

INDEX

Sl. No.	Description	Page No.
1	Rates for CENTRALIZED MATERIALS	1-5
2	ABSTRACT of rates of 33 KV / 11 KV / LT Lines	6-7
3	Cost Data for Hilly and Tribal areas as adopted by Irrigation Department in the State	8
4	33 KV Single circuit Line over 11 Mts. RS Joists poles at 50 Mts. Span with 100 Sq.mm Conductor.	9
5	33 KV Double circuit line over 12 mts. RS Joists box poles at 50 Mts. Span with 100 Sq.mm Conductor.	10
6	33 KV Single circuit Line over 11 Mts. PSCC pole at 60 Mts.Span with 100 Sq.mm Conductor.	11
7	33 KV Double circuit Line over 11 Mts. PSCC pole at 40 Mts.with 100 Sq.mm Conductor.	12
8	33 KV Line over 9.1 Mts. PSCC Poles at 80 Mts.Span with 100 Sq.mm Conductor.	13
9	33 KV Line over 9.1 Mts. PSCC Poles at 65 Mts.Span with 100 Sq.mm Conductor.	14
10	11 KV Line over 9.1 Mts. PSCC Poles at 60 Mts.Span with 55 Sq.mm Conductor.	15
11	11 KV Line over 9.1 Mts. PSCC Poles at 60 Mts.Span with 34 Sq.mm Conductor.	16
12	11 KV Line over 8 Mts. PSCC Poles at 60 Mts.Span with 55 Sq.mm Conductor.	17
13	11 KV Line over 8 Mts. PSCC Poles at 60 Mts.Span with 34 Sq.mm Conductor.	18
14	11 KV Line over R.S Joist Poles at 50 Mts.Span with 55 Sq.mm Conductor.	19
15	6.3 KV Line over 8 Mts. PSCC Poles at 90 Mts.Span with 34 Sq.mm Conductor.	20
16	LT 3 Ph.5 Wire line (Horizontal) over 8 Mts. PSCC Poles at 65 Mts.Span with 3X55+2X34 Sq.mm Conductor.	21
17	LT 3 Ph.5 Wire line (Horizontal) over 8 Mts. PSCC Poles at 45 Mts.Span with 3X55+2X34 Sq.mm Conductor.	22
18	LT 3 Ph.5 Wire line (Horizontal) over 8 Mts. PSCC Poles at 65 Mts.Span with 34 Sq.mm Conductor.	23
19	LT 3 Ph.4 Wire line (Horizontal) over 8 Mts. PSCC Poles at 65 Mts.Span with 3X55+1X34 Sq.mm Conductor.	24
20	LT 3 Ph.4 Wire line (Horizontal) over 8 Mts. PSCC Poles at 65 Mts.Span with 34 Sq.mm Conductor.	25
21	LT 1 Ph. 3 Wire line (Horizontal) over 8 Mts. PSCC Poles at 65 Mts.Span with 34 Sq.mm Conductor.	26
22	LT 1 Ph. 2 Wire line (Horizontal) over 8 Mts. PSCC Poles at 65 Mts.Span with 34 Sq.mm Conductor.	27
23	L.T.AB Cable over 8 Mts. PSCC Poles at 65 Mts.Span with 3x16+25 Sqmm Cable	28
24	L.T.AB Cable over 8 Mts. PSCC Poles at 65 Mts.Span with 2x16+25 Sqmm Cable	29
25	Conversion of single Phase 2 W/L to 3 Phase 4 W/L	30
26	Erection of 100 KVA CSP Distribution Transformer	31
27	Erection of 63 KVA CSP Distribution Transformer	32
28	Erection of 63 KVA CSP Distribution Transformer on plinth	33
29	Erection of 63 KVA CSP Distribution Transformer on structure	34
30	Erection of 100 KVA DTR on column type plinth	35
31	Erection of Three Phase 25 KVA CRGO Distribution Transformer (Copper)	36
32	Erection of Three Phase 25 KVA CRGO Distribution Transformer (Alluminium)	37
33	Erection of 25 KVA Single Phase 6.3 KV/0-240 V CSP Distribution Transformer	38
34	Erection of 15 KVA Single Phase 6.3 KV/0-240 V CSP Distribution Transformer	39
35	Release of poly phase Agl. Service erected on support	40
36	Release of 1 ph (Electronic Meter) Domestic & Non-domestic service	41

Sl. No.	Description	Page No.
37	Release of 3 ph. (Electronic Meter) Domestic & non-domestic service	42
38	Release of poly phase Industrial service (upto20HP) with Electronic Meter	43
39	Release of Industrial service (above 20 HP and upto 50) - with CT meter	44
40	Release of Industrial service (above 50 HP and upto 75 HP) - HT metering	45
41	Release of Street light service (1 -ph electronic meter)	46
42	Erection of L.T. Electronic trivector meter on LV side of DTR	47
43	Erection of 33/11 KV Sub-station with 2x8 MVA PTR & 6 Nos. 11 KV feeders (without 11 KV 2 MVAR Capacitor Bank)	48
44	Erection of 33/11 KV Sub-station with 2X8 MVA Power Transformer & 6 Nos. 11 KV feeders (with 11 KV 2 MVAR Capacitor Bank)	49
45	Erection of 33/11 KV Sub-station (Indoor) with 2X8 MVA Power Transformer & 6 Nos. 11 KV feeders (without 11 KV 2 MVAR Capacitor Bank)	50
46	Erection of 33/11 KV Sub-station with 2x5 No. Power Transformer & 5 Nos. 11 KV feeders (without 11 KV 2 MVAR Capacitor Bank)	51
47	Erection of 33/11 KV Sub-station with 2x5 No. Power Transformer & 5 Nos. 11 KV feeders (with 11 KV 2 MVAR Capacitor Bank)	52
48	Erection of 33/11 KV Sub-station with 1x5 Power Transformer & 3 Nos. 11 KV feeders (with 11 KV 2 MVAR Capacitor Bank)	53
49	Erection of 11 KV bay extension with girder poles	54
50	Erection of 11 KV bay extension with PSCC poles	55
51	Erection of 33 KV Extension Bay at 33/11 KV Sub-station	56
52	33KV bay at 132/33KV SS.	57
53	Erection of 11 KV VCB at 33/11 KV Sub-station	58
54	Erection of 33KV VCB and Twin feeder control pannel in 132/33KV SS	59
55	Erection of 2 MVAR capacitor bank	60
56	Enhancement of PTR capacity from 5 MVA to 8 MVA	61
57	Laying of 11KV, 3 core 95Sq.mm UG Cable	62
58	Laying of 33KV, 3 core 400Sq.mm UG Cable	63
59	Erection of M+3 tower	64-65
60	Erection of L+3 Towers	66-67
61	Erection of K+3 Towers	68-69
62	Extension of 3mtrs for K+3 Tower as per ASCI Standard	70-71
63	Extension of 3mtrs for L+3 Tower as per ASCI Standard	72-73
64	Extension of 3mtrs for M+3 Tower as per ASCI Standard	74-75
65	Erection of additional PTR in existing 33/11 KV Sub-station	76
66	REC Construction Standard Specification Nos. for items, other than included in the 33 KV, 11 KV & LT lines.	77
67	REC Construction Standard diagrams	78-96

COST DATA OF CENTRALISED MATERIALS FOR R.E. AND DISTRIBUTION WORKS

Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
1	2	3	4	5	
SUBHEAD - I : SUPPORTS AND FIXTURES, IRON, STEEL AND CEMENT					
1 (a)	RS Joists 175 x 85 mm.	PM-200/25-02-2016	MT	39,900.00	MST00032
(b)	RS Joists 150 x 150 mm.	PM-200/25-02-2016	MT	42,000.00	MST00029
(c)	Spun Pole 9.5 m. PM-2458/28.11.07		-	12,799.99	
2	MS Channel 100 x 50.	PM-200/25-02-2016	MT	34,650.00	MST00012
3	MS Channel 75 x 40 mm	PM-200/25-02-2016	MT	33,075.00	MST00013
4	MS Angle 65 x 65 x 6 mm.	PM-200/25-02-2016	MT	32,484.38	MST00003
5	MS Angle 50 x 50 x 6 mm	PM-200/25-02-2016	MT	33,665.63	MST00002
6	MS Flat 75x 8	PM-200/25-02-2016	MT	41,475.00	MST00015
7	MS Flat 50 x 6 mm	PM-200/25-02-2016	MT	41,475.00	MST00014
8	MS Rod 20 mm.	PM-200/25-02-2016	MT	35,542.50	MST00019
9	MS Rod 16 mm.	PM-200/25-02-2016	MT	38,325.00	MST00018
10	GI Stay wire 7/3.15 mm.	Rpt PM-538/31-10-2015	MT	62,476.58	WRS00006
11	GI Stay wire 7/2.5 mm	Rpt PM-538/31-10-2015	MT	64,078.22	WRS00007
12	GI wire 4 mm	Rpt PM-538/31-10-2015	MT	57,370.15	WRS00005
13	PSCC Pole (9.1 M) - 280 Kg WL	PM-598/28-12-2015	Nos.	3,478.25	PLS00004
14	PSCC Pole (8.0 M) - 140 Kg WL	PM-610/06-01-2016	Nos.	1,585.19	PLS00001
15	PSCC Poles (11 Mtrs) 365 Kgs	PM-481/03-11-2015	Nos.	6,800.00	PLS00013
SUBHEAD - II : INSULATORS AND HARDWARE					
1	33 KV Pin Insulator	PM-587/01-12-2015	Nos.	249.61	INS30001
2	33 KV GI Pin	PM-589/03-12-2015	Nos.	152.32	HWR00003
3	33 KV Post Insulators	PM-649/05-02-2016	Sets	870.98	INS30004 for sets unit INS30003 for each unit
4	33 KV Hard Ware Fittings (B&S)	PM-595/28-12-20215	Sets	178.99	HWR00004
5	33 KV Polymer String Insulator (B&S)	PM-580/01-12-2015	Nos.	298.74	INS30007
6	11KV Pin Insulator	PM-635/21-01-2016	Nos.	51.03	INS10001
7	11 KV GI Pin	PM-658/11-02-2016	Nos.	63.49	HWR00001
8	11 KV Post Insulator.	PM-583/01-12-2015	Nos.	252.00	INS10008
9	11 KV String Insulator (B&S).	PM-2385/07.Dt: 03-09-2007	Nos.	187.00	INS10004
10	11 KV String Insulator (C&T).	PM-2063/06.Dt.26.08.06	Nos.	192.00	INS10002
11	11 KV String Hardware Fitting (C&T).	PM-582/01-12-2015	Sets	77.00	HWR00002
13	11 KV Polymer String insulator (C&T)	PM-655/11-02-2016	Nos.	145.00	INS10003
14	11 KV Solid Core Insulator.	PM-508/17-10-2015	Nos.	197.00	INS10006
15	LT Pin Insulator.	PM-584/01-12-2015	Nos.	231.00	INS00001
16	LT GI Pin.	PM-669/02-03-2016	Nos.	18.50	HWR00015
17	LT Shackle Insulator.	PM-684/17-03-2016	Nos.	28.28	INS00002
18	LT Shackle Hardware (LT Metal Parts)	PM-408/20-11-2015	Nos.	12.47	HWR00016
19	HT Guy Insulator.	PM-462/21-08-2015	Nos.	32.00	INS10005
20	LT Guy Insulator.	Rpt & Extn. PM-150/09-09-2014	Nos.	32.75	INS00003
SUBHEAD - III CONDUCTOR AND CABLES					
1	ACSR Zebra Conductor	Rpt & Extn. PM-147/09-09-2014	Nos.	17.80	
2	ACSR Panther Conductor (200 sq mm).	PM-248/12-01-2015	KM	143,869.12	CDR00010
3	100 Sqmm AAA Conductor or 7/4.26 AAAC.	PM-574/30-11-2015	KM	46,068.00	CDR00004
4	55 Sqmm AAA Conductor or 7/3.15 AAAC/RABBIT	PM-694/28-03-2016	KM	23,374.00	CDR00003
5	34 Sqmm AAA Conductor or 7/2.50 AAAC/Weasel	PM-381/18-05-2015	KM	17,821.76	CDR00002
SUBHEAD - III (A) LT AERIAL BUNCHED CABLE					
1	2 x 16+25 Sqmm Cable	PM-691/26-03-2016	KM	28,950.00	CBA00002
2	3 x 16+25 Sqmm Cable	PM-332/26-03-2015	KM	50,154.54	CBA00003
3	3 x 70 + 1x16 +1x50 Sqmm XLPE AB, Cable	PM-340/08-04-2015	KM	182,517.87	CBA00004
SUBHEAD - III (B) 33 & 11 KV XLPE POWER CABLE					
1	33 KV 400 Sq.mm.	PM-144/09-09-2014	KM	2,167,700.00	CBX30001
2	11 KV 3x300 sq.mm	PM-310/04-03-2015	KM	1,064,010.25	CBX10008
3	11 KV 3x185 sq.mm.	PM-678/10-03-2016	KM	745,111.00	CBA10007
4	11 KV 3x95 sq.mm	PM-285/11-02-2015	KM	521,049.85	CBX10005
5	11 KV 3x35 sq.mm	PM-4327/22-04-2015	KM	317,665.84	CBX10002

Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
1	2	3	4	5	
SUBHEAD - III (C)11 KV AB Cable (Aluminum)					
1	3x35+35 Sqmm.	PM-3326/16-05-2011	KM	214,895.25	CBX10004
2	3x70+70 Sqmm.	PM-3326/16-05-2011	KM	299,076.25	CBX10005
3	3x120+70 Sqmm.	Not procured by P&MM			CBX10007
4	3x185+70 Sqmm.	PM-17/06-06-2014	KM	688,238.91	CBX10006
SUBHEAD - III (D) LT XLPE POWER CABLE					
1	LT 3 ½ Cx300 sq.mm.	Not procured recently			CBX00016
2	3 ½ Cx185 sq.mm.	PM-386/23-05-2015	KM	491,101.23	CBX00015
3	3 ½ Cx95 sq.mm	PM-2514/08,09.05.08	-	244,438.74	CBX00013
4	3 ½ Cx70 sq.mm	PM-2327/07,24.04.07	-	178,272.00	CBX00012
5	3 ½ Cx25 sq.mm	Not procured recently			CBX00010
6	1x120 sq mm	PM-218/20-11-2014	KM	81,569.66	CBX00004
SUBHEAD - III (E) L.T.P.CONTROL CABLE					
1	2x2.5 sq.mm Copper	PM-662/25-02-2016	KM	36,900.00	CBP00001
2	4x2.5 sq.mm Copper.	PM-663/25-02-2016	KM	65,500.00	CBP00002
3	10x2.5 sq.mm Copper.	PM-662/25-02-2016	KM	141,500.00	CBP00006
SUBHEAD - IV : POWER TRANSFORMERS & TRANSFORMER OIL					
1	5 MVA PTR	PM-599/29-12-2015	Nos.	3,270,000.00	PTR00006
2	8 MVA PTR	PM-491/03-10-2015	Nos.	4,435,200.00	PTR00008
3	12.5 MVA PTR	PM-492/03-10-2015	Nos.	6,548,000.00	PTR00020
4	Transformer Oil (New) - (IOCL MOU)	PM-592/04-12-2015	L	67.62	OF010006
SUBHEAD - IV (A) : Distribution Transformers					
1	3-Phase 63 KVA (CSP) (Aluminium)	PM-640/29-01-2016	Each	96,160.49	DTC30004
2	3-Phase 100 KVA (CSP) (Aluminium)	PM-130/26-08-2014	Each	119,309.11	DTC30006
3	3-Phase 160 KVA (CSP) (Aluminium)	PM-440/27-06-2015	Each	188,055.39	DTC30007
4	3-Phase 315 KVA (CSP) (Aluminium)	PM-155/13-09-2014	Each	559,853.85	DTC30009
5	3-Phase 500 KVA (Con.) (Aluminium)	PM-271/04-02-2015	Each	756,011.72	DTC30110
6	3-Phase 25 KVA (CSP) (Aluminium)	PM-451/20-07-2015	Each	61,217.87	DTC30002
7	3-Phase 25KVA (CSP) (Copper)	Repeat,PM-3464, Dt:07-12-2011	Each	65,524.04	DTC30011
8	3-Phase 16KVA (CSP) (Copper)	PM-3077/10,07.07.2010	Each	46228.72	DTC30101
9	1-Phase 10kVA 11kV/250V (CSP) (Aluminium)	Not procuring			DTC10002
10	1-Phase 10kVA 11kV/Ö3/250V (CSP) (Aluminium)	Not procuring			DTC10003
11	1-Phase 15 KVA (CSP) (Copper)	PM-3546/11,Dt.18.04.2012	Each	25868.57	DTC10004
12	1-Phase 25 KVA (CSP) (Copper)	Repeat,PM-3826, Dt: 07-12-2012	Each	43,590.36	DTC3009
13	3-Phase 315 KVA (CSP) Copper	PM-155/13-09-2014	Each	549,633.67	DTC10006
14	3-Phase 500 KVA (Dry type) Copper	PM-436/16-06-20115	-	756,952.26	
SUBHEAD - V : SWITCH CONTROL AND PROTECTIVE GEAR					
1	33 KV 24V DC VCB with differential protection with Control Relay Panel & CTs ratio 400-200-100/1-1-1A	PM-556/05-11-2015	Nos.	397,638.09	BRK30018
2	33 KV 24V DC VCB with Control Relay Panels & CTs ratio 400-200-100/1-1A	PM-603/02-01-2016	Nos.	377,745.49	BRK30019
3	11 KV, 24V/220V DC LV VCB with differential protection with Control Relay Panel with CTs of Ratio 600-300/01-01-0.577A	PM-575/30-11-2015	Nos.	320,479.29	BRK10009
4	11 KV LV VCBs with CTs & Panel (400-200/1-1A) without D/R	PM-3533, Dt.14-03-2012	Nos.	224,886.06	BRK10004
5	11 KV, 24V DC feeder VCBs with Control Relay Panels & CTs or Ratio 400-200-100/1-1A	PM-572/30-11-2015	Nos.	248763.63	BRK10015
6	33 KV Feeder CTs (400-200-100/1-1A) 0.5 class	PM-3743, Dt.12-10-2012	Nos.	16,022.88	ITR30011
7	33 KV CTs 25/1 for HT Metering (0.5 class)	PM-4048/13Dt.22-06-2013	Nos.	15,957.83	ITR30029
8	33 KV CTs 50/1 for HT Metering (0.2 class)	PM-4294/13,Dt.21-03-2013	Nos.	17,097.36	ITR30028
9	33 KV CTs 100/1 for HT Metering (0.2 class)	PM-07/03-06-2014	Nos.	16,735.00	ITR30054
10	33 KV CTs 200/1A for HT Metering (0.2 Class)	PM-3578/13,Dt.24-05-2012	Nos.	16,873.18	ITR30026
11	33 KV CTs 25/1 for HT Metering (0.2 class)	PM-4048/22-06-2013	Nos.	15,958.00	ITR30055
12	33 KV CTs 50/1 for HT Metering (0.5 class)	PM-2108, Dt.20-09-2006	Nos.	20,029.00	ITR30004
13	33 KV CTs 100/1 for HT Metering (0.5 class)	PM-2108, Dt.20-09-2006	Nos.	18,720.40	ITR30003
14	33 KV CTs 200/1 for HT Metering (0.5 class)	PM-2108, Dt.20-09-2006	Nos.	18,720.40	ITR30002
15	33 KV CTs 400-200-100/1-1A for HT Metering (0.5 class)	Not Procured			ITR30011

Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
1	2	3	4	5	
16	11 KV Feeder CTs (400-200-100/1-1A) (0.5 class)	PM-2906, Dt.19-01-2010	Nos.	13,564.00	ITR10020
18	33 KV PT (Single Phase) 0.5 Class	PM-2090, Dt.13-09-2006	Nos.	18,960.00	ITR30001
19	33 KV PT (Single Phase) 0.2 Class	PM-3672, Dt.23-07-2012	Nos.	17,910.75	ITR30030
20	11 KV PT 3 Phase 0.5Class	PM-2975, Dt.11-03-2010	Nos.	12,107.85	ITR10032
21	33 KV 800 Amps AB Switch	PM-629/20-01-2016	Nos.	28,999.00	ABS30004
22	11 KV 800 Amps (Conventional) AB Switch	Rpt PM-637/27-01-2016	Nos.	15,123.35	ABS10015
23	11 KV 400 Amps (Conventional) single break AB Switch with post type porcelain insulators	Rpt PM-166/23-09-2014	Nos.	10,500.00	ABS10008
24	11 KV 400 Amps AB Switch for single phasing	PM-3312, Dt.03-05-2011	Nos.	6,309.99	
25	11 KV 200 Amps AB Switch (Tilting) round pipe	Rpt. PM-3908, Dt.16-02-2013	Nos.	7,610.00	ABS10002
26	30 KV 10 KA Metal Oxide Lightning Arresters (station type)	PM-650/09-02-2016	Nos.	3,640.87	LAS00004
27	9 KV 10 KA Metal Single Phase Lightning Arrester (station)	PM-558/05-11-2015	Nos.	2,016.70	LAS00002
28	9 KV 5 KA Metal Oxide Lightning Arrester (DTR Class)	PM-3134/08-2010	Nos.	371.94	LAS00008
29	11 KV HG Fuse set with insulators	PM-251/17-04-2015	Nos.	1,842.75	HGF10002
30	24 V, 40 AH SMF Batteries with Chargers	PM-4084/20-07-2013	Nos.	17,150.00	BAT00027
31	24 V, 40 AH SMF Batteries	PM-3886, Dt: 19-01-2013	Nos.	3,244.00	BAT00025
32	24 V, 40 AH Chargers (SMPS)	PM-4019/13, Dt.16-05-2013	Nos.	7,900.00	BAT00026
33	12 V 42 AH SMF VRLA Batteries	PM-300/13-02-2015	Nos.	3,400.00	SBA10056
34	12 V, 80 AH SMF Batteries cells	PM-2875, Dt.31-12-2009	Nos.	4,500.00	SBA10051
35	220V 80 AH Battery charger & DCDB	PM-638/25-01-2016	Nos.	294,572.00	BAT00072
36	220 V, 80 AH SMF Batteries	PM-638/25-01-2016	Nos.	174,027.65	BAT00023
37	LT Switched capacitors	-	-	-	
(a)	1*9 KVAR (Shunt)	PM-2159, Dt.23.10.2006	-	2,548.00	CPT00027
(b)	1x10 KVAR	PM-1837, Dt.20.05.2005	-	2,614.44	CPT00025
38	11 KV 2 MVAR Capacitor banks with associated equipment				
(a)	Type A	PM-4076/13, Dt.18-07-2013	Nos.	870,000.00	CPT10009
(b)	Type B with 40 Mtrs HT UG cable	-	-	-	
(c)	Type C (Indoor Type with HT UG cable)	PM-3518, Dt.29-02-2012	Nos.	1,295,000.00	CPT10014
39	Sectionalizers	PM-671/04-03-2016	Nos.	487,782.24	
40	Auto - Reclosures	PM-671/04-03-2016	Nos.	855,193.83	
41	11 KV 3 Way RMU (Conventional)	PM-2106, Dt.27-10-2006	-	1,71,658.33	
42	11 KV 3 Way RMU (SF6)	PM-411/06-06-2015	Nos.	462,883.95	BRK00001
43	11 KV SF6 5 Way RMU	PM-239/22-12-2014	Nos.	863,500.00	BRK00002
44	33 KV Indoor twin feeder control panel	PM-579/30-11-2015	Nos.	374,650.47	BRK30014
45	Indoor type VCB with control panel (LV)	PM-2494, Dt.13-02-2008	Nos.	3,76,367.74	
46	Indoor type VCB with control panel (feeder)	PM-2494, Dt.13-02-2008	Nos.	274,818.43	
47	33/11 KV Indoor switch gear (8 feeders)	PM-187/24-10-2014	Nos.	17,180,693.60	BRK30020
48	33 KV CTs of ratio 600-300/1-1A 0.2S Class of Accuracy	PM-3216/18-12-2010.		17,951.00	ITR30052
49	33 KV HG fuse set	Not Procured in P&MM wing			HGF30001
50	11KV switch Fuse unit (SFU)	Not Procured in P&MM wing			
51	33KV switch Fuse unit (SFU)	Not Procured in P&MM wing			
52	33KV 3-way RMU without VCB	Not Procured in P&MM wing			
53	33KV 3-way RMU with VCB	PM-151/09-09-2014	Nos.	2940533.24	
54	11KV metering panel with CTS& PTS (Indoor)	Not Procured in P&MM wing			
55	33KV metering panel with CTS&PTS (Indoor)	Not Procured in P&MM wing			
SUBHEAD - VI : METERS AND METERING EQUIPMENT					
I HT Metering					
1	HT Trivector Meter of class 0.2S	PM-604/05-01-2016	EA	7,997	MHT30031,32
2	HT Trivector Meter of class 0.5S	Rpt. PM-3283/01-04-2011	Nos.	4,911.78	MHT30022
II 11 KV Metering (11 KV CT PT Sets)					
1	10/5, 20/5, 40/5 (0.5 class)	PM--3767, Dt.01-11-2012	EA	28,978.94	ITR10006 ITR10007 ITR10008
2	5/5A (0.5 class)	PM-3267/10,14.02.11	EA	30,185.49	ITR10057
3	60/5 & 100/5 (0.5 class)	PM-3762/01-11-2012	Nos.	30,185.82	ITR10042 ITR10043 ITR10044
4	40/5A,60/5,100/5A(0.2S CLASS)	PM-3762/01-11-2012	Nos.	38,852.76	ITR10047, 46,45

Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
1	2	3	4	5	
5	100/5A & 40/5A (0.2s class)	PM-3762/12,01.11.12	Nos.	38,852.76	ITR10047
6	60/5A (0.2s class)	PM-3762/12,01.11.12	EA	38,852.76	ITR10046
7	20/5A & 10/5A (0.2s class)	PM-3762/12,01.11.12	EA	37,555.94	ITR10048 & ITR10049
III	LT Meters				
1	LT Trivector meter (without CTs & Meter box)	Rpt.PM-4068, Dt.11-07-2013	Nos.	2,640.00	
2	LT TVR Meters Cl. 0.5 (Including Box & 3 CTs) 200/5A for DTR Metering	PM-4291/14-03-2014	-	5,968.00	MTE30025
3	LT TVR Meters Cl. 0.5S (Including Box & 3 CTs) 200/5A for AGL DTRs	PM-4291/14-03-2014	Nos.	6,353.00	MTE30023
4	LT TVR Meters Cl. 0.5S (Including Box & 3 CTs) 100/5A	PM-4291/14-03-2014	Nos.	6,177.00	MTE30024
IV	Single phase electronic meter				
1	5-30A With PP box & IR port	Rpt.PM-4001, Dt.29-04-2013	Nos.	819.07	MTE10018
2	5-30A Without PP Box & IR port	PM-3884, Dt. 18-01-2013	Nos.	693.04	MTE10017
V	Three phase Electronic meters				
1	5-20 A with PP Box	Not Procured			
2	5-20 A without PP Box	Not Procured			
3	10-40 A with PP Box with trivector features	Rpt.PM-4060, Dt.02-07-2013	Nos.	1,941.00	MTE30027
4	10-40 A without PP Box with trivector features	Rpt.PM-4060, Dt.02-07-2013	Nos.	1,606.00	MTE30028
5	LT pole mounted meter box (Type-A)	PM-4313/13, Dt.27-03-2014	Nos.	9,125.00	BX300051
6	LT pole mounted meter box (Type-B)	Rpt.PM-3567, Dt.08-05-2012	Nos.	6,590.00	BX300047
7	3 - Phase meter box	-	-	-	
VI	Testing equipments & others				
1	LT ERS Field Testing Kit (Along with accessories)	Not Procured			
2	ERS Testing kits of accuracy 0.02 Class	Extn.PM-3357,28.06.11	Nos.	12,68,665.00	TEQ10029
3	Semi Automatic Master Test benches of class 0.1 accuracy	PM-2627, Dt.03-10-2008	Nos.	19,86,130.00	
4	Hand held computers				OMT10026
5	Integrated spot billing machine with GSM/GPRS Modems	PM-4004, Dt.03-05-2013	Nos.	10,800.00	OMT10088
6	CMRI	PM-4316, Dt.02-04-2014		24,920.00	OMT10015
7	LT distribution box (SMC)	Rpt. PM-3566,08.05.12	Nos.	6,590.00	BXS00047
8	Special moulded Box for HT meter	Not Procured			
SUBHEAD - VII : VCB & PTR spares					
1	IDMT (3 O/L+E/L) Numerical Relay	PM-3572, Dt.15-05-2012	-	8,904.98	
2	IDMT Static Relay (3 O/L+1E/L)	Not procured in P&MM wing			
3	11KV Breaker, Single Pole Assembly (Complete Set)	PM-3207, Dt:06-01-2010	Nos.	101,192.00	
4	33KV Breaker, Single Pole Assembly (Complete Set)	Not procured in P&MM wing			
5	Driving Mechanism (Complete Set)	Not procured in P&MM wing			
6	11KV Breaker, Vaccum interrupter	PM-4117/13, 31-8-2013	Nos.	17,191.08	SBR00010
7	33KV Breaker, Vaccum interrupter	PM-4117/13, 31-8-2013	Nos.	45,842.88	SBR00014
8	Trip / Close coil (Complete Set)	PM-3207, Dt:06-01-2010	Nos.	2,236.00	SBR00048
9	11KV VCB Bushing	Not procured in P&MM wing			
10	33KV VCB Bushing	Not procured in P&MM wing			
11	Bucholz Relay	Not procured in P&MM wing			
12	PTR winding & oil temperature meters	Not procured in P&MM wing			
13	250 W SV Lamps (Complete set)	Not procured in P&MM wing			
14	150 W SV Lamps (Complete set)	Not procured in P&MM wing			
15	400 W metal halloid	Not procured in P&MM wing			
◆ Rates are as per prevailing market rates					
VIII	COMPUTERS/LAPTOPS				
1	Desktop Computers(Make HP DX 2000 series)	PM-2730, Dt: 23-04-2009		33,217.00	CAH00011
2	Desktop Computers(Make DELL)	PM-3485, Dt: 29-12-2011		34,866.30	CAH00011
3	Desktop Computers(Make ACER)	PM-238, Dt: 22-12-2014		38,850.00	CAH00011
4	Printers Dot Matrix Printers: Epson LQ - 300 (80 Column)	PM-3485, Dt: 29-12-2011		9,345.00	CAH00016
5	Dot Matrix Printers: Epson LQ - 1150+II Pin:24, Column 136, cpi:300:(136 Column)	PM-2737, Dt: 29-04-2009		10,026.00	CAH00003

Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
1	2	3	4	5	
6	Laser Jet Printers (HP make) (Model No: HP/LJ T 1007	PM-2730, Dt: 23-04-2009		5,475.00	CAH00004
7	i. 1.0 KVA UPS with 2 Hrs. online Backup	PM-2731, Dt: 23-04-2009		36,000.00	CAH00052
8	ii. 2.0 KVA UPS with 2 Hrs. online Backup	PM-2731, Dt: 23-04-2009		62,000.00	CAH00053
9	iii. 3.0 KVA UPS with 2 Hrs. online Backup	PM-2731, Dt: 23-04-2009		80,000.00	CAH00054
10	Fax Machine Model: Samsung SCX 451 F/XIP digital copier multifunction printer with Fax. (DGS & D rate contract)	PM-3217, Dt: 21-12-2010		14,200.00	OE10016
11	Transformer winding resistance kit	PM-2729, Dt: 23-04-2009		113,404.80	TEQ10033
12	Transformer Turns Ratio Test Kit	PM-2729, Dt: 23-04-2009		124,445.28	TEQ10034
13	Tan Delta and Capacitance Test Kit	PM-2729, Dt: 23-04-2009		534,943.04	TEQ10035
14	Transformer Oil Resistivity Test kit	PM-2729, Dt: 23-04-2009		334,214.40	TEQ10036
15	Supply & fixing of Mini Water Cooler Dispenser	-	-	-	
16	Digital Earth Clamp Testers	PM-3180, Dt:06-10-2010		54,970.00	TEQ10073
17	High Voltage Detectors	PM-3180, Dt:06-10-2010		16,409.70	TEQ10074
18	11KV LV VCBs with CTs and panel (CTs ratio 600-300/1-1A)				
19	9KV 10KA LAS (Line type) Porcelain	PM-221/28-11-2014	Nos.	1,055.97	LAS00001
20	Three phase portable analyzers	PM-2833, Dt: 10-11-2009	Nos.	385,856.64	TEQ10067
21	Circuit Breaker Time interval Meter with PC download software	PM-2834, Dt: 10-11-2009	Nos.	82,803.60	TEQ10068
22	Dissolved Gas Analyzer(DGA) with water PPM Kit(Model-Transport-X)	PM-2835, Dt: 10-11-2009	Nos.	2,721,360.00	TEQ10069
23	RGGVY SMC Meter Boxes along with accessories	PM-3227, Dt: 07-01-2011	Nos.	304.60	BXS00048
24	RGGVY Polycarbonate Meter Boxes along with accessories	PM-3076, Dt: 06-09-2010	Nos.	248.56	BXS00049
25	Digital Clamp Meters	PM-3286, Dt: 06-04-2011	Nos.	2,372.15	OMT10050
26	Single phase Variacs	PM-3286, Dt: 06-04-2011	Nos.	14,950.78	TEQ10075
27	Electronic Insulated Testers/Meggors	PM-3286, Dt: 06-04-2011	Nos.	75,532.69	TEQ10076
28	Ratio Test Kits	PM-3287, Dt: 06-04-2011	Nos.	100,217.74	TEQ10079
29	Capacitance Meters	PM-3287, Dt: 06-04-2011	Nos.	29,282.70	TEQ10080
30	Portable Relay Test Kits	PM-3288, Dt: 06-04-2011	Nos.	459,000.00	TEQ10077
31	Time interval Meter	PM-3289, Dt: 06-04-2011	Nos.	19,688.55	TEQ10078
32	Earth Tester (0-20-200-2000Ω)	PM-3290, Dt: 06-04-2011	Nos.	4,098.40	OMT10074
33	Primary Injection Kit	PM-3291, Dt: 06-04-2011	Nos.	77,806.00	TEQ10081
34	56 W LED Light Fixtures (equivalent to 150 W HPSV light fixtures)	PM-3321, Dt: 09-05-2011	Nos.	30,156.22	SLA10102
35	33KV, 3CX400 Sq.mm XLPE UG Cable Straight through heat shrinkable jointing kits	PM-624/10-01-2016	Nos.	21,960.64	SCB10113
36	Integrated Spot Billing Machines Without GSM/GPRS Modems	PM-4181, Dt:12-11-2013	Nos.	7,265.00	OMT10083
37	9KV 10KA LAS (Line type) Polymer	PM-221/28-11-2014	Nos.	1,055.97	LAS00009

Additional Items

1	Spun Pole 12Mtrs/300 Kgs.	PM-3554, 20-04-2012	Nos.	9,800.00	PLS00008
2	Spun Poles 12.9 Mtrs/350 Kgs	PM-3919, Dt:19-02-2013	Nos.	12,799.99	
3	11 KV 400 Amps (Conventional) Double Break AB Switch with Porcelain type insulators	Rpt PM-613/06-01-2016	Nos.	10,784.00	ABS510009
4	11 KV 200 Amps AB Switch (Tilting) Square pipe (a) Polymer Type	Rpt PM-518/30-10-2015	Nos.	8,250.00	ABS10002
5	11 KV HG Fuse set without solid core insulator	Rept. PM-3851, Dt: 20-12-2012	Nos.	2,120.00	HGF10003
6	33 KV Solid Core Insulators	PM-3482/11, Dt:28-12-2011	Nos.	1112.62	INS30002
7	11 KV Polymer Pin Insulators along with Pins	PM-157/12,Dt:25-09-2014	Nos.	184.58	INS10009
8	11 KV Solid Core Insulators for HG Fuses	PM-3866/12,Dt:05-01-2013	Nos.	116.50	INS10007
9	LT Capacitor 1x10KVAR 2x10KVAR	PM-1837/ 20-5-05	Nos.	2614.44 5061.00	CPT00025 CPT00026
10	LT Shunt Capacitor 1x9 KVAR i) Supply ii) Erection & Commissioning 2x9 KVAR i) Supply	PM-2159/23-10-06	Nos.	2,548.00 878.00 4,982.00 1,072.00	CPT00027 CPT00028
11	33KV / 11KV indoor switch gear (8 feeders)	PM-187,24.11.14	Nos.	16,869,455.87	BRK 30020

