

उत्तर प्रदेश पावर कारपोरेशन लिमिटेड



कॉस्ट शेड्यूल

2024-25

ग्रामीण विद्युतीकरण एवं द्वितीय प्रणाली नियोजन संगठन
 अर्वाँ तल, शक्ति भवन विस्तार,
 लखनऊ

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 A



Rural Electrification & Secondary
System Planning Organization
U.P.P.C.L. Shakti Bhawan Extn.
14- Ashok Marg, Lucknow.

No. 1558RESSPO/ CS(2024-25)

Date: 16 August, 2024


OFFICE MEMORANDUM

In supersession of all previous orders for the construction of 33 kV, 11 kV and L.T lines, 11/0.4 kV sub-stations up to 400 kVA, 33/11 kV new Sub-stations and increasing capacity of 33/11 kV Sub-stations and HVDS system, the Cost Schedule, to be in effect till any further order, has been revised as per enclosed schedules:-

1. The rates of centralized materials (incl. GST) are as per revised stock issue rates for the year 2024-25 as intimated vide letter No. 1190/सी०एम०यू०डी०/SIR(2024-25) dt. 03.06.2024.
2. The rates of de-centralized and civil materials (incl. GST) are based on the rates finalized as per OM no.-179/रेस्प०/क्वालिटी सेल/विधि dt. 05.02.2024.
3. The items of which rates are not found anywhere, as per practice, are considered with 10% escalation from previous cost schedule.
4. A new annexure for construction of LT AB Cable line on ST/PCC Pole (Annexure-6) has been added to this schedule.
5. New annexures for construction of 11 kV underground line using conventional method (Annexure-3) and HDD method (Annexure-4) have been added to this schedule.
6. New annexures for construction of 33 kV underground line using conventional method (Annexure-13) and HDD method (Annexure-14) have been added to this schedule.
7. The rates of cartage and erection have been taken as 7% and 8% respectively in case of LT, 11 kV and 33 kV lines and 3% and 4% respectively in case of construction of 33/11 kV Sub-station, as approved in previous cost schedule. These may vary from area to area and the actual figures may be worked out at zonal level for adoption.
8. The total cost given in these schedules is inclusive of 3% Contingency, 1.5% T&P and 13.5% Establishment Audit & Accounts charges.
9. i) Cost of materials (col. 3 of each abstract) is inclusive of GST, as applicable, which is paid by Discoms while procuring material.
ii) GST shall further be applicable on the total/final estimated cost for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/ organizational consumers.

10. The Cost Schedule shall be used for preparation of estimates of schemes/projects only. The estimates should be prepared in the BoQs as per the requirement of Discoms.
11. The actual issue of material from stores shall be based on the rate (moving average) for each item in ERP. Under no situation should the Stock Issue Rates as per Cost Schedule be used for actual issue of material.
12. In case of any difference between Cost Schedule & Cost Data Book, consumers will be charged as per latest Cost Data Book, while for other purposes, estimation will be done as per Cost Schedule.


Encl: Cost Schedule for FY 2024-25.


16/08/24
(Anurag Agarwal)
Chief Engineer (RESSPO)

No. 1550 / RESSPO/ CS(2024-25) dt.: 16/08/2024

Copy along with a set of cost schedules forwarded to the following:-

1. Managing Director, Vidyut Vitaran Nigam Ltd., Purvanchal-Varanasi/ Paschimanchal-Meerut/Madhyanchal-Lucknow/Dakshinanchal-Agra/ KESCO-Kanpur.
2. Director (Technical), Vidyut Vitaran Nigam Ltd., Purvanchal-Varanasi/ Paschimanchal-Meerut/Madhyanchal-Lucknow/Dakshinanchal-Agra/ KESCO-Kanpur.
3. CE (Commercial)/ CE (CMU-D), UPPCL, Lucknow.
4. All Chief Engineers-Distribution Zones/LESA, UPPCL with the remarks that Cost Schedule may be distributed to the Circles/Divisions at their end.
5. GM (Audit and Accounts)/ (Budget and Cost), UPPCL, Lucknow.
6. Superintending Engineer (IT), with the remark that the copy of Cost Schedule may be uploaded on UPPCL website.


16/08/24
(Anurag Agarwal)
Chief Engineer (RESSPO)

