Kit	Set	1	570.00	570.00	1	570.00	570.00
3	Suspension/Tension Clamp with eye hook	Nos	20	190.00	3800.00	20	190.00	3800.00
4	8 Mtr. Long Pole(PCC WL-250Kg , ST-410 SP15)	Nos	4	3850.00	15400.00	4	8376.94	33507.76
5	Stone Pad (300 mm x 300 mm x 75 mm)	No	4	246.36	985.44	0		0.00
6	Cement bottoming 1:2:4 mix as per Standards 0.40 cum per pole	Nos				4	2640.41	10561.64
7	Galvanized Nuts and Bolts.	kg	10	120.00	1200.00	10	120.00	1200.00
8	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
9	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
10	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
11	Red Oxide	Ltr.	0	222.20	0.00	4	222.20	888.80
12	Aluminium Paint	Ltr.	0	370.70	0.00	4	370.70	1482.80
13	Insulating Piercing Connectors	No	64	187.00	11968.00	64	187.00	11968.00
14	PG Clamps	No	0	150.00	0.00	0	150.00	0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	No	5	4855.16	24275.80	5	4855.16	24275.80
A1	**Total Material Cost**				**₹ 4,59,059.92**			**₹ 4,89,115.48**
A	**Net Cost of Material without Civil Items**				**₹ 4,58,074.48**			**₹ 4,78,553.84**
B	GST @18% on Material cost on **(A)**				₹ 82,453.41			₹ 86,139.69
C	Labour charges for Normal Terrain for PCCP & STP	---	---	---	₹ 54,694.09			₹ 31,345.28
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 9,844.94			₹ 5,642.15
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	---	---	---	₹ 70,993.00			₹ 40,686.17
F	Overheads @ 5% (1.5% T&P,3% Contingency, 0.5% Insurance) on **(A+B)**	---	---	---	₹ 27,026.00			₹ 28,235.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**---**	**---**	**---**	**₹ 6,33,078.36**			**₹ 6,40,477.60**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**---**	**---**	**---**	**₹ 6,39,532.33**			**₹ 6,44,176.34**
Note:-	**1). Write back to credit material for 30 mm² ACSR Conductor and Cross Arms -Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**							---
	2). Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							

S.No	Particulars	Unit		Unit Rate
1	35 mm² AB (LT) Cable (3x35 + 1 x 16 + 1 x 25 insulated) mm² XLPE 1.1kV, 3+1 C, Al)	Km		₹ 2,87,514.38
2	70 mm² AB (LT) Cable (3 x 70 + 1 x 16 + 1 x 50 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 5,03,821.11
3	120 mm² AB (LT) Cable (3 x 120 + 1 x 25 + 1 x 95 insulated) mm² XLPE (1.1kV, 3+1 C, Al)	Km		₹ 8,22,097.09

ABSTRACT OF COST FOR ERECTION OF POLE MOUNTED
25 kVA, 63kVA, 100kVA, 200kVA, 250kVA DISTRIBUTION SUBSTATION

(Amount in Rs.)

S.No	PARTICULARS	25 kVA	63 kVA	100 kVA	200 kVA	250 kVA
		Amount	Amount	Amount	Amount	Amount
A1	Total Material Cost	₹ 2,20,569.84	₹ 3,27,324.92	₹ 3,75,858.96	₹ 6,31,784.40	₹ 9,22,786.52
A	Net cost of Material without Civil Items	₹ 2,14,241.76	₹ 3,20,996.84	₹ 3,69,530.88	₹ 6,25,456.32	₹ 9,16,458.44
B	GST @18% on Material Cost on **(A)**	₹ 38,563.52	₹ 57,779.43	₹ 66,515.56	₹ 1,12,582.14	₹ 1,64,962.52
C	Labour charges for Normal Terrain	₹ 14,097.00	₹ 21,122.00	₹ 24,315.00	₹ 41,155.00	₹ 60,303.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 2,537.46	₹ 3,801.96	₹ 4,376.70	₹ 7,407.90	₹ 10,854.54
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 18,298.00	₹ 27,416.00	₹ 31,561.00	₹ 53,419.00	₹ 78,273.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 12,640.00	₹ 18,939.00	₹ 21,802.00	₹ 36,902.00	₹ 54,071.00
	Total Amount for Normal Terrain on (=A1+B+C+D+F)	**₹ 2,88,407.82**	**₹ 4,28,967.31**	**₹ 4,92,868.22**	**₹ 8,29,831.44**	**₹ 12,12,977.58**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 2,90,071.36**	**₹ 4,31,459.35**	**₹ 4,95,737.52**	**₹ 8,34,687.54**	**₹ 12,20,093.04**

TYPICAL ESTIMATE OF MATERIAL COST FOR ERECTION OF POLE MOUNTED 25 kVA DISTRIBUTION SUBSTATION IN RURAL / URBAN AREAS. (Amount in Rs.)					
S.NO	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	11/0.433kV, 25 kVA 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound, and with LV Cable Box having detachable Aluminium Gland plate with LV Bimetallic terminal connection suitable for vertical take off of cable.	No	1	78022.00	78022.00
2	11 kV Gapless Surge Arrestor,9 kV ,10 kA ,LA with polymer housing, Stn. Type	Set	1	8279.00	8279.00
3	11kV GO, AB Switch 3-Phase, 3-Pole, 200 Amp, Vertical Type	Set	1	9350.00	9350.00
4	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	1	5000.00	5000.00
5	35 mm² Single-Core Cable,1.1kV Grade XLPE Insulated Stranded Conductor FRLS type	Mtr	44	115.18	5067.92
6	9 Mtr. Long Pole(ST-410 SP33)	Nos	2	11618.52	23237.04
7	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lightening Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	3	650.00	1950.00
8	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	No.	3	210.00	630.00
9	GI Channel/Angle/Flat of sizes including clamps	Kgs	250	120.00	30000.00
10	Galvanized Nuts and Bolts.	Kgs	8	120.00	960.00
11	LT Distribution Box for 25 kVA DTR with 40 Amp MCCB 3P 16 kA for incomer & 25 Amp MCCB 3P 16 kA/10 kA 1 No each (=2No.) for Outgoing Circuits .	No	1	25500.00	25500.00
12	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	Nos	2	3164.04	6328.08
13	Earthing of substation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mm x 3 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	Nos	3	7308.16	21924.48
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	2	1512.21	3024.42
15	Red Oxide	Ltr	2	222.20	444.40
16	Aluminium Paint	Ltr	2	370.70	741.40
17	Danger Plates with Clamps (enameled)	Nos	1	111.10	111.10
A1	**Total Material Cost**				**₹ 2,20,569.84**
A	**Net Cost of Material without Civil Items**				**₹ 2,14,241.76**

TYPICAL ESTIMATE OF MATERIAL COST FOR ERECTION OF POLE MOUNTED 63 kVA /100 kVA /200kVA/ 250 kVA
DISTRIBUTION SUBSTATION IN RURAL / URBAN AREAS. (Amount in Rs.)

S. No	Particulars	Unit	Qty	63 kVA		100 kVA		200 kVA		250 kVA	
				Unit Rate	Amount	Unit Rate	Amount	Unit Rate	Amount	Unit Rate	Amount
1	11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), (Al. wound upto 200kVA, Cu wound for 250kVA or higher kVA ratings) , and with LV Cable Box having detachable Al. Gland plate with LV Bimetallic terminal connection suitable for vertical take off of cable.(X-mer without OCTC (Off Ckt Tap Changer))	No	1	138985.00	138985.00	181830.00	181830.00	379302.00	379302.00	655857.00	655857.00
2	11 kV Gapless Surge Arrestor,9 kV ,10 kA ,LA with polymer housing, Stn. Type	Set	1	8279.00	8279.00	8279.00	8279.00	8279.00	8279.00	8279.00	8279.00
3	11kV Polymer type GO, AB Switch 3-Phase, 3-Pole, 200 Amp, Vertical Type	Set	1	9350.00	9350.00	9350.00	9350.00	9350.00	9350.00	9350.00	9350.00
4	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	1	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00
5	70mm² (1Ckt for 63 kVA),120mm² (1Ckt for 100 kVA),185mm² (2Ckt for 200kVA) ,240mm² (2Ckt for 250kVA) single core Cable,1.1kV Grade, XLPE Insulated Stranded Conductor FRLS type (44mtr for 1 Ckt)	Mtr	44	194.52	8558.88	310.18	13647.92	461.97	40653.36	557.96	49100.48
6	9 Mtr. Long Pole,(ST-410 SP33)	No	2	11618.52	23237.04	11618.52	23237.04	11618.52	23237.04	11618.52	23237.04
7	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	No	3	650.00	1950.00	650.00	1950.00	650.00	1950.00	650.00	1950.00
8	GI Channel/Angle/Flat of sizes including clamps	Kg	300	120.00	36000.00	120.00	36000.00	120.00	36000.00	120.00	36000.00
9	Galvanized Nuts and Bolts.	Kg	8	120.00	960.00	120.00	960.00	120.00	960.00	120.00	960.00
10	Earthing of substation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mm x 3 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No	3	7308.16	21924.48	7308.16	21924.48	7308.16	21924.48	7308.16	21924.48
11	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	2	1512.21	3024.42	1512.21	3024.42	1512.21	3024.42	1512.21	3024.42
12	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	No.	3	210.00	630.00	210.00	630.00	210.00	630.00	210.00	630.00
13	LT Distribution Box for:- i) 63 kVA DTR:- 2mm thick CRCA (1000x325x1010)mm with 1 no.adjustable 100 Amp MCCB 3P 16 kA for incomer & 1 no. fixed 100 Amp MCCB 3P 16 kA and 63 Amp MCCB 3P 16 kA 1 No.s for Outgoing Circuits, 04 no.Al. Bus Bar (25x8)mm for phase/neutral,earthing bolt (M10x35) 2 set &.6 no. link dissconector 200 Amp ii) 100 kVA DTR:- 2mm thick CRCA (1000x325x1010)mm with 1 no.adjustable 160 Amp MCCB 3P 16 kA for incomer & 2 no. fixed 100 Amp MCCB 3P 16 kA for Outgoing Circuits, 04 no.Al. Bus Bar (25x8)mm for phase/neutral,earthing bolt (M10x35) 2 set & 6 no. link disconector 200 Amp iii) 200 kVA DTR:- 2mm thick CRCA (1545x325x1050)mm with 1 no.adjustable 315 Amp MCCB 3P 25 kA for incomer & 3 no. fixed 160 Amp MCCB 3P 16 kA for Outgoing Circuits, 04 no.Al. Bus Bar (40x10)mm for phase/neutral,earthing bolt (M10x35) 2 set & 9 no. link disconector 200 Amp iv) 250 kVA DTR:- 2mm thick CRCA (1545x325x1050)mm with 1 no.adjustable 400 Amp MCCB 3P 36 kA for incomer & 1 no. fixed 200 Amp MCCB 3P 16 kA ,2no. 160 Amp MCCB 3p 16 KA for Outgoing Circuits, 04 no.Al. Bus Bar (40x10)mm for phase/neutral,earthing bolt (M10x35) 2 set & 9 no. link disconector 200 Amp	No.	1	33900.00	33900.00	34500.00	34500.00	65000.00	65000.00	71000.00	71000.00
14	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	set	2	4855.16	9710.32	4855.16	9710.32	4855.16	9710.32	4855.16	9710.32
15	Wedge Connectors / PG Clamps	No	6	402.00	2412.00	402.00	2412.00	560.00	3360.00	560.00	3360.00
16	Danger Plates with Clamps (enameled)	No	1	111.10	111.10	111.10	111.10	111.10	111.10	111.10	111.10
17	GI Barbed Wire for Anti Climbing	Kg	15	120.00	1800.00	120.00	1800.00	120.00	1800.00	120.00	1800.00
18	3-Ø, 4-Wire Trivector Meter (Prodigy) with suitable ring type CT 200 Amp	No	1	13200.00	13200.00	13200.00	13200.00	13200.00	13200.00	13200.00	13200.00
19	Cement bottoming 1:2:4 mix as per Standards 0.48 cum/pole	No	2	3164.04	6328.08	3164.04	6328.08	3164.04	6328.08	3164.04	6328.08
20	Painting of Poles Red Oxide	ltr	2	222.20	444.40	222.20	444.40	222.20	444.40	222.20	444.40
21	Painting of Poles Aluminium Paint	ltr	2	370.70	741.40	370.70	741.40	370.70	741.40	370.70	741.40
22	Sundry items like Aluminium lugs, Jumpers, Binding Tape, Bobbin Insulators	LS	1	778.80	778.80	778.80	778.80	778.80	778.80	778.80	778.80
A1	**Total Material Cost**				**₹ 3,27,324.92**		**₹ 3,75,858.96**		**₹ 6,31,784.40**		**₹ 9,22,786.52**
A	**Net Cost of Material without Civil Items**				**₹ 3,20,996.84**		**₹ 3,69,530.88**		**₹ 6,25,456.32**		**₹ 9,16,458.44**

S.No	Particulars (XLPE LT Cable Single Core, un-armoured, FRLS)	Unit		Unit Rate
1	35 mm² XLPE LT Cable Single Core,	Mtr		₹ 115.18
2	50 mm² XLPE LT Cable Single Core,	Mtr		₹ 148.55
3	70 mm² XLPE LT Cable Single Core,	Mtr		₹ 194.52
4	95mm² XLPE LT Cable Single Core,	Mtr		₹ 256.80
5	120 mm² XLPE LT Cable Single Core,	Mtr		₹ 310.18
6	150 mm² XLPE LT Cable Single Core,	Mtr		₹ 375.15
7	185 mm² XLPE LT Cable Single Core,	Mtr		₹ 461.97
8	240 mm² XLPE LT Cable Single Core,	Mtr		₹ 557.96
9	300 mm² XLPE LT Cable Single Core,	Mtr		₹ 694.62
10	400 mm² XLPE LT Cable Single Core,	Mtr		₹ 875.16
11	500 mm² XLPE LT Cable Single Core,	Mtr		₹ 1,133.90
12	630mm² XLPE LT Cable Single Core,	Mtr		₹ 1,430.59

ABSTRACT OF COST FOR ERECTION OF BED MOUNTED 400 kVA / 630 kVA / 1 MVA DISTRIBUTION SUBSTATION. (Amount in Rs.)				
S.No	**PARTICULARS**	**400 kVA**	**630 kVA**	**1 MVA**
		Amount	**Amount**	**Amount**
A1	Total Material Cost	**₹ 15,71,518.34**	**₹ 18,97,747.72**	**₹ 30,28,261.48**
A	Net cost of Material without Civil Items	**₹ 15,52,534.10**	**₹ 18,78,763.48**	**₹ 30,09,277.24**
B	GST @18% on Material Cost on **(A)**	₹ 2,79,456.14	₹ 3,38,177.43	₹ 5,41,669.90
C	Labour charges for Normal Terrain	₹ 90,668.00	₹ 1,09,720.00	₹ 1,75,742.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 16,320.24	₹ 19,749.60	₹ 31,633.56
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,17,687.00	₹ 1,42,417.00	₹ 2,28,113.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 91,600.00	₹ 1,10,847.00	₹ 1,77,547.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 20,49,562.72**	**₹ 24,76,241.75**	**₹ 39,54,853.94**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 20,60,261.48**	**₹ 24,89,189.15**	**₹ 39,75,591.38**

TYPICAL ESTIMATE OF MATERIAL COST FOR ERECTION OF POLE/PAD MOUNTED
400 kVA / 630 kVA / 1 MVA DISTRIBUTION SUBSTATION IN RURAL / URBAN AREAS (Amount in Rs.)

S. No	Particulars		400 kVA			630 kVA			1 MVA		
		Unit	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), (Copper wound), and with LV Cable Box having detachable Aluminium Gland plate.Transformer should have arrangement for vertical take off of cable (400kVA & 630 kVA X-mer with OCTC (Off Ckt Tap Changer) and 1MVA with automatic OLTC on 11 kV side (min 35% & max. 5%) with a provision of 3Phase backup supply).	No	1	1205658.00	1205658.00	1	1426345.00	1426345.00	1	2263900.00	2263900.00
2	11 kV Gapless Surge Arrestor,9 kV ,10 kA ,LA with polymer housing, Stn. Type	Set	1	8279.00	8279.00	1	8279.00	8279.00	1	8279.00	8279.00
3	11kV Polymer type GO, AB Switch 3-Phase, 3-Pole, 200 Amp, Vertical Type	Set	1	9350.00	9350.00	1	9350.00	9350.00	1	9350.00	9350.00
4	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	1	5000.00	5000.00	1	5000.00	5000.00	1	5000.00	5000.00
5	300 mm²(3Ckt) for 400 kVA,400mm² (3Ckt) for 630kVA ,630mm² (3Ckt) for 1 MVA Single Phase Cable,1.1K V Grade, XLPE Insulated Stranded Conductor FRLS type	Mtr	132	694.62	91689.84	132	875.16	115521.12	132	1430.59	188837.88
6	9 Mtr. Long Pole (ST-410 SP33)	No	2	11618.52	23237.04	2	11618.52	23237.04	2	11618.52	23237.04
7	G.I Pipe of 150 mm dia 2 mtr long for Pole Butts (6")	Mtr	4	1969.10	7876.40	4	1969.10	7876.40	4	1969.10	7876.40
8	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	No	3	650.00	1950.00	3	650.00	1950.00	3	650.00	1950.00
9	GI Channel/Angle/Flat of sizes including clamps for L.A Set/G.O Set/Horn Gap	Kg	150	120.00	18000.00	150	120.00	18000.00	150	120.00	18000.00
10	Galvanized Nuts and Bolts.	Kg	6	120.00	720.00	6	120.00	720.00	6	120.00	720.00
11	Earthing of Substation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mm x 3 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No	3	7308.16	21924.48	3	7308.16	21924.48	3	7308.16	21924.48
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	2	1512.21	3024.42	2	1512.21	3024.42	2	1512.21	3024.42
13	Transformer Pad/G.I Channel Bedding (300Kg/450kg/600kg)	Kg	300	120.00	36000.00	450	120.00	54000.00	600	120.00	72000.00
14	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lightening Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	No.	3	210.00	630.00	3	210.00	630.00	3	210.00	630.00
15	LT Distribution Box for i). 400 kVA DTR :- 2mm thick CRCA (1600x325x1050)mm with 630 Amp MCCB 3P (36 KA) adjustable 1 No. for incomer & 200 Amp 3 P (16 KA) 4 No.s fixed for Outgoing Circuits ,04 no.Al. Bus Bar (40x15)mm for phase/neutral,earthing bolt (M10x35) 2 set & 12 no. link disconector 200 Amp.ii). 630 kVA DTR :- 2mm thick CRCA (1750x325x1050)mm with 1000 Amp MCCB 3P (36 KA) adjustable 1 No. for incomer & 250 Amp MCCB 3 P (25 KA) 2 No.s fixed & 200 Amp MCCB 3 P (25 KA) 3 No.s for Out going, 04 no.Al. Bus Bar (40x15)mm for phase/neutral,earthing bolt (M10x35) 2 set & 15 no. link disconector 200 Amp	No.	1	101300.00	101300.00	1	165000.00	165000.00	0		0.00
16	1600 Amp 4P ACB Drawal type , Breaking Capacity 50kA with enclosure	No.	0			0			1	260000.00	260000.00
17	MCCB 630 Amp adjustable type 4P 36 KA with enclosure	No.	0			0			3	35349.70	106049.10
18	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long, 16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	set	2	4855.16	9710.32	2	4855.16	9710.32	2	4855.16	9710.32
19	Wedge Connectors / PG Clamps	No	6	720.00	4320.00	6	720.00	4320.00	6	720.00	4320.00
20	Danger Plates with Clamps (enameled)	No	1	111.10	100.00	1	111.10	111.10	1	111.10	111.10
21	GI Barbed Wire for Anti Climbing	Kg	15	120.00	1800.00	15	120.00	1800.00	15	120.00	1800.00
22	Cement bottoming 1:2:4 mix as per Standards 0.48cum /pole	No	6	3164.04	18984.24	6	3164.04	18984.24	6	3164.04	18984.24
23	Red Oxide	ltr	2	222.20	444.40	2	222.20	444.40	3	222.20	666.60
24	Aluminium Paint	ltr	2	370.70	741.40	2	370.70	741.40	3	370.70	1112.10
25	Sundry items like Aluminium lugs, Jumpers, binding Tape, Bobbin Insulators	LS	1	778.80	778.80	1	778.80	778.80	1	778.80	778.80
A1	**Total Material Cost**				**₹ 15,71,518.34**			**₹ 18,97,747.72**			**₹ 30,28,261.48**
A	**Net Cost of Material without Civil Items**				**₹ 15,52,534.10**			**₹ 18,78,763.48**			**₹ 30,09,277.24**
S.No	**Particulars**	**Unit**		**Unit Rate**							
1	11/0.433kV, 3-phase 1 MVA Distribution Transformers with Bimetallic Terminal Connectors Energy Level-2, (Copper wound), normal Tap Changer (OCTC) on HV side and with LV Cable Box having detachable Aluminium Gland plate.	No.		₹ 18,49,946.00							

ABSTRACT/ COST FOR AUGMENTATION OF DISTRIBUTION SUBSTATION FROM (25 - 63)/(63 - 100)/(100 - 250)/(250-400) kVA (Amount in Rs.)

S. No	Particulars	Unit	Qty	(25 - 63) kVA		(63 - 100) kVA		(100 - 250) kVA		(250 - 400) kVA	
				Unit Rate	Amount	Unit Rate	Amount	Unit Rate	Amount	Unit Rate	Amount
1	11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), (Aluminium wound upto 200kVA, Copper wound for 250kVA or higher kVA ratings) , and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical Take off. 200kVA and 250 kVA X-mer without	No	1	138985.00	138985.00	181830.00	181830.00	655857.00	655857.00	1205658.00	1205658.00
2	70 mm² (1 Ckt for 63 kVA),120 mm² (1 Ckt for 100 kVA),240mm² (2 Ckt for 250 kVA),300mm²(for 400 kVA 3Ckt) Cable, 1.1kV Grade, XLPE Insulated Stranded Conductor FRLS type	Mtr	44	194.52	8558.88	310.18	13647.92	557.96	49100.48	694.62	91689.84
3	Transformer Bed (60 Kg /350 Kg)	Kg	60/350	0.00		0.00		120.00	7200.00	120.00	42000.00
4	LT Distribution Box 2 mm thick for i) 63 kVA DTR:- 2mm thick CRCA (1000x325x1010)mm with 1 no.adjustable 100 Amp MCCB 3P 16 kA for incomer & 1 no. fixed 100 Amp MCCB 3P 16 kA and 63 Amp MCCB 3P 16 kA 1 No.s for Outgoing Circuits, 04 no.Al. Bus Bar (25x8)mm for phase/neutral,earthing bolt (M10x35) 2 set &.6 no. link dissconector 200 Amp ii) 100 kVA DTR:- 2mm thick CRCA (1000x325x1010)mm with 1 no.adjustable 160 Amp MCCB 3P 16 kA for incomer & 2 no. fixed 100 Amp MCCB 3P 16 kA for Outgoing Circuits, 04 no.Al. Bus Bar (25x8)mm for phase/neutral,earthing bolt (M10x35) 2 set & 6 no. link disconector 200 Amp iii) 200 kVA DTR:- 2mm thick CRCA (1545x325x1050)mm with 1 no.adjustable 315 Amp MCCB 3P 25 kA for incomer & 3 no. fixed 160 Amp MCCB 3P 16 kA for Outgoing Circuits, 04 no.Al. Bus Bar (40x10)mm for phase/neutral,earthing bolt (M10x35) 2 set & 9 no. link disconector 200 Amp iv) 250 kVA DTR:- 2mm thick CRCA (1545x325x1050)mm with 1 no.adjustable 400 Amp MCCB 3P 36 kA for incomer & 1 no. fixed 200 Amp MCCB 3P 16 kA ,2no. 160 Amp MCCB 3p 16 KA for Outgoing Circuits, 04 no.Al. Bus Bar (40x10)mm for	No.	1	33900.00	33900.00	34500.00	34500.00	71000.00	71000.00	101300.00	101300.00
5	Earthing of substation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mm x 3 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No	3	7308.16	21924.48	7308.16	21924.48	7308.16	21924.48	7308.16	21924.48
6	11 kV Polymer type GO, AB Switch 3-Phase, 3-Pole, 200 Amp, Vertical Type	Set	1	9350.00	9350.00	9350.00	9350.00	9350.00	9350.00	9350.00	9350.00
7	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	1	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00
8	9 Mtr. Long Pole (ST-410 SP33)	No.	2	11618.52	23237.04	11618.52	23237.04	11618.52	23237.04	11618.52	23237.04
9	G.I Pipe of 150 mm dia 2 mtr long for Pole butts	Mtr	4	0.00	0.00	0.00	0.00	0.00	0.00	1969.10	7876.40
10	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	2	1512.21	3024.42	1512.21	3024.42	1512.21	3024.42	1512.21	3024.42
11	11 kV Gapless Surge Arrestor,9 kV ,10 kA ,LA with polymer housing, Stn. Type.	Set	1	8279.00	8279.00	8279.00	8279.00	8279.00	8279.00	8279.00	8279.00
12	Galvanized Nuts and Bolts.	Kg	6	120.00	720.00	120.00	720.00	120.00	720.00	120.00	720.00
13	Painting of Poles Red Oxide	ltr	2	222.20	444.40	222.20	444.40	222.20	444.40	222.20	444.40
14	Painting of Poles Aluminium Paint	ltr	2	370.70	741.40	370.70	741.40	370.70	741.40	370.70	741.40
15	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	No	2	3164.04	6328.08	3164.04	6328.08	3164.04	6328.08	3164.04	6328.08
A1	**Total Material Cost**				**₹ 2,60,492.70**		**₹ 3,09,026.74**		**₹ 8,62,206.30**		**₹ 15,27,573.06**
A	**Net cost of Material without Civil Items**				**₹ 2,54,164.62**		**₹ 3,02,698.66**		**₹ 8,55,878.22**		**₹ 15,21,244.98**
B	GST @18% on Material Cost on **(A)**				₹ 45,749.63		₹ 54,485.76		₹ 1,54,058.08		₹ 2,73,824.10
C	Labour charges for Normal Terrain	---	---	---	₹ 15,936.00	---	₹ 18,979.00	---	₹ 53,664.00	---	₹ 95,382.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 2,868.48		₹ 3,416.22		₹ 9,659.52		₹ 17,168.76
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	---	---	---	₹ 20,685.00	---	₹ 24,635.00	---	₹ 69,656.00	---	₹ 1,23,806.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 14,996.00	---	₹ 17,859.00	---	₹ 50,497.00	---	₹ 89,753.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 3,40,042.81**	---	**₹ 4,03,766.72**	---	**₹ 11,30,084.90**	---	**₹ 20,03,700.92**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 3,41,923.33**	---	**₹ 4,06,006.50**	---	**₹ 11,36,417.38**	---	**₹ 20,14,956.16**
Note :	**1. Write back to credit material for Distribution Transformers - Depreciation shall be calculated as per useful life of the Distribution Transformer or the actual scrap value whichever is higher**							---	---	---	---
	2. For 11/0.433 kV Distribution Transformer Augmentation, Dismentalling Charges shall be considered 1% of cost of dismentalled Distribution Transformer along with accessories										

SERVICE CONNECTION OF SINGLE PHASE CONSUMER INSTALLATION
(POLE MOUNTED ENERGY METER) (Amount in Rs.)