Extra Items					
Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
1	11 KV Solid Core Insulator for HG Fuses	Rpt. & Extn. PM-120/16-08-2014	Nos.	126.00	INS10007
2	33 KV CTs 100/1 for HT Metering (0.2 class)	PM-07/03-06-2014	Nos.	16,735.00	ITR30054
3	11 KV CTs 900-450/1-1-0.577A, 0.2 Class (with Diff. Core)	PM-4200/21-12-2013	Nos.	23189.75	ITR10064
4	33 KV Single Phase PTs, 10VA Burden, 0.2 Class.	PM-4295//21-03-2013	Nos.	19620.24	ITR30061
5	11 KV 24V DC LV VCBs with CRPS & CTs of ratio 600-300/1-1A	PM-4247/07-02-2014	Nos.	2,48,247.00	BRK10014
6	33 KV CTs of ratio 400-200/1-1A, 0.2 Class	PM-4315/02-04-2014	Nos.	21160.95	ITR30060
7	11KV 3Ph PTs, 50VA Burden, 0.2 Class	PM-4299/24-03-2014	Nos.	18193.3	ITR10065
8	11KV CTs 600-300/1-1-0.577A, 0.577A, 0.2 Class	PM-4293/21-03-2014	Nos.	20629.71	ITR10066
9	11KV CTs 600-300/1-1A, 0.2 Class	PM-4293/21-03-2014	Nos.	17155.26	ITR10067
10	24V AC/DC Non- Directional Numerical 3O/C + 1E/F Relays (IDMTL with Highest) 1A & 5A(Multiple Secondary option)	Rpt.& Extn. PM-154/13-09-2014	Nos.	9209.00	SBR00177
11	220V AC/DC Non- Directional Numerical 3O/C + 1E/F Relays(IDMTL with Highest) 1A & 5A(Multiple Secondary option)	Rpt.& Extn. PM-154/13-09-2014	Nos.	9209.86	SBR00216
12	33KV 24V DC HV VCBs, CTs(3 core) and CRPs	Rpt.PM-118/13-08-2014	Nos.	418233.55	BRK30031
13	11KV CTs 400-200-100/1-1A, 0.2 Class	PM-4201/21-12-2013	Nos.	13948.82	ITR10062
14	33KV 220V DC VCBs CTs & CRPs & Differential IED Relay	PM-3859/28-12-2012	Nos.	4,80,207.15	BRK30027
15	33KV 220V DC VCBs CTs & CRPs & Prot. IED Relay	PM-68/16-09-2014	Nos.	450751.15	BRK30028
16	33KV 220V DC VCBs with CTs 400-200-100/1-1A (W/o CRPs)	PM-67/16-07-2014	Nos.	309520.00	BRK30029
17	11KV,220V LV VCBs CTs & CRPs and with Differential and Prot. IED Relays	PM-51/07-07-2014	Nos.	375374.88	BRK10020
18	11KV, 220V fed VCBs with CTs & CRPs and IED Relays	PM-3882/15-01-2013	Nos.	3,17,164.00	BRK10019
19	HT Trivector Meter 33/110V 25/1A 30min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30031
20	HT Trivector Meter 33/110V 50/1A 30min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30032
21	HT Trivector Meter 33/110V 100/1A 30min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30028
22	HT Trivector Meter 33/110V 100/1A 15min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30027
23	HT Trivector Meter 33/110V 200/1A 15min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30033
24	HT Trivector Meter 33/110V 10/5A 30min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30057
25	HT Trivector Meter 33/110V 50/1A 30min 0.2S Class	PM-69/16-07-2014	Nos.	7,997.18	MHT30058
26	HT Trivector Meters with ABT features	PM-3897/11-02-2013 (with testing & other charges)	Nos.	125,000.00	
27	HT Triivector open access 11KV 10/5A IP:15min	(without testing)		55,000.00	MHT30038
28	HT Triivector open access 11KV 20/5A IP:15min			55,000.00	MHT30039
29	HT Triivector open access 11KV 40/5A IP:15min			55,000.00	MHT30040
30	HT Triivector open access 11KV 60/5A IP:15min			55,000.00	MHT30041
31	HT Triivector open access 11KV 100/5A IP:15min			55,000.00	MHT30042
32	HT Triivector open access 33KV 25/1A IP:15min			55,000.00	MHT30043
33	HT Triivector open access 33KV 50/1A IP:15min			55,000.00	MHT30044
34	HT Triivector open access 33KV 100/1A IP:15min			55,000.00	MHT30045
35	HT Triivector open access 33KV 200/1A IP:15min			55,000.00	MHT30046
36	HT Triivector open access 132KV 25/1A IP:15min			55,000.00	MHT30047

Sl. No	Name of the Material	P.O. No.	Unit	Rupees	SAP Code No.
37	HT Triivector open access 132KV 50/1A IP:15min			55,000.00	MHT30048
38	HT Triivector open access 132KV 100/1A IP:15min			55,000.00	MHT30049
39	HT Triivector open access 132KV 200/1A IP:15min			55,000.00	MHT30061
40	HT Triivector open access 220KV 100/1A IP:15min			55,000.00	MHT30051
41	LT CT Meters with DLMS (i) Protocol (Cat-A) 200/5A, 400/5A CT ratio along with TTB in PP Box				
a	200/5A			6,481.00	MTE30026
b	400/5A			6,481.00	MTE30036
42	1Ph meter 10-60A Meter with PP Box			1,530.00	MTN10001
43	3 Ph meter 10-60A Meter with PP Box			5,259.00	MTN30001
	HT ERS Field Testing Kit (Along with accessories)				
44	ERS Testing kits of accuracy 0.05 Class	PM-3747/16-10-2012	Nos.	1,216,519.00	TEQ10087
45	3-Phase 63 KVA DTR (CSP) with 3-star rating	PM-196/30-10-2014	Each	90,397.55	DTC30004
46	33KV, 3x400 Sq.mm Heat Shrinkable Indoor End Termination kits	PM-4391/31-05-2014	Each	3,185.00	
47	33KV, 3x400 Sq.mm Heat Shrinkable Outdoor End Termination kits		Each	3,577.00	
48	Fake Note Detection and Loose Note Counting Machines	PM-249/12-01-2015	Each	100,237.50	
49	Agricultural Load Management Units (ALMUs)	PM-34/19-06-2014	Each	6,000.00	
50	HP Probook 440G1 model Laptops with Universal Prop Cable	PM-97/31-07-2014	Each	43,850.00	
51	Line Matrix Printers (500 LPM) Model : LIPI 6605L	PM-220/21-11-2014	Each	1,45,425.00	
52	Line Matrix Printers (1000 LPM) Model : LIPI 6610L			257,250.00	
53	11KV, 3x300 Sq.mm Heat Shrinkable Straight Through Cable Jointing Kits (SCB10101)	PM-261/29-01-2015	Each	2,522.00	
54	11KV, 3x185 Sq.mm Heat Shrinkable Straight Through Jointing Kits (SCB10104)			2,437.00	
55	11KV 3x185 Sq.mm Outdoor End Termination Kits (SCB10105)			872.00	
56	Garmin make eTrex 20 Hand Held GPS Devices	4381/21-05-2014	Each	19,448.00	
57	24V, 40AH Batteries with Chargers (Conventional type)	PM-23/11-06-2014	Each	20,500.00	
58	24V, 40AH Battery Chargers Of Conventional Type (Linear Type)	PM-20/11-06-2014	Each	10,100.00	
59	Capacitor cells of rating 7.3KV, 220KVAR (Internal Fuse Protection)	PM-274/06-02-2014	Each	11,455.31	
60	LT TVR Meters of 0.5S Class with PP Box with 4 CTs with Modem (Cat-C)	PM-3898/11-02-2013	Nos.	10,350.00	MTE30030

COST - DATA ABSTRACT

Sl. No	Particulars of items	Wind. Pr. In Kg /m ²	W.Load in Kg.	Type of pole being used	Span in Mtrs.	No. of poles/ KM	Size of conductor	Total Cost in Rs.
1	33 KV Line	75	365	11 M RS Joist	50	21	100 sqmm AAAC	944335
2	33 KV DC Line	75	365	12 M RS Joist	50	21	100 sqmm AAAC	1284210
3	33 KV Line	75	365	11 M PSCC	60	17	100 sqmm AAAC	708214
4	33 KV DC Line	75	365	11 M PSCC	40	26	100 sqmm AAAC	1169589
5	33 KV Line	75	280	9.1 Mtr.PSCC	80	14	100 sqmm AAAC	486500
6	33 KV Line	75	280	9.1 Mtr.PSCC	65	16	100 sqmm AAAC	505500
7	11 KV line	75	140	9.1 Mtr.PSCC	60	18	55 sqmm AAAC	390080
8	11 KV line	75	140	9.1 Mtr.PSCC	60	18	34 sqmm AAAC	368309
9	11 KV line	75	140	8 Mtr.PSCC	60	18	55 sqmm AAAC	345601
10	11 KV line	75	140	8 Mtr.PSCC	60	18	34 sqmm AAAC	323788
11	11 KV line	75	140	RSJoist Poles	50	21	55 sqmm AAAC	528068
12	6.3 KV line	75	140	8 Mtr.PSCC	90	11	34 sqmm AAAC	149264
13	LT 3 Ph.5 Wire line (Horizontal)	75	140	8 Mtr.PSCC	65	16	3x55+2x34sqmmAAA	330865
14	LT 3 Ph.5 Wire line (Horizontal)	75	140	8 Mtr.PSCC	45	23	3x55+2x34sqmmAAA	375613
15	LT 3 Ph.5 Wire line (Horizontal)	75	140	8 Mtr.PSCC	65	16	5x34sqmm AAA	310715
16	LT 3 Ph.4 Wire line (Horizontal)	75	140	8 Mtr.PSCC	65	16	3x55+1x34sqmmAAA	299209
17	LT 3 Ph.4 Wire line (Horizontal)	75	140	8 Mtr.PSCC	65	16	4x34sqmm AAA	279126
18	LT 1 Ph. 3 Wire line (Horizontal)	75	140	8 Mtr.PSCC	65	16	3x34 sqmm AAA	236261
19	LT 1 Ph. 2 Wire line (Horizontal)	75	140	8 Mtr.PSCC	65	16	2x34 sqmm AAA	203419
20	L.T.AB Cable	75	140	8 Mtr.PSCC	65	16	3x16+25sqmm	205530
21	L.T.AB Cable	75	140	8 Mtr.PSCC	65	16	2x16+25sqmm	178781
22	Conversion of 1Ph 2 W/L to 3 Ph 4 W/L	75	140	8 Mtr.PSCC	65	16	2x55xqmm	94265
22	Erection of 100 KVA CSP CRGO Distribution Transformer							238148
23	Erection of 63 KVA CSP Distribution Transformer							211295
24	Erection of 63 KVA CSP CRGO core Distribution Transformer on plinth							195434
25	Erection of 63 KVA CSP CRGO core Distribution Transformer on structure							182096
26	Erection of 100 KVA CSP CRGO core Distribution Transformer on column plinth							216911
27	Erection of 25 KVA, 3- Phase CRGO core Distribution Transformer							125025
28	Erection of 25 KVA, 3-Phase, 11 KV/433 V /250 V CRGO Conventional Transformer							120086
29	Erection of 25 KVA, Single Phase, 6.3 KV/0-240 V C.S.P. CRGO Transformer							65500
30	Erection of 15 KVA Single Phase 6.3 KV/0-240 V CSP CRGO Distribution Transformer							44844
31	Release of poly phase Agl. Service erected on support							7717
32	Release of 1 ph Domestic & non-domestic service (Electronic meter)							2370
33	Release of 3 ph. Domestic & non-domestic service (Electronic meter)							5772

34	Release of poly phase Indl.service below 20 HP (Electronic meter)	6428
35	Release of Industrial service above 20H.P upto 50 HP with LT Trivector meter	11485
36	Release of Industrial service above 50 HP and upto 75 HP (HT metering)	194194
37	Release of Street light service (1 -ph electronic meter)	2907
38	Erection of L.T. C.T. Operated Electronic trivector meter on LV side of DTR	12019
39	Erection of 33/11 KV Sub-station with 2 x 8 MVA power transformer & 6 Nos. 11 KV feeders (without 11 KV 2 MVAR capacitor Bank)	25800000
40	Erection of 33/11 KV Sub-station with 2 x 8 MVA power transformer & 6 Nos. 11 KV feeders (with 11 KV 2 MVAR capacitor Bank)	27200000
41	Erection of 33/11 KV Sub-station (Indoor substation) with 2x8 MVA power transformer & 6 Nos. 11 KV feeders (without 11 KV 2 MVAR capacitor Bank)	40606529
42	Erection of 33/11 KV Sub-station with 9.1 mts PSCC Poles and 2x5 MVA power transformer & 5 Nos. 11 KV feeders (without 11 KV 2 MVAR capacitor Bank)	16348000
43	Erection of 33/11 KV Sub-station with 9.1 mts PSCC Poles and 2x5 MVA power transformer & 5 Nos. 11 KV feeders (with 11 KV 2 MVAR capacitor Bank)	17600000
44	Erection of 33/11 KV Sub-station with 9.1 mts PSCC Poles and 1 No. power transformer & 3 Nos. 11 KV feeders (with 11 KV 2 MVAR capacitor Bank)	12190000
45	11 KV Bay extension in existing 33/11 KV Sub-stations with girder poles	80285
46	11 KV Bay extension in existing 33/11 KV Sub-stations with PSCC poles	59746
47	33KV Bay Extension at 33/11 kV Sub-station	110800
48	33KV Bay Extension at 132/33KV SS	768123
49	Erection of 11 KV VCB at 33/11 kV Sub-station	320716
50	Erection of 33KV VCB at 132/33KV SS	1178750
51	Erection of 2MVAR Capacitor Bank	1154243
52	Enhancement of PTR Capacity	3649792
53	Laying of 11 KV, 3 core 300 Sq.mm UG Cable	2306660
54	Laying of 33 KV, 3 core 400 Sq.mm UG Cable	3241935
55	Erection of M+3 tower	141569
56	Erection of K+3 tower	79191
57	Erection of L+3 tower	112161
58	Erection of additional 5 MVA PTR in existing 33/11 KV Sub-station	4240700
59	Extension of 3Mtrs for K+3 Towers as per ASCI Standard	11849
60	Extension of 3Mtrs for L+3 Towers as per ASCI Standard	18819
61	Extension of 3Mtrs for M+3 Towers as per ASCI Standard	25989
62	REC construction standard Drawings (19 Nos.)	

COST DATA FOR HILLY AND TRIBAL AREAS AS ADOPTED BY IRRIGATION DEPARTMENT IN THE STATE

For hilly and tribal areas, the following extra rates are allowed over and above approved cost data of labour.

a. 40% extra is allowed for the works located within the interior Agency / Tribal areas. (i.e.) for works located beyond 16 Kilometers from any all-weather bus route inside the agency / tribal area. (Where Bus routes are not available)

b. 25% extra is allowed for the works located inside the agency / tribal area.

c. 15% extra is allowed for the works located in the border of agency / tribal area. (i.e.) works located within a belt of 16 kilometers from the boundary of agency / tribal area.

**Cost data per Km of 33 KV Line with 100 Sq.mm AAA Conductor over 11 Mts.
RS Joist box type at 50 Mts. Span, 100 Kg/sq.Mt wind pressure, working load 365 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	RS Joist box type 11mtrs Pole (150x75mm)	21	17,955	Each	377,055
2	1.53 M Channel / 'V' Cross Arm (100x50mm)	21	993	Each	20,853
3	Top Clamp with cleat(75x8mm)	20	291	Each	5,820
4	Back Clamp	20	162	Each	3,240
5	Stay Set complete	12	983	Each	11,796
6	Bracing Set with double cross arm	1	6,049	Set	6,049
7	100 Sq.mm AAA Conductor	3.06	46,068	K.M.	140,968
8	33 KV Pin Insulator with Pin	63	402	Each	25,326
9	Strain Insulators set (3x 11 KV B&S Insulator with 33 KV Hard ware fitting))	12	740	Set	8,880
10	Concreting of Pole, Stay sets & Base concreting	L.S		L.S	97,103
11	Misc. Items like coil earthing, pipe eathing, danger, bolts & nuts, etc	L.S		L.S	9036
Total Cost of Material					706,126

3% storage & handling charges on items (1) to (9)	18,000
3% Contingencies on Materials	21,184
Labour & Transport	112,150
Service Tax at 14.5 % on L&T	16,262
10% Estt. & Genl. Charges on Materials	70,613
Total	944335.05
Or Say	944,335

**Cost data per Km of 33 KV DC Line with 100 Sq.mm AAA Conductor over 12 Mts.
RS Joist box type at 50 Mts. Span, 100 Kg/sq.Mt wind pressure, working load 365 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	RS Joist box type 12mtrs Pole	21	21,000	Each	441,000
2	1.53 M Channel / 'V' Cross Arm	60	993	Each	59,580
3	Back Clamp	60	162	Each	9,720
4	Stay Set complete	12	983	Each	11,796
5	Double Bracing Set with double cross arm	1	7,462	Set	7,462
6	100 Sq.mm AAA Conductor	6.12	46,068	K.M.	281,936
7	33 KV Pin Insulator with Pin	108	402	Each	43,416
8	Strain Insulators set (3x 11 KV B&S Insulator with 33 KV Hard ware fitting)	24	740	Set	17,760
9	Concreting of Pole, Stay sets & Base concreting	L.S		L.S	98,489
10	Misc. Items like coil earthing, pipe eathing, danger, bolts & nuts, etc	L.S		L.S	9,036
Total Cost of Material					980,195

3% storage & handling charges on items (1) to (8) 26,180

3% Contingencies on Materials 29,406

Labour & Transport 131361

Service Tax at 14.5 % on L&T 19,047

10% Estt. & Genl. Charges on Materials 98,020

Total 1,284,210

Or Say 1,284,210

REC Construction Standard No.M2/1979 (R-1989)

**Cost data per Km of 33 KV Line (SC) with 100 Sq.mm AAA Conductor over
11 Mts. PSCC Poles at 60 Mts. Span, 75 Kg/sq.Mt wind pressure, working load
365 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	11 M PSCC Pole	17	6800	Each	115,600
2	1.53 M Channel / 'V' Cross Arm	17	993	Each	16,881
3	Top Clamp with cleat	16	291	Each	4,656
4	Back Clamp	17	162	Each	2,754
5	Stay Set complete	12	983	Each	11,796
6	Bracing Set with double cross arm	1	6049	Set	6,049
7	100 Sq.mm AAA Conductor	3.06	46068	K.M.	140,968
8	33 KV Pin Insulator with Pin	48	402	Each	19,296
9	Strain Insulators set (3x 11 KV B&S Insulator with 33 KV Hard ware fitting)	12	740	Set	8,880
10	Concreting of Pole, Stay sets & Base concreting	L.S		L.S	112783
11	Misc. Items like coil earthing, pipe eathing, danger, bolts & nuts, etc	L.S		L.S	6050
Total Cost of the Material					445,713