INDEX

PART-A	Description	Page No.
	Cost Schedule for various types of Distribution Lines	
1	Abstract of various types of 11 kV and LT Lines	1-2
2	Cost analysis of one kilometer of 11 kV lines (Main & Spur)	3
3	Cost analysis of Double Pole structure with PCC/ST Poles for 11 kV Section Location for Main & Spur lines	4
4	Cost analysis of one kilometer of 11 kV Underground Line/Cable (Conventional Method - Straight Through) (Newly Added)	5
5	Cost analysis of one kilometer of 11 kV Underground Line/Cable (HDD Method) (Newly Added)	6
6	Cost analysis of one kilometer of Three phase and Single L.T. Lines	7-8
7	Cost analysis of one kilometer of L.T. AB Cable Line on ST/PCC Pole (Newly Added)	9
8	Cost analysis of 11/0.4 kV Sub-station up to 100 kVA	10-11
9	Abstract of various types of 11/0.4 kV Sub-station up to 400 kVA	12
10	Cost analysis of 11/0.4 kV Sub-station up to 400 kVA	13-14
PART- B	Cost Schedule for various types of 33 kV Lines	
1	Abstract of various types of 33 kV lines	15
2	Cost analysis of one kilometer of 33 kV line with ACSR "Panther", ACSR "Dog" and ACSR "Raccoon" conductor	16
3	Cost of single line support on ST pole of 11 M or 13 M including fittings	17
4	Cost of single line support on PCC pole of 9 M including fittings	18
5	Extra cost of sectional double pole structure with 11 M or 13 M ST Pole in case of line on STP	19
6	Extra cost for sectional double pole structure with 9 M PCC Pole in case of line on PCC Pole	20
7	Cost analysis of one kilometer of 33 kV Underground Line/Cable (Conventional Method - Straight Through) (Newly Added)	21
8	Cost analysis of one kilometer of 33 kV Underground Line/Cable (HDD Method) (Newly Added)	22
Part - C	Cost Schedule for various types of 33/11 kV Sub-stations	
1	Abstract of various types of 33/11 kV Sub-station	23
2	Cost analysis of 33/11 kV sub-station	24-26
3	Cost of civil works for conventional 33/11 kV Sub-station	27
PART- D	Cost Schedule for increasing capacity of 33/11 kV Sub-station	
1	Abstract of cost of increasing capacity of 33/11 kV Sub-station	28
2	Cost analysis of increasing capacity of 33/11 kV Sub-station (1/2)	29-30
3	Cost analysis of increasing capacity of 33/11 kV Sub-station (2/2)	31-32
PART- E	Cost Schedule for HVDS System in village	33-35

PART - A
ABSTRACT OF VARIOUS TYPES OF 11 KV & LT LINES

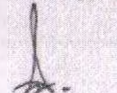
Planm : 2024-25

Sl. No.	Particulars	Cost of material (Incl. GST)	Cartage charges on non-GST material cost (7%)	Erection charges on non-GST material cost (8%)	Total of Col. 4 & 5	GST @ 18% on col. 6	Total of Col. 3,6&7	3% Contingency charges on Col. 8	1.5% T&P charges on Col. 8	Total of Col. 8+9+10	13.5% of Esttb. & AA Charges on Col. 11	Total of Col. 11&12	Total (Say)	References	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
A. LINES (Per Kilometer)															
(i) 11-kV Lines (Overhead)															
1	11 kV Main line with ACSR Rabbit on ST Pole	619830.00	36770.00	42020.00	78790.00	14182.20	712802.20	21384.00	10692.00	744878.20	100559.00	845437.20	845440	Annexure-1	
2	11 kV Spur Line with ACSR Weasel on ST Pole	555440.00	32950.00	37660.00	70610.00	12709.80	638759.80	19163.00	9581.00	667503.80	90113.00	757616.80	757620	Annexure-1	
3	11 kV Main line with ACSR Rabbit on PCC Pole	314830.00	18680.00	21340.00	40020.00	7203.60	362053.60	10862.00	5431.00	378346.60	51077.00	429423.60	429420	Annexure-1	
4	11 kV Spur Line with ACSR Weasel on PCC Pole	250440.00	14860.00	16980.00	31840.00	5731.20	288011.20	8640.00	4320.00	306971.20	40631.00	341602.20	341600	Annexure-1	
(ii) 11 kV Lines (Underground)															
1	Conventional Method (Straight Through)	11 kV Al XLPE 3*70 mm ²	946320.00	56140.30	64160.00	120300.00	21654.00	1088274.00	32648.00	16324.00	1137246.00	153528.00	1290774.00	1290770	Annexure-3
2		11 kV Al XLPE 3*120 mm ²	1179720.00	69980.00	79980.00	149960.00	26992.80	1356672.80	40700.00	20350.00	1417722.80	191393.00	1609115.80	1609120	Annexure-3
3		11 kV Al XLPE 3*185 mm ²	1440280.00	85440.00	97650.00	183090.00	32956.20	1656326.20	49690.00	24845.00	1730861.20	233666.00	1964527.20	1964530	Annexure-3
4		11 kV Al XLPE 3*300 mm ²	1967460.00	116710.00	133390.00	250100.00	45018.00	2262578.00	67877.00	33939.00	2364394.00	319193.00	2683587.00	2683590	Annexure-3
5	HDD Method	11 kV Al XLPE 3*70 mm ²	2214620.00	131380.00	150140.00	281520.00	50673.60	2546813.60	76404.00	38202.00	2661419.60	359292.00	3020711.60	3020710	Annexure-4
6		11 kV Al XLPE 3*120 mm ²	2449230.00	145290.00	166050.00	311340.00	56041.20	2816611.20	84498.00	42249.00	2943358.20	397353.00	3340711.20	3340710	Annexure-4
7		11 kV Al XLPE 3*185 mm ²	2710310.00	160780.00	183750.00	344530.00	62015.40	3116855.40	93506.00	46753.00	3257114.40	439710.00	3696824.40	3696820	Annexure-4
8		11 kV Al XLPE 3*300 mm ²	3238690.00	192130.00	219570.00	411700.00	74106.00	3724496.00	111735.00	55867.00	3892098.00	525433.00	4417531.00	4417530	Annexure-4

Note :- i) Cost of materials i.e. centralized and de-centralized materials, is inclusive of GST. (col. 3)

ii) GST shall further be applicable on the total/final estimated cost (col. 14) for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/organizational consumers.

iii) Labour cess shall further be applicable as per rule.