S .No	PARTICULAR	Unit	Single Phase upto 4 kW Load			S.Phase above 4 kW to 8 kW		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	35 mm² Cable (2C) from LT Line to meter,1.1k V Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	Mtr	0	240.69	0.00	0.0	240.69	0.00
2	10 mm²/16 mm² Cable (2C) from meter to consumer cut out ,1.1k V Grade, Armoured,XLPE Insulated Stranded Conductor FRLS type	Mtr	15	x	x	15	x	x
3	Single Phase Smart Energy Meter 5-30 Amp/ 10-60 Amp, DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*	No.	1	To be decided Separetely	x	1	To be decided Separetely	x
4	Polypropylene weather proof outdoor type Meter Box for Single Phase Meter along with Zinc plated clamps	No.	1	To be decided Separetely	x	1	To be decided Separetely	x
A	**Total Material Cost**				**₹ -**			**₹ -**
B	GST @18% on Material Cost				₹ -			₹ -
C	Labour Charges	---	---	---	₹ -	---	---	₹ -
D	GST @18% on Labour Charges on **(C)**				₹ -			₹ -
E	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ -	---	---	₹ -
	Total Amount (=A+B+C+D+E)	---	---	---	**₹ -**	---	---	**₹ -**
Note:-								

*Since Smart meters belongs to IT Eco System,the final costs will be decided after taking into a/c NIC/Integration/Installation/Testing & Commissioning.

SERVICE CONNECTION OF THREE PHASE CONSUMER INSTALLATION
(POLE MOUNTED ENERGY METER) (Amount in Rs.)

S .No	PARTICULAR	Unit	Three Phase upto 8 kW Load			Three Phase upto 20 kW Load		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	35 mm² Cable (4C) from LT Line to meter,1.1kV Grade, Armoured,XLPE Insulated Stranded Conductor FRLS type	Mtr	0	418.72	0.00	0	418.72	0.00
2	10 mm²/16 mm² Cable (4C) from meter to consumer cut out ,1.1kV Grade,Armoured, XLPE Insulated Stranded Conductor FRLS type	Mtr	15	x	x	15	x	x
3	Three Phase Smart Energy Meter 20-80 Amp, DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*	No.	1	To be decided Separetely	x	1	To be decided Separetely	x
4	Polypropylene weather proof outdoor type Meter Box for Three Phase Meter along with Zinc plated clamps	No.	1	To be decided Separetely	x	1	To be decided Separetely	x
A	**Total Material Cost**				**₹ -**			**₹ -**
B	GST @18% on Material Cost on **(A)**				₹ -			₹ -
C	Labour Charges	---	---	---	₹ -	---	---	₹ -
D	GST @18% on Labour Charges on **(C)**				₹ -			₹ -
E	Overheads @ 5% (1.5% T&P,3%Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ -	---	---	₹ -
	Total Amount (=A+B+C+D+E)	---	---	---	**₹ -**	---	---	**₹ -**
Note:-								

*Since Smart meters belongs to IT Eco System,the final costs will be decided after taking into a/c NIC/Integration/Installation/Testing & Commissioning.

REPLACEMENT OF CONVENTIONAL ENERGY METER WITH SMART/PREPAID METER

(Amount in Rs.)

S .No	PARTICULAR	Unit	Single Phase Meter			Three Phase Meter		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	10 mm²/16 mm² Cable (2C/4C) ,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	Mtr	15	x	x	15	x	x
2	Single Phase Smart Energy Meter 5-30 Amp/ 10-60, Amp,Three Phase Smart Energy Meter 20-80 Amp DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*(Whole current Meters)	No.	1	To be decided Separetely	x	1	To be decided Separetely	x
3	Polypropylene weather proof outdoor type Meter Box for Single/Three Phase Meter along with Zinc plated clamps	No.	1	To be decided Separetely	x	1	To be decided Separetely	x
A	**Total Material Cost**				**₹ -**			**₹ -**
B	GST @18% on Material Cost on **(A)**				₹ -			₹ -
C	Labour Charges	---	---	---	₹ -	---	---	₹ -
D	GST @18% on Labour Charges on **(C)**				₹ -			₹ -
E	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ -	---	---	₹ -
	Total Amount (=A+B+C+D+E)	---	---	---	**₹ -**	---	---	**₹ -**
Note:-	**Write back to credit material (Meter to be deposited to JKPDD Store)**	No.	1					
Note:-								

*Since Smart meters belongs to IT Eco System,the final costs will be decided after taking into a/c NIC/Integration/Installation/Testing & Commissioning.

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 33 kV LINE ON 11 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH STANDARD SPAN OF 116 METERS (Amount in Rs.)			
S.No	**PARTICULARS**	**PCC Pole**	**ST Pole**
		Amount	**Amount**
A1	Total Material Cost	**₹ 6,56,927.97**	**₹ 8,08,582.11**
A	Net cost of Material without Civil Items	**₹ 6,54,218.01**	**₹ 7,60,480.87**
B	GST @ 18% on Material Cost on **(A)**	₹ 1,17,759.24	₹ 1,36,886.56
C	Labour charges for Normal Terrain for PCCP & STP	₹ 1,37,647.00	₹ 97,874.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 24,776.46	₹ 17,617.32
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,78,666.00	₹ 1,27,040.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 38,599.00	₹ 44,868.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 9,75,709.67**	**₹ 11,05,827.98**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 9,91,952.21**	**₹ 11,17,376.66**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 33 kV LINE ON 11 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH STANDARD SPAN OF 116 METERS. (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	11	7480.00	82280.00	16547.36	182020.96
2	GI V cross-arm with top Bracket including clamp	Kg	225	120.00	27000.00	120.00	27000.00
3	GI Channel X-arm including clamps and braces	Kg	160	120.00	19200.00	120.00	19200.00
4	100 mm² ACSR Conductor	km	3.09	140414.73	433881.52	140414.73	433881.52
5	PG Clamps for 100 mm² ACSR Conductor	Nos	12	402.00	4824.00	402.00	4824.00
6	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	33	602.00	19866.00	602.00	19866.00
7	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	12	950.00	11400.00	950.00	11400.00
8	Galvanized Nuts and Bolts	kg	11	120.00	1320.00	120.00	1320.00
9	Danger Plates with Clamps (enameled)	Nos	11	111.10	1222.10	111.10	1222.10
10	Anti-Climbing Device with Clamps	Nos	11	230.00	2530.00	230.00	2530.00
11	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	11	1512.21	16634.31	1512.21	16634.31
12	Red Oxide	Ltr.	11	---	---	222.20	2444.20
13	Aluminium Paint	Ltr.	11	---	---	370.70	4077.70
14	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	Nos	11	---	---	4372.84	48101.24
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	11	246.36	2709.96		0.00
16	Aluminium Jointing Sleeves	Nos	3	178.20	534.60	178.20	534.60
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	3	5255.16	15765.48	5255.16	15765.48
18	Guard netting complete	Span	2	8880.00	17760.00	8880.00	17760.00
A1	**Total Material Cost**				**₹ 6,56,927.97**		**₹ 8,08,582.11**
A	**Net Cost of Material without Civil Items**				**₹ 6,54,218.01**		**₹ 7,60,480.87**

S.No	Particulars	Unit		Unit Rate
1	Cost of 50 mm² ACSR Conductor	Km		₹ 64,286.28
2	Cost of 150 mm² ACSR Conductor	Km		₹ 2,12,973.79
3	Cost of 200 mm² ACSR Conductor	Km		₹ 3,03,391.52

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 33 kV LINE ON 11 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH HALF SPAN OF 58 METERS. (Amount in Rs.)

S.No	PARTICULARS	PCC Pole	ST Pole
		Amount	Amount
A1	Total Material Cost	**₹ 7,94,763.65**	**₹ 10,56,711.71**
A	Net cost of Material without Civil Items	**₹ 7,90,082.81**	**₹ 9,73,627.75**
B	GST @ 18% on Material Cost on **(A)**	₹ 1,42,214.91	₹ 1,75,252.99
C	Labour charges for Normal Terrain for PCCP & STP	₹ 1,75,872.00	₹ 1,34,653.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 31,656.96	₹ 24,237.54
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 2,28,282.00	₹ 1,74,780.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 46,615.00	₹ 57,444.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 11,91,122.51**	**₹ 14,48,299.24**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 12,11,875.55**	**₹ 14,64,188.70**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 33 kV LINE ON 11 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH HALF SPAN OF 58 METERS. (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	11 Mtr. Long Pole(PCC WL-360 Kg, ST-410 SP 56)	Nos	19	7480.00	142120.00	16547.36	314399.84
2	GI V cross-arm with top Bracket including clamp	Kg	425	120.00	51000.00	120.00	51000.00
3	GI Channel X-arm including clamps and braces	Kg	160	120.00	19200.00	120.00	19200.00
4	100 mm² ACSR Conductor	km	3.09	140414.73	433881.52	140414.73	433881.52
5	PG Clamps for 100 mm² ACSR Conductor	Nos	12	402.00	4824.00	402.00	4824.00
6	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	57	602.00	34314.00	602.00	34314.00
7	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	12	950.00	11400.00	950.00	11400.00
8	Galvanized Nuts and Bolts.	kg	19	120.00	2280.00	120.00	2280.00
9	Danger Plates with Clamps (enameled)	Nos	19	111.10	2110.90	111.10	2110.90
10	Anti-Climbing Device with Clamps	Nos	19	230.00	4370.00	230.00	4370.00
11	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3mm	Nos	19	1512.21	28731.99	1512.21	28731.99
12	Red Oxide	Ltr.	19	---	---	222.20	4221.80
13	Aluminium Paint	Ltr.	19	---	---	370.70	7043.30
14	Cement bottoming 1:2:4 mix as per Standards 0.66 cum /pole	Nos	19	---	---	4372.84	83083.96
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	19	246.36	4680.84		0.00
16	Aluminium Jointing Sleeves	Nos	3	178.20	534.60	178.20	534.60
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	5	5255.16	26275.80	5255.16	26275.80
18	Guard netting	Span	4	7260.00	29040.00	7260.00	29040.00
A1	**Total Material Cost**				**₹ 7,94,763.65**		**₹ 10,56,711.71**
A	**Net Cost of Material without Civil Items**				**₹ 7,90,082.81**		**₹ 9,73,627.75**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 150 mm² ACSR Conductor	Km		₹ 2,12,973.79			
2	Cost of 200 mm² ACSR Conductor	Km		₹ 3,03,391.52			

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 33 kV LINE ON 11/13 METER ST POLES, 200mm² ACSR CONDUCTOR. (Single/Double Circuit) (Amount in Rs.)

S.No	PARTICULARS	11 Mtr ST Poles (Single CKT)	11 Mtr ST Poles (Double CKT)	13 Mtr ST Poles (Single CKT)	13 Mtr ST Poles (Double CKT)
		Amount	Amount	Amount	Amount
A1	Total Material Cost	**₹ 17,38,218.52**	**₹ 34,32,892.43**	**₹ 16,60,878.72**	**₹ 36,18,272.45**
A	Net cost of Material without Civil Items	**₹ 16,33,270.36**	**₹ 32,49,233.15**	**₹ 15,63,310.30**	**₹ 34,02,594.89**
B	GST @ 18% on Material Cost on **(A)**	₹ 2,93,988.66	₹ 5,84,861.97	₹ 2,81,395.85	₹ 6,12,467.08
C	Labour charges for Normal Terrain	₹ 2,13,795.00	₹ 4,25,325.00	₹ 2,04,637.00	₹ 4,45,400.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 38,483.10	₹ 76,558.50	₹ 36,834.66	₹ 80,172.00
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 2,77,506.00	₹ 5,52,072.00	₹ 2,65,619.00	₹ 5,78,129.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 96,363.00	₹ 1,91,705.00	₹ 92,235.00	₹ 2,00,753.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	**₹ 23,80,848.28**	**₹ 47,11,342.90**	**₹ 22,75,981.23**	**₹ 49,57,064.53**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	**₹ 24,06,076.18**	**₹ 47,61,531.40**	**₹ 23,00,128.57**	**₹ 50,09,621.53**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 33 kV LINE ON 11 METER ST POLES, 200 mm² ACSR CONDUCTOR
(For Single Ckt ,Span 41 mtr and For Double Ckt Span 50 mtr) (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	ST Poles (Single CKT)		ST Poles (double CKT on H-Frame)		
				Unit Rate	Amount	Qty	Unit Rate	Amount
1	11 Mtr. Long Pole (ST-410 SP56)	Nos	24	16547.36	397136.64	42	16547.36	694989.12
2	GI V cross-arm with top Bracket including clamp	Kg	578	120.00	69360.00	0	120.00	0.00
3	GI Channel X-arm with Belting/Brace Angle Iron	Kg	295	120.00	35400.00	2835	120.00	340200.00
4	200 mm² ACSR Conductor	km	3.09	303391.52	937479.80	6.18	303391.52	1874959.59
5	PG Clamps for 200 mm² ACSR Conductor	Nos	12	720.00	8640.00	21	720.00	15120.00
6	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	72	602.00	43344.00	126	602.00	75852.00
7	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	15	950.00	14250.00	24	950.00	22800.00
8	Galvanized Nuts and Bolts.	kg	24	120.00	2880.00	42	120.00	5040.00
9	Danger Plates with Clamps (enameled)	Nos	24	111.10	2666.40	42	111.10	4666.20
10	Anti-Climbing Device with Clamps	Nos	24	230.00	5520.00	42	230.00	9660.00
11	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3mm	Nos	24	1512.21	36293.04	42	1512.21	63512.82
12	Red Oxide	Ltr.	24	222.20	5332.80	42	222.20	9332.40
13	Aluminium Paint	Ltr.	24	370.70	8896.80	42	370.70	15569.40
14	Cement bottoming 1:2:4 mix as per Standards 0.66,cum /pole	Nos	24	4372.84	104948.16	42	4372.84	183659.28
15	Stone Pad (300mm x300 mmx75 mm)	Nos	0		0.00	0		0.00
16	Aluminium Jointing Sleeves	Nos	4	234.98	939.92	7	234.98	1644.86
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	6	5255.16	31530.96	11	5255.16	57806.76
18	Guard netting	Span	5	6720.00	33600.00	8	7260.00	58080.00
A1	**Total Material Cost**				**₹ 17,38,218.52**			**₹ 34,32,892.43**
A	**Net Cost of Material without Civil Items**				**₹ 16,33,270.36**			**₹ 32,49,233.15**

S.No	Particulars	Unit	Unit Rate
1	Cost of 150 mm² ACSR Conductor	Km	₹ 2,12,973.79
2	Cost of 200 mm² ACSR Conductor	Km	₹ 3,03,391.52

COST OF MATERIAL FOR ERECTION OF 1 KM OF 33 kV LINE ON 13 METER ST POLES, 200 mm² ACSR CONDUCTOR (FOR SINGLE CKT, SPAN 58 MTR AND FOR DOUBLE CKT SPAN 50 MTR) (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	ST Poles (Single CKT)		ST Poles (double CKT)		
				Unit Rate	Amount	Qty	Unit Rate	Amount
1	13 Mtr. Long Pole (ST-410 SP 69)	Nos	19	20198.83	383777.77	42	20198.83	848350.86
2	GI V cross-arm with top Bracket including clamp	Kg	466	120.00	55920.00	0	120.00	0.00
3	GI Channel X-arm with Belting/Brace Angle Iron	Kg	225	120.00	27000.00	2835	120.00	340200.00
4	200 mm² ACSR Conductor	km	3.09	303391.52	937479.80	6.18	303391.52	1874959.59
5	PG Clamps for 200 mm² ACSR Conductor	Nos	12	720.00	8640.00	21	720.00	15120.00
6	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	57	602.00	34314.00	126	602.00	75852.00
7	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	12	950.00	11400.00	24	950.00	22800.00
8	Galvanized Nuts and Bolts.	kg	19	120.00	2280.00	42	120.00	5040.00
9	Danger Plates with Clamps (enameled)	Nos	19	111.10	2110.90	42	111.10	4666.20
10	Anti-Climbing Device with Clamps	Nos	19	230.00	4370.00	42	230.00	9660.00
11	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3mm	Nos	19	1512.21	28731.99	42	1512.21	63512.82
12	Red Oxide	Ltr.	19	222.20	4221.80	42	222.20	9332.40
13	Aluminium Paint	Ltr.	19	370.70	7043.30	42	370.70	15569.40
14	Cement bottoming 1:2:4 mix as per Standards 0.78 cum /pole	Nos	19	5135.18	97568.42	42	5135.18	215677.56
15	Stone Pad (300mm x 300mm x 75 mm)	Nos	0		0.00	0		0.00
16	Aluminium Jointing Sleeves	Nos	3	234.98	704.94	7	234.98	1644.86
17	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	5	5255.16	26275.80	11	5255.16	57806.76
18	Guard netting	Span	4	7260.00	29040.00	8	7260.00	58080.00
A1	**Total Material Cost**				**₹ 16,60,878.72**			**₹ 36,18,272.45**
A	**Net Cost of Material without Civil Items**				**₹ 15,63,310.30**			**₹ 34,02,594.89**

S.No	Particulars	Unit		Unit Rate
1	Cost of 150 mm² ACSR Conductor	Km		₹ 2,12,973.79

Note:- Intending wing to certify that higher pole supports are as per site constraints

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 33 kV LINE ON 9 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH STANDARD SPAN OF 116 METERS (Amount in Rs.)

S.NO	PARTICULARS	PCC Pole	ST Pole
		Amount	Amount
A1	Total Material Cost	₹ **6,34,295.97**	₹ **7,48,531.35**
A	Net cost of Material without Civil Items	₹ **6,31,586.01**	₹ **7,11,309.31**
B	GST @ 18% on Material Cost on **(A)**	₹ 1,13,685.48	₹ 1,28,035.68
C	Labour charges for Normal Terrain for PCCP & STP	₹ 1,31,307.00	₹ 88,629.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 23,635.26	₹ 15,953.22
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 1,70,436.00	₹ 1,15,040.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 37,264.00	₹ 41,967.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	₹ **9,40,187.71**	₹ **10,23,116.24**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	₹ **9,55,681.45**	₹ **10,33,574.02**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 33 kV LINE ON 9 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH STANDARD SPAN OF 116 METERS (Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP33)	Nos	9	5500.00	49500.00	11618.52	104566.68
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	175	120.00	21000.00	120.00	21000.00
4	GI Channel X-arm including clamps and braces	Kg	200	120.00	24000.00	120.00	24000.00
5	100 mm² ACSR Conductor	km	3.09	140414.73	433881.52	140414.73	433881.52
6	PG Clamps for 100 mm² ACSR Conductor	Nos	12	402.00	4824.00	402.00	4824.00
7	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	27	602.00	16254.00	602.00	16254.00
8	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	12	950.00	11400.00	950.00	11400.00
9	Galvanized Nuts and Bolts	kg	11	120.00	1320.00	120.00	1320.00
10	Danger Plates with Clamps (enameled)	Nos	11	111.10	1222.10	111.10	1222.10
11	Anti-Climbing Device with Clamps	Nos	11	230.00	2530.00	230.00	2530.00
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	11	1512.21	16634.31	1512.21	16634.31
13	Red Oxide	Ltr.	11	---	---	222.20	2444.20
14	Aluminium Paint	Ltr.	11	---	---	370.70	4077.70
15	Cement bottoming 1:2:4 mix as per Standards 0.48 cum/pole	Nos	9	---	---	3164.04	28476.36
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	Nos	2	---	---	4372.84	8745.68
17	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	11	246.36	2709.96		0.00
18	Aluminium Jointing Sleeves	Nos	3	178.20	534.60	178.20	534.60
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	3	5255.16	15765.48	5255.16	15765.48
20	Guard netting	Span	2	8880.00	17760.00	8880.00	17760.00
A1	**Total Material Cost**				**₹ 6,34,295.97**		**₹ 7,48,531.35**
A	**Net Cost of Material without Civil Items**				**₹ 6,31,586.01**		**₹ 7,11,309.31**

S.No	Particulars	Unit		Unit Rate
1	Cost of 150 mm² ACSR Conductor	Km		₹ 2,12,973.79
2	Cost of 200 mm² ACSR Conductor	Km		₹ 3,03,391.52

ABSTRACT OF COST FOR ERECTION OF 1 KM OF 33 kV LINE ON 9 METER ST/PCC POLES, 100 mm² ACSR CONDUCTOR WITH HALF SPAN OF 58 METERS. (Amount in Rs.)

S.No	PARTICULARS	PCC Pole	ST Pole
		Amount	Amount
A1	Total Material Cost	₹ **7,81,342.99**	₹ **9,91,869.37**
A	Net cost of Material without Civil Items	₹ **7,76,169.43**	₹ **9,23,006.93**
B	GST @ 18% on Material Cost on **(A)**	₹ 1,39,710.50	₹ 1,66,141.25
C	Labour charges for Normal Terrain for PCCP & STP	₹ 1,71,922.00	₹ 1,24,421.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**	₹ 30,945.96	₹ 22,395.78
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	₹ 2,23,155.00	₹ 1,61,498.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	₹ 45,794.00	₹ 54,457.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	₹ **11,69,715.44**	₹ **13,59,284.39**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	₹ **11,90,002.48**	₹ **13,73,965.61**

COST OF MATERIAL FOR ERECTION OF 1 KM OF 33 kV LINE ON 9 METER ST/PCC POLES,100 mm² ACSR CONDUCTOR WITH HALF SPAN OF 58 METERS. (Amount in Rs)

S.No	PARTICULARS	Unit	Qty	PCC Poles		ST Poles	
				Unit Rate	Amount	Unit Rate	Amount
1	9 Mtr. Long Pole(PCC WL-300Kg , ST-410 SP 33)	Nos	19	5500.00	104500.00	11618.52	220751.88
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP 56)	Nos	2	7480.00	14960.00	16547.36	33094.72
3	GI V cross-arm with top Bracket including clamp	Kg	425	120.00	51000.00	120.00	51000.00
4	GI Channel X-arm including clamps and braces	Kg	200	120.00	24000.00	120.00	24000.00
5	100 mm² ACSR Conductor	km	3.09	140414.73	433881.52	140414.73	433881.52
6	PG Clamps for 100 mm² ACSR Conductor	Nos	12	402.00	4824.00	402.00	4824.00
7	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	57	602.00	34314.00	602.00	34314.00
8	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	12	950.00	11400.00	950.00	11400.00
9	Galvanized Nuts and Bolts	kg	21	120.00	2520.00	120.00	2520.00
10	Danger Plates with Clamps (enameled)	Nos	21	111.10	2333.10	111.10	2333.10
11	Anti-Climbing Device with Clamps	Nos	21	230.00	4830.00	230.00	4830.00
12	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	21	1512.21	31756.41	1512.21	31756.41
13	Red Oxide	Ltr.	21	---	---	222.20	4666.20
14	Aluminium Paint	Ltr.	21	---	---	370.70	7784.70
15	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	19	---	---	3164.04	60116.76
16	Cement bottoming 1:2:4 mix as per Standards 0.66 cum /pole	Nos	2	---	---	4372.84	8745.68
17	Stone Pad (300mm x300mm x75 mm)	Nos	21	246.36	5173.56		0.00
18	Aluminium Jointing Sleeves	Nos	3	178.20	534.60	178.20	534.60
19	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	5	5255.16	26275.80	5255.16	26275.80
20	Guard netting	Span	4	7260.00	29040.00	7260.00	29040.00
A1	**Total Material Cost**				**₹ 7,81,342.99**		**₹ 9,91,869.37**
A	**Net Cost of Material without Civil Items**				**₹ 7,76,169.43**		**₹ 9,23,006.93**
S.No	**Particulars**	**Unit**		**Unit Rate**			
1	Cost of 150 mm² ACSR Conductor	Km		₹ 2,12,973.79			
2	Cost of 200 mm² ACSR Conductor	Km		₹ 3,03,391.52			

ABSTRACT / COST FOR GUARD NETTING OF SINGLE SPAN FOR 33/11 kV LINES ON ST POLES
(Amount in Rs.)