3% storage & handling charges on items (1) to (9)	9,806
3% Contingencies on Materials	13,371
Labour & Transport	170090
Service Tax at 14.5 % on L&T	24,663
10% Estt. & Genl. Charges on Materials	44,571
Total	708,214
Stays Pits (0.76x0.76x1.5) Excavation	Or Say 708,214

REC Construction Standard No.M2/1979 (R-1989)

**Cost data per Km of 33 KV Line (DC) with 100 Sq.mm AAA Conductor over 11 Mts.
PSCC Poles at 40 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 365 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	11 M PSCC Pole	26	6800	Each	176,800
2	1.53 M Channel / 'V' Cross Arm	72	993	Each	71,496
3	Back Clamp	75	162	Each	12,150
4	Stay Set complete	12	983	Each	11,796
5	Double Bracing Set with double cross arm	1	7462	Set	7,462
6	100 Sq.mm AAA Conductor	6.12	46068	K.M.	281,936
7	33 KV Pin Insulator with Pin	156	402	Each	62,712
8	Strain Insulators set (3x 11 KV B&S Insulator with 33 KV Hard ware fitting)	24	740	Set	17,760
9	Concreting of Pole, Stay sets & Base concreting	L.S		L.S	135527
10	Misc. Items like coil earthing, pipe eathing, danger, bolts & nuts, etc	L.S		L.S	6655
Total Cost of the Material					784,294

3% storage & handling charges on items (1) to (8) 19,263

3% Contingencies on Materials 23,529

Labour & Transport 230632

Service Tax at 14.5 % on L&T 33,442

10% Estt. & Genl. Charges on Materials 78,429

Total 1,169,589

Or Say 1,169,589

REC Construction Standard No.M-2/1979 (R-1989)
Cost data per Km of 33 KV Line with 100 Sq.mm AAA Conductor over 9.1 Mts.
PSCC Poles at 80 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 280 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	9.1 M PSCC Pole	14	3,478	Each	48,696
2	1.53 M Channel / 'V' Cross Arm	14	993	Each	13,902
3	Top Clamp with cleat	12	291	Each	3,492
4	Back Clamp	13	162	Each	2,106
5	Stay Set complete	12	983	Each	11,796
6	Bracing Set with double cross arm	1	6,049	Set	6,049
7	100 Sq.mm AAA Conductor	3.06	46,068	K.M.	140,968
8	33 KV Pin Insulator with Pin	39	402	Each	15,678
9	Strain Insulators set (3x 11 KV B&S Insulator with 33 KV Hard ware fitting)	12	740	Set	8,880
10	Concreting of Pole, Stay sets & Base concreting	L.S		L.S	83,948
11	Misc. Items like coil earthing, pipe earthing, danger, bolts & nuts, etc	L.S		L.S	5500
Total Cost of Material					341,015

3% storage & handling charges on items (1) to (9)	7,547
3% Contingencies on Materials	10,230
Labour & Transport	81753
Service Tax at 14.5 % on L&T	11,854
10% Estt. & Genl. Charges on Materials	34,102
Total	486,501
Or Say	486,500

REC Construction Standard No.M-2/1979 (R-1989)
Cost data per Km of 33 KV Line with 100 Sq.mm AAA Conductor over 9.1 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 280 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	9.1 M PSCC Pole	16	3,478	Each	55,652
2	1.53 M Channel / 'V' Cross Arm	16	993	Each	15,888
3	Top Clamp with cleat	15	291	Each	4,365
4	Back Clamp	15	162	Each	2,430
5	Stay Set complete	10	983	Each	9,830
6	Bracing Set with double cross arm	1	6,049	Set	6,049
7	100 Sq.mm AAA Conductor	3.06	46,068	K.M.	140,968
8	33 KV Pin Insulator with Pin	45	402	Each	18,090
9	Strain Insulators set (3x 11 KV B&S Insulator with 33 KV Hard ware fitting)	12	740	Set	8,880
10	Concreting of Pole, Stay sets & Base concreting	L.S		L.S	78,843
11	Misc. Items like coil earthing, pipe earthing, danger, bolts & nuts, etc	L.S		L.S	5500
Total Cost of Material					346,495

3% storage & handling charges on items (1) to (9)	7,865
3% Contingencies on Materials	10,395
Labour & Transport	92687
Service Tax at 14.5 % on L&T	13,440
10% Estt. & Genl. Charges on Materials	34,650
Total	505,532
Or Say	505,500

REC Construction Standard No. A-34/1993
Cost data per Km of 11 KV Line with 55 Sq.mm AAA Conductor over 9.1 Mts.
PSCC Poles at 60 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	9.1 M PSCC Pole	18	3,478	Each	62,609
2	1.07 M Channel / 'V' Cross Arm	18	423	Each	7,614
3	Top Clamp with cleat	16	291	Each	4,656
4	Back Clamp	17	120	Each	2,040
5	Stay Set complete	10	818	Each	8,180
6	Bracing Set with double cross arm	1	4,847	Set	4,847
7	55 Sq.mm AAA Conductor	3.06	23,374	K.M.	71,524
8	11 KV Pin Insulator with Pin	54	115	Each	6,184
9	Strain Insulator with metal parts	12	269	Each	3,228
10	Concreting of Pole, Stay sets & Base concreting			L.S	73,996
11	Misc. Items like coil earthing, pipe eathing, danger, bolts & nuts, etc			L.S	4000
	Total Cost of Material				248,878

3% storage & handling charges on items (1) to (9)	5,126
3% Contingencies on Materials	7,466
Labour & Transport	90587
Service Tax at 14.5 % on L&T	13,135
10% Estt. & Genl. Charges on Materials	24,888
Total	390,080
Or Say	390,080

**Cost data per Km of 11 KV Line with 34 Sq.mm AAA Conductor over 9.1 Mts.
PSCC Poles at 60 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	9.1 M PSCC Pole	18	3,478	Each	62,609
2	1.07 M Channel / 'V' Cross Arm	18	423	Each	7,614
3	Top Clamp with cleat	16	291	Each	4,656
4	Back Clamp	17	120	Each	2,040
5	Stay Set complete	10	818	Each	8,180
6	Bracing Set with double cross arm	1	4,847	Set	4,847
7	34 Sq.mm AAA Conductor	3.06	17,822	K.M.	54,535
8	11 KV Pin Insulator with Pin	54	115	Each	6,184
9	Strain Insulator with metal parts	12	269	Each	3,228
10	Concreting of Pole, Stay sets & Base concreting			L.S	73996
11	Misc. Items like coil earthing, pipe earthing, danger, bolts & nuts, etc			L.S	4000
	Total Cost of Material				231,889

3% storage & handling charges on items (1) to (9) 4,617

3% Contingencies on Materials 6,957

Labour & Transport 88783

Service Tax at 14.5 % on L&T 12,874

10% Estt. & Genl. Charges on Materials 23,189

Total 368,309

Or Say 368,309

REC Construction Standard No. A-34/1993

**Cost data per Km of 11 KV Line with 55 Sq.mm AAA Conductor over 8 Mts.
PSCC Poles at 60 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	18	1,585	Each	28,533
2	1.07 M Channel / 'V' Cross Arm	18	423	Each	7,614
3	Top Clamp with cleat	16	291	Each	4,656
4	Back Clamp	17	120	Each	2,040
5	Stay Set complete	10	818	Each	8,180
6	Bracing Set with double cross arm	1	4,847	Set	4,847
7	55 Sq.mm AAA Conductor	3.06	23,374	K.M.	71,524
8	11 KV Pin Insulator with Pin	54	115	Each	6,184
9	Strain Insulator with metal parts	12	269	Each	3,228
10	Concreting of Pole, Stay sets & Base concreting			L.S	73,996
11	Misc. Items like coil earthing, pipe earthing, danger, bolts & nuts, etc			L.S	4000
Total Cost of Material					214,802

3% storage & handling charges on items (1) to (9) 4,104

3% Contingencies on Materials 6,444

Labour & Transport 86263

Service Tax at 14.5 % on L&T 12,508

10% Estt. & Genl. Charges on Materials 21,480

Total 345,601

Or Say 345,601

REC Construction Standard No. A-34/1993
Cost data per Km of 11 KV Line with 34 Sq.mm AAA Conductor over 8 Mts.
PSCC Poles at 60 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	18	1,585	Each	28,533
2	1.07 M Channel / 'V' Cross Arm	18	423	Each	7,614
3	Top Clamp with cleat	16	291	Each	4,656
4	Back Clamp	17	120	Each	2,040
5	Stay Set complete	10	818	Each	8,180
6	Bracing Set with double cross arm	1	4,847	Set	4,847
7	34 Sq.mm AAA Conductor	3.06	17,822	K.M.	54,535
8	11 KV Pin Insulator with Pin	54	115	Each	6,184
9	Strain Insulator with metal parts	12	269	Each	3,228
10	Concreting of Pole, Stay sets & Base concreting			L.S	73,996
11	Misc. Items like coil earthing, pipe earthing, danger, bolts & nuts, etc			L.S	4000
Total Cost of Material					197,813

3% storage & handling charges on items (1) to (9) 3,595

3% Contingencies on Materials 5,934

Labour & Transport 84424

Service Tax at 14.5 % on L&T 12,241

10% Estt. & Genl. Charges on Materials 19,781

Total 323,788

Or Say 323,788

REC Construction Standard No. A-34/1993
Cost data per Km of 11 KV Line with 55 Sq.mm AAA Conductor over RS
Joist Poles at 50 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	RSJoist Poles (175x85mm)	21	8,400	Each	176,400
2	1.07 M Channel / 'V' Cross Arm	21	423	Each	8,883
3	Top Clamp with cleat	20	291	Each	5,820
4	Back Clamp	21	120	Each	2,520
5	Stay Set complete	10	818	Each	8,180
6	Bracing Set with double cross arm	1	4,847	Set	4,847
7	55 Sq.mm AAA Conductor	3.06	23,374	K.M.	71,524
8	11 KV Pin Insulator with Pin	54	115	Each	6,184
9	Strain Insulator with metal parts	12	269	Each	3,228
10	Concreting of Pole, Stay sets & Base concreting			L.S	83,690
11	Misc. Items like coil earthing, pipe eathing, danger, bolts & nuts, etc			L.S	4000
Total Cost of Material					375,276

3% storage & handling charges on items (1) to (9) 8,628

3% Contingencies on Materials 11,258

Labour & Transport 83299

Service Tax at 14.5 % on L&T 12,078

10% Estt. & Genl. Charges on Materials 37,528

Total 528,068

Or Say 528,068

REC Construction Standard No. A-17/1987

Cost data per Km of 6.3 KV Sph Line with 34 Sq.mm AAA Conductor over 8 Mts. PSCC Poles at 90 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	11	1,585	Each	17,437
2	Top Clamp with cleat	11	291	Each	3,201
3	D Clamp	10	100	Each	1,000
4	Stay Set complete	4	818	Each	3,272
5	34 Sq.mm AAA Conductor	1.02	17,822	K.M.	18,178
6	11 KV Pin Insulator with Pin	10	115	Each	1,145
7	Strain Insulator with metal parts	4	269	Each	1,076
8	Concreting of Pole, Stay sets & Base concreting			L.S	29598
9	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	2100
Total Cost of Material					77,007

3% storage & handling charges on items (1) to (7) 1,359

3% Contingencies on Materials 2,310

Labour & Transport 53177

Service Tax at 14.5 % on L&T 7,711

10% Estt. & Genl. Charges on Materials 7,701

Total 149,264

Or Say 149,264

REC Construction Standard No. B-8/1984
Cost data per Km of LT 3 Ph 5 Wire line (Horizontal formation) with
3 x 55 Sq. mm + 2 x 34 Sq. mm AAAC over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	LT 3 Phase cross arms	18	251	Each	4,518
3	LT top fitting	18	154	Each	2,772
4	Back Clamp	18	64	Each	1,152
5	Stay Set complete	6	818	Each	4,908
6	55 Sq.mm AAA Conductor	3.06	23,374	KM	71,524
7	34 Sq.mm AAA Conductor	2.04	17,822	KM	36,357
8	Shackle Insulator with metal parts	16	41	Each	656
9	LT pin insulator with pin	56	250	Each	14,000
10	C.I. Knob	16	10	Each	160
11	Concreting of Pole, Stay sets & Base concreting			L.S	44397
12	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	4000
Total Cost of Material					209,807

3% storage & handling charges on items (1) to (10) 4,842

3% Contingencies on Materials 6,294

Labour & Transport 77678

Service Tax at 14.5 % on L&T 11,263

10% Estt. & Genl. Charges on Materials 20,981

Total 330,865

Or Say 330,865

REC Construction Standard No. B-8/1984
Cost data per Km of LT 3 Ph 5 Wire line (Horizontal formation) with
3 x 55 Sq. mm + 2 x 34 Sq. mm AAAC over 8 Mts.
PSCC Poles at 45 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	23	1,585	Each	36,459
2	LT 3 Phase cross arms	24	251	Each	6,024
3	LT top fitting	24	154	Each	3,696
4	Back Clamp	24	64	Each	1,536
5	Stay Set complete	6	818	Each	4,908
6	55 Sq.mm AAA Conductor	3.06	23,374	KM	71,524
7	34 Sq.mm AAA Conductor	2.04	17,822	KM	36,357
8	Shackle Insulator with metal parts	16	41	Each	656
9	LT pin insulator with pin	84	250	Each	21,000
10	C.I. Knob	23	10	Each	230
11	Concreting of Pole, Stay sets & Base concreting			L.S	54091
12	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	4000
Total Cost of Material					240,481

3% storage & handling charges on items (1) to (10)	5,472
3% Contingencies on Materials	7,214
Labour & Transport	85,937
Service Tax at 14.5 % on L&T	12,461
10% Estt. & Genl. Charges on Materials	24,048
Total	375,613
Or Say	375,613

REC Construction Standard No. B-8/1984
Cost data per Km of LT 3 Ph 5 Wire line (Horizontal formation) with
5 x 34 Sqmm AAAC over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	LT 3 Phase cross arms	18	251	Each	4,518
3	LT top fitting	18	154	Each	2,772
4	Back Clamp	18	64	Each	1,152
5	Stay Set complete	6	818	Each	4,908
6	34 Sq.mm AAA Conductor	5.1	17,822	KM	90,892
7	Shackle Insulator with metal parts	16	41	K.M.	656
8	LT pin insulator with pin	56	250	Each	14,000
9	C.I. Knob	16	10	Each	160
10	Concreting of Pole, Stay sets & Base concreting			L.S	44397
11	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	4000
Total Cost of Material					192,818

3% storage & handling charges on items (1) to (9)	4,333
3% Contingencies on Materials	5,785
Labour & Transport	77290
Service Tax at 14.5 % on L&T	11,207
10% Estt. & Genl. Charges on Materials	19,282
Total	310,715
Or Say	310,715

REC Construction Standard No. B-8/1984
Cost data per Km of LT 3 Ph 4 Wire line (Horizontal formation) with
3 x 55 Sqmm + 1 x 34 mm AAAC over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	LT 3 Phase cross arms	18	251	Each	4,518
3	Back Clamp	18	64	Each	1,152
4	Stay Set complete	6	818	Each	4,908
5	55 Sq.mm AAA Conductor	3.06	23,374	K.M.	71,524
6	34 Sq.mm AAA Conductor	1.02	17,822	K.M.	18,178
7	Shackle Insulator with metal parts	12	41	Each	492
8	LT pin insulator with pin	42	250	Each	10,500
9	C.I. Knob	16	10	Each	160
10	Concreting of Pole, Stay sets & Base concreting			L.S	44397
11	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	4000
Total Cost of Material					185,192

3% storage & handling charges on items (1) to (9) 4,104

3% Contingencies on Materials 5,556

Labour & Transport 74967

Service Tax at 14.5 % on L&T 10,870

10% Estt. & Genl. Charges on Materials 18,519

Total 299,209

Or Say 299,209

REC Construction Standard No. B-8/1984
Cost data per Km of LT 3 Ph 4 Wire line (Horizontal formation) with
4 x 34 Sqmm AAAC over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	LT 3 Phase cross arms	18	251	Each	4,518
3	Back Clamp	18	64	Each	1,152
4	Stay Set complete	6	818	Each	4,908
5	34 Sq.mm AAA Conductor	4.08	17821.8	K.M.	72,713
6	Shackle Insulator with metal parts	12	41	Each	492
7	LT pin insulator with pin	42	250	Each	10,500
8	C.I. Knob	16	10	Each	160
9	Concreting of Pole, Stay sets & Base concreting			L.S	44397
10	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	4000
Total Cost of Material					168,203

3% storage & handling charges on items (1) to (8) 3,594

3% Contingencies on Materials 5,046

Labour & Transport 74,640

Service Tax at 14.5 % on L&T 10,823

10% Estt. & Genl. Charges on Materials 16,820

Total 279,126

Or Say 279,126

REC Construction Standard No. B-11/1984
Cost data per Km of LT Single Phase 3 Wire line (Horizontal formation)
with 34 Sqmm AAAC over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	LT 1 Phase cross arms	18	135	Each	2,429
3	LT top fitting	18	154	Each	2,772
4	Back Clamp	18	64	Each	1,152
5	Stay Set complete	4	818	Each	3,272
6	34 Sq.mm AAA Conductor	3.06	17,822	K.M.	54,535
7	Shackle Insulator with metal parts	8	41	Each	328
8	LT pin insulator with pin	28	250	Each	7,000
9	C.I. Knob	16	10	Each	160
10	Concreting of Pole, Stay sets & Base concreting			L.S	34445
11	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	4000
	Total Cost of Material				135,456

3% storage & handling charges on items (1) to (9) 2,910

3% Contingencies on Materials 4,064

Labour & Transport 70,117

Service Tax at 14.5 % on L&T 10,167

10% Estt. & Genl. Charges on Materials 13,546

Total 236,261

Or Say 236,261

REC Construction Standard No. B-11/1984
Cost data per Km of LT Single Phase 2 Wire line (Horizontal formation)
with 2 x 34 Sqmm AAAC over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	LT 1 Phase cross arms	18	135	Each	2,430
3	Back Clamp	18	64	Each	1,152
4	Stay Set complete	4	818	Each	3,272
5	34 Sq.mm AAA Conductor	2.04	17,822	K.M.	36,357
6	Shackle Insulator with metal parts	4	41	Each	164
7	LT pin insulator with pin	14	250	Each	3,500
8	C.I. Knob	16	10	Each	160
9	Concreting of Pole, Stay sets & Base concreting			L.S	34445
10	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	2900
Total Cost of Material					109,743

3% storage & handling charges on items (1) to (8) 2,172

3% Contingencies on Materials 3,292

Labour & Transport 67,456

Service Tax at 14.5 % on L&T 9,781

10% Estt. & Genl. Charges on Materials 10,974

Total 203,419

Or Say 203,419

REC Construction Standard No. B-32/1984

**Cost data per Km of LT Line with 3 x 16 + 25 Sqmm AB Cable over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	Suspension clamp assembly with eye hook	14	65	Each	910
3	Dead end clamp assembly with eye hook	4	80	Each	320
4	Stay Set complete	4	818	Set	3,272
5	L.T. A.B. Cable 3 x 16 + 25 Sq.mm	1.02	50,155	K.M.	51,158
6	Insulated Connectors with covers	56	80	Each	4,480
7	Concreting of Pole, Stay sets & Base concreting			L.S	34445
8	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	3000
Total Cost of Material					122,948

3% storage & handling charges on items (1) to (6) 2,565

3% Contingencies on Materials 3,688

Labour & Transport 55,925

Service Tax at 14.5 % on L&T 8,109

10% Estt. & Genl. Charges on Materials 12,295

Total 205,530

Or Say 205,530

REC Construction Standard No. B-32/1984
Cost data per Km of LT Line with 2 x 16 + 25 Sqmm AB Cable over 8 Mts.
PSCC Poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure, working load 140 Kgs.