A.E. (RESSPO)


S.E. (RESSPO)

Sl. No.	Particulars	Cost of material (Incl. GST)	Cartage charges on non-GST material cost (7%)	Erection charges on non-GST material cost (8%)	Total of Col. 4 & 5	GST @ 18% on col. 6	Total of Col. 3,6&7	3% Contingency charges on Col. 8	1.5% T&P charges on Col. 8	Total of Col. 8+9+10	13.5% of Estib. & AA Charges on Col. 11	Total of Col. 11&12	Total (Say)	References	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
(iii) L.F Lanes															
1	3 Phase L.T Line with ACSR Weasel on PCC Pole	242800.00	14400.00	16460.00	30860.00	5554.80	279214.80	8376.00	4188.00	291778.80	39390.00	331168.80	331170	Annexure-5	
2	3 Phase L.T Line with ACSR Rabbit on PCC Pole	307200.00	18220.00	20830.00	39650.00	7029.00	353279.00	10598.00	5299.00	369176.00	49839.00	419015.00	419020	Annexure-5	
3	3 Phase L.T Line with AAAC Weasel on PCC Pole	271000.00	16190.00	18510.00	34700.00	6246.00	313946.00	9418.00	4709.00	328073.00	44290.00	372363.00	372360	Annexure-5	
4	3 Phase L.T Line with AAAC Rabbit on PCC Pole	390500.00	23170.00	26470.00	49640.00	8935.20	449075.20	13472.00	6736.00	469283.20	63353.00	532636.20	532640	Annexure-5	
5	1 Phase L.T Line with AAAC Weasel on PCC Pole	175800.00	10430.00	11920.00	22350.00	4023.00	202173.00	6065.00	3033.00	211271.00	28522.00	239793.00	239790	Annexure-5	
6	L.T AB Cable	(1x25+1x16) mm ² on PCC Pole	283470.00	16930.00	19350.00	36280.00	6530.40	32820.40	9848.00	4924.00	343052.40	46312.00	389364.40	389360	Annexure-6
7		(3x50+1x35+1x16) mm ² on PCC Pole	462360.00	27430.00	31350.00	58780.00	10580.40	531720.40	15952.00	7976.00	555648.40	75013.00	630661.40	630660	Annexure-6
8		(3x95+1x70+1x16) mm ² on ST Pole	984070.00	58380.00	66730.00	125100.00	22518.00	1131688.00	33951.00	16975.00	1182614.00	159653.00	1342267.00	1342270	Annexure-6
9		(3x120+1x95+1x16) mm ² on ST Pole	1272020.00	75460.00	86240.00	161700.00	29106.00	1462826.00	43885.00	21942.00	1528653.00	206368.00	1735021.00	1735020	Annexure-6
B. 110.433 kV Sub Station (upto 100 kVA)															
1	25 kVA 11/0.433 kV on Double Pole PCC Structure -														
	a) Town/Urban	157800.00	9360.00	10700.00	20060.00	3610.80	181470.80	5444.00	2722.00	189636.80	25601.00	215237.80	215240	Annexure-7	
	b) Rural	102200.00	6060.00	6930.00	12990.00	2338.20	117528.20	3526.00	1763.00	122817.20	16580.00	139397.20	139400		
2	63 kVA 11/0.433 kV on Double Pole PCC Structure -														
	a) Town/Urban	246800.00	14640.00	16730.00	31370.00	5646.60	283816.60	8514.00	4257.00	296587.60	40039.00	336626.60	336630	Annexure-7	
	b) Rural	188200.00	11160.00	12760.00	23920.00	4305.60	216425.60	6493.00	3246.00	226164.60	30532.00	256696.60	256700		
3	100 kVA 11/0.433 kV on Double Pole PCC Structure -														
	a) Town/Urban	295100.00	17510.00	20010.00	37520.00	6753.60	339373.60	10181.00	5091.00	354645.60	47877.00	402522.60	402520	Annexure-7	
	b) Rural	237600.00	14090.00	16110.00	30200.00	5436.00	273236.00	8197.00	4099.00	285532.00	38547.00	324079.00	324080		

- Note :- i) Cost of materials i.e. centralized and de-centralized materials, is inclusive of GST. (col. 3)
ii) GST shall further be applicable on the total/final estimated cost (col. 14) for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/organizational consumers.
iii) Labour cess shall further be applicable as per rule.