S.No	PARTICULARS	Unit	Qty	Unit Rate	Standard Span (For Span of 116 mtr)	Half Span (For Span of 58 Mtr)	(1/3) Span (For Span of 40 Mtr)
					Amount	Amount	Amount
1	GI Channel X-arm including clamps and braces	Kgs	40	120.00	4800.00	4800.00	4800.00
2	Galvanized Nuts and Bolts	Kgs	3	120.00	360.00	360.00	360.00
3	GI Wire 6 SWG & 8 SWG	Kgs	27	120.00	3240.00	1620.00	1080.00
4	Eye Bolts	Nos.	4	120.00	480.00	480.00	480.00
A	**Total Material Cost**	---	---	---	**₹ 8,880.00**	**₹ 7,260.00**	**₹ 6,720.00**
B	GST @18% on Material Cost on **(A)**				₹ 1,598.40	₹ 1,306.80	₹ 1,209.60
C	Labour charges for Normal Terrain	---	---	---	₹ 1,329.00	₹ 1,087.00	₹ 1,006.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 239.22	₹ 195.66	₹ 181.08
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges on **(C+D)**	---	---	---	₹ 1,725.00	₹ 1,411.00	₹ 1,306.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 524.00	₹ 428.00	₹ 396.00
	Total Amount for Normal Terrain (=A+B+C+D+F)				**₹ 12,570.62**	**₹ 10,277.46**	**₹ 9,512.68**
	Total Amount for Hilly Terrain /Congested areas (=A+B+E+F)				**₹ 12,727.40**	**₹ 10,405.80**	**₹ 9,631.60**

ABSTRACT/ COST FOR SINGLE GUY FOR 33 kV LINES (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Set	1	5255.16	5255.16
A	**Total Material Cost**				**₹ 5,255.16**
B	GST @18% on Material Cost **on (A)**				₹ 945.93
C	Labour charges for Normal Terrain	---	---	---	₹ 847.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 152.46
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**	---	---	---	₹ 1,099.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 310.00
	Total Amount for Normal Terrain (=A+B+C+D+F)				**₹ 7,510.55**
	Total Amount for Hilly Terrain /Congested areas (=A+B+E+F)				**₹ 7,610.09**

ABSTRACT/ COST FOR THICKENING OF 11 kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 50 mm²(RABBIT) TO 100 mm²(DOG)
(Amount in Rs.)

S.No	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	100 mm² ACSR Conductor - (Dog)	Km	3.09	140414.73	433882.00	3.09	140414.73	433882.00
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	4	7480.00	29920.00	4	16547.36	66189.44
3	GI V cross-arm with top Bracket including clamp	Kg	88	120.00	10560.00	88	120.00	10560.00
4	PG Clamps for 100 mm² ACSR Conductor	Nos	12	402.00	4824.00	12	402.00	4824.00
5	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	12	210.00	2520.00	12	210.00	2520.00
6	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	6	650.00	3900.00	6	650.00	3900.00
7	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	178.20	534.60	3	178.20	534.60
12	Red Oxide	Ltr.				4	222.20	888.80
13	Aluminium Paint	Ltr.				4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	Nos		---		4	4372.84	17491.36
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	4	246.36	985.44			0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
17	Guard netting	Span	0	7260.00	0.00	0	7260.00	0.00
A1	**Total Material Cost**				**₹ 5,19,295.08**			**₹ 5,74,442.04**
A	**Net cost of Material without Civil Items**				**₹ 5,18,309.64**			**₹ 5,56,950.68**
B	GST @18% on Material Cost on **(A)**				₹ 93,295.74			₹ 1,00,251.12
C	Labour charges for Normal Terrain for PCCP & STP	---	---	---	₹ 54,993.00	---	---	₹ 41,827.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 9,898.74			₹ 7,528.86
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 71,381.00	---	---	₹ 54,291.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 30,580.00	---	---	₹ 32,860.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 7,08,062.56**	---	---	**₹ 7,56,909.02**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 7,14,551.82**	---	---	**₹ 7,61,844.16**
Note:-	**1). Write back to credit material for 50 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**				---	---	---	---
	2).Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							

ABSTRACT / COST FOR THICKENING OF 11 kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 30/ 50 mm² TO 100 mm² (DOG) ON 9 MTR POLE . (Amount in Rs.)

S.No	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	100 mm² ACSR Conductor - (Dog)	Km	3.09	140414.73	433882.00	3.09	140414.73	433882.00
2	9 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	4	5500.00	22000.00	4	11618.52	46474.08
3	GI V cross-arm with top Bracket including clamp	Kg	88	120.00	10560.00	88	120.00	10560.00
4	PG Clamps for 100 mm² ACSR Conductor	Nos	12	402.00	4824.00	12	402.00	4824.00
5	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	12	210.00	2520.00	12	210.00	2520.00
6	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	6	650.00	3900.00	6	650.00	3900.00
7	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	178.20	534.60	3	178.20	534.60
12	Red Oxide	Ltr.				4	222.20	888.80
13	Aluminium Paint	Ltr.				4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.48cum/pole	Nos		---		4	3164.04	12656.16
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	4	246.36	985.44			0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
17	Guard netting	Span	0	7260.00	0.00	0	7260.00	0.00
A1	**Total Material Cost**				**₹ 5,11,375.08**			**₹ 5,49,891.48**
A	**Net cost of Material without Civil Items**				**₹ 5,10,389.64**			**₹ 5,37,235.32**
B	GST @18% on Material Cost on **(A)**				₹ 91,870.14			₹ 96,702.36
C	Labour charges for Normal Terrain for PCCP & STP	---	---	---	₹ 53,744.00	---	---	₹ 38,950.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 9,673.92			₹ 7,011.00
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 69,760.00	---	---	₹ 50,557.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 30,113.00	---	---	₹ 31,697.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 6,96,776.14**	---	---	**₹ 7,24,251.84**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 7,03,118.22**	---	---	**₹ 7,28,847.84**
Note:-	**Write back to credit material for 30/ 50 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**							
	Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							

ABSTRACT / COST FOR THICKENING OF 11 kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 100mm² (DOG) TO 150mm² (WOLF) (Amount in Rs.)

S.No	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	150 mm² ACSR Conductor	Km	3.09	212973.79	658089.00	3.09	212973.79	658089.00
2	9 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	4	5500.00	22000.00	4	11618.52	46474.08
3	GI V cross-arm with top Bracket including clamp	Kg	88	120.00	10560.00	88	120.00	10560.00
4	PG Clamps for 150 mm² ACSR Conductor	Nos	12	560.00	6720.00	12	560.00	6720.00
5	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	Nos	12	210.00	2520.00	12	210.00	2520.00
6	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	Nos	6	650.00	3900.00	6	650.00	3900.00
7	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3mtr long through GI Strip.25x3mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	195.26	585.78	3	195.26	585.78
12	Red Oxide	Ltr.				4	222.20	888.80
13	Aluminium Paint	Ltr.				4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.48cum/pole	Nos		---		4	3164.04	12656.16
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	4	246.36	985.44			0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x 6)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,16 mm diameter solid GS stay rod & 7/3.15 mm dia GI stranded wire complete	Nos	5	4855.16	24275.80	5	4855.16	24275.80
17	Guard netting	Span	0	7260.00	0.00	0	7260.00	0.00
A1	**Total Material Cost**				**₹ 7,37,529.26**			**₹ 7,76,045.66**
A	**Net cost of Material without Civil Items**				**₹ 7,36,543.82**			**₹ 7,63,389.50**
B	GST @18% on Material Cost on **(A)**				₹ 1,32,577.89			₹ 1,37,410.11
C	Labour charges for Normal Terrain for PCCP & STP	---	---	---	₹ 82,272.00	---	---	₹ 58,323.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 14,808.96			₹ 10,498.14
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 1,06,789.00	---	---	₹ 75,703.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 43,456.00	---	---	₹ 45,040.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 10,10,644.11**	---	---	**₹ 10,27,316.91**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 10,20,352.15**	---	---	**₹ 10,34,198.77**
Note:-	**1). Write back to credit material for 100 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**				---	---	---	---
	2). Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							
	3). For 33 kV line rate of Fixtures may be modified accordingly							

ABSTRACT / COST FOR THICKENING OF 33 kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 100mm² (DOG) TO 150mm² (WOLF) / 200mm² (Panther) . (Amount in Rs.)

S.No	PARTICULARS	Unit	Existing to 150mm² (WOLF)			Existing to 200mm² (Panther)		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	150/200 mm² ACSR Conductor	Km	3.09	212973.79	658089.00	3.09	303391.52	937480.00
2	11 Mtr. Long Pole(ST-410 SP56)	Nos	6	16547.36	99284.00	6	16547.36	99284.16
3	GI V cross-arm with top Bracket including clamp	Kg	132	120.00	15840.00	132	120.00	15840.00
4	PG Clamps for 150/200 mm² ACSR Conductor	Nos	18	560.00	10080.00	18	720.00	12960.00
5	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	18	602.00	10836.00	18	602.00	10836.00
6	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	10	950.00	9500.00	10	950.00	9500.00
7	Galvanized Nuts and Bolts	kg	6	120.00	720.00	6	120.00	720.00
8	Earthing Complete by GI Pipe 40 mm 3mtr long through GI Strip.25x3mm	Nos	6	1512.21	9073.26	6	1512.21	9073.26
9	Danger Plates with Clamps (enameled)	Nos	6	111.10	666.60	6	111.10	666.60
10	Anti-Climbing Device with Clamps	Nos	6	230.00	1380.00	6	230.00	1380.00
11	Aluminium Jointing Sleeves	Nos	6	195.26	1171.56	6	234.98	1409.88
12	Red Oxide	Ltr.	6	222.20	1333.20	6	222.20	1333.20
13	Aluminium Paint	Ltr.	6	370.70	2224.20	6	370.70	2224.20
14	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	Nos	6	4372.84	26237.04	6	4372.84	26237.04
15	Stone Pad (300 mm x 300 mm x 75 mm)	Nos	0		0.00		0.00	0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	6	5255.16	31530.96	6	5255.16	31530.96
17	Guard netting	Span	0	7260.00	0.00	0	7260.00	0.00
A1	**Total Material Cost**				**₹ 8,77,965.82**			**₹ 11,60,475.30**
A	**Net cost of Material without Civil Items**				**₹ 8,51,728.78**			**₹ 11,34,238.26**
B	GST @18% on Material Cost on **(A)**				₹ 1,53,311.18			₹ 2,04,162.89
C	Labour charges for Normal Terrain for STP	---	---	---	₹ 66,435.00	---	---	₹ 88,471.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 11,958.30			₹ 15,924.78
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 86,233.00	---	---	₹ 1,14,835.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 50,252.00	---	---	₹ 66,920.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 11,59,922.30**	---	---	**₹ 15,35,953.97**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 11,67,762.00**	---	---	**₹ 15,46,393.19**
Note:-	**Write back to credit material for 100 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**				---	---	---	---
	Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							

ABSTRACT / COST FOR THICKENING OF 33 kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 150mm² (WOLF) TO 200mm² (PANTHER) (Amount in Rs.)

S.No	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	200 mm² ACSR Conductor	Km	3.09	303391.52	937480.00	3.09	303391.52	937480.00
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	4	7480.00	29920.00	4	16547.36	66189.44
3	GI V cross-arm with top Bracket including clamp	Kg	88	120.00	10560.00	88	120.00	10560.00
4	PG Clamps for 200 mm² ACSR Conductor	Nos	12	720.00	8640.00	12	720.00	8640.00
5	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	12	602.00	7224.00	12	602.00	7224.00
6	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	6	950.00	5700.00	6	950.00	5700.00
7	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	234.98	704.94	3	234.98	704.94
12	Red Oxide	Ltr.				4	222.20	888.80
13	Aluminium Paint	Ltr.				4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	Nos		---		4	4372.84	17491.36
15	Stone Pad (300mm x300mm x75 mm)	Nos	4	246.36	985.44			0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8)mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	5	5255.16	26275.80	5	5255.16	26275.80
17	Guard netting	Span	0	7260.00	0.00	0	7260.00	0.00
A1	**Total Material Cost**				**₹ 10,35,383.42**			**₹ 10,90,530.38**
A	**Net cost of Material without Civil Items**				**₹ 10,34,397.98**			**₹ 10,73,039.02**
B	GST @18% on Material Cost on **(A)**				₹ 1,86,191.64			₹ 1,93,147.02
C	Labour charges for Normal Terrain for PCCP & STP	---	---	---	₹ 1,09,646.00	---	---	₹ 78,332.00
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 19,736.28			₹ 14,099.76
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 1,42,321.00	---	---	₹ 1,01,675.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 61,029.00	---	---	₹ 63,309.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 14,11,986.34**	---	---	**₹ 14,39,418.16**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 14,24,925.06**	---	---	**₹ 14,48,661.40**
Note:-	**1). Write back to credit material for 150 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**				---			---
	2). Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							

ABSTRACT / COST FOR THICKENING OF 33 kV 1 CIRCUIT KM ACSR CONDUCTOR FROM 100mm² (DOG) TO 200mm² (PANTHER) . (Amount in Rs.)

S.No	PARTICULARS	Unit	PCC Poles			ST Poles		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	200 mm² ACSR Conductor	Km	3.09	303391.52	937480.00	3.09	303391.52	937480.00
2	11 Mtr. Long Pole(PCC WL-360Kg, ST-410 SP56)	Nos	4	7480.00	29920.00	4	16547.36	66189.44
3	GI V cross-arm with top Bracket including clamp	Kg	88	120.00	10560.00	88	120.00	10560.00
4	PG Clamps for 200 mm² ACSR Conductor	Nos	12	720.00	8640.00	12	720.00	8640.00
5	33kV Polymeric composite Pin Insulator 36kV, 10kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm	Nos	12	602.00	7224.00	12	602.00	7224.00
6	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	Nos	6	950.00	5700.00	6	950.00	5700.00
7	Galvanized Nuts and Bolts	kg	4	120.00	480.00	4	120.00	480.00
8	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	Nos	4	1512.21	6048.84	4	1512.21	6048.84
9	Danger Plates with Clamps (enameled)	Nos	4	111.10	444.40	4	111.10	444.40
10	Anti-Climbing Device with Clamps	Nos	4	230.00	920.00	4	230.00	920.00
11	Aluminium Jointing Sleeves	Nos	3	234.98	704.94	3	234.98	704.94
12	Red Oxide	Ltr.				4	222.20	888.80
13	Aluminium Paint	Ltr.				4	370.70	1482.80
14	Cement bottoming 1:2:4 mix as per Standards 0.66cum/pole	Nos		---		4	4372.84	17491.36
15	Stone Pad (300mmx300mm x75 mm)	Nos	4	246.36	985.44			0.00
16	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (300x 300 x 8) mm, nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	5	5255.16	26275.80	5	5255.16	26275.80
17	Guard netting	Span	0	7260.00	0.00	0	7260.00	0.00
A1	**Total Material Cost**				**₹ 10,35,383.42**			**₹ 10,90,530.38**
A	**Net cost of Material without Civil Items**				**₹ 10,34,397.98**			**₹ 10,73,039.02**
B	GST @18% on Material Cost on **(A)**				₹ 1,86,191.64			₹ 1,93,147.02
C	Labour charges for Normal Terrain for PCCP & STP	---	---	---	₹ 1,09,646.00	---	---	₹ 78,332.00
D	GST @18% on Labour Charges for Normal Terrain on ©				₹ 19,736.28			₹ 14,099.76
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 1,42,321.00	---	---	₹ 1,01,675.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 61,029.00	---	---	₹ 63,309.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 14,11,986.34**	**---**	**---**	**₹ 14,39,418.16**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 14,24,925.06**	**---**	**---**	**₹ 14,48,661.40**
Note:	**Write back to credit material for 100 mm² ACSR Conductor - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**							
	Dismentalling Charges of existing Conductor shall be permissible as per Norms / 60% of Erection charges.							

ABSTRACT / COST FOR REPLACEMENT OF 16 METER STEEL TUBULAR POLE (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	ST Pole 16 Mtr Long (ST-410 SP 80)	Nos	1	35900.75	35900.75
2	Galvanized Nuts and Bolts	kg	3	120.00	360.00
3	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	No.	1	1512.21	1512.21
4	Cement bottoming 1:2:4 mix as per Standards 0.88 cum/pole	No.	1	5828.85	5828.85
5	Red Oxide	Ltr.	2	222.20	444.40
6	Aluminium Paint	Ltr.	2	370.70	741.40
A1	**Total Material Cost**				**₹ 44,787.61**
A	**Net cost of Material without Civil Items**				**₹ 38,958.76**
B	GST @18% on Material Cost on **(A)**				₹ 7,012.58
C	Labour charges for Normal Terrain	---	---	---	₹ 4,246.50
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 764.37
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 5,511.96
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 2,298.57
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 59,109.63**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 59,610.72**
Note:	**1). Write back to credit material for replace pole - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**				
	2). Dismentalling Charges of existing Pole shall be permissible as per Norms / 60% of Erection charges.				

ABSTACT / COST FOR REPLACEMENT OF 13 METER STEEL TUBULAR POLE (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	ST Pole 13 Mtr Long(ST-410 SP69)	Nos	1	20198.83	20198.83
2	Galvanized Nuts and Bolts	kg	2	120.00	240.00
3	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3 mm	No.	1	1512.21	1512.21
4	Cement bottoming 1:2:4 mix as per Standards 0.78 cum/pole	No.	1	5135.18	5135.18
5	Red Oxide	Ltr.	1	222.20	222.20
6	Aluminium Paint	Ltr.	1	370.70	370.70
A1	**Total Material Cost**				**₹ 27,679.12**
A	**Net cost of Material without Civil Items**				**₹ 22,543.94**
B	GST @18% on Material Cost on **(A)**				₹ 4,057.91
C	Labour charges for Normal Terrain	---	---	---	₹ 2,781.92
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 500.75
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**	---	---	---	₹ 3,610.94
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 1,330.09
	Total Amount for Normal Terrain (=A1+B+C+D+F)	---	---	---	**₹ 36,349.79**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)	---	---	---	**₹ 36,678.06**
Note:	**1). Write back to credit material for replace pole - Depreciation shall be calculated as per useful life of the conductor or the actual scrap value whichever is higher**				
	2). Dismentalling Charges of existing Pole shall be permissible as per Norms / 60% of Erection charges.				

ABSTRACT OF COST FOR 33/11 kV SUBSTATIONS (Amount in Rs. Lacs)						
S. No	**ITEM**	**1 x 3.15 MVA**	**1 x 6.3 MVA**	**1 x 10 MVA**	**2 x6.3 MVA**	**2 x 10 MVA**
1	33 kV LINE BAY	19.996	19.996	19.996	19.996	19.996
2	33 kV TRANSFORMER BAY	19.192	19.192	19.192	38.383	38.383
3	33/11 kV POWER TRANSFORMER	48.787	94.286	98.737	188.573	197.473
4	11 kV SWITCHGEAR AND AUXILLARIES	37.516	47.853	59.644	82.816	98.677
5	COMMON MISCELLANEOUS WORK'S	159.379	159.379	159.379	173.190	173.190
6	COMMON MISCELLANEOUS EQUIPMENTS	15.748	15.748	15.748	15.748	15.748
7	11 kV CAPACITOR BANK	10.736	15.918	21.286	31.837	42.572
8	OUT GOING DOUBLE POLE STRUCTURES	4.485	5.980	7.475	8.970	10.465
	TOTAL COST OF 33/11 kV SUBSTATION	**315.838**	**378.351**	**401.456**	**559.512**	**596.505**

COST FOR 33 kV LINE BAY OF SINGLE BUS SCHEME. (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1)	**SUB-STATION MAIN EQUIPMENT**				
i)	33 kV VCB (36 kV, 1250A, 26.2 kA, Outdoor Type)	No.	1	310545.61	310545.61
ii)	33 kV C&R Panel along with O/C, E/F ,REF and differential relays (IEC61850), mimic diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port	No	1	450000.00	450000.00
iii)	33 kV Isolator with Earthing Blade (36kV,800A, Outdoor,3 poles, 25 kA)	Set	1	59000.00	59000.00
iv)	33 kV Isolator without Earthing Blade (36KV,800A,Outdoor,3 poles,25 KA)	Set	1	52000.00	52000.00
v)	33 kV Current Transformer (33 kV, 1Φ, 2 Ratio 3 Core, Outdoor) (1 No. per Φ) (400-200/5-5A) /(300-150/5-5A)	No.	3	45000.00	135000.00
vi)	33 kV Voltage Transformer (33 kV/110 V, 1Φ, Multi-Core, Outdoor), (1No. per Φ)	No.	3	26675.00	80025.00
vii)	33 kV Lightening Arrestors (33 kV, 10kA, Station class, ZnO, Polymer) gap less (1 No. per Φ)	Set	1	22076.00	22076.00
viii)	33 kV 10kN Polymer Post Insulator 36kV,170kV Impulse, creepage distance 1224m	No.	3	1473.33	4419.99
ix)	11 Mtr. Long Pole (ST-410 SP56)	No.	2	16547.36	33094.72
x)	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	No.	2	4372.84	8745.68
xi)	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip.25x3mm	No.	2	1512.21	3024.42
xii)	Red Oxide	Ltr	2	222.20	444.40
xiii)	Aluminium Paint	Ltr	2	370.70	741.40
	Sub Total (1).				**₹ 11,59,117.22**
2).	**G.I PIPE STRUCTURES**				
i)	G.I Pipe of Dia 150mm, 5.9 mm Thick 3 m long (12 No.s) with G.I Base Plate 8 mm Thick	No.	12	7755.30	93063.60
ii)	Galvanised Steel Structures (300 Kg)	Kg	300	120.00	36000.00
iii)	Galvanised Nuts & Bolts (30 Kg)	Kg	30	120.00	3600.00
	Sub Total (2).				**₹ 1,32,663.60**
3).	**CONTROL CABLES**				
i)	12 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	60	702.29	42137.40
ii)	4 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	300	266.51	79953.00
iii)	2 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	60	159.59	9575.40
iv)	Lugs, Ferrules etc.	Item	L.S	891.00	891.00
	Sub Total (3).				**₹ 1,32,556.80**
4).	**CONDUCTOR & HARDWARE**				
i)	200 mm² ACSR Conductor Panther	Mtr	100	303.39	30339.15
ii)	T Clamps	No.	24	1050.00	25200.00
iii)	33 kV Single Tension Fittings (6 bolt)	No.	0	608.00	0.00
iv)	33kV Polymeric composite Disc Insulator 36kV,min failing load 70kN, Lighting Impulse 170kV Positive and 180kV Negative, creepage distance 900mm with fitting	No.	18	950.00	17100.00
v)	Earth wire 7/4.00 mm sq.	Kg	58	99.00	5742.00
vi)	GI flat for earthing (50x6) mm	Kg	125	120.00	15000.00
	Sub Total (4).				**₹ 93,381.15**
A1	**Total Material Cost = SubTotal (1+2+3+4)**				**₹ 15,17,718.77**
A	**Net cost of Material without Civil Items**				₹ 15,08,973.09
B	GST @18% on **(A)**				₹ 2,71,615.16
C	Spares @ 3% on **(A+B)**				₹ 53,417.65
D	Labour charges				₹ 57,492.00
E	GST @ 18% on Labour Charges on **(D)**				₹ 10,348.56
F	Overheads @ 5% (1.5% T&P,3%Contingency, 0.5% Insurance) on **(A+B)**				₹ 89,029.41
	Total Amount =(A1+B+C+D+E+F)				**₹ 19,99,621.55**

COST FOR 33 kV TRANSFORMER BAY OF SINGLE BUS SCHEME.					(Amount in Rs.)
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	**SUB-STATION MAIN EQUIPMENT**				
i)	33 kV Vacuum Circuit Breaker (36 kV, 1250A, 26.2 kA, Outdoor Type)	No.	1	310545.61	310545.61
ii)	33 kV Isolator without Earthing Blade (36kV,800A, Outdoor,3 poles, 25 kA)	Set	1	52000.00	52000.00
iii)	33 kV Current Transformer (33 kV, 1Φ, Multi Ratio Multi Core, Outdoor) (1 No. per Φ)	No.	3	45000.00	135000.00
iv)	33 kV Lightening Arrestors (33 kV, 10kA, Station class, ZnO, Polymer) gap less (1 No. per Φ)	Set	1	22076.00	22076.00
v)	33 kV C&R Panel along with O/C, E/F,REF and differential relays (IEC61850), mimic diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port	No.	1	450000.00	450000.00
vi)	33 kV 10 kN Post Insulator Polymer 36kV,235kV Impulse, creepage distance 1224m	No.	3	1473.33	4419.99
ix)	11 Mtr. Long Pole (ST-410 SP56)	No.	4	16547.36	66189.44
x)	Cement bottoming 1:2:4 mix as per Standards 0.66 cum/pole	No.	4	4372.84	17491.36
xi)	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip.25x3mm	No.	4	1512.21	6048.84
xii)	Red Oxide	Ltr	4	222.20	888.80
xiii)	Aluminium Paint	Ltr	4	370.70	1482.80
	Sub Total 1				**₹ 10,66,142.84**
2	**G.I PIPE STRUCTURES**				
i)	G.I Pipe of Dia 150mm, 5.9 mm Thick 3 m long (15 No.s) with G.I Base Plate 8 mm Thick	No.	15	7755.30	116329.50
ii)	Galvanised Steel Structures (600 Kg)	Kg	600	120.00	72000.00
iii)	Galvanised Nuts & Bolts (50 Kg)	Kg	50	120.00	6000.00
	Sub Total 2				**₹ 1,94,329.50**
3	**CONTROL CABLES**				
i)	12 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	60	702.29	42137.40
ii)	6 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	300	370.87	111261.00
iii)	2 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	60	159.59	9575.40
iv)	Lugs, Ferrules etc.	Item	L.S	891.00	891.00
	Sub Total 3				**₹ 1,63,864.80**
4	**CONDUCTOR & HARDWARE**				
i)	200 mm² ACSR Conductor(Panther)	Mtr	100	303.39	30339.15
ii)	T Clamps	No.	3	1050.00	3150.00
	Sub Total 4				**₹ 33,489.15**
A1	**Total Material Cost =SubTotal (1+2+3+4)**				**₹ 14,57,826.29**
A	**Net cost of Material without Civil Items**				**₹ 14,40,334.93**
B	GST @18% on **(A)**				₹ 2,59,260.29
C	Spares @ 3% on **(A+B)**				₹ 50,987.86
D	Labour charges				₹ 56,029.00
E	GST @ 18% on Labour Charges on **(D)**				₹ 10,085.22
F	Overheads @ 5% (1.5% T&P,3%Contingency, 0.5% Insurance) on **(A+B)**				₹ 84,979.76
	Total Amount =(A1+B+C+D+E+F)				**₹ 19,19,168.42**

COST OF POWER TRANSFORMER FOR 33/11kV SUBSTATION.									(Amount in Rs.)
S.No	**PARTICULARS**	**Unit**	**Qty**	**3.15 MVA**		**6.3 MVA**		**10 MVA**	
				Unit Rate	**Amount**	**Unit Rate**	**Amount**	**Unit Rate**	**Amount**
1	33/11kV, ONAN, Copper wound, Out-door Type, conventional Power Transformer, Oil Filled with OLTC , LV Box and all accessories including HT and LT Terminal connections	No.	1	3546323.00	3546323.00	7009466.00	7009466.00	7348198.00	7348198.00
2	12 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	120	702.29	84274.80	702.29	84274.80	702.29	84274.80
3	6 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	120	370.87	44504.40	370.87	44504.40	370.87	44504.40
4	2 Core 2.5 mm² Control cable copper Armoured , 1.1 kV Grade, ISI, FRLS.	Mtr	240	159.59	38301.60	159.59	38301.60	159.59	38301.60
A	**Total Material Cost**				**₹ 37,13,403.80**		**₹ 71,76,546.80**		**₹ 75,15,278.80**
B	GST @18% on Material Cost on **(A)**				₹ 6,68,412.68		₹ 12,91,778.42		₹ 13,52,750.18
C	**Total Material Cost with GST (=A+B)**	---	---	---	**₹ 43,81,816.48**	**---**	**₹ 84,68,325.22**	**---**	**₹ 88,68,028.98**
D	Spares @ 3% on **(C)**	---	---	---	₹ 1,31,454.00	---	₹ 2,54,050.00	---	₹ 2,66,041.00
E	Labour charges (including installation, testing & Commissioning of Power Transformer)	---	---	---	₹ 1,24,028.00	_	₹ 2,39,697.00	_	₹ 2,51,010.00
F	GST @ 18% on Labour Charges on **(E)**				₹ 22,325.04		₹ 43,145.46		₹ 45,181.80
G	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(C)**	---	---	---	₹ 2,19,091.00	---	₹ 4,23,416.00	---	₹ 4,43,401.00
	Total Amount (=C+D+E+F+G)				**₹ 48,78,714.52**		**₹ 94,28,633.68**		**₹ 98,73,662.78**

COST FOR 11 kV INDOOR SWITCHGEAR OF 33/11 kV SUBSTATION . (Amount in Rs.)