Sl. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	8 M PSCC Pole	16	1,585	Each	25,363
2	Suspension clamp assembly with eye hook	14	71	Each	994
3	Dead end clamp assembly with eye hook	4	88	Each	352
4	Stay Set complete	4	818	Set	3,272
5	L.T. A.B. Cable 2 x 16 + 25 Sq.mm	1.02	28,950	K.M.	29,529
6	Insulated Connectors with covers	56	88	Each	4,928
7	Concreting of Pole, Stay sets & Base concreting			L.S	34445
8	Misc. Items like coil earthing, danger board, bolts & nuts, etc			L.S	3000
Total Cost of Material					101,883

3% storage & handling charges on items (1) to (6) 1,933

3% Contingencies on Materials 3,056

Labour & Transport 53,905

Service Tax at 14.5 % on L&T 7,816

10% Estt. & Genl. Charges on Materials 10,188

Total 178,781

Or Say 178,781

**Cost Data for Conversion of Single Phase 2 wire line to Three Phase 4 wire line
over existing 8 M PSCC poles at 65 Mts. Span, 75 Kg/sq.Mt wind pressure,
working load 140 Kgs.**

Sl. No.	Particulars	Qty.	Rate in Rs.	Unit	Amount in Rs.
1	55 Sq.mm AAA conductor	2.04	23374	KM	47683
2	LT 3 phase X arms	17	251.00	Each	4267
3	Back Clamps	17	64.00	Each	1088
4	Shackle Insulators with metal parts	12	40.75	Each	489
5	Pin Insulators with pins	45	249.5	Each	11227.5
6	Stay sets complete	6	818	Each	4908
	Total Cost of Material				69,662

3% storage & handling charges on items (1) to (6) 2,090

3% Contingencies on Materials 2,090

Labour & Transport 14,300

Distmentling Charges 1,000

Service Tax at 14.5 % on L&T 2,074

10% Estt. & Genl. Charges on Materials 6,966

Total 98,182

Or Say 98,182

Less Credits

1 Single Phase cross arms (scrap) 51 11 Kg 561

2 Original Erection charges 2200

3 Dismantling charges 1100

4 Orginal Estt & Genl Charges 56

Total 3917

Or Say 3917

Net Cost Gross - Less **94,265**

REC - CONSTRUCTION STANDARD SPECIFICATION No. F3 & F4/1993

COST DATA FOR ERECTION OF 100 KVA - 11 KV/433 V CSP TRANSFORMER

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433 V 100 KVA CSP TRANSFORMER (Aluminium)	119309.11	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	D.P. Structure	13,911	15,909
4	Erection of 11 K.V. H.G. Fuse set	1,843	719
5	Installation of L.T.H.G. Fuse sets including connections	968	484
6	L.T. Metering arrangement with CTs including cable connections and cleat arrangement	9,039	760
7	Installation of HT Lightening Arresters	1,116	1,272
8	C.I. Pipe earthing (3 Nos.)	10,725	8,982
	Total Cost of Material	164,521	41,313
	3% Storage & handling charges	4,936	
	3% Contingencies on Materials	4,936	
	Labour & Transport	41,313	
	Service Tax at 14.5 % on L&T	5,990	
	10% Estt. & General charges on Materials	16,452	
	Total Cost in Rs.	238,148	
	Or Say	238,148	

REC - CONSTRUCTION STANDARD SPECIFICATION No. F3 & F4/1981

COST DATA FOR ERECTION OF 63 KVA - 11 KV/433 V CSP TRANSFORMER

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433 V 63 KVA CSP Distribution Transformer (Aluminium)	96,160.49	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	D.P. Structure	13,911	15,909
4	Erection of 11 K.V. H.G. Fuse set	1,843	719
5	Installation of L.T.H.G. Fuse sets including connections	968	484
6	Metering arrangement with CTs including cable connections and cleat arrangement	9,039	760
7	Installation of HT Lightening Arresters	1,116	1,272
8	C.I. Pipe earthing (3 Nos.)	10,725	8,982
Total Cost of Material		141,372	41,313
3% Storage & handling charges		4,241	
3% Contingencies on Materials		4,241	
Labour & Transport		41,313	
Service Tax at 14.5 % on L&T		5,990	
10% Estt. & General charges on Materials		14,137	
Total Cost in Rs.		211,295	
Or say		211,295	

REC - CONSTRUCTION STANDARD SPECIFICATION No. F3 & F4/1981

COST DATA FOR ERECTION OF 63 KVA - 11 KV/433 V TRANSFORMER

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433 V 63 KVA Distribution Transformer (Aluminium)	96,160	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	Plinth for distribution transformer (5'x4'x9') (SWR11070)	0	16,149
4	Erection of 11 K.V. H.G. Fuse set	1,843	719
5	Installation of L.T.H.G. Fuse sets including connections	968	484
6	L.T. Metering arrangement with CTs including cable connections and cleat arrangement	9,039	760
7	Installation of HT Lightning Arresters	1,116	1,272
8	C.I. Pipe earthing (3 Nos.)	10,725	8,982
Total Cost of Material		127,461	41,553
	3% Storage & handling charges	3,824	
	3% Contingencies on Materials	3,824	
	Labour & Transport	41,553	
	Service Tax at 14.5 % on L&T	6,025	
	10% Estt. & General charges on Materials	12,746	
Total Cost in Rs.		195,434	
Or say		195,434	

REC - CONSTRUCTION STANDARD SPECIFICATION No. F3 & F4/1981**COST DATA FOR ERECTION OF 63 KVA - 11 KV/433 V TRANSFORMER**

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433 V 63 KVA CSP Distribution Transformer (Aluminium)	96,160	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	Erection of structure for mounting of transformer	3,590	863
4	Erection of 11 K.V. H.G. Fuse set	1,843	719
5	Installation of L.T.H.G. Fuse sets including connections	968	484
6	L.T. Metering arrangement with CTs including cable connections and cleat arrangement	9,039	760
7	Installation of HT Lightning Arresters	1,116	1,272
8	C.I. Pipe earthing (3 Nos.)	10,725	8,982
	Total Cost of Material	131,051	26,267
	3% Storage & handling charges	3,932	
	3% Contingencies on Materials	3,932	
	Labour & Transport	26,267	
	Service Tax at 14.5 % on L&T	3,809	
	10% Estt. & General charges on Materials	13,105	
	Total Cost in Rs.	182,096	
	Or say	182,096	

REC - CONSTRUCTION STANDARD SPECIFICATION No. F3 & F4/1981

COST DATA FOR ERECTION OF 100 KVA - 11 KV/433 V

CSP TRANSFORMER

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433 V 100 KVA CSP Distribution Transformer (Aluminium)	119,309	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	Construction of column type plinth 4'x4'x6" footing and 4'x4'x6" platform over 1'x9" column of 9' height.	0	11,456
4	Erection of 11 K.V. H.G. Fuse set	1,843	719
5	Installation of L.T.H.G. Fuse sets including connections	968	484
6	L.T. Metering arrangement with CTs including cable connections and cleat arrangement	9,039	760
7	Installation of HT Lightening Arresters with earth connection	1,116	1,272
8	C.I. Pipe earthing (3 Nos.)	10,725	8,982
Total Cost of Material		150,610	36,859
3% Storage & handling charges		4,518	
3% Contingencies on Materials		4,518	
Labour & Transport		36,859	
Service Tax at 14.5 % on L&T		5,345	
10% Estt. & General charges on Materials		15,061	
Total Cost in Rs.		216,911	
Or say		216,911	

REC - CONSTRUCTION STANDARD SPECIFICATION No. F3 & F4/1981

**COST DATA FOR ERECTION OF 25 KVA, 3-Ph, 11 KV/433 V/250 V
DISTRIBUTION TRANSFORMER (COPPER)**

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433V/250 V 25 KVA 3-Ph Distribution Transformer (Copper)	65,524	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	Erection of 11 KV HG Fuse set	1,843	719
4	Mounting arrangements for Transformer	3,590	500
5	Installation of L.T.H.G. Fuse sets including connect	968	484
6	C.I. Pipe earthing (2 Nos.)	7,150	5,988
7	Misc. items (like bolts & nuts, washers etc.)	500	
Total Cost of Material		87,185	20,878
3% Storage & handling charges		2,601	
3% Contingencies on Materials		2,616	
Labour & Transport		20,878	
Service Tax at 14.5 % on L&T		3,027	
10% Estt. & General charges on Materials		8,718	
Total Cost in Rs.		125,025	
Or Say		125,025	

COST DATA FOR ERECTION OF 25 KVA, 3-Ph, 11 KV/433 V /250 V CONVENTIONAL TRANSFORMER (Alluminium)

S. No.	Particulars	Cost of Material (Rs.)	Labour & Transport (Rs.)
1	11 KV/433V/250 V 25 KVA 3-Ph Conventional Distribution Transformer (Aluminium)	61,218	11,129
2	Erection of 11 KV AB Switch (200A)	7,610	2,058
3	Erection of 11 KV HG Fuse set	1,843	719
4	Mounting arrangements for Transformer	3,590	550
5	Installation of L.T.H.G. Fuse sets including connect	968	484
6	C.I. Pipe earthing (2 Nos.)	7,150	5,988
7	Misc. items (like bolts & nuts, washers etc.)	500	
Total Cost of Material		82,879	20,928
	3% Storage & handling charges	2,471	
	3% Contingencies on Materials	2,486	
	Labour & Transport	20,928	
	Service Tax at 14.5 % on L&T	3,035	
	10% Estt. & General charges on Materials	8,288	
Total Cost in Rs.		120,086	
Or Say		120,086	

REC - CONSTRUCTION STANDARD SPECIFICATION No. F-13/1987
COST DATA FOR ERECTION OF 25 KVA SINGLE PHASE 6.3 KV/0-240 V
C.S.P. TRANSFORMER ON EXISTING 8 M PSCC SUPPORT

S. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	25 KVA Oil Immersed Single Phase 6.3 KV/0-240 V CSP CRGO core Transformer (Copper)	1	43,590	Each	43,590
2	Mounting arrangements for Transformer	1	1,315	Set	1,315
3	C.I. Pipe earthing	2	3,575	Each	7,150
4	LT Distribution Box (1-Phase) with XLPE 70 sq mm cable and 100 A fuse unit completely	1	1,000	Each	1,000
5	Misc. items (like bolts & nuts, washers etc.)	L.S.	500	L.S.	500
Total Cost of Material					53,555
3% Storage & handling charges on items 1 to 3					1,562
3% Contingencies on Materials					1,607
Labour & Transport					3,000
Service Tax at 14.5 % on L&T					435
10% Estt. & General charges on Materials					5,356
Total Cost in Rs.					65,515
Or Say					65,500

REC - CONSTRUCTION STANDARD SPECIFICATION No. F-13/1987
COST DATA FOR ERECTION OF 15 KVA SINGLE PHASE 6.3 KV/0-240 V
CRGO CORE C.S.P. TRANSFORMER ON EXISTING 8 M PSCC SUPPORT

S. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	15 KVA Oil Immersed Single Phase 6.3 KV/0-240 V CRGO Core Transformer (Copper)	1	25,869	Each	25,869
2	Mounting arrangements for Transformer	1	1,315	Set	1,315
3	C.I. Pipe earthing	2	3,575	Each	7,150
4	LT Distribution Box (1-Phase) with XLPE 70 sq mm cable and 100 A fuses complete.	1	1,000	Each	1,000
5	Misc. Items	L.S.	400	L.S.	400
Total Cost of Material					35,734
3% Storage & handling charges on items 1 to 3					1,030
3% Contingencies on Materials					1,072
Labour & Transport					3,000
Service Tax at 14.5 % on L&T					435
10% Estt. & General charges on Materials					3,573
Total Cost in Rs.					44,844
Or Say					44,844

REC - CONSTRUCTION STANDARD SPECIFICATION No. H6 & H8/1981
COST DATA FOR RELEASE OF POLY PHASE AGRICULTURAL SERVICE ERECTED
ON SUPPORT

S. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	3 Phase (5A-20A) Electronic meter with PP Box	1	3,037	Each	3,037
2	3 Phase 63 A M.C.B.	1	1477	Each	1477
3	P.V.C. Cable 6 Sq.mm Single Core	90	8.91	Each	802
4	Installation of 2 KVAR Capacitor	1	550	Each	550
5	Misc. items such as Bolts, Nuts & Board etc.	L.S.	220	L.S.	220
Total Cost of Material					6,086
3% Contingencies on Materials					183
Labour & Transport					733
Service Tax at 14.5 % on L&T					106
10% Estt. & General charges on Materials					609
Total Cost in Rs.					7,717
Or say					7,717

REC - CONSTRUCTION STANDARD SPECIFICATION No. H-1 TO H3/1981
COST DATA FOR DOMESTIC AND NON-DOMESTIC SERVICE CONNECTION (SINGLE PHASE)
WITH ELECTRONIC METER

S. No.	Particulars	Rate	Chargeable to DISCOM		Chargeable to Consumers		Amount in Rs.
			Qty.	Amount	Qty.	Amount	
1	Single Phase Electronic meter (5 A to 20 A) housed in a PP box	819 Each	1	819			819
2	M.C.B. 16 A	200.6 Each	1	201			201
3	P.V.C. Cable Single Core 2.5 Sq.mm	5 Mts.			60	300	300
4	G.I. Wire No. 6	48 Kg			1	48	48
5	P.V.C. Pipe 25 mm	30.3 Mts.			2	61	61
6	P.V.C. Bends 25 mm	6.1 Each			2	12	12
7	Misc.items (meter board & bolts & nuts etc.)	L.S. L.S.		50		100	150
Total Cost of Material				1,070		521	1,590
3% Contingencies on Materials					32	16	48
Labour & Transport					160	340	500
Service Tax at 14.5 % on L&T					23	49	73
10% Estt. & General charges on Materials					107	52	159
Total Cost in Rs.					1,392	978	2,370
Or Say							2,370

**REC - CONSTRUCTION STANDARD SPECIFICATION No. H1 TO H3/1981
COST DATA FOR DOMESTIC AND NON-DOMESTIC SERVICE CONNECTION
(THREE PHASE) (Electronic)**

S. No.	Particulars	Rate	Chargeable to DISCOM		Chargeable to Consumers		Amount in Rs.
			Qty.	Amount	Qty.	Amount	
1	3 Phase Electronic Energy Meter (10 A - 40 A) with PP Box	1941 Each	1	1,941			1,941
2	3 Phase 63 A M.C.B.	1477 Each	1	1,477			1,477
3	P.V.C. Cable Single Core 2.5 Sq.mm	5 Mts.			120	600	600
4	G.I. Wire No. 8	53 Kg			1	53	53
5	P.V.C. Pipe 40 mm	77.5 Mts.			2	155	155
6	P.V.C. Bends 40 mm	18.2 Each			2	36	36
7	Misc.	L.S. L.S.				75	75
Total Cost of Material				3,418	919	4,337	
3% Contingencies on Materials				103	28	130	
Labour & Transport				320	440	760	
Service Tax at 14.5 % on L&T				46	64	110	
10% Estt. & General charges on Materials				342	92	434	
Total Cost in Rs.				4,229	1,543	5,772	
Or Say						5,772	

Note: Item Nos. 3 to 7 are to be borne & arranged by the consumer as per latest APTRANSCO rules.