A.E. (RESSPO)

2-

S.E. (RESSPO)

**COST ANALYSIS OF ONE KILOMETER OF
11 KV LINES (MAIN & SPUR)**

Plains: 2024-25

S.No	Particulars	Unit	Rate (Rs.)	On ST Pole				On PCC Pole			
				Main line with ACSR Rabbit Conductor 17 support/km		Spur line with ACSR Weasel Conductor 17 support/km		Main line with ACSR Rabbit Conductor 17 support/km		Spur line with ACSR Weasel Conductor 17 support/km	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12
1	STP Support 11 Meter long	Nos	20356	17	346052	17	346052	0	0	0	0
2	PCC Support 8.5 Meter long	Nos	3243	0	0	0	0	17	55131	17	55131
3	Stone Pad 300x300x75 mm	Nos	168	0	0	0	0	17	2856	17	2856
4	11 kV V-Type Steel Cross Arm	Nos	814	17	13838	17	13838	17	13838	17	13838
5	Cross arms holding clamps with bolts & nuts	Nos	325	17	5525	17	5525	17	5525	17	5525
6	11 kV Pin Insulator	Nos	157	51	8007	51	8007	51	8007	51	8007
7	11 kV pin with nut	Nos	61	51	3111	51	3111	51	3111	51	3111
8	F-bracket for fitting top insulator with bolts & nuts	Nos	331	17	5627	17	5627	17	5627	17	5627
9	Phase wire 50 sq mm ACSR Rabbit	Kms	51189	3.09	158174	0	0	3.09	158174	0	0
10	Phase wire 30 sq mm ACSR Weasel	Kms	30351	0	0	3.09	93785	0	0	3	93785
11	Aluminium binding wire (6mm dia)	Kg	317	2	634	2	634	2	634	2	634
12	Aluminium Jointing sleeve for ACSR Rabbit	Nos	440	3	1320	0	0	3	1320	0	0
13	Aluminium Jointing sleeve for ACSR Weasel	Nos	440	0	0	3	1320	0	0	3	1320
14	Danger Plate with clamps & bolts	Nos	318	17	5406	17	5406	17	5406	17	5406
15	Painting number mark with paint	Nos	36	17	612	17	612	17	612	17	612
16	Barbed wire GI	Kg	131	8	1048	8	1048	8	1048	8	1048
17	Extra for stays at angle Location (stay rod 16x1800mm, stay wire 5 kg, stay clamp, bolt & nut with grouting)	Nos	2157	2	4314	2	4314	2	4314	2	4314
18	Extra for stays at Road crossing (as per sl no.17)	Nos	2157	1	2157	1	2157	1	2157	1	2157
19	Extra for sectional STP D/P support (Annexure -2)	Nos	32320	1	32320	1	32320	0	0	0	0
20	Extra for sectional PCC D/P support (Annexure -2)	Nos	15380	0	0	0	0	1	15380	1	15380
21	Concreting of support 0.268 cu.mtr /Pole	Nos	942	17	16014	17	16014	17	16014	17	16014
22	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc	Nos	922	17	15674	17	15674	17	15674	17	15674
Total					619833		555444		314828		250439
Total (Say) Rs.					619830		555440		314830		250440

A.E. (RESSPO)

S.E. (RESSPO)

**COST ANALYSIS OF DOUBLE POLE STRUCTURE WITH PCC/ST POLES FOR
11 kV SECTION LOCATIONS FOR MAIN & SPUR LINES**

Plains: 2024-25

Sl.No.	Items	Unit	Rate (Rs.)	On ST Pole		On PCC Pole	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
1	ST Pole 11 M Long	Nos	20356	2	40712	0	0
2	PCC Pole 8.5 M Long	Nos	3243	0	0	2	6486
3	Stone Pad 300x300x75mm	Nos	168	0	0	2	336
4	MS Channel cross arms 100x50x2240mm(Top Channel)	Nos	1000	1	999.9	1	1000
5	M.S. Angle Iron 65x65x6 mm,2700 mm long bracing with 4 clamp	Set	2769	1	2768.7	1	2769
6	Clamps with Nuts & Bolts for top channel	Nos	363	2	726	2	726
7	Barbed wire GI	Kg.	131	2	262	2	262
8	Danger board & clamps with bolts & nuts	Nos	144	1	144	1	144
9	Concreting of poles (0.268 Cu.m. each)	Nos	942	2	1884	2	1884
10	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	Nos	922	2	1844	2	1844
11	E Bracket with bolts & nuts	Nos	183	3	549	3	549
12	11 kV Disc Insulator T&C type (45 KN)	Nos	122	6	732	6	732
13	11 kV Disc fitting (45KN,T&C)	Nos	120	6	720	6	720
14	11 kV Pin Insulators	Nos	157	3	471	3	471
15	11 kV pin with nut	Nos	61	3	183	3	183
16	PG Clamps	Nos	105	6	630	6	630
17	Stay set complete	Nos	523	6	3138	6	3138
	Sub-Total	(A)			55763.6		21874
	Less (Cost of one ST/PCC Pole with fitting)						
1	ST Pole 11 M Long	Nos	20356	1	20356		
2	PCC Pole 8.5 M Long	Nos	3243			1	3243
3	Stone Pad 300x300x75mm	Nos	168			1	168
4	11 kV V-Type Steel Cross Arm	Nos	814	1	814	1	814
5	Cross arm holding clamps with bolts & nuts	Nos	363	1	363	1	363
6	11 kV Pin Insulators	Nos	157	3	471	3	471
7	11 kV pin with nut	Nos	61	3	183	3	183
8	F-bracket with bolts & nuts	Nos	331	1	331	1	331
9	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	Nos	922	1	922	1	922
	Sub-Total	(B)			23440		6495
	Extra cost of section D/P complete in place of single pole	(A-B)			32323.6		15379
	Total			Say	32320	Say	15380