S. No	PARTICULARS	Unit	1 X 3.15 MVA			1 X 6.3 MVA			1 X 10 MVA		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	11 kV VCB Panel Board (12 kV, 1250A, 25 kA, indoor) with O/C, E/F relays (IEC61850), Mimic Diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port										
i)	For 3.15 MVA (1+3)	Set	1	2024792.15	2024792.15						
ii)	For 6.3 MVA (1+4)	Set		0		1	2530990.19	2530990.19			
iii)	For 10 MVA (1+5)	Set		0			0		1	3037188.24	3037188.24
2	11 kV Bus Coupler with Adaptor Panel										
3	11kV, Gapless Surge Arrestor,9 KV ,10 KA ,LA with Polymer housing, Stn. Type (4/5/6 Sets)	Set	4	8279.00	33116.00	5	8279.00	41395.00	6	8279.00	49674.00
4	11 kV XPLE Power Cables-										
i)	11 kV 630 mm² Single Core XLPE Cable (with1 spare length) armoured, FRLS	Mtr							160	2033.94	325430.40
ii)	11 kV 3- Core XLPE 400 mm² armoured, FRLS	Mtr	---		---	40	3902.05	156082.00			
iii)	11 kV 3-Core XLPE 300 mm² armoured, FRLS	Mtr	---	3135.13	---				---		---
iv)	11 kV 3- Core XLPE 185 mm² armoured, FRLS	Mtr	40	2180.25	87210.00	---		---	---		---
v)	11 kV 3-Core XLPE 150 mm² armoured, FRLS	Mtr	120	1877.95	225354.00	180	1877.95	338031.00	240	1877.95	450708.00
5	11 kV Heat Shrinkable Cable Termination Kit for incoming Cable 1 /3core)										
i)	11kV Indoor Heat Shrinkable Cable Termination Kits	Set/No.	1	4677.00	4677.00	1	5271.00	5271.00	4	2647.00	10588.00
ii)	11kV Outdoor Heat Shrinkable Cable Termination Kits	Set/No.	1	5783.00	5783.00	1	6485.00	6485.00	4	3073.00	12292.00
6	11 kV Heat Shrinkable Cable Termination Kit for Outgoing Cable										
i)	11kV Indoor Heat Shrinkable Cable Termination Kits	Set	3	4677.00	14031.00	4	4677.00	18708.00	5	4677.00	23385.00
ii)	11 kV Outdoor Heat Shrinkable Cable Termination Kits	Set	3	5783.00	17349.00	4	5783.00	23132.00	5	5783.00	28915.00
7	11 kV Isolator, Double Break,3-pole, 630 Amp, horizontal mounting Type, with Earth Switch.	Set	2	33000.00	66000.00	3	33000.00	99000.00	4	33000.00	132000.00
8	9 Mtr. Long Pole(ST-410 SP33)	Nos	6	11618.52	69711.12	8	11618.52	92948.16	10	11618.52	116185.20
9	11kV Polymer type GO, AB Switch 3-Phase, 3-Pole, 200 Amp	Nos	1	9350.00	9350.00	1	9350.00	9350.00	1	9350.00	9350.00
10	Galvanised iron of sorts	kg	180	120.00	21600.00	270	120.00	32400.00	360	120.00	43200.00
11	100 kVA 11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound , and with LV Cable Box having detachable Aluminium Gland plate	No	1	181830.00	181830.00	1	181830.00	181830.00	1	181830.00	181830.00
12	120 mm² XLPE LT Cable 4 Core, armoured, FRLS	Mtr	15	1160.29	17404.35	15	1160.29	17404.35	15	1160.29	17404.35
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum / pole	Nos	6	3164.04	18984.24	8	3164.04	25312.32	10	3164.04	31640.40
14	Earthing of 100 KVA SubStation--Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 75 mm x10 mm & 50 mm x 6 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	Nos	3	7935.36	23806.08	3	7935.36	23806.08	3	7935.36	23806.08
15	Earthing Complete by GI Pipe 40 mm or GI Rod 20mm 2.5 mtr long through GI strip 25x3mm	Nos	6	1512.21	9073.26	8	1512.21	12097.68	10	1512.21	15122.10
16	MCCB - 160 Amps , 36KA, 4P Ics =100% Icu at 415 (kA rms)	No	1	10718.00	10718.00	1	10718.00	10718.00	1	10718.00	10718.00
17	Painting of Poles Red Oxide	ltr	6	222.20	1333.20	8	222.20	1777.60	10	222.20	2222.00
18	Painting of Poles Aluminium Paint	ltr	6	370.70	2224.20	8	370.70	2965.60	10	370.70	3707.00
19	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	1	5000.00	5000.00	1	5000.00	5000.00	1	5000.00	5000.00
A1	**Total Material Cost**				**₹ 28,49,346.60**			**₹ 36,34,703.98**			**₹ 45,30,365.77**
A	**Net cost of Material without Civil Items**				**₹ 28,30,362.36**			**₹ 36,09,391.66**			**₹ 44,98,725.37**
B	GST @ 18% on **(A)**				₹ 5,09,465.22			₹ 6,49,690.50			₹ 8,09,770.57
C	Spares @ 3% on **(A+B)**	**---**		---	₹ 1,00,195.00			₹ 1,27,772.00			₹ 1,59,255.00
D	Labour charges	**---**		---	₹ 1,06,422.00			₹ 1,35,713.00			₹ 1,69,152.00
E	GST @18% on Labour Charges on **(D)**				₹ 19,155.96			₹ 24,428.34			₹ 30,447.36
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	**---**		---	₹ 1,66,991.00			₹ 2,12,954.00			₹ 2,65,425.00
	Total Amount (=A1+B+C+D+E+F)				**₹ 37,51,575.78**			**₹ 47,85,261.82**			**₹ 59,64,415.70**
Note:-	**I. The provision for Earthing feeder gantry and 100KVA Substation is optional only if these equipments could not be connected with the Earthing mat**										
	II. Cables shall be suitable for effectively earthed system.										

COST FOR 11 kV INDOOR SWITCHGEAR OF 33/11 kV SUBSTATION (Amount in Rs.)

S. No	PARTICULARS	Unit	2 X 6.3 MVA			2 X 10 MVA		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	11 kV VCB Panel Board (12 kV, 1250A, 25 kA, indoor) with O/C, E/F relays (IEC61850), Mimic Diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port							
i)	For 6.3 MVA (2+6)	Set	1	4049584.31	4049584.31			
ii)	For 10 MVA (2+7)	Set		---		1	4555782.35	4555782.35
2	11 kV Bus Coupler with Adaptor Panel		1	421693.68	421693.68	1	421693.68	421693.68
3	11kV, Gapless Surge Arrestor,9 kV ,10 kA ,LA with Polymer housing, Stn. Type (8/10 Sets)	Set	8	8279.00	66232.00	10	8279.00	82790.00
4	11 kV XPLE Power Cables-			---			---	
i)	11 kV 630 mm² Single Core XLPE Cable (with one spare length) armoured, FRLS	Mtr		---		320	2033.94	650860.80
ii)	11 kV 3- Core XLPE 400 mm² armoured, FRLS	Mtr	80	3902.05	312164.00		---	
iii)	11 kV 3-Core XLPE 300 mm² armoured, FRLS	Mtr		---		---	---	---
iv)	11 kV 3- Core XLPE 185 mm² armoured, FRLS	Mtr	---	---	---	---	---	---
v)	11 kV 3-Core XLPE 150 mm² armoured, FRLS	Mtr	360	1877.95	676062.00	480	1877.95	901416.00
5	11 kV Heat Shrinkable Cable Termination Kit for incoming Cable (single/Three core)			---			---	
i)	11 kV Indoor Heat Shrinkable Cable Termination Kits	Set/No.	2	5271.00	10542.00	8	2647.00	21176.00
ii)	11 kV Outdoor Heat Shrinkable Cable Termination Kits	Set/No.	2	6485.00	12970.00	8	3073.00	24584.00
6	11 kV Heat Shrinkable Cable Termination Kit for Outgoing Cable			---			---	
i)	11 kV Indoor Heat Shrinkable Cable Termination Kits	Set	6	4677.00	28062.00	7	4677.00	32739.00
ii)	11 kV Outdoor Heat Shrinkable Cable Termination Kits	Set	6	5783.00	34698.00	7	5783.00	40481.00
7	11 kV Isolator, Double Break,3-pole, 630 Amp, horizontal mounting Type, with Earth Switch.	Set	5	33000.00	165000.00	6	33000.00	198000.00
8	9 Mtr. Long Pole(ST-410 SP33)	Nos	12	11618.52	139422.24	14	11618.52	162659.28
9	11kV Polymer type GO, AB Switch 3-Phase, 3-Pole, 200 Amp	Nos	1	9350.00	9350.00	1	9350.00	9350.00
10	Galvanised iron of sorts	kg	510	120.00	61200.00	660	120.00	79200.00
11	100 kVA 11/0.433kV, 3-phase Distribution Transformers with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Aluminium wound , and with LV Cable Box having detachable Aluminium Gland plate	No	1	181830.00	181830.00	1	181830.00	181830.00
12	120 mm² XLPE LT Cable 4 Core, armoured, FRLS	Mtr	15	1160.29	17404.35	15	1160.29	17404.35
13	Cement bottoming 1:2:4 mix as per Standards 0.48 cum/ pole	Nos	12	3164.04	37968.48	14	3164.04	44296.56
14	Earthing of 100 kVA SubStation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 75 mm x10 mm & 50 mm x 6 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	Nos	3	7935.36	23806.08	3	7935.36	23806.08
15	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI strip 25x3 mm	Nos	12	1512.21	18146.52	14	1512.21	21170.94
16	MCCB - 160 Amps , 36 kA, 4P Ics =100% Icu at 415 (kA rms)	No	1	10718.00	10718.00	1	10718.00	10718.00
17	Painting of Poles Red Oxide	ltr	12	222.20	2666.40	14	222.20	3110.80
18	Painting of Poles Aluminium Paint	ltr	12	370.70	4448.40	14	370.70	5189.80
19	11 kV Horn Gap Fuse Set 3 Phase 200A	Set	1	5000.00	5000.00	1	5000.00	5000.00
A1	**Total Material Cost**				**₹ 62,88,968.46**			**₹ 74,93,258.64**
A	**Net Cost of Material without Civil Items**				**₹ 62,50,999.98**			**₹ 74,48,962.08**
B	GST @18% on Material Cost on **(A)**				₹ 11,25,180.00			₹ 13,40,813.17
C	Spares @ 3% on **(A+B)**	**---**			₹ 2,21,285.00			₹ 2,63,693.00
D	Labour charges	**---**			₹ 2,35,038.00			₹ 2,80,081.00
E	GST @18% on Labour Charges on **(D)**				₹ 42,306.84			₹ 50,414.58
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	**---**			₹ 3,68,809.00			₹ 4,39,489.00
	Total Amount (=A1+B+C+D+E+F)				**₹ 82,81,587.30**			**₹ 98,67,749.39**

Note:-

1).The provision for Earthing feeder gantry and 100 kVA Substation is optional only if these equipments could not be connected with the Earthing mat

2). Cables shall be suitable for effectively earthed system.

COMMON MISCELLANEOUS WORKS IN 33/11kV SUBSTATIONS .						(Amount in Rs.)		
S.No	PARTICULARS		For Single Power Transformer			For Double Power Transformer		
		Unit	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	Land requirement for Substation	Kanals	2.00	---	---	2.00	---	---
2	Compound walling of identified land by way of Mass Concrete in Foundations and 228 mm Brick Wall of 2 M height	RM	128.00	14930.31	1911079.68	128.00	14930.31	1911079.68
b)	Gates(5 mtr &1.5 Mtr) with 3 no.Pillars	Item	1.00	215095.38	215095.38	1.00	215095.38	215095.38
3	Chainlink Fencing of 33 kV Yard of Substation by way of Mass Concrete in Foundations and chainlink fencing of 6 ft height	RM	50.00	10748.12	537406.00	50.00	10748.12	537406.00
b)	Fencing Gates(3.5 Mtr) with 2 no. Pillars (2.5x2x8)ft	Item	1.00	91189.21	91189.21	1.00	91189.21	91189.21
4	HDPE Pipe Outer Dia 160 mm Inner Dia 148 mm for laying of 11kV XLPE Cable from Power Transformer to Control Room including excavation and laying	RM	25.00	1455.29	36382.25	25.00	1455.29	36382.25
5	33/11 kV Power Transformer Foundation (3mx2.5mx1.5m)	Item	1.00	330936.00	330936.00	2.00	330936.00	661872.00
6	33 kV Equipment Foundation & Gantry foundation	Job	---	1598849.76	1598849.76	---	2218384.74	2218384.74
7	Earthing Mat (GI Flat 50mm x8 mm)	KG	2486.00	141.60	352017.60	2486.00	141.60	352017.60
8	Earthing Electrode (3m long 40mm dia GI pipe) through GI Strip (50x6)mm	No.	38.00	3204.98	121789.24	38.00	3204.98	121789.24
9	33 kV Yard Concreting (1:2:4) (24mx14mx0.1m)	Cum	33.60	6591.25	221466.00	33.60	6591.25	221466.00
10	Borewell of G.I 5 " dia outer pipe and 1" dia inner pipe for motor with submersible pump (1.5 HP) approx.60 mtr	No.	1.00	325896.60	325896.60	1.00	325896.60	325896.60
11	Control Room Building (12m x10m)	sqm	120.00	32274.30	3872916.00	120.00	32274.30	3872916.00
12	Truss for Control Room Building 1.5xPlinth area (P/F of Steel Truss including provision of Colour Coated Roofing	sqm	180.00	12904.77	2322858.60	180.00	12904.77	2322858.60
13	Shift Quarters for JE and SBA (10m x9m)	sqm	90.00	25479.16	2293124.40	90.00	25479.16	2293124.40
14	Development of land by removing weeds, wild grass and endulation if any, ornamental land scaping and growing of ornamental trees in unbuilt areas and road sides and development of roads along with surface drains	Item	LS	442750.00	442750.00	LS	442750.00	442750.00
15	Yard Lighting by way of Providing 2 No 12.5 Mtr long in two sections of 4 mm thick Highmast motorised polygonal double drum Winch Assembly with provision of both electrically (motorised and manually) along with Single Dome Avaition obstruction Light ,lightining arrestor 1m with 4 No.s of 200 W LED flood lights on each High Mast along with feeder pillar and cable complete with earthing , and	Job	2.00	217658.50	435317.00	2.00	217658.50	435317.00
16	750 m Cable Trench	RM	40.00	15925.90	637036.00	55.00	15925.90	875924.50
17	500 MM Cable Trench	RM	15.00	12783.84	191757.60	30.00	12783.84	383515.20
	Total Amount				**₹ 159,37,867.32**			**₹ 173,18,984.40**

NOTE:-	**" Borewell has been taken for a depth of 60 mtr. Additional requirement, if any, may be allowed accordingly".**							
S.No	**Particulars**	**Unit**	**Unit Rate**					
A (1)a	Borewell (G.I 5" dia outer pipe & 1" dia Inner pipe Medium Class B)	Mtr	₹ 5,129.11					
b)	Borewell (PPR 5" dia outer pipe & 1" dia Inner pipe Medium Class B)	Mtr	₹ 3,522.30					
2)	**Submersible Pump**							
i)	1.5 HP with Panel Board	No.	₹ 18,150.00					
ii)	1.0 HP with Panel Board	No.	₹ 15,000.00					
B (1)	33 kV Yard metalling (24mx14mx0.1m)	Cum	₹ 2,350.00					
2)	33 kV Yard Concreting (1:2:4) (24mx14mx0.1m)	Cum	₹ 6,591.25					

COMMON MISCELLANEOUS EQUIPMENTS 33/11kV SUBSTATIONS (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	a). Battery Bank 30 V,100 AH , of 15 No. cells of 2 V each, sealed maintenance free VRLA type,High impact Polyprophelene copolymer container,flame retardant.	No.	1	52500.00	100500.00
	b). 30V,100 AH , Float-Cum-Boost Charger With Full wave rectification for 220 V, 1Phase, 50 HZ AC Input Supply .			48000.00	
2	Distribution Panel (30 V, DC) made of CRCA thickness not less than 2mm. Powder Coated, degree of protection IP43 for 2 No battery incoming supply with 2 No 63 Amps DP MCBs for incoming supply Double busbar of adequate size, 12 No DP DC MCB (0-32A) including indication lamps and cables and other accessories	No.	1	42372.88	42372.88
3	Distribution Panel (415 V, AC) made of CRCA thickness not less than 2mm. Powder Coated, degree of protection IP43. 200 Amps Switch Fuse disconnector for incoming supply and 5 No TPN MCB's (16-125 Amps) and 5 No DP MCBs (0-32A), rectangular busbar suitable for 200 Amps continuous Supply including indication lamps and cables and other accessories	No.	1	55084.75	55084.75
4	Telecommunication facilities (Smart Mobile)	Item	LS	11000.00	11000.00
5	11 kv Insulating Rubber Mat 1mx2m 2.5mm thick +/- 10%	No	4	1694.00	6776.00
6	Fire Extingiusher Co_2 Type of 4.5 kg capacity for Control room	No	6	5600.00	33600.00
7	Fire Extingiusher Co_2 Type of 22.5 kg capacity (Trolley Type)	No	1	29040.00	29040.00
8	Stand with 3 Sand Bucket & Fire Extingiusher	Set	1	5593.23	5593.23
9	Helmet	No	4	250.00	1000.00
10	Safety/ Industrial Helmet with Straps ISI Mark, with Head lamp Bracket and Detachable and Interchangeable LED Headlamp alongwith charger/charging facility.	No	4	776.00	3104.00
11	Electrical safety Rubber Gloves for 33 kV level (Class-4)	Pair	2	6102.00	12204.00
12	Electrical safety Rubber Gloves for 11 kV level (Class-2)	Pair	2	2150.00	4300.00
13	Safety Belt ISI Mark	No	4	1825.00	7300.00
14	Electrical Safety Shoes (Industrial type Black colour)	Pair	4	1127.00	4508.00
15	Earthing /Discharge rod 5 mtr long with 25 sqmm Cu cable 15 mtr	No	3	14400.00	43200.00
16	CCTV Complete(LED 32" with 06 No.AHD Cameras)	Job	1	41950.00	41950.00
17	Thermovision Scanning Camera (Low end) with Standard Make (ULIR Vision or equivalent) along with other allied accessories and operating Laptop.	Job	1	877800.00	877800.00
18	HV Detectors all voltages upto 33 kV	No	1	14080.00	14080.00
19	Alumunium Ladder 2*20 ' , 3 mm Thick (extendable with rope and pully arrangement)	No	1	17500.00	17500.00
A	**Total Cost of Material**				**₹ 13,10,912.86**
B	GST @18% on **(A)**				₹ 2,35,964.31
C	**Total Material Cost with GST (A+B)**	---	---	---	**₹ 15,46,877.17**
D	Spares @ 3% on **(S.No (1-3) +18 % GST)**	---	---	---	₹ 7,007.70
E	Labour charges on **(S.No 1-3)**	---	---	---	₹ 7,799.53
F	GST @ 18% on labour charges on **(E)**				₹ 1,403.92
G	Overheads @ 5% (1.5% T&P , 3% Contingency , 0.5% Insurance) on **(S.No (1-3)+18% GST)**	---	---	---	₹ 11,679.50
	Total Amount (=C+D+E+F+G)				**₹ 15,74,767.82**

S.No	Item	Unit		Unit Rate	
1	Alumunium Ladder 2*10 ' , 3 mm Thick (extendable with rope and pully arrangement)	No		₹ 10,000.00	
2	Telescopic Aluminium Ladder 18 ' long	No		₹ 33,958.00	
3	Electrical safety Rubber Gloves for 11 kV level (Class-1)	Pair		₹ 1,356.00	
4	Electrical safety Rubber Gloves for 33 kV level (Class-3)	Pair		₹ 3,093.00	

COST FOR 11 kV INDOOR SWITCHGEAR OF 33/11 kV SUBSTATION (INSTALLATION OF CAPACITOR BANKS OF VARIOUS CAPACITIES) (Amount in Rs.)

S.No	PARTICULARS	Unit	1 X 3.15 MVA			1 X 6.3 MVA			1 X 10 MVA			2 X 6.3 MVA			2 X 10 MVA		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	**12 kV Capacitor Bank with VCB Panel with complete arrangement for conection with 11 kV incomer panel , Series Reactor, Isolator, RVT, Surge Arrestors, HT Cable with termination Kits, Control Cables, CRCA Cubicle Panel etc with structure, foundation & accessories.**	Set	1.2 MVAR	811017	811017	2.4 MVAR	1202542	1202542	3.6 MVAR	1608051	1608051	2 X 2.4 MVAR	2405085	2405085	2 X 3.6 MVAR	3216102	3216102
A	**Total Material Cost**				**811017**			**1202542**			**1608051**			**2405085**			**3216102**
B	GST @ 18% on Material Cost on **(A)**				145983			216458			289449			432915			578898
C	**Total Material Cost with GST (A+B)**				**957000**			**1419000**			**1897500**			**2838000**			**3795000**
D	Spares @ 3% on **(C)**	**---**		---	28710			42570			56925			85140			113850
E	Labour charges	**---**		---	33901			50266			67217			100533			134433
F	GST @18% on Labour Charges on **(E)**				6102			9048			12099			18096			24198
G	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(C)**	**---**		---	47850			70950			94875			141900			189750
	Total Amount (=C+D+E+F+G)				**1073563**			**1591834**			**2128616**			**3183669**			**4257231**

ESTIMATE FOR 2 POLE STRUCTURE FOR 11 kV OUT GOING FEEDERS IN 33/11 kV SUBSTATION.

(Amount in Rs.)