**REC - CONSTRUCTION STANDARD SPECIFICATION No. H-5/1981
POLY PHASE SERVICE CONNECTION CHARGES FOR ERECTION OF
1 NO. INDUSTRIAL SERVICE (BELOW 20 H.P.) (ELECTRONIC METER)**

S. No.	Particulars	Rate	Chargeable to DISCOM		Chargeable to Consumers		Amount in Rs.
			Qty.	Amount	Qty.	Amount	
1	3-Phase (10 - 40 A) Electronic meter housed in a PP box	1941 Each	1	1,941			1,941
2	3 Phase 63 A M.C.B.	1477 Each	1	1,477			1,477
3	P.V.C. Cable Single Core 10 Sq.mm	12 Mts.			80	960	960
4	G.I. Wire 8 mm	48 Kg			1	48	48
5	P.V.C. Pipe 40 mm	77.5 Mts.			2	155	155
6	P.V.C. Bends 40 mm	18.2 Each			2	36	36
7	Misc. items viz. link clips, wooden box, bolts & nuts etc.	L.S. L.S.		100		200	300
Total Cost of Material				3,518		1,399	4,917
3% Contingencies on Materials				106		42	148
Labour & Transport				320		440	760
Service Tax at 14.5 % on L&T				46		64	110
10% Estt. & General charges on Materials				352		140	492
Total Cost in Rs.				4,342		2,085	6,428
Or Say							6,428

**REC - CONSTRUCTION STANDARD SPECIFICATION No. H-5/1981
POLY PHASE SERVICE CONNECTION CHARGES FOR ERECTION OF
1 NO. INDUSTRIAL SERVICE (20 HP & ABOVE) (LT TRIVECTOR METER)**

S. No.	Particulars	Rate	Chargeable to DISCOM		Chargeable to Consumers		Amount in Rs.
			Qty.	Amount	Qty.	Amount	
1	LT TVR Meters Cl. 0.5S (Including Box & 4 CTs)	6177 Each	1	6,177			6,177
2	3 Phase 63 A M.C.B.	1477 Each	1	1,477			1,477
3	P.V.C. Cable Single Core 10 Sq.mm	15 Mts.			80	1,200	1,200
4	G.I. Wire 8 mm	48 Kg			1	48	48
5	P.V.C. Pipe 40 mm	77.5 Mts.			2	155	155
6	P.V.C. Bends 40 mm	18.2 Each			2	36	36
7	Misc. items viz. link clips, wooden box, bolts & nuts etc.	L.S. L.S.		100		200	300
Total Cost of Material				7,754		1,639	9,393
3% Contingencies on Materials				233		49	282
Labour & Transport				320		440	760
Service Tax at 14.5 % on L&T				46		64	110
10% Estt. & General charges on Materials				775		164	939
Total Cost in Rs.				9,128		2,356	11,485
Or Say							11,485

**REC - CONSTRUCTION STANDARD SPECIFICATION No. H-5/1981
POLY PHASE SERVICE CONNECTION CHARGES FOR ERECTION OF
1 NO. INDUSTRIAL SERVICE (50 HP & UPTO 75 HP) (HT METERING)**

S. No.	Particulars	Rate	Material		Labour		
			Qty.	Amount	Qty.	Amount	
1	DP Structure with 9.1 mts. PSCC poles	13911 Each	2	27,823	2	15,909	
2	11 KV 400 Amps conventional type AB switch	10,500 Each	2	21,000	2	2,984	
3	11 KV HG Fuse set	1,843 Each	2	3,686	2	1,438	
4	3x35 sq.mm 11 KV XLPE cable	317.67 Mts.	30	9,530	30	14,460	
5	End termination suitable for 35 sq.mm XLPE (Cable outdoor type)	1287 Each	4	5,148	4	6,544	
6	G.I. earthing (3 Nos. GI Pipe)	4012.8 Nos.	1	4,013	1	8,982	
7	11 KV CT PT 10-20/5	28,979 Each	1	28,979	1	870	
8	HT Trivector Meter (Clause 0.2 S)	7,997 Each	1	7,997	1	3,830	
9	Special type box for Trivector meter	5500 Each	1	5,500	1	200	
10	Transport of material					1,650	
11	Misc. items viz. link clips, wooden box, bolts & nuts etc.	L.S.	L.S.			550	
Total Cost of Material				113,675		57,417	-
3% Contingencies on Materials				3,410			
Labour & Transport				57,417			
Service Tax at 14.5 % on L&T				8,325			
10% Estt. & General charges on Materials				11,367			
Total Cost in Rs.				194,194			
Or Say			Rs.	194,194.00			

COST DATA FOR STREET LIGHT SERVICE CONNECTION (SINGLE PHASE)

S. No.	Particulars	Qyt.	Rate in Rs.	Per Unit	Amount in Rs.
1	1 Phase (5-20A) Electronic Meter housed in a PP box	1	819	Each	819
2	1 Phase 16 A M.C.B.	1	201	Each	201
3	Light sensitive switch	1	400	Each	400
4	P.V.C. Cable 4 Sq.mm Single Core	15	10	Mts.	150
5	P.V.C. Pipe 25 mm	2	30	Mts.	61
6	P.V.C. Bends 25 mm	2	6.10	Each	12
7	Moulded Distribution Box	1	250	Each	250
8	Wooden, Plugs, clamps, bolts, nuts, link clips etc.	L.S.		L.S.	150
	Total Cost of Material				2,042
	3% Contingencies on Materials				61
	Labour & Transport				600
	Service Tax at 14.5 % on L&T				87
	10% Estt. & General charges on Materials				204
	Total Cost in Rs.				2,907
	Or Say				2,907

**COST ESTIMATE FOR ERECTION OF 1 NO. LT ELECTRONIC TRIVECTOR METERS ON
LV SIDE OF DTR**

Sl. No.	Particulars	Qty.	Unit	Rate per (in Rs.)	Amount (in Rs.)
1	LT 3-Phase class 0.5S Accuracy CT Operated Energy Meter Housed in a box with 3 Nos. CTs	1	Each	6,353.00	6,353.00
2	3.5 Core 95 LT XLPE Cable (for 10 meters) to LT side of DTR with cleat wiring.	LS			3,512.79
	Total				9,865.79
	3% Contingencies				295.97
	Fixing of CT operated meter on LV side of Distribution transformers with box including cost of lugs, clamps, GI wire and transport from district store to site.				760.00
	Service Tax at 14.5 % on L&T				110
	10% Estt. & Genl. Charges				986.58
	Total Cost in Rs.				12,018.54
	Or Say				12,019.00

COST DATA FOR ERECTION OF 33/11 KV SUBSTATION WITH 2X8MVA POWER TRANSFORMERS AND NF = 6 NO. 11 KV FEEDERS (WITH OUT 11 KV 2 MVAR CAPACITORS BANK)

Rs. in Lakhs

Sl. No		Qty.	Rate (Rs. in lakhs)	Unit	Amount (Rs. in lakhs)
1 (a)	Lands and Rights	LS	As per local conditions		50.00
(b)	Plantation of Trees	LS		LS	0.15
2	Control Room and Consumer service centre (including furniture)	LS		LS	12.00
3	Station Auxillaries				
a)	Peripheral, Security Fencing, Approach road, retaining wall around switchward with gravel filling, gate and bore well	LS		LS	16.50
b)	Yard lighting	LS		LS	0.80
c)	Fire fighting Equipment	LS		LS	0.70
d)	P&T Phone and wireless set	LS		LS	0.05
4	Foundations for structures, PTRs & breakers	LS		LS	3.30
5	Bus bars, Jumpers, Connectors claps etc.	LS		LS	1.32
6	Control Cables	LS		LS	1.19
7	Structural Steel	13	0.420	MT	5.46
8	Transformers				
a)	33/11kv 8 MVA Power Transformer	2	44.352	Each	88.70
b)	11kv / 433 v 25 kva 3-ph Stn. Transformer (CSP copper)	1	0.612	Each	0.61
9	Circiut Breakres (including trivector meters)				
a)	33 KV Group control VCB with CTs and panel	1	3.976	Each	3.98
b)	20 KA 11 kv feeder VCB including Control panel and CTs (NF=6)	6	2.488	Each	14.93
c)	20 KA 11 kv LV VCB including Control panel and CTs	2	3.205	Each	6.41
10	Control Circiut Panels				
a)	AC Supply Panel	1	0.330	Each	0.33
b)	Alaram Panel	1	0.330	Each	0.33
11	Instrumnet Transformers				
a)	33KV PT (single unit)	3	0.179	Each	0.54
b)	11kv P.T (3 Phase)	1	0.121	Each	0.12
12	Lightning Arrestors				
a)	33KV 10KA	6	0.036	Each	0.22
b)	11KV Line Type (NF=6)	18	0.020	Each	0.36
c)	11KV Station Type 10 KA	6	0.020	Each	0.12
13	Isolating Switches				
a)	33KV 800A AB Switch (Double Breaker)	3	0.290	Each	0.87
b)	11KV 800A AB Switch (Double Breaker)	3	0.151	Each	0.45
c)	11KV 400A AB Switch (Double Breaker)	12	0.105	Each	1.26
d)	11KV 200A AB Switch	1	0.076	Each	0.08
e)	11KV HG fuse Switch	3	0.018	Each	0.06
f)	33KV Horn Gap Fuse Set (1XNT)	2	0.000	Each	0.00
14	Data Acquisition equipment (SIM, modem, cabling etc)			LS	0.45
15	220 Volts 80 AH SMF Battery Set including Battery Charger and DC DB	1	2.95	Each	2.95
16	Earthing of Power Transformer VCBs,AB Swicthes,Strucutres with 75x8mm GI Flat			LS	1.98
	Sub Total				216.21
	3% Contingencies on items 7 to 15				3.85
	1% T&P Charges on items No. 7 to 15				1.28
	10% Erection and transport and commissioning charges on items 7 to 15				12.82
	Service Tax at 14.5% on L&T				1.86
	10% Establishment and General Charges				21.62
	Grand Total				257.64

Or Say

258.00

**COST DATA FOR ERECTION OF 33/11 KV SUBSTATION WITH 2X8MVA POWER TRANSFORMERS AND
NF = 6 NO. 11 KV FEEDERS (WITH 11 KV 2 MVAR CAPACITORS BANK)**

Rs. in Lakhs

Sl. No	Particulars	Qty.	Rate (Rs. in	Unit	Amount (Rs. in lakhs)
1	(a) Lands and Rights	LS	As per local conditions		50.00
	(b) Plantation of Trees	LS		LS	0.15
2	Control Room and Consumer service centre (including furniture)	LS		LS	12.00
3	Station Auxillaries				
	a) Peripheral, Security Fencing, Approach road, retaining wall around switchward with gravel filling, gate and bore well	LS		LS	16.50
	b) Yard lighting	LS		LS	0.80
	c) Fire fighting Equipment	LS		LS	0.70
	d) P&T Phone and wireless set	LS		LS	0.05
4	Foundations for structures, PTRs & breakers	LS		LS	3.30
5	Bus bars, Jumpers, Connectors claps etc.	LS		LS	1.32
6	Control Cables	LS		LS	1.19
7	Structural Steel	20	0.420	MT	8.40
8	Transformers				
	a) 33/11kv 8 MVA Power Transformer	2	44.352	Each	88.70
	b) 11kv / 433 v 25 kva 3-ph Stn. Transformer	1	0.612	Each	0.61
9	Circuit Breakers (including trivector meters)				
	a) 33 KV Group control VCB with CTs and panel	1	3.976	Each	3.98
	b) 20 KA 11 kv feeder VCB including Control panel and CTs (NF=6)	6	2.488	Each	14.93
	c) 20 KA 11 kv LV VCB including Control panel and CTs	2	3.205	Each	6.41
10	Control Circuit Panels				
	a) AC Supply Panel	1	0.330	Each	0.33
	b) Alarm Panel	1	0.330	Each	0.33
11	Instrument Transformers				
	a) 33KV PT (single unit)	3	0.179	Each	0.54
	b) 11kv P.T (3 Phase)	1	0.121	Each	0.12
12	Lightning Arrestors				
	a) 33KV 10KA	6	0.036	Each	0.22
	b) 11KV Line Type (NF=6)	18	0.020	Each	0.36
	c) 11KV Station Type 10 KA	6	0.020	Each	0.12
13	Isolating Switches (Double Breaker)				
	a) 33KV 800A AB Switch (Double Breaker)	3	0.290	Each	0.87
	b) 11KV 800A AB Switch (Double Breaker)	3	0.151	Each	0.45
	c) 11KV 400A AB Switch (Double Breaker)	12	0.105	Each	1.26
	d) 11KV 200A AB Switch	1	0.076	Each	0.08
	e) 11KV HG fuse Switch	3	0.018	Each	0.06
	f) 33KV Horn Gap Fuse Set (1XNT)	2	0.000	Each	0.00
14	2MVAR 11KV Capacitor Bank along with Associated Equipment (Type A)	1	8.700	Each	8.70
15	220 Volts 80 AH Battery Set including Battery Charger and DC DB	1	2.946	Each	2.95
16	Earthing of Power Transformer VCBs, AB Switches, Structures with 75x8mm GI Flat			LS	1.98
	Sub Total				227.40
	3% Contingencies on items 7 to 15				4.18
	1% T&P Charges on items No. 7 to 15				1.39
	10% Erection and transport and commissioning charges on items 7 to 15				13.94
	Service Tax at 14.5% on L&T				2.02
	10% Establishment and General Charges				22.74
	Grand Total				271.68

Or Say

272.00

COST DATA FOR ERECTION OF 33/11KV INDOOR SUBSTATION WITH 2 Nos. 8MVA POWER TRANSFORMERS & 6 Nos. 11KV FEEDERS

Sl. No.	PARTICULARS	QTY	RATE	UNIT	AMOUNT Rs in Lakhs
1 a)	Lands and rights	Ls	As per local conditions		50.00
b)	Plantation of Trees	Ls	0.15	LS	0.15
2	Civil Works				
i	Construction of Control room	LS	22.00	LS	22.00
ii	Compound wall, Gate,levelling of site and Borewell	LS	4.95	LS	4.95
iii	special foundations				
iv	Laying of Cable Trench	LS	3.03	LS	3.03
v	Electrification and sanitation arrangements	LS	0.83	LS	0.83
vi	Construction of Transformer plinth	LS	0.83	LS	0.83
3	Station Auxillaries				0.00
a)	Yard lighting	Ls	0.55	LS	0.55
b)	Spreading of Metal	Ls	0.11	LS	0.11
c)	Telephone (P &T) and wireless set	Ls	1.38	LS	1.38
d)	Fire fighting Equipment, Miscellenous items like Rubber Mats, Earth rods, Helmets, Gloves, Furniture, T&P etc	Ls	1.10	LS	1.10
e)	Water supply arrangements	Ls	0.55	LS	0.55
4	Foundations for breakers etc.	Ls	0.66	LS	0.66
5	Bus bar arrangements	Ls	2.75	LS	2.75
6	Control cables	Ls	1.10	LS	1.10
7	Power and Distribution Transformers				
a)	33/11 KV, 8 MVA Power Transformers	2	44.352	E	88.70
b)	25KVA 11/04KV Station Transformer	1	0.612	E	0.61
8	Indoor switch gear & Control panels				
a)	33 KV, 25 KVA, 1250 A, 8 Panels SF-6, GIS Switch gear consisting of the following				
i	1250 A Transformers control cubicals 2 Nos.				
ii	1250 - A Incoming feeder cubicals - 3 Nos.				
iii	1250 - A Bus coupler - 1 No.				
b)	11 KV, 20 KVA, 1250 A ,14 panels SF6 GIS switch gear consisting the following equipments	1	150.75	E	150.75
i	1250 A Transformers control cubicals 2 Nos.				
ii	1250 - A feeder cubicals - 6 Nos.				
iii	1250 - A Bus coupler - 1 No.				
iv	Bus transformers panel - 1 No.				
v	Adopter for station transformer - 1 No.				
9	Alaram and Annunciation Panel	1	0.31	E	0.31
10	AC Panel	1	0.33	E	0.33
11	220 Volts, 200 AH, Battery with trickle charger	1	2.95	E	2.95
12	Data Acquisition equipment (SIM, modem, cabling etc)			LS	0.45
13	Earthing Arrangements				
a)	MS Flat75x8 mm for providing earthing matting complete	2	0.415	MT	0.58
b)	MS Flat 50x6 mm for earthing the equipment	2	0.415	MT	0.58
c)	Earthing electrodes & GI pipes	LS	0.90	LS	0.90
14	RS Joist 175x85/150x150(Girder poles) for base of switch gear	1.5	0.3990	MT	0.60
			Total		336.73
	3% Contingencies on Items 7 To 14				7.40
	10% Transport, Erection and Commissioning charges on items 7 To 14				24.68
	Service Tax at 14.5% on L&T				3.58
	10% Establishment and General Charges				33.67
	Grand Total				406.07

**COST DATA FOR ERECTION OF 33/11 KV SUBSTATION WITH 9.1 Mtrs PSCC POLES, 2 X 5 MVA
POWER TRANSFORMERS AND 5 NO. 11 KV FEEDERS
(WITH 11 KV 2 MVAR CAPACITORS BANK)**

Rs. in Lakhs

Sl. No	Particulars	Qty.	Rate (Rs. in lakhs)	Unit	Amount (Rs. in lakhs)
(a)	Lands and Rights	LS	As per local conditions		11.00
(b)	Plantation of Trees	LS		LS	0.15
2	Control Room and Consumer service centre (including furniture)	LS		LS	12.00
3	Station Auxillaries				
a)	Peripheral, Security Fencing, Approach road, retaining wall around switchward with gravel filling, gate and bore well	LS		LS	11.00
b)	Yard lighting	LS		LS	0.80
c)	Fire fighting Equipment	LS		LS	0.70
d)	P&T Phone and wireless set	LS		LS	0.05
4	Foundations for structures, PTRs & breakers	LS		LS	3.30
5	Bus bars, Jumpers, Connectors claps etc.	LS		LS	1.32
6	Control Cables	LS		LS	1.19
7	Structural Steel	4.5	0.420	MT	1.89
8	9.1 meters PSCC poles	30	0.03	Each	1.04
9	Transformers				
a)	33/11kv 5 MVA Power Transformer	2	32.70	Each	65.40
b)	11kv / 433 v 16 kva Stn. Transformer	1	0.655	Each	0.66
10	Circuit Breakers (including trivector meters)				
a)	20 KA 11 kv feeder VCB including Control panel and CTs (NF=5)	5	2.488	Each	12.44
b)	20 KA 11 kv LV VCB including Control panel and CTs	2	3.205	Each	6.41
11	Control Circuit Panels				
a)	AC Supply Panel	1	0.303	Each	0.30
b)	Alarm Panel	1	0.303	Each	0.30
12	Instrument Transformers				
a)	11kv P.T (3 Phase)	1	0.121	Each	0.12
13	Lightning Arrestors				
a)	33KV 10KA	6	0.036	Each	0.22
b)	11KV Line Type (NF=5)	15	0.020	Each	0.30
c)	11KV Station Type 10 KA	6	0.020	Each	0.12
14	Isolating Switches				
a)	33KV 800A AB Switch (Double Break)	3	0.290	Each	0.87
b)	11KV 800A AB Switch (NT X 1+1) (Double Break)	3	0.151	Each	0.45
c)	11KV 400A AB Switch (NF X 2+2) (Double Break)	12	0.105	Each	1.26
d)	33KV Horn Gap Fuse Set (1XNT)	2	0.000	Each	0.00
15	Data Acquisition equipment (SIM, modem, cabling etc)			LS	0.40
16	24 Volts 40 AH Battery Set including Battery Charger	7	0.172	Each	1.20
17	2MVAR 11KV Capacitor Bank along with Associated Equipment	1	8.700	Each	8.70
18	Earthing of Power Transformer VCBs, AB Switches, Structures with 75x8mm GI Flat			LS	1.98
	Sub Total				145.58
	3% Contingencies on items 7 to 17				3.06
	1% T&P Charges on items No. 7 to 17				1.02
	Erection and transport and commissioning charges on items 7 to 17 at 10%				10.21
	Service Tax at 14.5% on L&T				1.480
	10% Establishment and General Charges				14.56
	Total				175.91

Or say **176.00**

Note : NF = No. of 11 KV Feeders, The number of outgoing feeders at substation limited to the demand in MVA i.e. if substation demand is 5 MVA, the number of feeders should not exceed five.
In GHMC area include 33 KV grid control VCB