A.E. (RESSPO)

S.E. (RESSPO)


**COST ANALYSIS OF ONE KILOMETER 11 kV UNDERGROUND LINE/CABLE
(Conventional Method - Straight Through)**

Plains: 2024-25

S.No	Particulars	Unit	Rate (Rs.)	11 kV 3×70 mm ²		11 kV 3×120 mm ²		11 kV 3×185 mm ²		11 kV 3×300 mm ²	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12
1	11 kV XLPE cable 3×70 mm ²	Km.	577993	1.10	635792						
2	11 kV XLPE cable 3×120 mm ²	Km.	789217			1.10	868139				
3	11 kV XLPE cable 3×185 mm ²	Km.	1024399					1.10	1126839		
4	11 kV XLPE cable 3×300 mm ²	Km.	1501634							1.10	1651797
5	Cable jointing kit straight through 11 kV 70 mm ²	No.	8682	2	17364						
6	Cable jointing kit straight through 11 kV 120 mm ²	No.	8791			2	17582				
7	Cable jointing kit straight through 11 kV 185 mm ²	No.	9298					2	18596		
8	Cable jointing Kit straight through 11 kV 300mm ²	No.	9877							2	19754
9	Cable jointing kit out door 11 kV 70 mm ²	No.	4263	2	8526						
10	Cable jointing kit out door 11 kV 120 mm ²	No.	4682			2	9364				
11	Cable jointing kit out door 11 kV 185 mm ²	No.	5103					2	10206		
12	Cable jointing kit out door 11 kV 300 mm ²	No.	5635							2	11270
13	G.I. Pipe 6" dia	Mtr.	1732	20	34640	20	34640	20	34640	20	34640
14	Cable laying along with cost of digging, bricks & sand (LS)	Mtr.	250	1000	250000	1000	250000	1000	250000	1000	250000
Total					946322		1179725		1440281		1967461
Total (Say) Rs.					946320		1179720		1440280		1967460



A.E. (RESSPO)



S.E. (RESSPO)

**COST ANALYSIS OF ONE KILOMETER 11 kV UNDERGROUND LINE/CABLE
(HDD Method)**


Plans: 2024-25

S.No.	Particulars	Unit	Rate (Rs.)	11 kV 3×70 mm ²		11 kV 3×120 mm ²		11 kV 3×185 mm ²		11 kV 3×300 mm ²	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12
1	11 kV XLPE cable 3×70 mm ²	Km	577993	1.10	635792						
2	11 kV XLPE cable 3×120 mm ²	Km	789217			1.10	868139				
3	11 kV XLPE cable 3×185 mm ²	Km	1024399					1.10	1126839		
4	11 kV XLPE cable 3×300 mm ²	Km	1501634							1.10	1651797
5	ST Pole 11 Mtr.	No.	20356	7	142492	7	142492	7	142492	7	142492
6	11 kV V-Type Steel Cross Arm	No.	814	2	1628	2	1628	2	1628	2	1628
7	Cross arms holding clamp	No.	325	2	650	2	650	2	650	2	650
8	Cable jointing kit indoor 11 kV 70 mm ²	No.	3939	1	3939						
9	Cable jointing kit indoor 11 kV 120 mm ²	No.	4108			1	4108				
10	Cable jointing kit indoor 11 kV 185 mm ²	No.	4385					1	4385		
11	Cable jointing kit indoor 11 kV 300 mm ²	No.	5149							1	5149
12	Cable jointing kit out door 11 kV 70 mm ²	No.	4263	5	21315						
13	Cable jointing kit out door 11 kV 120 mm ²	No.	4682			5	23410				
14	Cable jointing kit out door 11 kV 185 mm ²	No.	5103					5	25515		
15	Cable jointing kit out door 11 kV 300 mm ²	No.	5635							5	28175
16	11 kV Pin Insulator	No.	157	9	1413	9	1413	9	1413	9	1413
17	11 kV Pin with Nut	No.	61	9	549	9	549	9	549	9	549
18	G.I. Pipe 6" dia	Mtr.	1732	100	173200	100	173200	100	173200	100	173200
19	HDPE Pipe 120 mm	Mtr.	462	900	415800	900	415800	900	415800	900	415800
20	Aluminium binding wire 6 SWG	Kg	317	2	634	2	634	2	634	2	634
21	Danger board with clamp and bolt & nut	No.	144	7	1008	7	1008	7	1008	7	1008
22	Number plate with clamp and bolt & nut	No.	318	7	2226	7	2226	7	2226	7	2226
23	Bolt & Nut all sizes (1.5)	Kg.	220	1	220	1	220	1	220	1	220
24	Aluminium paint	Ltr.	268	7	1876	7	1876	7	1876	7	1876
25	Red Oxide paint	Ltr.	192	7	1344	7	1344	7	1344	7	1344
26	Stay set Complete	No.	523	4	2092	4	2092	4	2092	4	2092
27	Concreting of Pole	No.	942	7	6594	7	6594	7	6594	7	6594
28	Earthing Complete	No.	922	2	1844	2	1844	2	1844	2	1844
29	Cable laying by digging/drilling (L.S)	Mtr.	800	1000	800000	1000	800000	1000	800000	1000	800000
Total					2214616		2449227		2710309		3238691
Total (Say) Rs.					2214620		2449230		2710310		3238690