S.No.	Particulars	Unit	Qty	Unit Rate	Amount
1	9 Mtr. Long Pole, ST-410 SP33	No.	2	11618.52	23237.04
2	G.I Steel of all sorts	Kg	183.33	120.00	21999.60
3	11kV Polymeric composite Pin Insulator 12kV, 5kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm	No.	3	210.00	630.00
4	11kV Polymeric composite Disc Insulator 12kV,min failing load 45kN, Lighting Impulse 75kV Positive and 80kV Negative, creepage distance 320mm with fitting	No.	3	650.00	1950.00
5	11 kV Tension Fitting	No.	0	425.00	0.00
6	11 kV Isolator, Double Break,3-pole, 630Amp, horizontal mounting Type, with Earth Switch.	Set	1	33000.00	33000.00
7	11 KV Gapless Surge Arrestor,9 kV ,10 kA ,LA with polymer housing, Stn. Type	Set	1	8279.00	8279.00
8	150 mm GI Pipe with reqd. Number of collars (6")	Mtr	3	1969.10	5907.30
9	Galvanized Nuts and Bolts.	Kg	8	120.00	960.00
10	Danger Plates with Clamps (enameled)	No.	2	111.10	222.20
11	Anti-Climbing Device with Clamps	No.	2	230.00	460.00
12	Earthing Complete by GI Pipe 40 mm or GI Rod 20mm 3 mtr long through GI Strip (25x3)mm	No.	2	1512.21	3024.42
13	Red Oxide	Ltr	2	222.20	444.40
14	Aluminium Paint	Ltr	2	370.70	741.40
15	Cement bottoming 1:2:4 mix as per Standards 0.48cum/pole	Job	2	3164.04	6328.08
16	Stone Pad (300 mm x 300 mm x 75 mm)	No.	0		0.00
A1	**Total Material Cost**				**₹ 1,07,183.44**
A	**Net Cost of Material without Civil Items**				**₹ 1,00,855.36**
B	Add GST @ 18% on **(A)**				₹ 18,153.96
C	Labour charges for Normal Terrain for STP				₹ 15,430.87
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 2,777.56
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @18%) on **(C+D)**				₹ 20,029.00
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 5,950.00
	Total Amount for Normal Terrain (=A1+B+C+D+F)				**₹ 1,49,495.83**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)				**₹ 1,51,316.40**

S.No	Item (for Normal Terrian)				Amount
1	For 3.15 MVA Sub Station for 3 Out goings				₹ 4,48,487.49
2	For 6.3 MVA Sub Station for 4 Out goings				₹ 5,97,983.33
3	For 10 MVA Sub Station for 5 Out goings				₹ 7,47,479.16
4	For 6.3 MVA Sub Station for 6 Out goings				₹ 8,96,974.99
5	For 10 MVA Sub Station for 7 Out goings				₹ 10,46,470.82
NOTE:-	**The estimate incorporated not as a part of Receiving -Station ,but may be required for purpose of taking out additional feeder from R/Stn in various DPR's.**				

ABSTRACT OF COST FOR 33/11 kV SUBSTATIONS (ADDITION OF TRANSFORMER BAYS). (Amount in Rs. Lacs)				
S. No	**ITEM**	**1x 3.15 MVA**	**1x 6.3 MVA**	**1 x 10 MVA**
1	33 kV LINE BAY	---	---	---
2	33 kV TRANSFORMER BAY	19.19	19.19	19.19
3	33/11 kV POWER TRANSFORMER	48.79	94.29	98.74
4	11 kV SWITCHGEAR AND AUXILLARIES	37.52	47.85	59.64
5	COMMON MISCELLANEOUS WORKS	9.85	9.85	9.85
6	COMMON MISCELLANEOUS EQUIPMENTS	---	---	---
7	11 kV CAPACITOR BANK	10.74	15.92	21.29
	TOTAL COST OF ADDITIONAL 33/11kV TRANSFORMER BAY	**126.08**	**187.10**	**208.71**

COMMON MISCELLANEOUS WORKS IN 33/11kV SUBSTATIONS (FOR ADDITIONAL OF TRANSFORMERS BAYS) (Amount in Rs.)					
S.No	**PARTICULARS**		**For Additional Power Transformer**		
		Unit	**Qty**	**Unit Rate**	**Amount**
1	Land requirement for Substation	Kanals	-	-	-
2	Compound walling of identified land by way of Mass Concrete in Foundations and 228 mm Brick Wall of 2 M height	RM	-	14930.31	0.00
b.	Gates(5 mtr &1.5 Mtr) with 3 no.Pillars (2.5x2x8)ft	Job	-	215095.38	0.00
3	Chainlink Fencing of 33 kV Yard of Substation by way of Mass Concrete in Foundations and chainlink fencing of 6 ft height	RM	-	10748.12	0.00
b.	Fencing Gates(3.5 Mtr) with 2 no. Pillars (2.5x2x8)ft	Job	-	91189.21	0.00
4	HDPE Pipe Outer Dia 160 mm Inner Dia 148 mm for laying of 11kV XLPE Cable from Power Transformer to Control Room	RM	-	1455.29	0.00
5	33/11 kV Power Transformer Foundation (3mx2.5mx1.5m)	Item	1	330936.00	330936.00
6	33 kV Equipment Foundation & Gantry foundation (for additional equipments)	Job	1	619534.98	619534.98
7	Earthing Mat (GI Flat 50x8mm)	Kg	20	141.60	2832.00
8	Earthing Electrode (3m long 40mm dia GI pipe) through GI Strip.	nos	10	3204.98	32049.80
9	33 kV Yard Concreting (24mx14mx0.1m)	Cum		6591.25	0.00
10	Borewell (5" dia outer pipe & 1" dia Inner pipe) approx. 10 m with submersible pump 1.5 HP	Item	-		0.00
11	Control Room Building	sqm	-	32274.30	0.00
12	Shift Quarters for JE and SBA	sqm	-	25479.16	0.00
13	Development of land by removing weeds, wild grass and endulation if any, ornamental land scaping and growing of ornamental trees in unbuilt areas and road sides and development of roads along with surface drains	Item	-	442750.00	0.00
14	Yard Lighting by way of Providing 2 No 12.5 Mtr long in two sections of 4 mm thick Highmast motorised polygonal double drum Winch Assembly with provision of both electrically (motorised and manually) along with Single Dome Avaition obstruction Light ,lightining arrestor 1m with 4 No.s of 200 W LED flood lights on each High Mast along with feeder pillar and cable complete with earthing , and foundations	Item	-	217658.50	0.00
	Total Amount				**₹ 9,85,352.78**

COST ESTIMATION FOR AUGMENTATION OF POWER TRANSFORMER AT 33 kV LEVEL FROM 3.15 MVA TO 6.3 MVA AND 6.3 MVA TO 10 MVA. (Amount in Rs.)

S.No	PARTICULARS	Unit	3.15 MVA to 6.3 MVA			6.3 MVA to 10 MVA		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	33/11kV, ONAN, Copper wound, Out-door Type, conventional Power Transformer, Oil Filled with OLTC ,LV Box and all accessories including HT and LT Terminal connections	No.	1	7009466.00	7009466.00	1	7348198.00	7348198.00
2	11 kV VCB Panel Board (12 kV, 1250A, 25 kA, indoor) with O/C, E/F relays (IEC61850), Mimic Diagram, Voltmeter, Ammeter, Annunciation Windows with annunciation relays, 3-phase Tri-vector meter -5 Amps, DLMS Compliant with RS-485 port							
i)	For 6.3 MVA (1+4)	set	1	2530990.19	2530990.19			
ii)	for 10 MVA (1+5)	set				1	3037188.24	3037188.24
3	11 kV Bus Coupler with Adaptor Panel	set	1	421693.68	421693.68	1	421693.68	421693.68
4	11 kV 3- Core ,XLPE, armoured,FRLS, 150 mm² for 6.3 MVA/10 MVA Power Transformer	mtr	180	1877.95	338031.00	240	1877.95	450708.00
5	11 kV 3- Core ,XLPE, armoured,FRLS, 400 mm² for 6.3 MVA Power Transformer	Mtr	40	3902.05	156082.00			
6	11 kV ,630 mm² Single Core ,XLPE armoured Cable FRLS. (with one spare length) for 10 MVA Power Transformer	Mtr				160	2033.94	325430.40
7	11 kV Heat Shrinkable Cable Termination Kit for incoming Cable (Single/Three core)							
i)	11kV Indoor Heat Shrinkable Cable Termination Kits	Set/No.	1	5271.00	5271.00	4	2647.00	10588.00
ii)	11kV Outdoor Heat Shrinkable Cable Termination Kits	Set/No.	1	6485.00	6485.00	4	3073.00	12292.00
8	11 kV Heat Shrinkable Cable Termination Kit for Outgoing Cable							
i)	11kV Indoor Heat Shrinkable Cable Termination Kits	Set	4	4677.00	18708.00	5	4677.00	23385.00
ii)	11 kV Outdoor Heat Shrinkable Cable Termination Kits	Set	4	5783.00	23132.00	5	5783.00	28915.00
9	11 kV Isolator, Double Break,3-pole, 630Amp, horizental mounting Type, with Earth Switch.	No	1	33000.00	33000.00	1	33000.00	33000.00
10	9 Mtr. Long Pole(ST-410 SP33)	No	2	11618.52	23237.04	2	11618.52	23237.04
11	Cement bottoming 1:2:4 mix as per Standards 0.48 cum/pole	No	2	3164.04	6328.08	2	3164.04	6328.08
12	Earthing Complete by GI Pipe 40 mm or GI Rod 20mm 3 mtr long through GI Strip (25x3)mm	No.	2	1512.21	3024.42	2	1512.21	3024.42
13	Red Oxide	Ltr	2	222.20	444.40	2	222.20	444.40
14	Aluminium Paint	Ltr	2	370.70	741.40	2	370.70	741.40
15	Installation of 11 kV Capacitor Bank complete set	Item	1	1202542.37	1202542.37	1	1608050.85	1608050.85
16	Earthing of Power Transformer (Improvement/strengthening works only)	Item	1	11135.21	11135.21	1	11135.21	11135.21
A1	**Total Material Cost**				**₹ 117,90,311.79**			**₹ 133,44,359.72**
A	**Net Cost of Material without Civil Items**				**₹ 117,83,983.71**			**₹ 133,38,031.64**
B	GST @18% on Material Cost on **(A)**				₹ 21,21,117.07			₹ 24,00,845.69
C	Spares @ 3% on **(A+B)**	---	---	---	₹ 4,17,153.00		---	₹ 4,72,166.00
D	Labour charges (including installation, testing & Commissioning of Power Transformer)				₹ 4,12,439.00			₹ 4,66,831.00
E	GST @ 18% on Labour Charges on **(D)**	---	---	---	₹ 74,239.02			₹ 84,029.58
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 6,95,255.00		---	₹ 7,86,944.00
	Total Amount (=A1+B+C+D+E+F)				**₹ 155,10,514.88**			**₹ 175,55,175.99**
NOTE	**Write back to credit material of Power Transformers - Depreciation shall be calculated as per useful life of the Power X-mer or the actual scrap value whichever is higher**							
	For 33/11 kV PTR Augmentation dismentalling charge has been considered 1% of the cost of dismentalled PTR.							
	Cables Shall be suitable for effectively Earthed System							

ESTIMATE FOR SINGLE PHASE SERVICE CONNECTION for 25 kVA DT 's HAVING 3 NO. OF CONSUMERS. (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	LT 16 mm² 2 Core XLPE service cable armoured 20 mtr per consumer	Mtr	60	x	x
2	Main Service Distribution Box Along with MCCB /MCB as per REC Drawing	No	1	x	x
3	Single Phase Smart Energy Meter 5-30 Amp/ 10-60 Amp, DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*	No	3	To be decided Separetely	x
4	Polypropylene weather proof outdoor type Meter Box for 3 Single Phase Meter along with Zinc plated clamps	No	1	x	x
5	Misc Items such insulation tape, binding wire, screws, etc.	LS	1	x	x
6	Earthing complete for metering box (Spike earthing Rod 20mm,2.5mtr long with G.I strip (25x3)mm)	No		896.63	
A	**Total Material Cost**				**₹ -**
B	GST @ 18% on Material Cost on **(A)**				₹ -
C	**Total Material Cost with GST (=A+B)**				**₹ -**
D	Labour charges				₹ -
E	GST @ 18% on Labour Charges on **(D)**				₹ -
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ -
	Total Amount (=C+D+E+F)				**₹ -**

S.No	**Item**	**Unit**		**Unit Rate**
1	LT 10 mm² 2 Core XLPE service cable armoured	Mtr		**₹ 157.98**
2	LT 10 mm² 4 Core XLPE service cable armoured	Mtr		**₹ 203.80**
3	LT 16 mm² 4 Core XLPE service cable armoured	Mtr		**₹ 249.72**

Note:-

*Since Smart meters belongs to IT Eco System,the final costs will be decided after taking into a/c NIC/Integration/Installation/Testing & Commissioning.

ESTIMATE FOR SINGLE PHASE SERVICE CONNECTION TO CONSUMERS. (Amount in Rs.)					ACSR/ABC
S. No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	LT 4 core 35 mm²XLPE Cable from AB Cable taping point through Piericing connector to MSDB	Mtr	2	x	x
2	ACSR to Cable Connector / Piericing connector	No.	2	x	x
3	Main Service Distribution Box	No.	1	x	x
4	LT 16 mm² 2 core PVC service cable armoured 20 mtr per consumer	Mtr	80	x	x
5	Single Phase Smart Energy Meter 5-30 Amp/ 10-60 Amp, DLMS Compliant of accuracy class 1.0 (Preferably interoperated with existing IT System/Technology)*	No.	4	To be decided Separetely	x
6	Polypropylene weather proof outdoor type Meter Box for 4 Single Phase Meter along with Zinc plated clamps	No.	1	x	x
7	Misc Items such insulation tape, binding wire, screws, etc.	LS	1	x	x
8	Earthing complete for metering box (Spike earthing Rod 20mm,2.5 with G.I strip (25x3)mm)	No	0	896.63	0.00
A	**Total Material Cost**				**₹ -**
B	GST @ 18% on Material Cost on **(A)**				₹ -
C	**Total Material Cost with GST (=A+B)**				**₹ -**
D	Labour charges				₹ -
E	GST @ 18% on Labour Charges on **(D)**				₹ -
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ -
	Total Amount (=C+D+E+F)				**₹ -**
Note:-					

*Since Smart meters belongs to IT Eco System,the final costs will be decided after taking into a/c NIC/Integration/Installati Commissioning.

STANDARD ESTIMATE FOR LAYING OF 1 KM OF 33kV 300 mm² XLPE, (SINGLE CIRCUIT, SINGLE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S .No	Description	Unit	Qty	Unit Rate	Amount
1	33 kV, Single core 300 mm² Aluminium, Flat strip Armoured XLPE Cable , FRLS (One spare cable)	Kms	4.12	1776900.00	7320828.00
2	Straight Through Joints for cables 4 No's for 4 single cores	Nos	16	12729.00	203664.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	33 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Nos	8	3770.00	30160.00
6	Excavation in any type of soil including hard laterite soil	cums	585	592.90	346846.50
7	Back filling of available excavated earth	cums	517.5	218.40	113022.00
8	Sand for cushioning of HT underground cables	cums	67.5	3000.00	202500.00
9	Mechanical transport 30 kms of sand	cums	67.5	520.34	35122.95
10	Head load 100 mtrs of sand	cums	67.5	244.36	16494.30
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	mtr	110	1969.10	216601.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	mtr	900	791.53	712377.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x 0.7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 94,36,422.84**
A	**Net Cost of Material without Civil Items**				**₹ 77,82,477.83**
B	GST @18% on **(A)**				₹ 14,00,846.01
C	Spares @3% on **(A+B)**				₹ 2,75,499.72
D	Erection Charges				₹ 1,73,549.26
E	GST @18% on **(D)**				₹ 31,238.87
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 4,59,166.19
	Gross Total (= A1+B+C+D+E+F)				**₹ 117,76,722.88**

Particulars	Rate/Km	Particulars	Rate/No.
33kV, Single core 185 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 11,89,250.00	End termination for 1C 70 -185mm²	₹ 3,596.00
33kV, Single core 240 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 14,96,800.00	End termination for 1C 240 - 500 mm²	₹ 3,770.00
33kV, Single core 400 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 20,38,300.00	End termination for 1C 630 - 800 mm²	₹ 5,541.00
33kV, Single core 630 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 28,03,160.00	Straight Through Jointing Kit for 95-240mm²	₹ 11,616.00
Particulars	**Rate/No**	Straight Through Jointing Kit for 300-400 mm²	₹ 12,729.00
GI Pipe 100 mm (4") dia with required no of collars including termination points	₹ 1,255.10	Straight Through Jointing Kit for 50-70 mm²	₹ 9,922.00
G.I Pipe 50 mm (2") dia with required no of collars including termination points	₹ 542.05	Straight Through Jointing Kit for 500-630 mm²	₹ 15,934.00

Note: All Cables shall be suitable for Effectively Earthed system.

STANDARD ESTIMATE FOR LAYING OF 1 KM OF 33kV 400mm² XLPE, (SINGLE CIRCUIT, SINGLE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND in HDPE Pipes. (Amount in Rs.)

S. No	Description	Unit	Qty	Unit Rate	Amount
1	33 kV, Single core 400 mm² Aluminium,Flat strip Armoured XLPE Cable,FRLS (One spare cable)	Kms	4.12	2038300.00	8397796.00
2	Straight Through Joints for cables 4 No's for 4 single cores	Nos	16	12729.00	203664.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	33 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Nos	8	3770.00	30160.00
6	Excavation in any type of soil including hard laterite soil	cums		592.90	0.00
7	Back filling of available excavated earth	cums		218.40	0.00
8	P/laying of HDPE Pipe outer dia 160 mm Inner dia 148 mm for laying of 33 kV cable including excavation and back filling	Mtr	4010	1455.29	5835712.90
9	Mechanical transport 30 kms of sand	cums	0	520.34	0
10	Head load 100 mtrs of sand	cums	0	244.36	0
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	110	1969.10	216601
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	mtr	900	791.53	712377
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3) mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	Cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 156,35,117.99**
A	**Net Cost of Material without Civil Items**				**₹ 88,59,445.83**
B	GST @18% on **(A)**				₹ 15,94,700.25
C	Spares @3% on **(A+B)**				₹ 3,13,624.38
D	Erection Charges				₹ 1,97,565.64
E	GST @18% on **(D)**				₹ 35,561.82
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 5,22,707.30
	Gross Total (= A1+B+C+D+E+F)				**₹ 182,99,277.38**

Particulars	Rate /Km	Particulars	Rate /No.
33kV, Single core 185 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 11,89,250.00	End termination for 1C 70 mm² to 185mm²	₹ 3,596.00
33kV, Single core 240 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 14,96,800.00	End termination for 1C 240 mm² to 500 mm²	₹ 3,770.00
33kV, Single core 300 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 17,76,900.00	End termination for 1C 630 mm² to 800 mm²	₹ 5,541.00
33kV, Single core 400 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 20,38,300.00	Straight Through Jointing Kit for 95-240mm²	₹ 11,616.00
33kV, Single core 630 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 28,03,160.00	Straight Through Jointing Kit for 300-400 mm²	₹ 12,729.00
		Straight Through Jointing Kit for 50-70 mm²	₹ 9,922.00
		Straight Through Jointing Kit for 500-630 mm²	₹ 15,934.00

Note: All Cables shall be suitable for Effectively Earthed system.

STANDARD ESTIMATE FOR LAYING OF 1 KM OF 33kV XLPE, 300 mm² (DOUBLE CIRCUIT, SINGLE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	33 kV, Single core 300 mm² Aluminium, Flat strip Armoured XLPE Cable , FRLS (One spare cable)	Kms	7.21	1776900.00	12811449.00
2	Straight Through Joints for cables	Nos	28	12729.00	356412.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	33 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Nos	14	3770.00	52780.00
6	Excavation in any type of soil including hard laterite soil	cums	715	592.90	423923.50
7	Back filling of available excavated earth	cums	690.25	218.40	150750.60
8	Sand for cushioning of HT underground cables	cums	24.75	3000.00	74250.00
9	Mechanical transport 30kms of sand	cums	24.75	520.34	12878.42
10	Head load 100 mtrs of sand	cums	24.75	244.36	6047.91
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points 2 runs (6")	Mtr	210	1969.10	413511.00
12	RCC protective cover of size 600 mm (width) x 250mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	1448.48	1303632.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x 0.7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 158,44,441.52**
A	**Net Cost of Material without Civil Items**				**₹ 136,45,376.83**
B	GST @18% on **(A)**				₹ 24,56,167.83
C	Spares @ 3% on **(A+B)**				₹ 4,83,046.34
D	Erection Charges				₹ 3,04,291.90
E	GST @18% on **(D)**				₹ 54,772.54
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 8,05,077.23
	Gross Total (= A1+B+C+D+E+F)				**₹ 199,47,797.36**

S.No	Item	Rate/Km	Item	Rate/No.
1	33kV, Single core 185 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 11,89,250.00	End termination for 1C 70 - 185mm²	₹ 3,596.00
2	33kV, Single core 240 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 14,96,800.00	End termination for 1C 240 - 500 mm²	₹ 3,770.00
3	33kV, Single core 400 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 20,38,300.00	End termination for 1C 630 - 800 mm²	₹ 5,541.00
4	33kV, Single core 630 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 28,03,160.00	Straight Through Jointing Kit for 120-150 mm²	₹ 11,616.00
			Straight Through Jointing Kit for	₹ 12,729.00
			Straight Through Jointing Kit for 50-70 mm²	₹ 9,922.00
			Straight Through Jointing Kit for 500-630 mm²	₹ 15,934.00
Note:	**All Cables shall be suitable for Effectively Earthed system.**			

STANDARD ESTIMATE FOR LAYING OF 1 KM OF 33kV XLPE, 300 mm² (SINGLE CIRCUIT, THREE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	33kV,Three core 300 mm² Aluminium,Flat strip Armoured XLPE Cable,FRLS (one spare cable)	Kms	2.06	4279820.00	8816429.20
2	Straight Through Joints for cables	Set	8	35501.00	284008.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	33 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Set	4	16350.95	65403.80
6	Excavation in any type of soil including hard laterite soil	cums	585	592.90	346846.50
7	Back filling of available excavated earth	cums	517.5	218.40	113022.00
8	Sand for cushioning of HT underground cables	cums	67.5	3000.00	202500.00
9	Mechanical transport 30kms of sand	cums	67.5	520.34	35122.95
10	Head load 100 mtrs of sand	cums	67.5	244.36	16494.30
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	110	1969.10	216601.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	791.53	712377.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 110,47,611.84**
A	**Net Cost of Material without Civil Items**				**₹ 93,93,666.83**
B	GST @18% on **(A)**				₹ 16,90,860.03
C	Spares @3% on **(A+B)**				₹ 3,32,535.81
D	Erection Charges				₹ 2,16,054.34
E	GST @18% on **(D)**				₹ 38,889.78
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 5,54,226.34
	Gross Total (= A1+B+C+D+E+F)				**₹ 138,80,178.14**

ITEM	Rate/Km	ITEM	Rate/Set
33kV, Three core 185 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 32,89,170.00	End termination for 3C 70 - 95 mm²	₹ 11,083.00
33kV, Three core 240 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 38,32,250.00	End termination for 3C 120 - 240 mm²	₹ 15,180.00
33kV, Three core 300 mm² Aluminium Flat stripArmoured XLPE FRLS Cable	₹ 42,79,820.00	End termination for 3C 300 - 400 mm²	₹ 16,350.95
33kV, Three core 400 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 51,28,530.00	Straight Through Jointing Kit for 120-150 mm²	₹ 23,915.00
		Straight Through Jointing Kit for 185 mm²	₹ 31,629.00
		Straight Through Jointing Kit for 240 mm²	₹ 31,629.00
		Straight Through Jointing Kit for 300 mm²	₹ 35,501.00
		Straight Through Jointing Kit for 400 mm²	₹ 35,501.00

Note:
1).All Cables shall be suitable for Effectively Earthed system.
2). The estimate though incorporated here for general conveinance,however this option shall not be adopted in General (Rear use)

STANDARD ESTIMATE FOR LAYING OF 1 KMS OF 33 kV XLPE,300mm² (DOUBLE CIRCUIT, THREE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	33kV, Three core 300 mm² Aluminium ,Flat strip Armoured XLPE Cable , FRLS (Double Circuit + one spare cable)	Kms	3.09	4279820.00	13224643.80
2	Straight Through Joints for cables	Set	12	35501.00	426012.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	33 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Set	6	16350.95	98105.70
6	Excavation in any type of soil including hard laterite soil	cums	715	592.90	423923.50
7	Back filling of available excavated earth	cums	690.25	218.40	150750.60
8	Sand for cushioning of HT underground cables	cums	24.75	3000.00	74250.00
9	Mechanical transport 30kms of sand	cums	24.75	520.34	12878.42
10	Head load 100 mtrs of sand	cums	24.75	244.36	6047.91
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	210	1969.10	413511.00
12	RCC protective cover of size 600 mm (width) x 250mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	1448.48	1303632.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x 0.7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 163,72,562.02**
A	**Net Cost of Material without Civil Items**				**₹ 141,73,497.33**
B	GST @18% on **(A)**				₹ 25,51,229.52
C	Spares @ 3% on **(A+B)**				₹ 5,01,741.81
D	Erection Charges				₹ 3,25,990.44
E	GST @18% on **(D)**				₹ 58,678.28
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 8,36,236.34
	Gross Total (= A1+B+C+D+E+F)				**₹ 206,46,438.40**

ITEM	Rate/Km	ITEM	Rate/Set
33kV, Three core 185 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 32,89,170.00	End termination for 3C 70 - 95 mm²	₹ 11,083.00
33kV, Three core 240 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 38,32,250.00	End termination for 3C 120 - 240mm²	₹ 15,180.00
33kV, Three core 300 mm² Aluminium Flat stripArmoured XLPE FRLS Cable	₹ 42,79,820.00	End termination for 3C 300 - 400 mm²	₹ 16,350.95
33kV, Three core 400 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 51,28,530.00		

ITEM	Rate/Set
Straight Through Jointing Kit for 120-150 mm²	₹ 23,915.00
Straight Through Jointing Kit for 185 mm²	₹ 31,629.00
Straight Through Jointing Kit for 240 mm²	₹ 31,629.00
Straight Through Jointing Kit for 300 mm²	₹ 35,501.00
Straight Through Jointing Kit for 400 mm²	₹ 35,501.00

Note:

1). All Cables shall be suitable for Effectively Earthed system.

2). The estimate though incorporated here for general conveinance,however this option shall not be adopted in General (Rear use)

STANDARD ESTIMATE FOR LAYING OF 1 KM OF 11kV XLPE, 185mm² (SINGLE CIRCUIT, SINGLE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. **(Amount in Rs.)**

S.No	Description	Unit	Qty	Unit Rate	Amount
1	11kV, Single core 185 mm² Aluminium Flat strip Armoured XLPE Cable , FRLS (one spare cable)	Kms	4.12	838270.00	3453672.40
2	Straight Through Joints for cables	Nos	16	4806.00	76896.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	11 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Nos	8	2405.00	19240.00
6	Excavation in any type of soil including hard laterite soil	cums	585	592.90	346846.50
7	Back filling of available excavated earth	cums	517.5	218.40	113022.00
8	Sand for cushioning of HT underground cables	cums	67.5	3000.00	202500.00
9	Mechanical transport 30kms of sand	cums	67.5	520.34	35122.95
10	Head load 100 mtrs of sand	cums	67.5	244.36	16494.30
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	110	1969.10	216601.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	791.53	712377.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	Job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 54,31,579.24**
A	**Net Cost of Material without Civil Items**				**₹ 37,77,634.23**
B	GST @ 18% on **(A)**				₹ 6,79,974.16
C	Spares @ 3% on **(A+B)**				₹ 1,33,728.25
D	Erection Charges				₹ 84,619.01
E	GST @ 18% on **(D)**				₹ 15,231.42
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 2,22,880.42
	Gross Total (= A1+B+C+D+E+F)				**₹ 65,68,012.50**

ITEM	Rate/Km	ITEM	Rate/No
11 kV, Single core 120 mm² Aluminium Flat strip Armoured XLPE FRLS Cable,	₹ 1,44,960.00	End termination for 1C 70 - 95mm²	₹ 1,848.00
11 kV, Single core 150 mm² Aluminium Flat strip Armoured XLPE FRLS Cable,	₹ 6,95,310.00	End termination for 1C 120mm²	₹ 1,848.00
11 kV, Single core 240 mm² Aluminium Flat strip Armoured XLPE FRLS Cable,	₹ 10,10,420.00	End termination for 1C 150- 240 mm²	₹ 2,405.00
11 kV , Single core 300 mm² Aluminium Flat strip Armoured XLPE FRLS Cable ,	₹ 11,61,640.00	End termination for 1C 300 mm²	₹ 2,405.00
11 kV , Single core 400 mm² Aluminium Flat strip Armoured XLPE FRLS Cable,	₹ 13,93,560.00	End termination for 1C 400 mm²	₹ 3,073.00
11 kV, Single core 630 mm² Aluminium Flat strip Armoured XLPE FRLS Cable	₹ 20,33,940.00	End termination for 1C 630 mm²	₹ 3,073.00
ITEM	**Rate/No**	End termination for 1C 800 mm²	₹ 4,249.00
Straight Through Jointing Kit for 70-120 mm²	₹ 4,412.00		
Straight Through Jointing Kit for 150-185 mm²	₹ 4,806.00		
Straight Through Jointing Kit for 240-300 mm²	₹ 5,590.00		
Straight Through Jointing Kit for 400-500 mm²	₹ 8,276.00		
Straight Through Jointing Kit for 630-800 mm²	₹ 11,688.00		

Note:- All Cables shall be suitable for Effectively Earthed system.