**COST DATA FOR ERECTION OF 33/11 KV SUBSTATION WITH 9.1 Mtrs PSCC POLES, 2 X 5 MVA
POWER TRANSFORMERS AND 5 NO. 11 KV FEEDERS
(WITH OUT 11 KV 2 MVAR CAPACITORS BANK)**

Rs. in Lakhs

Sl. No	Particulars	Qty.	Rate (Rs. in lakhs)	Unit	Amount (Rs. in lakhs)
1 (a)	Lands and Rights	LS	As per local conditions		11.00
(b)	Plantation of Trees	LS		LS	0.15
2	Control Room and Consumer service centre (including furniture)	LS		LS	12.00
3	Station Auxillaries				
a)	Peripheral, Security Fencing, Approach road, retaining wall around switchward with gravel filling, gate and bore well	LS		LS	11.00
b)	Yard lighting	LS		LS	0.80
c)	Fire fighting Equipment	LS		LS	0.70
d)	P&T Phone and wireless set	LS		LS	0.00
4	Foundations for structures, PTRs & breakers	LS		LS	3.30
5	Bus bars, Jumpers, Connectors claps etc.	LS		LS	1.32
6	Control Cables	LS		LS	1.19
7	Structural Steel	6	0.420	MT	2.52
8	9.1 meters PSCC poles	38	0.035	Each	1.32
9	Transformers				
a)	33/11kv 5 MVA Power Transformer	2	32.70	Each	65.40
b)	11kv / 433 v 16 kva Stn. Transformer	1	0.655	Each	0.66
10	Circuit Breakers (including trivector meters)				
a)	20 KA 11 kv feeder VCB including Control panel and CTs (NF=5)	5	2.488	Each	12.44
b)	20 KA 11 kv LV VCB including Control panel and CTs	2	2.249	Each	4.50
11	Control Circuit Panels				
a)	AC Supply Panel	1	0.303	Each	0.30
b)	Alarm Panel	1	0.303	Each	0.30
12	Instrument Transformers				
a)	11kv P.T (3 Phase)	1	0.121	Each	0.12
13	Lightning Arrestors				
a)	33KV 10KA	6	0.036	Each	0.22
b)	11KV Line Type (NF=5)	15	0.020	Each	0.30
c)	11KV Station Type 10 KA	6	0.020	Each	0.12
14	Isolating Switches				
a)	33KV 800A AB Switch (Double Breaker)	3	0.290	Each	0.87
b)	11KV 800A AB Switch (NT X 1+1) (Double Breaker)	3	0.151	Each	0.45
c)	11KV 400A AB Switch (NF X 2+2) (Double Breaker)	12	0.105	Each	1.26
d)	33KV Horn Gap Fuse Set (1XNT)	2	0.000	Each	0.00
15	Data Acquisition equipment (SIM, modem, cabling etc)			LS	0.40
16	24 Volts 40 AH Battery Set including Battery Charger	7	0.172	Each	1.20
17	Earthing of Power Transformer VCBs, AB Switches, Structures with 75x8mm GI Flat			LS	1.80
	Sub Total				135.64
	3% Contingencies on items 7 to 16				2.77
	1% T&P Charges on items No. 7 to 16				0.92
	Erection and transport and commissioning charges on items 7 to 16 at 10%				9.24
	Service Tax at 14.5% on L&T				1.340
	10% Establishment and General Charges				13.56
	Total				163.48

Or say

163.48

Note : NF = No. of 11 KV Feeders, The number of outgoing feeders at substation limited to the demand in MVA i.e. if substation demand is 5 MVA, the number of feeders should not exceed five.

COST DATA FOR ERECTION OF 33/11 KV SUBSTATION WITH PSCC POLES, 1 X 5 MVA POWER TRANSFORMERS and 3 NO. 11 KV FEEDERS WITH 11 KV 2 MVAR CAPACITORS BANK

Rs. in Lakhs

Sl. No	Particulars	Qty.	Rate (Rs. in lakhs)	Unit	Amount (Rs. in lakhs)
1 (a)	Lands and Rights	LS	11.00		11.00
(b)	Plantation of Trees	LS		LS	0.15
2	Control Room and Consumer service centre (including furniture)	LS		LS	12.00
3	Station Auxillaries				
a)	Peripheral, Security Fencing, Approach road, retaining wall around switchward with gravel filling, gate and bore well	LS		LS	11.00
b)	Yard lighting				0.80
c)	Fire fighting Equipment	LS		LS	0.70
d)	P&T Phone and wireless set	LS		LS	0.05
4	Foundations for structures, PTRs & breakers	LS		LS	3.30
5	Bus bars, Jumpers, Connectors claps etc.	LS		LS	1.32
6	Control Cables	LS		LS	1.19
7	Structural Steel	5.5	0.420	MT	2.31
8	9.1 meters PSCC poles	23	0.035	Each	0.80
9	8 meters PSCC poles	8	0.016	Each	0.13
10	Transformers				
a)	33/11kv 5 MVA Power Transformer	1	32.70	Each	32.70
b)	11kv / 433 v 16 kva Stn. Transformer	1	0.655	Each	0.66
11	Circuit Breakers (including trivector meters)				
a)	20 KA 11 kv feeder VCB including Control panel and CTs (NF=3)	3	2.488	Each	7.46
b)	20 KA 11 kv LV VCB including Control panel and CTs	1	2.249	Each	2.25
12	Control Circuit Panels				
a)	AC Supply Panel	1	0.303	Each	0.30
b)	Alarm Panel	1	0.303	Each	0.30
13	Instrument Transformers				
a)	11kv P.T (3 Phase)	1	0.121	Each	0.12
14	Lightning Arrestors				
a)	33KV 10KA	6	0.036	Each	0.22
b)	11KV Line Type (NF=3)	9	0.020	Each	0.18
c)	11KV Station Type 10 KA	3	0.020	Each	0.06
15	Isolating Switches				
a)	33KV 800A AB Switch	3	0.290	Each	0.87
b)	11KV 800A AB Switch (NT X 1+1)	2	0.151	Each	0.30
c)	11KV 400A AB Switch (NF X 2+2)	8	0.105	Each	0.84
d)	33KV Horn Gap Fuse Set (1XNT)	1	0.000	Each	0.00
16	Data Acquisition equipment (SIM, modem, cabling etc)			LS	0.30
17	24 Volts 40 AH Battery Set including Battery Charger	4	0.172	Each	0.69
18	2MVAR 11KV Capacitor Bank along with Associated Equipment	1	8.700	Each	8.70
19	Earthing of Power Transformer VCBs, AB Switches, Structures with 75x8mm GI Flat			LS	1.80
	Sub Total				102.50
	3% Contingencies on items 7 to 17				1.78
	1% T&P Charges on items No. 7 to 17				0.59
	10% Erection and transport and commissioning charges on items 7 to 17				5.92
	Service Tax at 14.5% on L&T				0.858
	10% Establishment and General Charges				10.25
	Total				121.89

Or say **121.90**

Note : NF = No. of 11 KV Feeders, The number of outgoing feeders at substation limited to the demand in MVA i.e. if substation demand is 5 MVA, the number of feeders should not exceed five.

**Cost data for erection of 11 KV Bay Extension in existing 33/11 KV sub-station
(with RS Joist)**

S. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	150X150 mm H type beam of 8.5 mts length (2 Nos. RS Joist)	0.5984	42,000.00	MT	25133.00
2	100x50 mm Channel	0.1659	34,650.00	MT	5748.00
3	MS flat 75x8 mm	0.05	41,475.00	MT	2074.00
4	AB switch 400 Amps conventional type	1	10,500.00	Each	10500.00
5	200 sqmm ACSR Conductor (Panther-conductor)	0.02	143,869.12	KM	2598.00
6	Disc type Insulator with metal parts	18	269	Each	4842.00
7	Earthing arrangement (20 mts length with 75x8 MS flat (20x4.7=94)	94	41.48	KG	3899.00
8	Pad clamps, bolts & nuts & Miscellaneous items	LS			1650.00
	Sub-Total				56444.00
	3% Contingencies				1693.32
	Labour & Transport				14413.30
	Service Tax at 14.5% on L&T				2089.929
	10% Establishment & General charges				5644.400
	Grand Total				80284.95
			or say		80285.00

**Cost data for erection of 11 KV Bay Extension in existing 33/11 KV sub-station
(with 9.1 mts PSCC poles)**

S. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	9.1 mts. PSCC poles	2	3,478	Each	6957.00
2	100x50 mm Channel	0.1659	34,650.00	MT	5748.00
3	MS flat 75x8 mm	0.05	41,475.00	MT	2074.00
4	AB switch 400 Amps conventional type	1	10,500.00	Each	10500.00
5	200 sqmm ACSR Conductor (Panther conductor)	0.02	143,869.12	KM	2598.00
6	Disc type Insulator with metal parts	18	269	Each	4842.00
7	Earthing arrangement (20 mts length with 75x8 MS flat (20x4.7=94)	94	41.48	KG	3899.00
8	Pad clamps, bolts & nuts & Miscellaneous items	LS			1650.00
	Sub-Total				38268.00
	3% Contingencies				1148.04
	Labour & Transport				14413.30
	Service Tax at 14.5% on L&T				2089.929
	10% Establishment & General charges				3826.800
	Grand Total				59746.07
			or say		59746.00

Cost Data for 33 KV Bay Extension in 33/11 KV substation

Sl.No	Description of Material	Qty	Unit	Rate	Amount
1	150 x 150 RSJ pole (8m)	0.6	MT	42,000.00	25200
2	100 x 50 mm MS channel	0.27	MT	34,650.00	9356
3	75 x 8mm flat for clamps & earthing	0.2	MT	41,475.00	8295
4	200 sqmm Panther conductor	0.02	KM	143,869.12	2877.3824
5	Strain Insulator set with metal parts (each set consists 3 Nos 11 KV strain insulators)	6	Set	706	4234
6	Erection of 33 KV AB switch (800 Amps, Conventional)	1	Each	28,999.00	28999
7	Miscellaneous items like fabrication of channels & pad clamps etc.		LS		2750

Sub-Total

81711

3% Contingencies

2451.34

3% S&H charges

2451.34

Labour & Transport

13985.40

Service Tax at 14.5% on L&T

2027.883

10% Estt & General charges on material

8171.13

Total

110798.42

Or Say Rs

110800.00

Cost-Data for Extention of 33KV Bay at 132/33KV Sub-station

Sl.No.	Description	Qty	Rate	Per	Amount
1	Galvanised steel such as M.S.angles, flats, channels for TC & TD towers. (Master Plan pg 41)	5.00	57487	MT	287435
2	Spacer clamps for 33KV bus (SMR 40012, MP pg no.17)	9	508	Each	4572
3	Spacer clamp with T off zebra for one feeder	3	788	Each	2364
4	33 KV Polymer String Insulator (B&S)	8	299	Each	2390
5	Tension hardware for twin zebra (SMR40016)	6	2,512	Each	15072
6	Zebra condutor	0.150	143869	KM	21580
7	33KV AB Switch 800 A	1	28999	Each	28999
8	Twin Zebra connector	12	600	Each	7200
9	T Clamps	12	500	Each	6000
10	MS.Flat 100x16	0.63	46904	MT	29550
11	MS.Flat 50X8	0.62	51817	MT	32127
12	GI Flat 100X16	0.151	63235	MT	9548
13	GI Flat 50X8	0.155	63478	MT	9839
14	Civil works for erection of towers in sub-station yard and other miscellaneous items.			LS	100000

Sub-Total

556676

3% S&H charges on Material

13700

3% Contingencies on Material

13700

Labour & Transport

112121

Service Tax at 14.5% on L&T

16257.545

10% Estt. & Gen. Chargtes

55668

Gross Total 768123

Or Say in Rs. 768123

Cost Data for erection of 11 KV breaker in sub-station

Sl.No	Description of work	Qty	Unit	Rate	Amount
1	11 KV VCB along with all Accessories Including CTs	1	Each	248764	242909.44
2	4x2.5 sqmm Control cable	0.05	KM	65500	3275
3	Earthing arrangements	LS			1650
4	Miscellaneous items like conductor and clamps etc	LS			1650

Sub-Total **249484**

3% Contingencies 7485

3% S&H charges 7485

Labour & Transport 27349

Service Tax at 14.5% on L&T 3965.594

10% Estt & General charges 24948

Total **320716**

Or Say Rs **320716**

**Cost-Data for erection of 33 KV VCB and Twin feeder Control Pannel
at 132/33KV Sub-stations**

S.No.	Description of work	Qty	Rate	Per	Amont
1	33 KV VCB with relay& CTs (400-200-100/1-1-1A)	1	397,638.09	Each	397638
2	LT PVC Copper Control Cable 10 C x2.5 Sq.mm	0.75	141,500.00	KM	106125
3	LT PVC Copper Control Cable 4 C x2.5 Sq.mm	0.75	65,500.00	KM	49125
4	33KV LAS line type	3	3,640.87	Each	10923
5	33 KV Twin feeder control panel	1	374,650.47	No	374650.47
6	Miscellenous items			LS	1100

Sub-Total	939561
3% S&H charges	28187
3% Contingencies on material	28187
Labour & Transport	77606
Service Tax at 14.5% on L&T	11252.916
10% Estt. & General Charges	93956
Gross Total	1178750
Or Say Rs.	1178750

Cost data for erection of 2 MVAR Capacitor Bank

S. No.	Particulars	Qty.	Rate in Rs.	Per Unit	Amount in Rs.
1	2 MVAR 11KV Capacitor Bank along with associated Equipment (Capactors, Structure and VCB) (Type A)	1	870,000.00	Each	870000
2	24 volts 40AH Battery Set including Battery Charger	1	17,150.00	Each	17150
3	M.S.Flat 50x6mm	0.36	41,475.00	MT	14931
4	Panther Conductor	0.05	143,869.12	KM	6494
5	4 Core 2.5 Sqmm PVC Copper Control Cable	0.05	65,500.00	KM	3275
6	10 Core 2.5 Sqmm PVC Copper Control Cable	0.1	141,500.00	KM	14150
7	2 Core 2.5 Sqmm PVC Copper Control Cable	0.06	36,900.00	KM	2214
8	11KV Post type insulators	3	252.00	Each	756
9	Cost of CI pipe of 100 mm dia, 8 mm thick and 2.75 Mts long	2	3328	Each	6656
10	11KV H.G. Fuse Set with Insulators	1	1,842.75	Each	1843
11	11KV LA's Station type	3	2,016.70	Each	6050
12	M.S. Channel 100x50mm	0.24	34,650.00	MT	8316
13	Miscellaneous items	LS			550.00

Sub-Total **952385.40**

3% Contingencies 28571.56

Labour ,Transport & Commsioning charges 68164.07

Service Tax at 14.5% on L&T 9883.791

10% Establishment & General charges 95238.54

Grand Total **1154243.37**

or say **1154243.00**

Cost Data for Enhancement of capacity of existing Power Transformer from 5 MVA to 8 MVA.

Sl.No	Particulars	Qty	Rate in Rs.	Unit	Amount in Rs.
1	33/11 KV 8 MVA Power Transformer	1	4435200.00	Each	4435200
2	Erection of 33 KV VCB with directional relay	1	397,638.09	Each	397638
3	Miscellaneous Items			LS	50000
			Sub-Total		4882838
	3 % Storage & Handling charges				146485
	3% Contingencies on material				146485
	Labour & Transport				120000
	Service Tax at 14.5% on L&T				17400.000
	10% Estt & General charges on material				488284
	Add: Dismantling charges				50000
			Grand Total		5851492
			Or say		5851492
	Less Credit				
	Less Credit has to be valued as per the respective PTR book value in SAP, if data is not available in SAP, the following value may be considered.				
1	33/11KV 5 MVA Power Transformer	1	3263180.76	Each	3263181
	Depreciation 40% (Variable as per life served)		1305272.00		1305272
				Net	1957909
	Original erection charges (SWR 21275 MP)				32000
	Original dismantling charges				16000
	10% Estt. & General charges				195791
			Total		2201700
			Or Say	Rs.	2201700
	Net Amount = Grand total - Less credit		5851492	2201700	3649792

Cost data for laying of 3 core 300 Sq.mm 11 KV UG Cable

Sl. No.	Description of the material	Qty	Rate	Unit	Amount
1	Laying 11 KV 3 core 300Sq.mm UG Cable at depth of 1.20mtrs along CC road	1.03	1064010.25	KM	1095930.56
2	Erection of 3 way RMU (SF6) outdoor type	1	462883.95	Each	462,883.95
3	Straight through joints for 3 core 11KV 300Sq.mm UG Cable (SWR 10384)	1	3300	Each	3300.00
4	End termination suitable for 3 core 300 Sq.mm UG cable (SWR 10389)	4	2200	Each	8800.00
5	Earthing of Cable with GI pipe of 2mt length	3	666.00	Nos	1998.00

Sub-Total **1572912.51**

3 % storage & handling charges 32877.92

3 % contingencies 32877.92

Labour and Transport 446026.90

Service Tax at 14.5% on L&T 64673.901

10 % Estt & General charges 157291.25

Grand Total **2306660.39**

Or Say Rs 2306660

Cost data for laying of 3 core 400Sq.mm 33KV UG Cable

Sl. No.	Description of the material	Qty	Rate	Unit	Amount
1	Laying 33 KV 3 core 400Sq.mm UG Cable at depth of 1.20mtrs along CC road	1.03	2167700.00	KM	2232731.00
2	Straight through joints and end terminators suitable for 3 core 33KV 400Sq.mm UG Cable and Hume pipes and GI pipe (15% of cost cable)	1	24700	Each	24700.00
3	End termination suitable for 400 Sq.mm (outdoor type)	2	14716	Nos	29432.00
4	Earthing of Cable with GI pipe of 2mt length (SMR 11480 RZ PG.NO.119)	2	666.00	Nos	1332.00

Sub-Total **2288195.00**

3 % Storage & handling charges 66981.93

3 % Contingencies 66981.93

Labour and Transport 516118.90

Service Tax at 14.5% on L&T 74837.241

10 % Estt & General charges 228819.50

Grand Total **3241934.50**

Or Say **Rs** **3241935**

Erection of Non-Galvanised M+3 Tower as per ASCI Standard

S. No.	Particulars	Qty.	Per Unit	Rate	Amount
1	Supply of Non-Galvanised M+3 type tower as per Specification. (MP SSR)	1.34	MT	46904.00	62851.36
2	Supply of Suitable Hot dip Galvanised, Zinc coated Nuts and bolts with suitable plain and spring washers. (MP SSR)	158	KG	87.00	13746.00
3	Provision of wastage of Tower parts @ 10%	0.134	MT	46904.00	6285.14
4	Fabrication of tower Parts as per Specification	1.34	MT	5500.00	7370.00
5	Excavation of pit including dewatering, planking, showring and shuttering (where ever necessary) and leveling in all types of soils such as BC, red earth, hard gravel etc., (size 2.6x2.6x3.3 mtr i.e 22.308 cum (MP SSR)	4.752	CUM	264.00	1254.53
6	Setting of stubs in position for laying of foundation of towers with 1:2:4 cc mix using 40 mm HBG metal including cost of all concreting materials, form boxes and cement and curing for 14 days (40 mm HBG metal for pyramid portion and 20 mm HBG metal for chimney portion) i.e 4.434 cu.mts (MP SSR)	4.752	CUM	5963.00	28336.18
7	Erection of tower parts completely as per specifications including erection of insulators with all accessories, jumpering, transport of material and bolts and nuts etc.,	1.34	MT	6500.00	8710.00
8	Tack welding of total tower nuts and bolts	1	Job	1500.00	1500.00
9	Pipe earthing of towers with 40mm dia GI pipe, including cost of pipe, bentonite powder and running of GI flat etc., (MP SSR)	2	Each	1479.50	2959.00
10	Transport of Material to site including loading and unloading	1.498	MT	2000.00	2996.00

S. No.	Particulars	Qty.	Per Unit	Rate	Amount
11	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Material for First coat of 1st Grade Aluminium Paint, paint, brushes etc.	1.34	MT	1884.00	2524.56
b	Labour charges for painting including scratching and cleaning of tower	1.34	MT	734.00	983.56
c	Material for Second coat of 1st Grade Aluminium Paint, brushes, etc.,	1.34	MT	1116.00	1495.44
d	Labour charges for painting including scratching and cleaning of tower	1.34	MT	416.00	557.44
				Total:	141569.20

(*) Note:-The requirement of 2nd coat is to be justified by the concerned Divisional Engineer /Executive Engineer before execution of this work

Tower details

1	Weight of M type tower	1.133 MT
2	Weight of 1 No. extension of 3 Mts	0.364 MT
3	Weight of M+3 tower	1.497
4	Weight of M+6 tower	1.861
5	Weight of M+9	2.225
6	Weight of each arm	0.091 MT
stubs	110X110X8 = 4.56 mts	
	100X100X8=1.998 mts	
	80X80X8 =1.898 mtrs	
	65X65X6 = 2.274 mts	
	45X45X5=2.761 mtrs	
	Total height 13.5 mts	
	Depth of tower below ground level : 3.2 mts	
	Height of tower above ground level : 10.3 mts.	