A.E. (RESSPO)

6



S.E. (RESSPO)

COST ANALYSIS OF ONE KM OF THREE PHASE AND SINGLE PHASE L.T. LINES

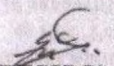
Plains: 2024-25

Sl.No	Particulars	Unit	Rate (Rs.)	3 Phase LT Line with ACSR Weasel/Rabbit Conductor on PCC Pole (20 support/Km)				3 Phase LT Line with AAAC Weasel/Rabbit Conductor on PCC Pole (20support/Km)				1-Phase LT Main Line with AAAC Weasel Conductor on PCC Pole (20 support/Km)	
				Weasel		Rabbit		Weasel		Rabbit		Qty.	Amt. (Rs.)
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	PCC Support 8.5 M. Long	Nos	3243	20	64860	20	64860	20	64860	20	64860	20	64860
2	Stone Pad 300x300x75mm	Nos	168	20	3360	20	3360	20	3360	20	3360	20	3360
3	LT Clamp with nuts & bolts for PCC Pole with Neutral	Nos	363	80	29040	80	29040	80	29040	80	29040	40	14520
4	Earth wire clamps for PCC Pole	Nos	183	20	3660	20	3660	20	3660	20	3660	20	3660
5	LT Shackle Insulator 100x115 mm	Nos	55	80	4400	80	4400	80	4400	80	4400	40	2200
6	Bolts & nuts for shackle	Kg.	130	30	3900	30	3900	30	3900	30	3900	13	1729
7	LT Shackle strip with bolt & nut for LT section pole	Kg.	132	5	660	5	660	5	660	5	660	2	264
8	Loop Guard complete 3-phase	Nos	192	40	7680	40	7680	40	7680	40	7680	0	0
9	Loop Guard complete 1-phase	Nos	41	0	0	0	0	0	0	0	0	40	1640
10	Phase wire ACSR Weasel	Km	30351	3	93785	0	0	3	0	0	0	0	0
11	Phase wire ACSR Rabbit	Km	51189	0	0	3	158174	0	0	0	0		
12	Phase wire AAAC Weasel	Km	34341	0	0	0	0	3	106113	0	0	1	34341
13	Phase wire AAAC Rabbit	Km	72390	0	0	0	0	0	0	3	223685	0	0



A.E. (RESSPO)

7-



S.E. (RESSPO)

Sl.No	Particulars	Unit	Rate (Rs.)	3 Phase LT Line with ACSR Weasel/Rabbit Conductor on PCC Pole (20 support/Km)				3 Phase LT Line with AAAC Weasel/Rabbit Conductor on PCC Pole (20support/Km)				1-Phase LT Main Line with AAAC Weasel Conductor on PCC Pole (20 support/Km)	
				Weasel		Rabbit		Weasel		Rabbit		Qty.	Amt. (Rs.)
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
14	Neutral cum earth wire GI wire 7.16mm or 16SWG	Kg.	78	157	12246	157	12246	157	12246	157	12246	157	12246
15	Aluminium binding wire 6mm	Kg.	317	3	951	3	951	5	1585	5	1585	2	634
16	Aluminium Jointing Sleeve for AAAC conductor Weasel/Rabbit	Kg.	440	0	0	0	0	2	880	2	880	4	1760
17	Aluminium Jointing sleeve for ACSR Conductor Weasel/Rabbit	Kg.	440	3	1320	3	1320	0	0	0	0	0	0
18	Spacer LT PVC	Nos	136	36	4896	36	4896	36	4896	36	4896	36	4896
19	Extra for stays at angle Location (stay rod 16x1800mm, stay wire 5 kg,stay clamp, bolt & nut with grouting)	Nos	2157	3	6471	3	6471	9	19413	9	19413	9	19413
20	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	Nos	922	3	2766	3	2766	5	4610	5	4610	5	4610
21	Concreting of poles (0.268 Cu.m. each)	Nos	942	3	2826	3	2826	6	5652	6	5652	6	5652
Total					242821		307210		272955		390527		175785
Total (Say)					242800		307200		273000		390500		175800

A.
A.E. (RESSPO)


8-

S.E. (RESSPO)