STANDARD ESTIMATE FOR LAYING OF 1 KMS OF 11kV XLPE, 185mm² (DOUBLE CIRCUIT, SINGLE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	11 kV, Single core, 185 mm² Aluminium Flat strip Armoured XLPE Cable , FRLS (one spare cable)	Kms	7.21	838270.00	6043926.70
2	Straight Through Joints for cables	Nos	28	4806.00	134568.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	11 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Nos	14	2405.00	33670.00
6	Excavation in any type of soil including hard laterite soil	cums	715	592.90	423923.50
7	Back filling of available excavated earth	cums	690.25	218.40	150750.60
8	Sand for cushioning of HT underground cables	cums	24.75	3000.00	74250.00
9	Mechanical transport 30kms of sand	cums	24.75	520.34	12878.42
10	Head load 100 mtrs of sand	cums	24.75	244.36	6047.91
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	210	1969.10	413511.00
12	RCC protective cover of size 600 mm (width) x 250mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	1448.48	1303632.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 88,35,965.22**
A	**Net Cost of Material without Civil Items**				**₹ 66,36,900.53**
B	GST @18% on **(A)**				₹ 11,94,642.10
C	Spares @ 3% on **(A+B)**				₹ 2,34,946.28
D	Erection Charges				₹ 1,48,666.57
E	GST @18% on **(D)**				₹ 26,759.98
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 3,91,577.13
	Gross Total (= A1+B+C+D+E+F)				**₹ 108,32,557.28**

Item	Rate/Km	Item	Rate/No.
11 kV, Single core 120 mm² Aluminium Flat strip Armoured XLPE Cable, FRLS	₹ 1,44,960.00	End termination for 1C 70 - 95mm²	₹ 1,848.00
11 kV, Single core 150 mm² Aluminium Flat strip Armoured XLPE Cable, FRLS	₹ 6,95,310.00	End termination for 1C 120mm²	₹ 1,848.00
11 kV, Single core 240 mm² Aluminium Flat strip Armoured XLPE Cable, FRLS	₹ 10,10,420.00	End termination for 1C 150- 240 mm²	₹ 2,405.00
11 kV , Single core 300 mm² Aluminium Flat strip Armoured XLPE Cable , FRLS	₹ 11,61,640.00	End termination for 1C 300 mm²	₹ 2,405.00
11 kV , Single core 400 mm² Aluminium Flat strip Armoured XLPE Cable, FRLS	₹ 13,93,560.00	End termination for 1C 400 mm²	₹ 3,073.00
11 kV, Single core 630 mm² Aluminium Flat strip Armoured XLPE Cable , FRLS	₹ 20,33,940.00	End termination for 1C 630 mm²	₹ 3,073.00

Item	Rate/No.
Straight Through Jointing Kit for 70-120 mm²	₹ 4,412.00
Straight Through Jointing Kit for 150-185 mm²	₹ 4,806.00
Straight Through Jointing Kit for 240-300 mm²	₹ 5,590.00
Straight Through Jointing Kit for 400-500 mm²	₹ 8,276.00
Straight Through Jointing Kit for 630-800 mm²	₹ 11,688.00

Note:- All Cables shall be suitable for Effectively Earthed system.

STANDARD ESTIMATE FOR LAYING OF 1 KMS OF 11kV XLPE, 185mm² (SINGLE CIRCUIT, THREE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	11kV, Three core 185 mm² Aluminium Flat strip Armoured XLPE Cable , FRLS (one spare cable)	Kms	2.06	2180250.00	4491315.00
2	Straight Through Joints for cables	Set	8	11833.00	94664.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	11 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Set	4	5783.00	23132.00
6	Excavation in any type of soil including hard laterite soil	cums	585	592.90	346846.50
7	Back filling of available excavated earth	cums	517.5	218.40	113022.00
8	Sand for cushioning of HT underground cables	cums	67.5	3000.00	202500.00
9	Mechanical transport 30kms of sand	cums	67.5	520.34	35122.95
10	Head load 100 mtrs of sand	cums	67.5	244.36	16494.30
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	110	1969.10	216601.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	791.53	712377.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 64,90,881.84**
A	**Net Cost of Material without Civil Items**				**₹ 48,36,936.83**
B	GST @18% on **(A)**				₹ 8,70,648.63
C	Spares @ 3% on **(A+B)**				₹ 1,71,227.56
D	Erection Charges				₹ 1,11,733.24
E	GST @18% on **(D)**				₹ 20,111.98
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 2,85,379.27
	Gross Total (= A1+B+C+D+E+F)				**₹ 79,49,982.53**

S.No	Item	Rate/Km	Item	Rate/Set
1	11 kV, 3- Core XLPE 400 mm² Flat strip Armoured, FRLS Cable	₹ 39,02,050.00	End termination for 3C 70 - 95 mm²	₹ 5,251.00
2	11 kV, 3- Core XLPE 300 mm² Flat strip Armoured, FRLS Cable	₹ 31,35,130.00	End termination for 3C 120mm²	₹ 5,783.00
3	11 kV, 3- Core XLPE 240 mm² Flat strip Armoured, FRLS Cable	₹ 26,41,830.00	End termination for 3C 150-185 mm²	₹ 5,783.00
4	11 kV, 3- Core XLPE 150 mm² Flat strip Armoured, FRLS Cable	₹ 18,77,950.00	End termination for 3C 240-300 mm²	₹ 6,485.00
5	11 kV, 3- Core XLPE 120 mm² Flat strip Armoured, FRLS Cable	₹ 16,21,430.00	End termination for 3C 400 mm²	₹ 6,485.00

S.No	Item	Rate/Set
1	Straight Through Jointing Kit for 50-95 mm²	₹ 10,212.00
2	Straight Through Jointing Kit for 120-185 mm²	₹ 11,833.00
3	Straight Through Jointing Kit for 240-300 mm²	₹ 14,520.00
4	Straight Through Jointing Kit for 400-500 mm²	₹ 17,732.00

Note:

1). All Cables shall be suitable for Effectively Earthed system.

2). The estimate though incorporated here for general conveinance,however this option shall not be adopted in General (Rear use)

STANDARD ESTIMATE FOR LAYING OF 1 KMS OF 11 kV XLPE,185mm² (DOUBLE CIRCUIT, THREE CORE) ALUMINIUM ARMOURED CABLE UNDERGROUND. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	11kV, Three core 185 mm² Aluminium Flat strip Armoured XLPE Cable , FRLS (one spare cable)	Kms	3.06	2180250.00	6671565.00
2	Straight Through Joints for cables	Set	12	11833.00	141996.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Km	1	6572.41	6572.41
5	11 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Set	6	5783.00	34698.00
6	Excavation in any type of soil including hard laterite soil	cums	715	592.90	423923.50
7	Back filling of available excavated earth	cums	690.3	218.40	150750.60
8	Sand for cushioning of HT underground cables	cums	24.75	3000.00	74250.00
9	Mechanical transport 30kms of sand	cums	24.75	520.34	12878.42
10	Head load 100 mtrs of sand	cums	24.75	244.36	6047.91
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	210	1969.10	413511.00
12	RCC protective cover of size 600 mm (width) x 250mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	1448.48	1303632.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	2	44413.43	88826.86
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	2	1512.21	3024.42
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 94,72,059.52**
A	**Net Cost of Material without Civil Items**				**₹ 72,72,994.83**
B	GST @18% on **(A)**				₹ 13,09,139.07
C	Spares @ 3% on **(A+B)**				₹ 2,57,464.02
D	Erection Charges				₹ 1,68,006.18
E	GST @18% on **(D)**				₹ 30,241.11
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 4,29,106.69
	Gross Total (= A1+B+C+D+E+F)				**₹ 116,66,016.59**

Item	Rate/Km	Item	Rate/Set
11 kV, 3- Core XLPE 400 mm² Flat strip Armoured, FRLS Cable	₹ 39,02,050.00	End termination for 3C 70 - 95 mm²	₹ 5,251.00
11 kV, 3- Core XLPE 300 mm² Flat strip Armoured, FRLS Cable	₹ 31,35,130.00	End termination for 3C 120mm²	₹ 5,783.00
11 kV, 3- Core XLPE 240 mm² Flat strip Armoured, FRLS Cable	₹ 26,41,830.00	End termination for 3C 150-185 mm²	₹ 5,783.00
11 kV, 3- Core XLPE 150 mm² Flat strip Armoured, FRLS Cable	₹ 18,77,950.00	End termination for 3C 240-300 mm²	₹ 6,485.00
11 kV, 3- Core XLPE 120 mm² Flat strip Armoured, FRLS Cable	₹ 16,21,430.00	End termination for 3C 400 mm²	₹ 6,485.00

S.No	Item	Rate/Set
1	Straight Through Jointing Kit for 50-95 mm²	₹ 10,212.00
2	Straight Through Jointing Kit for 120-185 mm²	₹ 11,833.00
3	Straight Through Jointing Kit for 240-300 mm²	₹ 14,520.00
4	Straight Through Jointing Kit for 400-500 mm²	₹ 17,732.00

Note: **All Cables shall be suitable for Effectively Earthed system.**

STANDARD ESTIMATE FOR LAYING 1KM SINGLE CORE 630mm² 3P 4W LT UNDERGROUND CABLE
(Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	630mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type(3-ϕ, 1N, 1 spare)	Kms	5.15	1627050.00	8379307.50
2	Straight Through Joints for cables	Nos	20	1813.00	36260.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	1.1 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Nos	10	4365.00	43650.00
6	Excavation in any type of soil including hard laterite soil	cums	420	592.90	249018.00
7	Back filling of available excavated earth	cums	352.5	218.40	76986.00
8	Sand for cushioning of HT underground cables	cums	67.5	3000.00	202500.00
9	Mechanical transport 30kms of sand	cums	67.5	520.34	35122.95
10	Head load 100 mtrs of sand	cums	67.5	244.36	16494.30
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	110	1969.10	216601.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	791.53	712377.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	5	44413.43	222067.15
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	5	1512.21	7561.05
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 103,44,900.76**
A	**Net Cost of Material without Civil Items**				**₹ 86,91,579.96**
B	GST @18% on **(A)**				₹ 15,64,484.39
C	Spares @ 3% on **(A+B)**				₹ 3,07,681.93
D	Erection Charges				₹ 1,85,130.65
E	GST @18% on **(D)**				₹ 33,323.52
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 5,12,803.22
	Gross Total (= A1+B+C+D+E+F)				**₹ 129,48,324.47**

Item	Rate/Km	Item	Rate/No.
500mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	1317450.00	End termination for 1C 25-50 mm²	₹ 1,543.00
400mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	1078860.00	End termination for 1C 70-150 mm²	₹ 1,626.00
300mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	859760.00	End termination for 1C 185-300 mm²	₹ 2,357.00
240mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	691380.00	End termination for 1C 400-630mm²	₹ 4,365.00
185mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	546850.00	**Item**	**Rate/No.**
150mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	448570.00	Straight Through Jointing Kit for 25-50 mm²	₹ 522.00
120mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	380660.00	Straight Through Jointing Kit for 70-150 mm²	₹ 714.00
95mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	316640.00	Straight Through Jointing Kit for 185-240 mm²	₹ 1,176.00
70 mm² Single Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	271650.00	Straight Through Jointing Kit for 300-400 mm²	₹ 1,452.00
		Straight Through Jointing Kit for 500-630 mm²	₹ 1,813.00

Note: **All Cables shall be suitable for Effectively Earthed system.**

STANDARD ESTIMATE FOR LAYING 1 KM 630mm² 3½ CORE 3P 4W LT UNDERGROUND CABLE . (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	630mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type(3-ϕ, 1N) (One Spare Cable)	Kms		5368600.00	0.00
2	Straight Through Joints for cables	Kits		6345.00	0.00
3	Route Marker	Nos		162.80	0.00
4	Warning Tap	Kms		6572.41	0.00
5	1.1 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Kits		4365.00	0.00
6	Excavation in any type of soil including hard laterite soil	cums		592.90	0.00
7	Back filling of available excavated earth	cums		218.40	0.00
8	Sand for cushioning of HT underground cables	cums		3000.00	0.00
9	Mechanical transport 30 kms of sand	cums		520.34	0.00
10	Head load 100 mtrs of sand	cums		244.36	0.00
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr		1969.10	0.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	Mtr		791.53	0.00
13	Brick Masonary Chamber (900x900x1050)mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job		44413.43	0.00
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos		1512.21	0.00
15	Reinstatement of roads (100 m x 0.7 m x 0.2 m thick) = 14 cums	cums		9911.10	0.00
A1	**Total Material Cost**				**₹ -**
A	**Net Cost of Material without Civil Items**				**₹ -**
B	GST @18% on **(A)**				₹ -
C	Spares @ 3% on **(A+B)**				₹ -
D	Erection Charges				₹ -
E	GST @18% on **(D)**				₹ -
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ -
	Gross Total (= A1+B+C+D+E+F)				**₹ -**

Item	Rate/Km	Item	Rate/Set.
500mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 40,61,170.00	End termination for 3½ C 35-50 mm²	₹ 1,543.00
400mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 30,89,140.00	End termination for 3½C 70-150 mm²	₹ 1,825.00
300mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 24,20,420.00	End termination for 3½ C 185-300mm²	₹ 2,510.00
240mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 19,73,050.00	End termination for 3½ C 400-630mm²	₹ 4,365.00
185mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 15,34,920.00		
150mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 12,13,320.00	**Item**	**Rate/Set.**
120mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 10,28,140.00	Straight Through Jointing Kit upto 25-50 mm²	₹ 1,372.00
95mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 8,30,510.00	Straight Through Jointing Kit upto 70-95 mm²	₹ 2,013.00
70 mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 6,53,780.00	Straight Through Jointing Kit upto 120-150 mm²	₹ 2,373.00
50 mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 4,94,220.00	Straight Through Jointing Kit upto 185-240 mm²	₹ 3,563.00
35 mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 3,68,180.00	Straight Through Jointing Kit upto 300 mm²	₹ 3,866.00
25 mm² 3½ Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS	₹ 2,96,130.00	Straight Through Jointing Kit upto 400 mm²	₹ 3,996.00
Note: **1). All Cables shall be suitable for Effectively Earthed system.**		Straight Through Jointing Kit upto 500 -630mm²	₹ 6,345.00
2). Dropped due to Technical Reasons			

STANDARD ESTIMATE FOR LAYING 1KM 95mm² 2 CORE 1P 2W LT UNDERGROUND CABLE
(Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	95mm² 2 Core, 1P 2W Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type(1-ϕ, 1N) (one cable spare)	Kms	2.06	511660.00	1054019.60
2	Straight Through Joints for cables	Set	8	912.00	7296.00
3	Route Marker	Nos	10	162.80	1628.00
4	Warning Tap	Kms	1	6572.41	6572.41
5	1.1 kV Heat Shrinkable Cable Termination Kits (Indoor/Outdoor)	Set	4	1664.00	6656.00
6	Excavation in any type of soil including hard laterite soil	cums	300	592.90	177870.00
7	Back filling of available excavated earth	cums	287.5	218.40	62790.00
8	Sand for cushioning of HT underground cables	cums	12.5	3000.00	37500.00
9	Mechanical transport 30kms of sand	cums	12.5	520.34	6504.25
10	Head load 100 mtrs of sand	cums	12.5	244.36	3054.50
11	GI Pipe 150 mm dia with required no of collars for road crossing including termination points (6")	Mtr	110	1969.10	216601.00
12	RCC protective cover of size 300 mm (width) x 300mm (Length) x 60 mm (Thickness) for underground cables	Mtr	900	791.53	712377.00
13	Brick Masonary Chamber 900x900x1050mm with RCC top slab, Cast Iron cover in CI Frame (38Kg) after 500 mtrs	job	5	44413.43	222067.15
14	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	5	1512.21	7561.05
15	Reinstatement of roads (100 m x .7 m x 0.2 m thick)	cums	14	9911.10	138755.40
A1	**Total Material Cost**				**₹ 26,61,252.36**
A	**Net Cost of Material without Civil Items**				**₹ 13,00,334.06**
B	GST @18% on **(A)**				₹ 2,34,060.13
C	Spares @ 3% on **(A+B)**				₹ 46,031.83
D	Erection Charges				₹ 30,557.85
E	GST @18% on **(D)**				₹ 5,500.41
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 76,719.71
	Gross Total (= A1+B+C+D+E+F)				**₹ 30,54,122.29**

Item	Rate/Km	Item	Rate/Set.
150mm² Two Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	₹ 7,82,640.00	End termination for 2C 25-50 mm²	₹ 1,519.00
120mm² Two Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	₹ 6,26,110.00	End termination for 2C 70-150mm²	₹ 1,664.00
70 mm² Two Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	₹ 4,16,080.00	End termination for 2C 185-300 mm²	₹ 2,623.00
16 mm² Two Core Cable,1.1kV Grade, Armoured, XLPE Insulated Stranded Conductor FRLS type	₹ 1,67,650.00		

Item	Rate/Set
Straight Through Jointing Kit for 25-50 mm²	₹ 666.00
Straight Through Jointing Kit for 70-150 mm²	₹ 912.00
Straight Through Jointing Kit for 185-240 mm²	₹ 1,506.00

Note:- All Cables shall be suitable for Effectively Earthed system.

STANDARD ESTIMATE FOR SUB DISTRIBUTION PILLAR FEEDER FOR LT UNDERGROUND CABLE. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	3 phase, 415V, 1no of 250 Amp incoming 4P MCCB (Breaking Capacity 36kA) fitted with outgoing 03 No 100 Amps SP MCCBs, 1No.100Amps 3 pole MCCB for outgoing LT cables, Distribution feeder Pillar suitable for outdoor installation , made out of CRCA sheet painted through 7-tank process with PU painted Busbars 4P, Aluminium with heat shrinkable sleeves and adequate capacities complete with all accesories 4 way Distribution Feeder Pillar.	Nos	1	56000.00	56000.00
2	Support Galvanised angle frame and legs (50mm x 50 mm x 6 mm) for Distribution Feeder Pillar , leg height 1m with 0.3m in soil approx 7m @4.50Kg per mtr	Kgs	31.5	120.00	3780.00
3	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	1	1512.21	1512.21
4	Cement grouting for support angle legs	cum	0.5	6591.25	3295.63
A1	**Total Material Cost**				**₹ 64,587.84**
A	**Net Cost of Material without Civil Items**				**₹ 61,292.21**
B	GST @18% on **(A)**				₹ 11,032.60
C	Spares @ 3% on **(A+B)**				₹ 2,169.74
D	Erection Charges				₹ 5,577.59
E	GST @18% on **(D)**				₹ 1,003.97
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 3,616.24
	Gross Total (=A1+B+C+D+E+F)				**₹ 87,987.97**
Note:-	**Suitable support to be provided in snow bound areas as per site requirement so that cubicle is protected from the accumulated snow.**				

STANDARD ESTIMATE FOR SERVICE PILLAR FEEDER FOR LT UNDERGROUND CABLE (Amount in Rs.)					
S.No	**Particulars**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	1 phase 2 wire, 415V, 1no of 100 Amps incoming DP MCCB (Breaking Capacity 36kA) fitted with outgoing 04 No 32 Amps SP MCBs for Service Connections, Distribution Service Pillar suitable for outdoor installation , made out of CRCA sheet painted through 7-tank process with PU painted Busbars 2P, Aluminium with heat shrinkable sleeves and adequate capacities complete with all accesories 4 way Distribution Service Pillar.	Nos	1	13500.00	13500.00
2	Support Galvanised angle frame and legs (40mm x 40 mm x 3 mm) for Distribution Feeder Pillar with leg height 1m with 0.3m in soil approx 7m@1.8Kg per mtr	Kgs	12.6	120.00	1512.00
3	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip (25x3)mm	Nos	1	1512.21	1512.21
4	Cement grouting for support angle legs	cums	0.5	6591.25	3295.625
A1	**Total Material Cost**				**₹ 19,819.84**
A	**Net Cost of Material without Civil Items**				**₹ 16,524.21**
B	GST @18% on **(A)**				₹ 2,974.36
C	Spares @ 3% on **(A+B)**				₹ 584.96
D	Erection Charges				₹ 1,607.81
E	GST @18% on **(D)**				₹ 289.41
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 974.93
	Gross Total (=A1+B+C+D+E+F)				**₹ 26,251.29**
Note:-	**Suitable support to be provided in snow bound areas as per site requitement so that cubicle is protected from the accumulated snow.**				

STANDARD ESTIMATE 11 kV HT METERING CT AND PT OPERATED. (Amount in Rs.)

S. No	Description	Unit	Qty	Unit Rate	Amount
1	11kV Pilfer resistant metering cubicle for 3phase 4 wire metering system made of MS Sheet steel thickness not less than 2mm duly power coat painted suitable for indoor as well as outdoor as per the site requirement. The cubicle shall be painted through 7-tank process. The External dimensions should be adequate. Panel having two compartments upper Meter compartment and lower CT/PT compartment. Provided with synthetic or semi synthetic gasket firmly glued to the sufrace, Dust, weather and Vermin proof and shall comply degree of protection IP 65 both the chambers having one sided hinged door arrangments. The metering panel shall be provided with two No G.I channels of size 100 x 50 mm on the front and rear sides duly welded and 4 No of lifting hooks. It should be possible to take meter reading manually, through CMRI and computer without opening the LV chamber door.				
2	Single Phase, Single core, single ratio, Epoxy resin Cast Current Transformers suitable for 11kV, copper wound primary type with rated burden 5VA and accuracy class 0.5 or better and conforming to IS2705 (part-I & II) amended upto date. ISF shall be upto 5 The CT ratio shall be as under: i. 2.5 /5 for 25kVA DT ii. 5/5 for 63kVA DT iii. 7.5/5 for 100kVA DT iv. 15/5 for 200kVA DT v. 20/5 for 250kVA DT vi. 25/5 for 400kVA DT vii. 50/5 for 630kVA DT viii. 75/5 for 1MVA DT				
3	11kV/ 110 V, Three phase epoxy resin cast PT with rated burden 15VA per phase and accuracy class 0.5 or better and conforming to IS:3156 (part-I&II) amended upto date with proper colour coded identification. PTs shall be of uniform insulating and withstand separate source 23kV pf for one minute.	Job	1	110000.00	110000.00
4	Bus Bar details: CTs bus bar:- 40x6 mm copper strip or adequate size PTs bus bar: Copper wire 8 SWG or 30x0.6mm copper flat strip to connect PT terminal or adequate size duly insulated by the monoplast tape				
5	PVC Copper wire flexible multi-strand of required size for secondary connections for CT wiring the minimum wire size shall be 4 mm² (RYB) and for PT wiring minimum wire size shall be 2.5 mm² (RYB).				
6	Copper Lugs preferably ring type duly crimped for termination of wires and tapes				
7	Grounding bus of minimum 40mm copper, 25cm long fixed to the unit in HV chamber. The CTs, PT meter and 11kV Cable sheath shall be grounded to the bus through grounding wire (green) of min size 10mm²				
8	3Ph3 Wire HT CT/PT operated Fully static Smart Tri-Vector Energymeters DLMS Compliant Category 'C' with RS 232 port for modem compatibility. 11kV/110V, Ph-Ph (3P,3W) meters for measurement of different electrical parameters including Active Energy (kWh/ MWh), Reactive Energy (kVArh/MVArh), Apparent Energy (kVAh/ MVAh) etc.				
9	Independent flexible PVC pipes for CT wiring and PT wiring of appropriate size from HT compartment to meter compartment				
10	Pedestal made out of G.I Channel of size 75 x 40 mm or angle iron of size (65 x 65 x 5) mm, duly painted as per site requirement for mounting of metering panel including concrete foundation wherever required including cost of nuts and bolts				
11	3 Core 11 kV Aluminium cable XLPE armoured 35 mm² including cost of clamp for its fixing where ever required.	mtr	20	823.05	16461.00
12	Cable termination kits suitable for 3 x 35 mm² 11 kV XLPE Cable (Indoor/Outdoor)	Set	4	4982.00	19928.00
13	Earthing by way of 40 mm 2.5 mtr long GI Pipe. Job includes , excavation, enhancement material and Main Hole Chamber (500x450x600)mm with frame and cover.	Job	2	6944.16	13888.32
A	**Total Cost of Material**				**₹ 1,60,277.32**
B	GST @ 18% on **(A)**				₹ 28,849.92
C	**Total cost of Material with GST (=A+B)**				₹ 1,89,127.24
D	Spares @ 3% on **(C)**				₹ 5,673.82
E	Erection Charges				₹ 15,210.32
F	GST @ 18% on **(E)**				₹ 2,737.86
G	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(C)**				₹ 9,456.36
	Gross Total (=C+D+E+F+G)				**₹ 2,22,205.59**
Note	**Suitable support to be provided in snow bound areas as per site requitement so that cubicle is protected from the accumulated snow.**				

STANDARD ESTIMATE 33 kV HT METERING CT AND PT OPERATED. (Amount in Rs.)