Erection of Non-Galvanised L+3 Tower as per ASCI Standard

S. No.	Particulars	Qty.	Per Unit	Rate	Amount
1	Supply of L+3 type tower as per Specification. (MP SSR)	1.05	MT	46904.00	49249.20
2	Supply of Suitable Hot dip Galvanised, Zinc coated Nuts and bolts with suitable plain and spring washers. (MP SSR)	168	KG	87.00	14616.00
3	Provision of wastage of Tower parts @ 10%	0.105	MT	46904.00	4924.92
4	Fabrication of tower Parts as per Specification	1.05	MT	5500.00	5775.00
5	Excavation of pit including dewatering, planking, showring and shuttering (where ever necessary) and leveling in all types of soils such as BC, red earth, hard gravel etc., (size 2.3x2.3x3.0 mtr i.e 15.87 cum (MP SSR)	15.87	CUM	264.00	4189.68
6	Setting of stubs in position for laying of foundation of towers with 1:2:4 cc mix using 40 mm HBG metal including cost of all concreting materials, form boxes and cement and curing for 14 days (40 mm HBG metal for pyramid portion and 20 mm HBG metal for chimney portion) i.e 2.573 cu.mts (MP SSR)	2.57	CUM	5963.00	15324.91
7	Erection of tower parts completely as per specifications including erection of insulators with all accessories, jumpering, transport of material and bolts and nuts etc.,	1.05	MT	6500.00	6825.00
8	Tack welding of total tower nuts and bolts	1	Job	1500.00	1500.00
9	Pipe earthing of towers with 40mm dia GI pipe, including cost of pipe, bentonite powder and running of GI flat etc., (MP SSR)	2	Each	1479.50	2959.00
10	Transport of Material to site including loading and unloading	1.22	MT	2000.00	2440.00

S. No.	Particulars	Qty.	Per Unit	Rate	Amount
11	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Material for First coat of 1st Grade Aluminium Paint, paint, brushes etc.	1.05	MT	1884.00	1978.20
b	Labour charges for painting including scratching and cleaning of tower	1.05	MT	734.00	770.70
c	Material for Second coat of 1st Grade Aluminium Paint, brushes, etc.,	1.05	MT	1116.00	1171.80
d	Labour charges for painting including scratching and cleaning of tower	1.05	MT	416.00	436.80
				Total:	112161.21

(*) Note:-The requirement of 2nd coat is to be justified by the concerned Divisional Engineer /Executive Engineer before execution of this work

Tower details

1	Weight of L type tower including nuts&bolts	0.9565 MT
2	Weight of 1 No. extension of 3 Mts	0.26325 MT
3	Weight of L+3 tower	1.219
4	Weight of L+6 tower	1.483
5	Weight of L+9	1.746
6	Weight of each arm	0.084 MT
stubs	90X90X8 = 4.256 mts	
	80X80X8=1.998 mts	
	65X65X6 =2.898 mtrs	
	50X50X5 = 1.274 mts	
	45X45X5=2.726 mtrs	
	Total height 13.15 mts	
	Depth of tower below ground level : 2.9 mts	
	Height of tower above ground level : 10.25mts.	

Erection of Non-Galvanised K+3 Tower as per ASCI Standard

S. No.	Particulars	Qty	Per Unit	Rate	Amount
1	Supply of Non Galvanised K+3 type tower as per Specification. (MP SSR)	0.75	MT	46904.00	35178.00
2	Supply of Suitable Hot dip Galvanised, Zinc coated Nuts and bolts with suitable plain and spring washers.(MP SSR)	118.27	KG	87.00	10289.49
3	Provision of wastage of Tower parts @ 10% (MP SSR)	0.075	MT	46904.00	3517.80
4	Fabrication of tower Parts as per Specification	0.75	MT	5500.00	4125.00
5	Excavation of pit including dewatering, planking,showring and shuttering(where ever necessary) and leveling in all types of soils such as BC, red earth,hard gravel etc.,(size 1.8x1.8x2.5 mtr i.e 8.1 cum (MP SSR)	8.1	CUM	264.00	2138.40
6	Setting of stubs in position for laying of foundation of towers with 1:2:4 cc mix using 40 mm HBG metal including cost of all concreting materials and cement, form boxes and curing for 14 days (40 mm HBG metal for pyramid portion and 20 mm HBG metal for chimney portion) i.e 1.636 cu.mts (MP SSR)	1.636	CUM	5963.00	9755.47
7	Erection of tower parts completely as per specification including erection of insulators with all accessories, jumpering and bolts and nuts etc.,	0.75	MT	6500.00	4875.00
8	Tack welding of total tower nuts and bolts	1	Job	1500.00	1500.00
9	Pipe earthing of towers with 40mm dia GI pipe, including cost of pipe, bentonite powder and running of GI flat etc., (MP SSR)	2	Each	1479.50	2959.00
10	Transport of Material to site including loading and unloading	0.87	MT	2000.00	1740.00

S. No.	Particulars	Qty	Per Unit	Rate	Amount
11	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Material for First coat of 1st Grade Aluminium Paint, paint, brushes etc.	0.75	MT	1884.00	1413.00
b	Labour charges for painting including scratching and cleaning of tower	0.75	MT	734.00	550.50
c	Material for Second coat of 1st Grade Aluminium Paint, brushes, etc.,	0.75	MT	1116.00	837.00
d	Labour charges for painting including scratching and cleaning of tower	0.75	MT	416.00	312.00
				Total:	79190.66

(*) Note:-The requirement of 2nd coat is to be justified by the concerned Divisional Engineer /Executive Engineer before execution of this work

Tower details

1	Weight of K type tower including nuts&bolts	0.705 MT
2	Weight of 1 No. extension of 3 Mts	0.163 MT
3	Weight of K+3 tower	0.867
4	Weight of K+6 tower	1.03
5	Weight of K+9	1.193
6	Weight of each arm	0.103 MT
stubs	75X75X6 = 3.76 mts	
	65X65X6=1.054 mts	
	50X50X5 =1.103 mtrs	
	45X45X5 = 3.883 mts	
	45X45X5=4.817 mtrs	
	Total height 14.6 mts	
	Depth of tower below ground level : 2.4 mts	
	Height of tower above ground level : 12.2 mts.	

DATA-VIII

Extension of 3mtrs for K+3 Tower as per ASCI Standard

S. No	Description	Qty	Per Unit	Rate	Amount
Material					
1	Supply of Non Galvanised K+3 type tower as per Specification. (MP SSR)	0.14	MT	46904.00	6474.36
2	Supply of Suitable Hot dip Galvanised, Zinc coated Nuts and bolts with suitable plain and spring washers. (MP SSR)	24.96	KG	87.00	2171.90
3	Provision of wastage of Tower parts @ 10% (MP SSR)	0.01	MT	46904.00	647.44
4	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Material for First coat of 1st Grade Aluminium Paint, paint, brushes etc.	0.14	MT	1884.00	260.06
b	Material for Second coat of 1st Grade Aluminium Paint, brushes, etc.,	0.14	MT	1116.00	154.05
			Total:		9707.80
Labour					
1	Fabrication of tower Parts as per Specification	0.14	MT	5500.00	759.19
2	Erection of tower parts completely as per specification including erection of insulators with all accessories, jumpering and bolts and nuts etc.,	0.14	MT	6500.00	897.22
3	Transport of Material to site including loading and unloading	0.16	MT	2000.00	326.00

S. No	Description	Qty	Per Unit	Rate	Amount
4	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Labour charges for painting including scratching and cleaning of tower	0.14	MT	734.00	101.32
b	Labour charges for painting including scratching and cleaning of tower	0.14	MT	416.00	57.42
				Total:	2141.15

(*) Note:-The requirement of 2nd coat is to be justified by the concerned Divisional Engineer /Executive Engineer before execution of this work

Tower details

1	Weight of K type tower including nuts&bolts	0.705 MT
2	Weight of 1 No. extension of 3 Mts	0.163 MT
3	Weight of K+3 tower	0.867
4	Weight of K+6 tower	1.03
5	Weight of K+9	1.193
6	Weight of each arm	0.103 MT
stubs	75X75X6 = 3.76 mts	
	65X65X6=1.054 mts	
	50X50X5 =1.103 mtrs	
	45X45X5 = 3.883 mts	
	45X45X5=4.817 mtrs	
	Total height 14.6 mts	
	Depth of tower below ground level : 2.4 mts	
	Height of tower above ground level : 12.2 mts.	

DATA-IX

Extension of 3mtrs for L+3 Tower as per ASCI Standard

S. No	Description	Qty.	Per Unit	Rate	Amount
	Material				
1	Supply of L+3 type tower as per Specification.(MP SSR)	0.24	MT	46904.00	11231.02
2	Supply of Suitable Hot dip Galvanised, Zinc coated Nuts and bolts with suitable plain and spring washers. (MP SSR)	23.81	KG	87.00	2071.21
3	Provision of wastage of Tower parts @ 10% (MP SSR)	0.02	MT	46904.00	1123.10
11	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Material for First coat of 1st Grade Aluminium Paint, paint, brushes etc.	0.24	MT	1884.00	451.12
b	Material for Second coat of 1st Grade Aluminium Paint, brushes, etc.,	0.24	MT	1116.00	267.22
			Total:		15143.67
	Labour				
1	Fabrication of tower Parts as per Specification	0.24	MT	5500.00	1316.96
2	Erection of tower parts completely as per specifications including erection of insulators with all accessories, jumpering,transport of meterial and bolts and nuts etc.,	0.24	MT	6500.00	1556.41
3	Transport of Material to site including loading and unloading	0.26	MT	2000.00	526.51

S. No	Description	Qty.	Per Unit	Rate	Amount
4	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Labour charges for painting including scratching and cleaning of tower	0.24	MT	734.00	175.75
b	Labour charges for painting including scratching and cleaning of tower	0.24	MT	416.00	99.61
				Total:	3675.24

(*) Note:-The requirement of 2nd coat is to be justified by the concerned Divisional Engineer /Executive Engineer before execution of this work

Tower details

1	Weight of L type tower including nuts&bolts	0.9565 MT
2	Weight of 1 No. extension of 3 Mts	0.26325 MT
3	Weight of L+3 tower	1.219
4	Weight of L+6 tower	1.483
5	Weight of L+9	1.746
6	Weight of each arm	0.084 MT
stubs	90X90X8 = 4.256 mts	
	80X80X8=1.998 mts	
	65X65X6 =2.898 mtrs	
	50X50X5 = 1.274 mts	
	45X45X5=2.726 mtrs	
	Total height 13.15 mts	
	Depth of tower below ground level : 2.9 mts	
	Height of tower above ground level : 10.25mts.	

DATA-X

Extension of 3mtrs for M+3 Tower as per ASCI Standard

S. No	Description	Qty.	Per Unit	Rate	Amount
Material					
1	Supply of Non-Galvanised M+3 type tower as per Specification. (MP SSR)	0.33	MT	46904.00	15668.98
2	Supply of Suitable Hot dip Galvanised, Zinc coated Nuts and bolts with suitable plain and spring washers. (MP SSR)	30.23	KG	87.00	2629.75
3	Provision of wastage of Tower parts @ 10% (MP SSR)	0.03	MT	46904.00	1566.90
4	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Material for First coat of 1st Grade Aluminium Paint, paint, brushes etc.	0.33	MT	1884.00	629.38
b	Material for Second coat of 1st Grade Aluminium Paint, brushes, etc.,	0.33	MT	1116.00	372.82
			Total:		20867.83
Labour					
1	Fabrication of tower Parts as per Specification	0.33	MT	5500.00	1837.36
2	Erection of tower parts completely as per specifications including erection of insulators with all accessories, jumpering, transport of material and bolts and nuts etc.,	0.33	MT	6500.00	2171.42
3	Transport of Material to site including loading and unloading	0.36	MT	2000.00	728.58

S. No	Description	Qty.	Per Unit	Rate	Amount
4	Painting of sub-station structures with two coats of Aluminium paint using Aluminium paint 1st grade containing 3.6 kg of Aluminium paste for 18 litres of thinner 1st coat is to be applied before erection of tower and 2nd coat after stringing and half round welding including cost of paint, cost of brushes, labour charges etc., complete.				
a	Labour charges for painting including scratching and cleaning of tower	0.33	MT	734.00	245.20
b	Labour charges for painting including scratching and cleaning of tower	0.33	MT	416.00	138.97
				Total:	5121.54

(*) Note:-The requirement of 2nd coat is to be justified by the concerned Divisional Engineer /Executive Engineer before execution of this work

Tower details

1	Weight of M type tower	1.133 MT
2	Weight of 1 No. extension of 3 Mts	0.364 MT
3	Weight of M+3 tower	1.497
4	Weight of M+6 tower	1.861
5	Weight of M+9	2.225
6	Weight of each arm	0.091 MT
stubs	110X110X8 = 4.56 mts	
	100X100X8=1.998 mts	
	80X80X8 =1.898 mtrs	
	65X65X6 = 2.274 mts	
	45X45X5=2.761 mtrs	
	Total height 13.5 mts	
	Depth of tower below ground level : 3.2 mts	
	Height of tower above ground level : 10.3 mts.	

**Cost Data for Erection of 5MVA Additional Power Transformer with
33 KV Bay Extension in 33/11 KV substation**

SI.No	Description of Material	Qty	Unit	Rate	Amount
1	150 x 150 RSJ pole (8m)	0.6	MT	42,000.00	25200
2	100 x 50 mm MS channel	0.27	MT	34,650.00	9356
3	75 x 8mm flat for clamps & earthing	0.4	MT	41,475.00	16590
4	200 sqmm Panther conductor	0.02	KM	143,869.12	2877.3824
5	Strain Insulator set with metal parts (each set consists 3 Nos 11 KV strain insulators)	6	Set	269	1614
5	Erection of 33 KV AB switch	1	Each	28,999.00	28999
6	5 MVA Power Transformer	1	Each	3270000	3270000
7	Foundation of Power Transformer	1	LS	50000	50000
8	Miscellaneous items like fabrication of channels & pad clamps etc.		LS		5000

Sub-Total	3409635.882
3% Contingencies	102289.08
3% S&H charges	102289.08
Labour & Transport	249363.40
Service Tax at 14.5% on L&T	36157.693
10% Estt & General charges on material	340963.59
Total	4240698.72
Or Say Rs	4240700.00

**REC- CONSTRUCTION STANDARD NOS. OTHER THAN THE ITEMS INCLUDED IN
THE 33 KV 11 KV & LT LINES ERECTION AND CENTRALISED MATERIAL**

S. No	Particulars	REC Construction Standard No./ Specification No.	Remarks/ Notes
1	1.53 Mts. Cross arm (Channel)	M-1/1981	33 KV line
2	Top clamp with cleat	M-4/1984	33 KV line
3	Back clamp	K-1/1972	33 KV line & 11 KV line
4	Base concreting	K-2/1972 (R-1987)	33 KV line & 11 KV line
5	Stay sets complete with concreting	G-1/1972	33 KV line & 11 KV line
6	Coil earthing	J-1/1972	33 KV line & 11 KV line
7	Pipe earthing	J-2/1972	33 KV line & 11 KV line
8	Concreting of poles	K-1/1972	All lines
9	8 M PSCC poles	15/1979	11 KV line
10	1.07 M Cross arm (Channel)	A-6/1972	11 KV line
11	Top clamp with cleat	A-7/1972	11 KV line
12	Bracing set with double cross arm	A-12/1972	H.T. line
13	Guy grip dead end	G-1/1972 & SP.No.25/1983	H.T. line
14	C.I. Knob	31/1983	L.T. lines
15	L.T. conductor dead end	G-2/1984	L.T. lines
16	Guy grip dead end	G-2/1984	L.T. lines
17	L.T. Spares	29/1983 (R-1987)	L.T. lines
18	Spool for shackle insulator tieing	D-6/1984	L.T. lines
19	D.P. Structure for distribution substation	F-1/1981 (R-1993)	L.T. lines
20	HT and LT conductor dead end fittings	Sp. No. 25/1983	All lines
21	Side tie for pin insulator tieing	Sp. No. 25/1983	All lines
22	Fibre Reinforced Plastic Cross Arms	40/1987	