COST ANALYSIS OF ONE KILOMETER OF L.T. AB CABLE LINE ON ST/PCC POLE


Plains: 2024-25

S.No.	Particulars	Unit	Rate (Rs.)	LT ABC (1x25+1x16) sq.mm		LT ABC (3x50+1x35+1x16) sq.mm		LT ABC (3x95+1x70+1x16) sq.mm		LT ABC (3x120+1x95+1x16) sq.mm	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	P.C.C Pole 8.5 Mtr	No.	3243	34	110262	34	110262				
2	ST Pole 9.0 Mtr	No.	14237					34	484058		
3	ST Pole 11.0 Mtr	No.	20356							34	692104
4	Stone Pad 300x300x75 mm	No.	168	34	5712	34	5712				
5	L.T ABC (1x25+1x16) sq mm	Km	46365	1.1	51002						
6	L.T ABC (3x50+1x35+1x16) sq mm	Km	188633			1.1	207496.3				
7	L.T ABC (3x95+1x70+1x16) sq.mm	Km	328294					1.1	361123.4		
8	L.T ABC (3x120+1x95+1x16) sq.mm	Km.	400930							1.1	441023
9	Suspension Clamp	Kg	63	34	2142	34	2142	34	2142	34	2142
10	Single Phase Meter Box	No	216	17	3672						
11	Single Phase Meter Box Clamp (LS)	No	300	34	10200						
12	Three Phase Distribution Box	No.	1416			17	24072	17	24072	17	24072
13	Three Phase Distribution Box Clamp (LS)	No	300			34	10200	34	10200	34	10200
14	PG Clamps	No	105	17	1785	17	1785	17	1785	17	1785
15	Dead End Clamp	No	182	8	1456	8	1456	8	1456	8	1456
16	Eye-Hook	No	225	8	1800	8	1800	8	1800	8	1800
17	J Hook	No.	36	34	1224	34	1224	34	1224	34	1224
18	Neutral cum earth wire	Kg	78	157	12246	157	12246	157	12246	157	12246
19	Extra for stay at angle Location	No.	2157	8	17256	8	17256	8	17256	8	17256
20	Concreting of pole	No	942	34	32028	34	32028	34	32028	34	32028
21	Earthing complete	No.	922	34	31348	34	31348	34	31348	34	31348
22	Concreting of Stay	No	417	8	3336	8	3336	8	3336	8	3336
Total					285469		462363		984074		1272020
Total (Say) Rs.					285470		462360		984070		1272020



A.E. (RESSPO)

9.



S.E. (RESSPO)

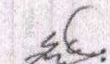
COST ANALYSIS OF 11/0.4 kV SUB-STATION UPTO 100 kVA

Plains: 2024-25

Sl.No.	Particular	Unit	Rate (Rs.)	25 kVA 11/0.4 kV on double pole structure for				63 kVA 11/0.4 kV on double pole structure for				100 kVA 11/0.4 kV on double pole structure for			
				Town/Urban		Rural		Town/Urban		Rural		Town/Urban		Rural	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	ST Poles 11 M Long	Nos	20356	2	40712	0	0	2	40712	0	0	2	40712	0	0
2	PCC Poles 8.5 M Long	Nos	3243	0	0	2	6486	0	0	2	6486	0	0	2	6486
3	MS Channel (Dropper) 100X50x2028 mm (for fuse set)	Nos	905	1	905	1	905	2	1811	2	1811	2	1811	2	1811
4	Stone pad 300x300x75mm	Nos	168	2	336	2	336	2	336	2	336	2	336	2	336
5	Clamps for I.T T- off with bolts & nuts	Nos	363	1	363	1	363	1	363	1	363	1	363	1	363
6	Holding clamps for top channel TPMO & fuse set etc. with bolts & nuts	Nos	325	10	3250	10	3250	12	3900	12	3900	12	3900	12	3900
7	MS angle 75x75x6x2028 mm with clamp & bolt and nut (T/F base)	Nos	2152	2	4303	2	4303	2	4303	2	4303	2	4303	2	4303
8	M.S. Top Channel (125x65x2240 mm.)	Nos	1007	1	1007	1	1007	1	1007	1	1007	1	1007	1	1007
9	11 kV Disc Insulator T&C type 4500 Kg.	Nos	122	3	366	3	366	3	366	3	366	3	366	3	366
10	11 kV Disc fitting	Nos	120	3	360	3	360	3	360	3	360	3	360	3	360
11	MS Channel 125x65x1300mm (T-off)	Nos	579	1	579	1	579	1	579	1	579	1	579	1	579



A.E. (RESSPO)



S.E. (RESSPO)