S .No	Description	Unit	Qty	Unit Rate	Amount
1	33kV CT/PT Combined Unit, 3-phase, 50 Hz, ONAN cooled, outdoor type. The combined unit, CTs and PTs shall be as per below specifications. The CT ratio shall be as under: I. 20/5 for 500 KVA and 1 MVA, 33/11kV Transformers II. 60/5 for 1.5, 2 and 3.15 MVA, 33/11kV Transformers III. 125/5 for 4 MVA, 5 MVA, 6.3 MVA, 33/11kV Transformers IV. 200/5 for 10MVA, 33/11 kV Transformers The rated burden of CT shall be 7VA The PT shall be 33 kV/110 volts / √3, Three phase PT with rated burden 20VA per phase with proper colour coded identification. PTs shall be of uniform insulating and One minute power frequency dry withstand voltage 70kV				
2	Metering cubicle for 3phase 4 wire metering system suitable for 3 phase, HT, tri-vector meter with sealing and locking facility made of MS Sheet steel thickness not less than 2mm duly power coat painted suitable for indoor as well as outdoor as per the site requirement. The cubicle shall be painted through 7-tank process. The External dimensions should be adequate. Provided with synthetic or semi synthetic gasket firmly glued to the sufrace, Dust, weather and Vermin proof and shall comply degree of protection IP 65 both the chambers having one sided hinged door arrangments. The panel shall be provided with two No G.I channels of size 100 x 50 mm on the front and rear sides duly welded and 4 No of lifting hooks. It should be possible to take meter reading manually, through CMRI and computer without opening doorIIncluding supply and fixing of 75mm GI pipe between CT/PT combined unit and metering cubicle for CT/PT wiring to tri-vector meter.	Job	1	160000.00	160000.00
3	G.I Channels for mounting CT /PT Combined Units with nuts and bolts of size (100 x 50 x 6) mm				
4	3Ph4 Wire HT CT/PT operated Fully static Smart Tri-Vector Energymeters DLMS Compliant Category 'C' with RS232 port . 33kV/√3 /110V/√3, Ph-N (3P, 4W) meters for measurement of different electrical parameters including Active Energy (kWh/ MWh), Reactive Energy (kVArh/MVArh), Apparent Energy (kVAh/ MVAh) etc.				
5	PVC Copper wire flexible multi-strand of required size for secondary connections for CT wiring the minimum wire size shall be 4 mm² (RYB) and for PT wiring minimum wire size shall be 2.5 mm² (RYB).				
6	Copper Lugs preferably ring type duly crimped for termination of wires and tapes				
8	ACSR Jumpers with hardware fittings like ACSR to CT/PT unit bush clamp, other hardwares as per site requirement				
9	Earthing by way of 40 mm 2.5 mtr long GI Pipe. Job includes , excavation, enhancement material and Main Hole Chamber (500x450x600)mm with frame and cover.	Job	1	6944.16	6944.16
A	**Total Cost of Material**				**₹ 1,66,944.16**
B	GST @ 18% on **(A)**				₹ 30,049.95
C	**Total cost of Material with GST (=A+B)**				₹ 1,96,994.11
D	Spares @ 3% on **(C)**				₹ 5,909.82
E	Erection Charges				₹ 17,946.50
F	GST @ 18% on **(E)**				₹ 3,230.37
G	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(C)**				₹ 9,849.71
	Gross Total (=C+D+E+F+G)				**₹ 2,33,930.50**
Note:	**Suitable support to be provided in snow bound areas as per site requitement so that cubicle is protected from the accumulated snow.**				

ESTIMATE FOR COMPACT PACKAGED SUBSTATION. (Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	Packaged Substation - 11kV Outdoor type Package Sub-Station consisting of 11/0.433kV, 400kVA Oil type transformer, RMU, LT panel inside GI sheet steel enclosure with all interconnections, fully type tested as per the IEC-62271-202 complete in all respect each consisting of following items & as per detailed technical specifications: A) 3 way Non - Extensible fully motorized RMU (breaking capacity 21KA for three second with 2No. 630 A load break switch and 1 No. 630 A tee off VCB with Self powered with O/C + E.F Relay, suitable rating C.T's etc. to complete as required to entire satisfaction of Engineer-in-charge. The Incoming LBS shall be offered with FPI & VCB must confirm to operating sequence of O-0.3Sec-CO-3min-CO. B) 1 No. 11 kV / 433V, 400 KVA three phase, DYN11, +5% to - 5% in steps of 2.5% at line end of HT side , off lead tap, oil cooled type transformer with Cu winding and standard fittings & with Level-II losses (as per IS1180 , year 2021 amd 4). C) 1 No. 433V, 800A LT devices with PVC sleeved Aluminum busbars for interconnection & LT panel. D) One No. 4pole 800A, 50 kA ACB Manual Fixed type with microprocessor Based LSIG Release along with 3phase 4 wire energy meter E) 4 No. 4 Pole MCCBs Thermal Magnetic type of 250 Amp .each F) The provision for solid connection with Al. strips with heat shrinkable sleeves from Main L.T Bus Bar to each compartment of MCCB. G) The CSS HT compartment must be tested for Internal Arc of 21KA for 1 sec with IAC-A & B classification as per IEC62271-202. The CSS enclosure, RMU, VI, ACB, MCCB & Meter must be of same make for better life cycle optimization. All components should be suitable for altitude upto 2100 Meter	No	1	3995000.00	3995000.00
2	Excavation in any type of soil including hard laterite soil.	Cum	20	592.90	11858.00
3	Refilling of excavated soil	Cum	8	218.40	1747.20
4	Reinforced cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20 mm nominal size for foundations) including plastering 15mm(1:6)	Cum	13.125	8638.60	113381.63
5	Wire mesh jali around the Packaged Sub-Station of size upto 8'x4' made out of wire mesh 1"x1"square including fixing in cement 1:2:4 including welding cutting etc. Complete in all respect	L/s	1	64322.04	64322.04
6	Earthing of Substation --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mmx3 mm for connection of substation body as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No.	6	7308.16	43848.96
A1	**Total Material Cost**				**₹ 42,30,157.82**
A	**Net Cost of Material without Civil Items**				**₹ 41,03,171.00**
B	GST @18% on **(A)**				₹ 7,38,570.78
C	Spares @ 3% on **(A+B)**				₹ 1,45,252.25
D	Labour charges for Normal Terrain				₹ 2,31,419.00
E	GST @18% on **(D)**				₹ 41,655.42
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 2,42,087.00
	Total Amount (=A1+B+C+D+E+F)				**₹ 56,29,142.28**

S.No	Particulars	Unit		Unit Rate	
i)	**11 /0.433,100 kVA substation (Al Wound) with LT Panel having 200A Al. Busbar with 200A FP microprocessor based LSIG Protection MCCB as Incoming cum Outgoing**	No.		₹ 28,65,000.00	
ii)	**11 /0.433,200 kVA substation (Al Wound) with LT Panel having 400A Al. Busbar with 400A FP microprocessor based LSIG Protection MCCB as Incoming & 4 nos 100 Amp FP MCCB TM Based as Outgoing**	No.		₹ 32,85,000.00	
iii)	**11 /0.433,250 kVA substation (CU Wound) with LT Panel having 400A Al. Busbar with 400A FP microprocessor based LSIG Protection MCCB as Incoming & 4 nos 160 Amp FP MCCB TM Based as Outgoing**	No.		₹ 34,15,000.00	
iv)	**11 /0.433,630 kVA substation (CU Wound) with LT Panel having 1200A Al. Busbar with 1200A FP microprocessor based LSIG Protection fixed ACB as Incoming & 4 nos 400 Amp FP MCCB TM Based as Outgoing**	No.		₹ 44,55,000.00	
v)	**11 /0.433,1000 kVA substation (CU Wound) with LT Panel having 1600A Al. Busbar with 1600A FP microprocessor based LSIG Protection fixed ACB as Incoming & 4 nos 630 Amp FP MCCB TM Based as Outgoing**	No.		₹ 57,55,000.00	
Note:	**Suitable support to be provided in snow bound areas as per site requitement so that cubicle is protected from the accumulated snow.**				

ESTIMATE FOR PROVIDING RMU ALONGWITH OUT GOING CABLES FOR TRANSFORMER CONNECTION AT 11kV LEVEL. (Amount in Rs.)

S.No	Description	unit	3 way type,two isolators and one Circuit breaker			4 way type,two isolators and two Circuit breakers			4 way type,three isolators and one Circuit breakers		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	11 kV, 1 core(4 runs) 185sq.mm, Al conductor,XLPE, insulated, armoured cable (from the RMU to the transformer)	Mtrs	20	838.27	16765.40	40	838.27	33530.80	20	838.27	16765.40
2	11 kV, Ring Main Unit ,SF6 Insulated, out-door type, Extensible type STC &breaking capacity 21KA for three second with SF6 insulated VCB with O/C + E/F Relay comprising of a)11kV 630 Amp Motorized isolator including earthing Switches with making capacity 52 kA, having mechanical ON/OFF, earth indications with fault current Indicator. b)11kV, 630 Amp motorized Spring operated, Circuit breakers with earthing switches, connecting the RMU to Supply transformer. VCB must meet 10000 ON-OFF mechanical operation, and the operating sequence must be O-0.3sec-CO-3Min-CO. Suitable CT shall be placed in Cable chamber for protection. The basic insulation level of RMU shall be 38KV(RMS) / 95KV(Peak) for suitability at higher altitude.c)Copper Bus Bar of 630 Amp rating. d). 1 No. Numerical Aux. Powered relay having Non directional O/C and E/F protection (for No. circuit breaker). Relay should have minimum 4-DI & 6-DO. d). The Circuit Breaker enclosures shall be outfitted with a communicable-type numerical (feeder protection) relay, i.e., one for No. circuit breaker. The relay shall also interface via an RS 485 port in order to send, as a minimum, real-time phase current , readings using the MODBUS protocol. e)Incoming Isolator having FPI with electrical reset Contact /facility. f)All necessary Potential free contacts for indications relevant to RMU monitoring and control . g)Capacitor voltage dividers serving Live-Line Cable indicators in No. breaker and Isolator. h)The RMU must be offered with a single-phase Auxiliary VT 11KV/230V AC, 500VA and 26AH, 24V battery with 7amps Battery Charger. The RMU (Gas tank +Cable chamber) must be Internal tested for 21KA for 1 sec duration with AFLR classification.. f)All necessary Potential free contacts for indications relevant to RMU monitoring and control . g)Capacitor voltage dividers serving Live-Line Cable indicators in No. breaker and Isolator. h)The RMU must be offered with a single-phase Auxiliary VT 11KV/230V AC, 500VA and 26AH, 24V battery with 7amps Battery Charger.	No	1	835000.00	835000.00	1	1196000.00	1196000.00	1	1087000.00	1087000.00
3	11kV 1 core Indoor terminating kit to be used with cables-185sq.mm.	No.	4	1848.00	7392.00	8	1848.00	14784.00	4	1848.00	7392.00
4	11kV 1 core Outdoor terminating kit to be used with cables - 185 sq.mm.	No.	4	2405.00	9620.00	8	2405.00	19240.00	4	2405.00	9620.00
5	Cable Route Markers.	No.	3	162.80	488.40	6	162.80	976.80	3	162.80	488.40
6	Excavation in any type of soil including hard laterite soil.	Cum	12.49	592.90	7405.32	23.29	592.90	13808.64	12.5	592.90	7411.25
7	Refilling of excavated soil	Cum	9.50	218.40	2074.80	19.00	218.40	4149.60	9.50	218.40	2074.80
8	Sand for cushioning of the cables in the trench.	Cum	1.72	3000.00	5160.00	3.44	3000.00	10320.00	1.72	3000.00	5160.00
9	Cement Tiles of size 300mm length x250mm width x 37mm thick as a protective cover for underground cables.	No.	40	186.51	7460.40	80	186.51	14920.80	40	186.51	7460.40
10	Earthing of RMU --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 50 mmx6 mm for connection of rmu body as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No.	3	7935.36	23806.08	4	7935.36	31741.44	4	7935.36	31741.44
11	Cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20 mm nominal size for foundations)	Cum	2.24	6591.25	14764.40	6.72	6591.25	44293.20	6.72	6591.25	44293.20
12	Centering and shuttering including struttings, propping etc and removal of formwork.	Sqm	14.25	628.95	8962.54	17.25	628.95	10849.39	17.25	628.95	10849.39
13	15 mm cement plaster 1:4 (1 - cement: 4 -fine sand) for foundations.	Sqm	10.70	327.85	3508.00	13.70	327.85	4491.55	13.70	327.85	4491.55
14	Constructing masonry chamber (600x600x900)mm .inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse s&) including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover & frame to be not less than 38 kg (weight of cover 23kg & weight of frame 15 kg) & RCC top slab 1:2:4 mix (1 cemenf :2 coarse s& : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) & inside plastering with cement mortar 1:3 (1 cement : 3 coarse s&) 12 mm thick, finished with a floating coat of neat cement complete as per st&ard design with common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No.	1	29513.72	29513.72	2	29513.72	59027.44	1	29513.72	29513.72
15	Wire mesh fencing around the packaged RMU of size upto 8'x4 ' made out of wire mesh 1"x1" square including fixing in cement 1:2:4 including welding cutting etc. complete in all respects.	L/S	1	32161.36	32161.36	1	32161.36	32161.36	1	32161.36	32161.36
A1	**Total Material Cost**				**₹ 10,04,082.41**			**₹ 14,90,295.01**			**₹ 12,96,422.90**
A	**Net Cost of Material without Civil Items**				**₹ 9,25,233.24**			**₹ 13,28,434.40**			**₹ 11,85,168.60**
B	GST @18% on **(A)**				₹ 1,66,541.98			₹ 2,39,118.19			₹ 2,13,330.35
C	Spares @ 3% on **(A+B)**				₹ 32,753.26			₹ 47,026.58			₹ 41,954.97
D	Labour charges for Normal Terrain	---	---	---	₹ 51,165.40	---	---	₹ 73,462.42	---	---	₹ 65,539.82
E	GST @18% on **(D)**				₹ 9,209.77			₹ 13,223.24			₹ 11,797.17
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 54,589.00	---	---	₹ 78,378.00	---	---	₹ 69,925.00
	Total Amount (=A1+B+C+D+E+F)	---	---	---	**₹ 13,18,341.82**	**---**	**---**	**₹ 19,41,503.44**	**---**	**---**	**₹ 16,98,970.21**

S.No	Particulars	Unit		Unit Rate
1	3 way type,two isolators and one Vaccum Circuit breaker Non-Extensible	No.		₹ 7,75,000.00
2	4 way type,two isolators and two Vaccum Circuit breakers Non-Extensible	No.		₹ 11,25,000.00
3	4 way type,three isolators and one Vaccum Circuit breakers Non-Extensible	No.		₹ 10,05,000.00
Note:	**The volume of cement concrete foundation may be increased as per site condition.**			
	Suitable support to be provided in snow bound areas as per site requitement so that cubicle is protected from the accumulated snow.			

STANDARD ESTIMATE FOR PROVIDING RMU ALONGWITH OUTGOING CABLE FOR RECEIVING SUBSTATION CONNECTION AT 33 kV LEVEL . (Amount in Rs.)

S.No	Description	Unit	3 way type,two isolators and one Circuit breaker			4 way type,two isolators and two Circuit breaker			4 way type,three isolators and one Circuit breaker		
			Qty	Unit Rate	Amount	Qty	Unit Rate	Amount	Qty	Unit Rate	Amount
1	33 kV,1 core(4 runs) 185sq.mm, Al conductor,XLPE, insulated, armoured cable (from the RMU to Recieving Substation)	Mtrs	20	1189.25	23785.00	40	1189.25	47570.00	20	1189.25	23785.00
2	33 kV RING MAIN UNIT : Out-door type RMU, SF6 Insulated, Extensible type, at 33kV system voltage and breaking capacity 25kA for three second, with SF6 insulated VCB with O/C + E/F Relay system comprising of a)33kV, 630 Amp. motorized Isolators including earthing switches with making capacity 62.5kA, having mechanical ON/OFF b)33kV,630Amp motorized, spring operated, Circuit Breakers (CB) with earthing switches. VCB must meet 10000 ON-OFF mechanical operation, and the operating sequence must be O-0.3sec-CO-3Min-CO. Suitable CT shall be placed in Cable chamber for protection.(c). Cu Bus - Bar of 630 Amp. rating d)One (1) No. Numerical Aux powered relay having Non-directional 0/C and E/F protection (for No. Circuit Breaker feeder). Relay should have minimum 4-DI & 6-DO. The relay shall also interface via an RS 232/485 port in order to send, as a minimum, real-time readings using the MODBUS protocol. e)Incoming Isolators shall have FPI with electrical reset contact / facility. f)All necessary potential-free contacts for indications relevant to RMU monitoring and control.g)Capacitor Voltage Dividers serving live-line cable indicators in No. Breaker & Isolator.h)The RMU must be offered with a single-phase Auxiliary VT 33KV/230V AC, 500VA and 26AH, 24V battery with 7amps Battery Charger.i)The RMU (Gas tank +Cable chamber) must be Internal tested for 25KA for 1 sec duration with AFLR classification. RMU shall have site replaceable bushings to have very less downtime in the event of bushing breakage and restoration can be done immediately without sending the RMU to OEM Works.	No	1	3398000.00	3398000.00	1	4460000.00	4460000.00	1	3800000.00	3800000.00
3	33 kV Single core Indoor terminating kit to be used with cables - 185 sq.mm.	No.	4	2148.30	8593.20	8	2148.30	17186.40	4	2148.30	8593.20
4	33 kV Single core Outdoor terminating kit to be used with cables -185 sq.mm.	No.	4	3596.00	14384.00	8	3596.00	28768.00	4	3596.00	14384.00
5	Cable Route Markers.	No.	3	162.80	488.40	6	162.80	976.80	3	162.80	488.40
6	Excavation in any type of soil including hard laterite soil.	Cum	12.49	592.90	7405.32	23.29	592.90	13808.64	12.5	592.90	7411.25
7	Refilling of excavated soil	Cum	9.50	218.40	2074.80	19.00	218.40	4149.60	9.50	218.40	2074.80
8	Sand for cushioning of the cables in the trench.	Cum	1.72	3000.00	5160.00	3.44	3000.00	10320.00	1.72	3000.00	5160.00
9	Cement Tiles of size 300mm length x250mm width x 37mm thick as a protective cover for underground cables.	No.	40	186.51	7460.40	80	186.51	14920.80	40	186.51	7460.40
10	Earthing of RMU --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 75 mmx10 mm & 50 mmx6 mm for connection of rmu body as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No.	3	7935.36	23806.08	4	7935.36	31741.44	4	7935.36	31741.44
11	Cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20 mm nominal size for foundations)	Cum	2.24	6591.25	14764.40	6.72	6591.25	44293.20	6.72	6591.25	44293.20
12	Centering and shuttering including struttings, propping etc and removal of formwork.	Sm	14.25	628.95	8962.54	17.25	628.95	10849.39	17.25	628.95	10849.39
13	15 mm cement plaster 1:4 (1 - cement: 4 -fine sand) for foundations.	Sm	10.70	327.85	3508.00	13.70	327.85	4491.55	13.70	327.85	4491.55
14	Constructing masonry chamber (600x600x900)mm .inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse s&) including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover & frame to be not less than 38 kg (weight of cover 23kg & weight of frame 15 kg) & RCC top slab 1:2:4 mix (1 cemenf :2 coarse s& : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine s& : 10 graded stone aggregate 40 mm nominal size) & inside plastering with cement mortar 1:3 (1 cement : 3 coarse s&) 12 mm thick, finished with a floating coat of neat cement complete as per st&ard design with common burnt clay F.P.S. (non modular) bricks of class designation 7.5	No.	1	29513.72	29513.72	2	29513.72	59027.44	1	29513.72	29513.72
15	Wire mesh boundary fencing around the RMU	L/S	1	32161.36	32161.36	1	32161.36	32161.36	1	32161.36	32161.36
A1	**Total Material Cost**				**₹ 35,80,067.21**			**₹ 47,80,264.61**			**₹ 40,22,407.70**
A	**Net Cost of Material without Civil Items**				**₹ 35,01,218.04**			**₹ 46,18,404.00**			**₹ 39,11,153.40**
B	GST @18% on **(A)**				₹ 6,30,219.25			₹ 8,31,312.72			₹ 7,04,007.61
C	Spares @ 3% on **(A+B)**				₹ 1,23,943.12			₹ 1,63,491.50			₹ 1,38,454.83
D	Labour charges for Normal Terrain	---	---	---	₹ 2,66,092.57			₹ 3,50,998.70			₹ 2,97,247.66
E	GST @18% on **(D)**				₹ 47,896.66			₹ 63,179.77			₹ 53,504.58
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**	---	---	---	₹ 2,06,572.00			₹ 2,72,486.00			₹ 2,30,758.00
	Total Amount (=A1+B+C+D+E+F)	---	---	---	**₹ 48,54,790.81**			**₹ 64,61,733.31**			**₹ 54,46,380.38**

S.No	Particulars	Unit		Unit Rate
1	3 way type,two isolators and one Vaccum Circuit breaker Non- Extensible	No.		₹ 32,95,000.00
2	4 way type,two isolators and two Vaccum Circuit breakers Non-Extensible	No.		₹ 43,55,000.00
3	4 way type,three isolators and one Vaccum Circuit breakers Non-Extensible	No.		₹ 37,00,000.00
	The volume of cement concrete foundation may be increased as per site condition.			
Note:	**Suitable support to be provided in snow bound areas as per site requitement so that cubicle is protected from the accumulated snow.**			

ABSTRACT / COST OF INSTALLATION OF 250 kVA DG SET SUBSTATION.
(Amount in Rs.)

S.No	Description	Unit	Qty	Unit Rate	Amount
1	250 kVA DG Set with Microprocessor based controller for control, metering and alarm and with seperate AMF Panel(Silent/Canopy type and with cold starting kit,6 Cylinder CPCB-IV)	No	1	2594000.00	2594000.00
2	Excavation in any type of soil including hard laterite soil.	Cum	18.69	592.90	11081.30
3	Dry stone pitching any thickness hand packed on Horizontal plane	Cum	3.74	857.30	3206.30
4	Providing and laying in position cement concrete 1:3:6 (1 cement: 3 coarse sand: 6 graded stone agg. 20mm nominal size) excluding cost of centering & shuttering.	Cum	14.95	5733.60	85717.32
5	Cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded granitic or basaltic stone aggregate 20mm nominal size for foundations) excluding cost of centering & shuttering.	Cum	16.99	6591.25	111985.34
6	15 mm thick Cement Plaster	Sqm	35.29	327.85	11569.83
7	Single core 150 mm² XLPE 1.1 kV armoured cable , 2 Runs per phase (40 mtr per phase per Run)	RM	320	448.57	143542.40
8	Earthing of DG Set --Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 25 mmx3 mm for connection of substation body as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No.	4	7308.16	29232.64
A1	**Total Material Cost**				**₹ 29,90,335.13**
A	**Net Cost of Material without Civil Items**				**₹ 27,66,775.04**
B	GST @18% on **(A)**				₹ 4,98,019.51
C	Spares @ 3% on **(A+B)**				₹ 97,943.84
D	Labour charges for Normal Terrain				₹ 1,89,524.09
E	GST @18% on **(D)**				₹ 34,114.34
F	Overheads @ 5% (1.5% T&P, 3% Contingency , 0 .5% Insurance) on **(A+B)**				₹ 1,63,240.00
	Total Amount (=A1+B+C+D+E+F)				**₹ 39,73,176.90**

S.No	Particulars	Unit		Unit Rate	
	DG Sets with Microprocessor based controller for control, metering and alarm (Silent/Canopy type and with cold starting kit) (CPCB-IV)				
1	62.5 kVA DG Set (4 cylinder) with Inbuilt AMF Pannel	No.		₹ 14,50,000.00	
2	100 kVA DG Set (6 cylinder) with Inbuilt AMF Pannel	No.		₹ 15,25,000.00	
3	125 kVA DG Set(6 cylinder) with Inbuilt AMF Pannel	No.		₹ 15,25,000.00	
4	200 kVA DG Set (6 cylinder) with separate AMF Pannel	No.		₹ 23,28,500.00	
5	320 kVA DG Set (6 cylinder) with separate AMF Pannel	No.		₹ 29,96,000.00	
6	400 kVA DG Set (6 cylinder) with separate AMF Pannel	No.		₹ 36,95,000.00	
Note:	**1). Suitable support to be provided in snow bound areas as per site requirement so that cubicle is protected from the accumulated snow.**				
	2). The volume of cement concrete foundation may be increased/decreased as per site condition.				

ABSTRACT/ COST OF ERECTION OF 1 KM STREET LIGHTING ON 7 MTR LONG OCTOGONAL POLE. (Amount in Rs.)

S.NO.	Particulars	Unit	Qty	Unit Rate	Amount
1	7.0 mtr Long GI (65 micron DFT single dip) Octogonal poles uniformally tappered with thickness of 3mm with bottom/top Dia of 135 mm x 70mm & base plate of 225x225x12mm/pcd 250 mm provided with proper door opened gear box for connections on the bottom side with G.I. Foundation Bolts (J Type) M16 x 650 mm long (Set of 4 no.'s per pole)	No.	50	13600.00	680000.00
2	Laying of RCC foundation for 7.0 mtr. Long Octagonal poles including proper curing. 0.55mX0.55mX0.8m (RCC with concrete ratio 1:1.5:3 with minimum 8 Nos. of 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C for fixing the pole).	Job	50	6301.86	315093.00
3	Earthing of Octagonal Pole Complete by GI Pipe 40 mm or GI Rod 20mm 3 mtr long through GI Strip (25x3)mm	No.	50	1512.21	75610.50
4	Pre fabricate galvanized single way top bracket (1000 mm long with 48.3 OD GI Pipe) to be fitted on top of Octogonal pole for holding lighting luminaries.	No.	50	1550.00	77500.00
5	DK thermoplastic cable Junction/ Termination T boxes 8"x10"of class IP55/IP65 fitted with two 2-5 Amp MCB strip,4-way terminal block / connectors Incl. copper lugs, Clamps ,nut & bolts washers etc (Hansel or equivalent make) or poles with two way type bracket to be fitted properly inside the door opened gear box provided on the bottom side of the pole.	No.	50	1100.00	55000.00
6	120/190 Watt LED Luminaries of IP 67 protection.	No.	50	9000.00	450000.00
7	Surge Protector for the 120/190 watt LED type lighting fixture complete.	No.	50	300.00	15000.00
8	3X1.5 mm ^{2} PVC insulated multistrand flexible copper wire for service connections from connection plate to the LED luminary individual circuit including loop & earthings laid properly .	Mtr	500	140.55	70275.00
9	HDPE pipe 50 mm O/D and inner diameter 38mm including trench excavation in hard soil (0.3x0.45x1000m) for laying of 25/16 mm² Almunium armored cable . The job further inludes refilling back the same and removal of surplus excavated material to an appropriate place.	Mtr	1000	515.38	515380.00
10	LT 25 mm² 4 core Aluminium XLPE armoured cable to be carried through conduit/pipe U/G or A/G only in case of site constrains excluding cost of pipe & trench excavation.The cable shall include end termination lugs with its crimping /taping.	Mtr	750	317.36	238020.00
11	LT 16 mm² 2 core Aluminium XLPE Armoured cable to be carried through conduit/pipe U/G or A/G only in case of site constrains excluding cost of pipe & trench excavation. The cable shall include end termination lugs with its crimping /taping.	Mtr	350	167.65	58677.50
12	Outdoor type LT control panel size 900mmX900mmX450mm having input main control of 100 Amp MCCB with TPN Bus Bar with 40 Amp TPN MCB 4Nos for outgoing circuits,including astronomical switching with contactor of required capacity. The panel should be fitted with a digital composite voltmeter/amper meter/indicator set with selecter switch and backup protection system, thimbling and the panel shall further be provided with proper openings on front side as well as on rear side including its locking arrangement and also with required glands and 4No. angle iron legs for grouting the panel on bed , the panel shall also be provided with powder coat/PU paint. The item includes its thimble as required at taping point for incomming , out going and internal panel wiring complete unit.	No.	1	45724.80	45724.80
13	Dust/rain/snow-proof canopy type mini-outdoor LT feeder panel of size 450X300mm with front door opening duly powdered colour coated with inbuilt 2No TPN 16-32 Amp MCCB,TPN busbars of same capacity installed on cement concrete block with 4 angle iron legs grouted in the cement concrete of termination of main 25 sqmm cable and outgoing 25/16 sqmm cable circuits.	No.	1	13591.60	13591.60
A1	**Total Material Cost**				**₹ 26,09,872.40**
A	**Net Cost of Material without Civil Items**				**₹ 17,79,399.40**
B	GST @18% on Material Cost on **(A)**				₹ 3,20,291.89
C	Labour charges on **(S No 1,3-7,12,13)**				₹ 1,78,813.25
D	Labour charges on **(S No 8,10,11)**				₹ 8,587.16
E	GST @18% on Labour Charges -- on **(C+D)**				₹ 33,732.07
F	Overheads @ 5% (1.5% T&P, 3% Contingency , 0.5% Insurance) on **(A+B)**				₹ 1,04,984.56
	Total Amount (A1+B+C+D+E+F)				**₹ 32,56,281.33**

ABSTRACT/ COST OF ERECTION OF 1 KM STREET LIGHTING ON 8 MTR LONG OCTOGONAL POLE.
(Amount in Rs.)

S.No	Particulars	Units	Qty	Unit Rate	Amount
1	8.0 mtr Long GI (65 micron DFT single dip) Octogonal poles uniformally tappered with thickness of 3mm with bottom/top Dia of 155 mm x 70mm & base plate of 260x260x16mm/pcd 250 mm provided with proper door opened gear box for connections on the bottom side with G.I. Foundation Bolts (J Type) M20x700 mm long (Set of 4 no.'s per pole)	No.	40	15600.00	624000.00
2	Laying of RCC foundation for 8.0 mtr. Long Octagonal poles including proper curing. 0.585mX0.585mX1.0m (RCC with concrete ratio 1:1.5:3 with minimum 8 Nos. of 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C for fixing the pole).	Job	40	8624.86	344994.40
3	Earthing of Octagonal Pole Complete by GI Pipe 40 mm or GI Rod 20mm 3 mtr long through GI Strip (25x3)mm	No.	40	1512.21	60488.40
4	Pre fabricate galvanized single way top bracket (1000mm long with 48.3 OD GI Pipe) to be fitted on top of Octogonal pole for holding lighting	No.	40	1550.00	62000.00
5	DK thermoplastic cable Junction/ Termination T boxes 8"x10"of class IP55/IP65 fitted with two 2-5 Amp MCB strip,4-way terminal block / connectors Incl. copper lugs, Clamps ,nut & bolts washers etc (Hansel or equivalent make) or poles with two way type bracket to be fitted properly inside the door opened gear box provided on the bottom side of the pole.	No.	40	1100.00	44000.00
6	120/190 Watt LED Luminaries of IP 67 protection	No.	40	9000.00	360000.00
7	Surge Protector for the 120/190 watt LED type lighting fixture complete.	No.	40	300.00	12000.00
8	3X1.5 mm ^{2} PVC insulated multistrand flexible copper wire for service connections from connection plate to the LED luminary individual circuit including loop & earthings laid properly.	Mtr	500	140.55	70275.00
9	HDPE pipe 50 mm O/D and inner Dia 38 mm including trench excavation in hard soil (0.3x0.45x1000m) for laying of 25/16 sq mm Almunium armoured cable . The job further inludes refilling back the same and removal of surplus excavated material to an appropriate place.	Mtr	1000	515.38	515380.00
10	LT 25 mm² 4 core Aluminium XLPE Armoured cable to be carried through conduit/pipe U/G or A/G only in case of site constrains excluding cost of pipe & trench excavation. The cable shall include end termination lugs with its crimping /taping.	Mtr	750	317.36	238020.00
11	LT 16 mm² 2 core Aluminium XLPE Armoured cable to be carried through conduit/pipe U/G or A/G only in case of site constrains excluding cost of pipe & trench excavation. The cable shall include end termination lugs with its crimping /taping.	Mtr	350	167.65	58677.50
12	Outdoor type LT control panel size 900mmX900mmX450mm having input main control of 100Amp MCCB with TPN Bus Bar with 40 Amp TPN MCB 4Nos for outgoing circuits,including astronomical switching with contactor of required capacity. The panel should be fitted with a digital composite voltmeter/amper meter/indicator set with selecter switch and backup protection system, thimbling and the panel shall further be provided with proper openings on front side as well as on rear side including its locking arrangement and also with required glands and 4No. angle iron legs for grouting the panel on bed , the panel shall also be provided with powder coat/PU paint. The item includes its thimble as required at taping point for incomming , out going and internal panel wiring complete unit.	No.	1	45724.80	45724.80
13	Dust/rain/snow-proof canopy type mini-outdoor LT feeder panel of size 450X300mm with front door opening duly powdered colour coated with inbuilt 2No TPN 16-32 Amp MCCB,TPN busbars of same capacity installed on cement concrete block with 4 angle iron legs grouted in the cement concrete of termination of main 25sqmm cable and outgoing 25/16 sqmm cable circuits.	No.	1	13591.60	13591.60
A1	**Total Material Cost**				**₹ 24,49,151.70**
A	**Net Cost of Material without Civil Items**				**₹ 15,88,777.30**
B	GST @18% on Material Cost on **(A)**				₹ 2,85,979.91
C	Labour charges on **(S No 1,3-7,12,13)**				₹ 1,51,259.43
D	Labour charges on **(S No 8,10,11)**				₹ 8,587.16
E	GST @18% on Labour Charges -- on **(C+D)**				₹ 28,772.39
F	Overheads @ 5%(1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 93,737.86
	Total Amount (A1+B+C+D+E+F)				**₹ 30,17,488.45**

ABSTRACT / COST OF ERECTION OF 1KM STREET LIGHTING ON 9MTR LONG OCTOGONAL POLE.
(Amount In Rs.)

S.No	Particulars	Units	Qty	Unit Rate	Amount
1	9.0 mtr Long GI (65 micron DFT single dip) Octogonal poles uniformally tappered with thickness of 3mm with bottom/top Dia of 175 mm x 70mm & base plate of 275x275x16mm/pcd 250 mm provided with proper door opened gear box for connections on the bottom side with G.I. Foundation Bolts (J Type) M24x750 mm long (Set of 4 no.'s per pole)	No.	35	17500.00	612500.00
2	Laying of RCC foundation for 9.0 mtr. Long Octagonal poles including proper curing. 0.6mX0.6mX1.2m (RCC with concrete ratio 1:1.5:3 with minimum 8 Nos. of 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C for fixing the pole).	Job	35	10628.41	371994.35
3	Earthing of Octagonal Pole Complete by GI Pipe 40 mm or GI Rod 20mm 3 mtr long through GI Strip (25x3)mm	No.	35	1512.21	52927.35
4	Pre fabricated galvanized double way top bracket (1500mm long with 48.3 OD GI Pipe) to be fitted on top of Octogonal pole for holding lighting	No.	35	2100.00	73500.00
5	DK thermoplastic cable Junction/ Termination T boxes 8"x10"of class IP55/IP65 fitted with two 2-5 Amp MCB strip,4-way terminal block / connectors Incl. copper lugs, Clamps ,nut & bolts washers etc (Hansel or equivalent make) or poles with two way type bracket to be fitted properly inside the door opened gear box provided on the bottom side of the pole.	No.	35	1100.00	38500.00
6	120/190 Watt LED Luminaries of IP 67 protection	No.	70	9000.00	630000.00
7	Surge Protector for the 120/190 watt LED type lighting fixture complete.	No.	70	300.00	21000.00
8	3X1.5 mm² PVC insulated multistrand flexible copper wire for service connections from connection plate to the LED luminary individual circuit including loop & earthings laid properly.	Mtr	700	140.55	98385.00
9	HDPE pipe 50 mm O/D and inner Dia 38 mm including trench excavation in hard soil (0.3x0.45x1000m) for laying of 25/16 sq mm Almunium armored cable . The job further inludes refilling back the same and removal of surplus excavted material to an appropriate place.	Mtr	1000	515.38	515380.00
10	LT 25 mm² 4 core Aluminium XLPE Armoured cable to be carried through conduit/pipe U/G or A/G only in case of site constrains excluding cost of pipe & trench excavation. The cable shall include end termination lugs with its crimping /taping.	Mtr	750	317.36	238020.00
11	LT 16 mm² 2 core Aluminium XLPE Armoured cable to be carried through conduit/pipe U/G or A/G only in case of site constrains excluding cost of pipe & trench excavation. The cable shall include end termination lugs with its crimping /taping.	Mtr	350	167.65	58677.50
12	Outdoor type LT control panel size 900mmX900mmX450mm having input main control of 100Amp MCCB with TPN Bus Bar with 40 Amp TPN MCB 4Nos for outgoing circuits,including astronomical switching with contactor of required capacity. The panel should be fitted with a digital composite voltmeter/amper meter/indicator set with selecter switch and backup protection system, thimbling and the panel shall further be provided with proper openings on front side as well as on rear side including its locking arrangement and also with required glands and 4No. angle iron legs for grouting the panel on bed , the panel shall also be provided with powder coat/PU paint. The item includes its thimble as required at taping point for incomming , out going and internal panel wiring complete unit.	No.	1	45724.80	45724.80
13	Dust/rain/snow-proof canopy type mini-outdoor LT feeder panel of size 450X300mm with front door opening duly powdered colour coated with inbuilt 2No TPN 16-32 Amp MCCB,TPN busbars of same capacity installed on cement concrete block with 4 angle iron legs grouted in the cement concrete of termination of main 25sqmm cable and outgoing 25/16 sqmm cable circuits.	No.	1	13591.60	13591.60
A1	**Total Material Cost**				**₹ 27,70,200.60**
A	**Net Cost of Material without Civil Items .**				**₹ 18,82,826.25**
B	GST @18% on Material Cost on **(A)**				₹ 3,38,908.73
C	Labour charges on **(S No 1,3-7,12,13)**				₹ 2,01,142.96
D	Labour charges on **(S No 8,10,11)**				₹ 9,244.93
E	GST @18% on Labour Charges -- on **(C+D)**				₹ 37,869.82
F	Overheads @ 5% (1.5% T&P, 3% Contingency , 0.5% Insurance) on **(A+B)**				₹ 1,11,086.75
	Total Amount (A1+B+C+D+E+F)				**₹ 34,68,453.78**

ABSTRACT/ COST FOR ERECTION OF 1 KM OF 33 kV LINE ON 11 METER ST POLES, 105 mm² ACS/ XLPE, DOG COVERED CONDUCTOR WITH A SPAN OF 40MTRS. (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	11 Mtr. Long Pole (ST-410 SP56)	No.	26	16547.36	430231.36
2	105 mm² AL59 Aluminium claded steel Conductor	km	3.09	492000.00	1520280.00
3	Tension Clamps with bail and IPC (Insulation piercing conductors)	Set	36	1320.00	47520.00
4	Alignment ties	No.	57	990.00	56430.00
5	IPC (Insulation piercing conductors)for bare to CC(covered conductor) connection	No.	6	1760.00	10560.00
6	IPC for CC to CC connection	No.	6	1540.00	9240.00
7	IPC with Aluminium bail for earthing	No.	3	2530.00	7590.00
8	Mid Span joint	No.	3	2750.00	8250.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3mm	No.	26	1512.21	39317.46
10	Red Oxide	Ltr.	26	222.20	5777.20
11	Aluminium Paint	Ltr.	26	370.70	9638.20
12	Cement bottoming 1:2:4 mix as per Standards 0.66 cum /pole	No.	26	4372.84	113693.84
14	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2No.), anchor plate (300x 300 x 8 mm), nut-bolts, 2 No. turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	No.	6	5255.16	31530.96
A1	**Total Material Cost**				**₹ 22,90,059.02**
A	**Net Cost of Material without Civil Items**				**₹ 21,76,365.18**
B	GST @18% on Material Cost on **(A)**				₹ 3,91,745.73
C	Labour charges for Normal Terrain				₹ 3,33,201.51
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 59,976.27
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**				₹ 4,32,495.56
F	Overheads @ 5% (1.5% T&P, 3% Contingency , 0.5% Insurance) on **(A+B)**				₹ 1,28,405.55
	Total Amount for Normal Terrain (=A1+B+C+D+F)				**₹ 32,03,388.08**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)				**₹ 32,42,705.86**

S.No	**Particulars**	**Unit**		**Unit Rate**	
1	158 mm² AL59 Aluminium Claded Steel Conductor (Wolf)	Km		₹ 6,18,000.00	
2	212 mm² AL59 Aluminium Claded Steel Conductor (Panther)	Km		₹ 8,01,000.00	

ABSTRACT/COST FOR ERECTION OF 1 KM OF 11 kV LINE ON 9 METER ST POLES, 52.88 mm² ACS/ XLPE, RABBIT COVERED CONDUCTOR WITH A SPAN OF 40MTRS. (Amount in Rs.)					
S.No	**PARTICULARS**	**Unit**	**Qty**	**Unit Rate**	**Amount**
1	9 Mtr. Long Pole(ST-410 SP56)	Nos	26	11618.52	302081.52
2	52.88 mm² AL59 Aluminium claded steel Conductor	km	3.09	216000.00	667440.00
3	Tension Clamps with bail and IPC (Insulation piercing conductors)	Set	36	1320.00	47520.00
4	Alignment ties	Nos	57	990.00	56430.00
5	IPC (Insulation piercing conductors) for bare to CC (covered conductor) connection	Nos	6	1760.00	10560.00
6	IPC for CC to CC connection	Nos	6	1540.00	9240.00
7	IPC with Aluminium bail for earthing	Nos	3	2530.00	7590.00
8	Mid Span joint	Nos	3	2750.00	8250.00
9	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3mm	Nos	26	1512.21	39317.46
10	Red Oxide	Ltr.	26	222.20	5777.20
11	Aluminium Paint	Ltr.	26	370.70	9638.20
12	Cement bottoming 1:2:4 mix as per Standards 0.48 cum /pole	Nos	26	3164.04	82265.04
14	Galvanised Stay Set with 50x8mm stay clamp, guy insulator(2Nos.), anchor plate (200x 200 x6 mm), nut-bolts, 2 Nos turn-buckles, 1.8m long,20 mm diameter solid GS stay rod & 7/4 mm dia GI stranded wire complete	Nos	6	4855.16	29130.96
A1	**Total Material Cost**				**₹ 12,75,240.38**
A	**Net Cost of Material without Civil Items**				**₹ 11,92,975.34**
B	GST @18% on Material Cost on **(A)**				₹ 2,14,735.56
C	Labour charges for Normal Terrain for STP				₹ 1,82,405.93
D	GST @18% on Labour Charges for Normal Terrain on **(C)**				₹ 32,833.07
E	Labour charges for Hilly Terrain/Congested areas with 10% appreciation on labour charges (GST included @ 18%) on **(C+D)**				₹ 2,36,762.90
F	Overheads @ 5% (1.5% T&P, 3% Contingency , 0.5% Insurance) on **(A+B)**				₹ 70,385.55
	Total Amount for Normal Terrain (=A1+B+C+D+F)				**₹ 17,75,600.48**
	Total Amount for Hilly Terrain /Congested areas (=A1+B+E+F)				**₹ 17,97,124.38**

S.No	**Particulars**	**Unit**		**Unit Rate**	
1	31.6 mm² AL59 Aluminium Claded Steel Conductor (Weasal)	Km		₹ 1,26,500.00	
2	105 mm² AL59 Aluminium Claded Steel Conductor (Dog)	Km		₹ 3,89,000.00	

ABSTRACT/ COST FOR INSTALLATION OF 100 kVA 33/0.433 kVA SUB STATION IN 33/11kV RECEIVING STATION.
(Amount in Rs.)

S.No	Particulars	Unit	Qty	Unit Rate	Amount
1	100 kVA,33/0.433 kV, 3-phase Distribution Transformers with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No	1	464100.00	464100.00
2	9 Mtr. Long Pole (ST-410 SP33)	No	2	11618.52	23237.04
3	33 kV, Lightening Arrestor,(33 kV ,10 kA ,Station class,ZnO, Polymer) gapless	No.	3	22076.00	66228.00
4	33 kV Isolator, with Earthing Blade (36kV,800 A, Outdoor ,3 poles,25 kA).	Set	1	59000.00	59000.00
5	33 kV Horn Gap Fuse set	Set	1	15000.00	15000.00
6	Galvanised iron of sorts	kg	340	120.00	40800.00
7	Galvanized Nuts & Bolts of sizes	kg	4	120.00	480.00
8	120 mm² XLPE LT Cable 1 Core, armoured, FRLS	Mtr	120	380.66	45679.20
9	Cement bottoming 1:2:4 mix as per Standards 0.48 cum per pole	No	2	3164.04	6328.08
10	Earthing of 100 kVA SubStation--Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 75 mm x10 mm & 50 mm x 6 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No	3	7935.36	23806.08
11	Earthing Complete by GI Pipe 40 mm 3 mtr long through GI Strip 25x3mm	No.	2	1512.21	3024.42
12	Red Oxide	Ltr.	2	222.20	444.40
13	Aluminium Paint	Ltr.	2	370.70	741.40
14	MCCB - 160 Amps , 36 kA, 4P Ics=100% Icu at 415 (kA rms)	No	1	10718.00	10718.00
A1	**Total Material Cost**				**₹ 7,59,586.62**
A	**Net Cost of Material without Civil Items**				**₹ 7,53,258.54**
B	GST @18% on Material Cost on **(A)**				₹ 1,35,586.54
C	Spares @ 3% on **(A+B)**				₹ 26,665.35
D	Labour charges				₹ 27,041.98
E	GST @18% on Labour Charges on **(D)**				₹ 4,867.56
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 44,442.25
	Total Amount (=A1+B+C+D+E+F)				**₹ 9,98,190.30**

ABSTRACT/ COST FOR INSTALLATION OF 1 MVA 33/0.433 kVA SUB STATION. (Amount in Rs.)

S.No	Particulars	Unit	Qty	Unit Rate	Amount
1	1MVA ,33/0.433 kV, with automatic OLTC on 33 kV side (min 35 % & max 5%) with a provision of 3 phase backup supply Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No	1	2648764.00	2648764.00
2	9 Mtr. Long Pole(ST-410 SP33)	No	2	11618.52	23237.04
3	G.I Pipe of 150mm dia 2 mtr long for Pole Butts (6")	Mtr	2	1969.10	3938.20
4	33 kV, Lightening Arrestor,(33 kV ,10 kA ,Station class,ZnO, Polymer) gapless	No.	3	22076.00	66228.00
5	33 kV Isolator, with Earthing Blade (36kV,800 A, Outdoor ,3 poles,25 kA).	Set	1	59000.00	59000.00
6	33 kV Horn Gap Fuse set	Set	1	15000.00	15000.00
7	Galvanised iron of sorts	kg	340	120.00	40800.00
8	Galvanized Nuts & Bolts of sizes	kg	4	120.00	480.00
9	630 mm² XLPE LT Cable 1 Core, armoured, FRLS	Mtr	120	1627.05	195246.00
10	Cement bottoming 1:2:4 mix as per Standards 0.48 cum / pole	No	2	3164.04	6328.08
11	Earthing of 1 MVA SubStation--Excavation of earth pit of dia 650 mm & depth 3000 mm, installation of Earthing pipe of 40 mm Nominal bore & 4mm wall thickness & length 2.5 mtr long as Per IS 1239.GI Strip for neutral earthing of size 75 mm x10 mm & 50 mm x 6 mm for connection of transformer body,G.O Set & lightening arrestor as per IS 2629/85, GI nuts & bolts,refilled with earth enhancement materials and earth Chamber made of brick masonary with RCC slab cover.	No	3	7935.36	23806.08
12	Earthing Complete by GI Pipe 40 mm 3mtr long through GI Strip.25x3mm	Nos	2	1512.21	3024.42
13	1600 Amp 4P ACB Drawal type , Breaking Capacity 50kA with enclosure	No.	1	260000.00	260000.00
14	Red Oxide	Ltr.	2	222.20	444.40
15	Aluminium Paint	Ltr.	2	370.70	741.40
16	MCCB - 630 Amps , 36 kA, 4P with Box Ics=100% Icu at 415 (kA rms)	No	3	35349.70	106049.10
A1	**Total Material Cost**				**₹ 34,53,086.72**
A	**Net Cost of Material without Civil Items**				**₹ 34,46,758.64**
B	GST @18% on Material Cost on **(A)**				₹ 6,20,416.56
C	Spares @ 3% on **(A+B)**				₹ 1,22,015.26
D	Labour charges				₹ 1,17,879.15
E	GST @18% on Labour Charges on **(D)**				₹ 21,218.25
F	Overheads @ 5% (1.5% T&P,3% Contingency,0.5% Insurance) on **(A+B)**				₹ 2,03,358.76
	Total Amount (=A1+B+C+D+E+F)				**₹ 45,37,974.68**

S.No	Particulars	Unit		Unit Rate	
1	1MVA ,33/0.433 kV, with normal OCTC on HV side Transformer with Bimetallic Terminal Connectors Energy Level-1 (corresponding to previous Energy efficiency level II) as per IS 1180 (part I of 2014), Copper wound, and with LV Cable Box having detachable Aluminium Gland plate. Transformer should have arrangement for vertical take off of cable	No		₹ 22,07,303.00	

COST ESTIMATION 5 kW SOLAR HYBRID SYSTEM (With Storage)
(Amount in Rs.)

S.No	Item	Unit Rate (with GST)	Remarks
1	Monocrystalline/Topcon N type PV Modules (Minimum total of 5000 Wp) suitable combination of different capacities of individual panels as per site conditions and manufacturer's panel design capacities). The system include 1P 5KW double MPPT On-Grid solar inverter , DCDB (2 In 2 Out) suitable for 5KW,ACDB suitable for 1 to 6 KW, DC wire 4mm² (Copper), AC Copper Cable (4 sq.mm), Earthing Wires (4 Sq.mm), LA Wire (GI strip or 6 sqmm Cu wire) , Module Mounting Structure (including Clamps, Spring Nut, Allen Bolt, Revits), Lightening Arrestors, Earthing Electrode, Chemical Bag, Net metering if required and miscellenous items like (PVC Conduit, PVC Bend, Flexible Conduit, Insulation tape, Saddles, Nut Bolt,Wall plug, Screws, Channel, Channel Nails, Steel Saddles etc	256545.00	MNRE rate for On-Grid SRT
2	Upgrade to Hybrid Inverter* (On-grid hybrid with net-metering fature)	70000.00	
3	Battery Cost:		
(a)	48 V; 10 KWH storage (4 No 200 AH; 12 V Lead-Acid Batteries) @ C10 rated	75000.00	
(b)	48 V; 10 KWH Li-Ion Battery	250000.00	
A	**Total Amount with Lead acid storage, (1+2+3a)**	**₹ 4,01,545.00**	
B	**Total Amount with Li-ion storage, (1+2+3b)**	**₹ 5,76,545.00**	

Note:- Rates are Inclusive of GST		
* Hybrid Inverter Cost around	**₹ 1,15,000.00**	
On-Grid Inverter Cost around	**₹ 45,000.00**	
Differential cost/upgrade cost	**₹ 70,000.00**	
* opting for Mono PV panels additional Rs 3/watt. (Rs 15,000 approx.)		

Additional Features of Hybrid Inverter (with net metering) other than general specifications to be included:			
1	Should be Dual MPPT		
2	DC Oversizing (min 10% or more) Max: 40%		
3	Adjustable power factor (modern inverters are capable of pumping reactive power into the system)		
4	Adjustable DC charging/discharging current		
5	Adjustable switchover time from grid to back-up		
6	Li-ion compatible with in-built Battery management system		