Sl.No.	Particular	Unit	Rate (Rs.)	25 kVA 11/0.4 kV on double pole structure for				63 kVA 11/0.4 kV on double pole structure for				100 kVA 11/0.4 kV on double pole structure for			
				Town/Urban		Rural		Town/Urban		Rural		Town/Urban		Rural	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11	11 kV Pin insulator	Nos	157	3	471	3	471	3	471	3	471	3	471	3	471
12	11 kV Pin with nut	Nos	61	3	183	3	183	3	183	3	183	3	183	3	183
13	11/0.4 kV T/F 25 kVA	Nos	69006	1	69006	1	69006	0	0	0	0	0	0	0	0
14	11 /0.4kV T/F 63 kVA	Nos	149055	0	0	0	0	1	149055	1	149055	0	0	0	0
15	11/0.4 kV T/F 100 kVA	Nos	199136	0	0	0	0	0	0	0	0	1	199136	1	199136
16	11 kV TPMS	Nos	8216	1	8216	1	8216	1	8216	1	8216	1	8216	1	8216
17	11 kV Fuse Set	Nos	2459		0		0	1	2459	1	2459	1	2459	1	2459
18	I.T incoming Panel with metering equipment & fixing arrangement (I.S)	Nos	20000	1	20000	0	0	1	20000	0	0	1	20000	0	0
19	LT PVC cable 4x16 sq mm	M	113	20	2260	8	904	0	0	0	0	0	0	0	0
20	LT PVC Cable 3.5x70/35 Sq mm	M	363	0	0	0	0	20	7260	8	2904	0	0	0	0
21	I.T PVC Cable 3.5x150/70 Sq mm	M	272	0	0	0	0	0	0	0	0	20	5440	8	2176
22	Danger board	Nos	144	1	144	1	144	1	144	1	144	1	144	1	144
23	Barbed wire G.I including jumper	Kg	131	4	524	4	524	4	524	4	524	4	524	4	524
24	Stay set complete	Nos	523	2	1046	2	1046	2	1046	2	1046	2	1046	2	1046
25	Concreting of poles (0.268 Cu.m. each)	Nos	942	2	1884	2	1884	2	1884	2	1884	2	1884	2	1884
26	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	Nos	922	2	1844	2	1844	2	1844	2	1844	2	1844	2	1844
Total					157759		102177		246823		188241		295084		237594
Total (Say)					157800		102200		246800		188200		295100		237600


A.E. (RESSPO)


S.E. (RESSPO)

PART- A (1)

ABSTRACT OF VARIOUS TYPE OF 11/0.4 kV SUB-STATION UPTO 400 kVA

Plains: 2024-25

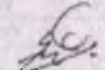
(Rs. in Lacs)

Sl. No.	Name of works	Cost of material (incl. GST)	Cartage charges on non-GST material cost @ 3%	Erection charges on non-GST material cost @ 4%	Total of Col. 4 & 5	GST @ 18% on col. 6	Total of Col. 3,6&7	3% Contingency charges on Col.8	1.5% T&P charges on Col. 8	Total of Col. 8+9+10	13.5% of Esttb. & AA Charges on Col. 11	Total of Col. 11 & 12	References
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	11 kV New Sub stations:-												
1	1x250 kVA	7.59	0.19	0.26	0.45	0.08	8.12	0.24	0.12	8.48	1.14	9.63	Annexure-7(1)
2	1x400 kVA	11.38	0.29	0.39	0.68	0.12	12.18	0.37	0.18	12.72	1.72	14.44	Annexure-7(1)

- Note:** i) The cartage and erection charges have been taken @ 3% & 4% of the cost of material (col. 3) respectively. The actual charges may vary from site to site.
ii) Cost of materials i.e. centralized and de-centralized materials, is inclusive of GST. (col. 3)
iii) GST shall further be applicable on the total/final estimated cost (col. 13) for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/organizational consumers.
iv) Labour cess shall further be applicable as per rule.


A.E. (RESSPO)

12-


S.E. (RESSPO)

COST ANALYSIS OF 11/0.4 kV SUB-STATION UPTO 400 kVA


Plains: 2024-25

Sl.No	Particulars	Unit	Rate (Rs.)	250 kVA 11/0.4 kV on double pole structure		400 kVA 11/0.4 kV on double pole structure	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	STP 11 M Long	Nos	20356	2	40712	2	40712
2	MS Channel (Dropper) 100x50x2028 mm	Nos	905	1	905	2	1811
3	Clamps for LT (T- off) with bolts & nuts	Nos	363	1	363	1	363
4	Holding clamps for top channel TPMO & fuse set etc. with bolts & nuts	Nos	325	12	3900	12	3900
5	MS Top channel (125x65x2240 mm)	Nos	1007	1	1007	1	1007
6	11 kV Disc Insulator T&C type 4500 KN	Nos	122	3	366	3	366
7	11 kV Disc fitting	Nos	120	3	360	3	360
8	MS Channel 125x65x1300mm(T- off)	Nos	579	1	579	1	579
9	11 kV Pin insulator	Nos	157	3	471	3	471
10	11 kV Pin with nut	Nos	61	3	183	3	183
11	11/0.4 kV T/F 250 kVA	Nos	599980	1	599980	0	0
12	11 /0.4kV T/F 400 kVA	Nos	981584	0	0	1	981584
13	11 kV TPMO	Nos	8216	1	8216	1	8216
14	11 kV Fuse Set	Nos	2459		0	1	2459
15	LT incoming Panel with metering equipment & fixing arrangement (LS)	Nos	20000	1	20000	1	20000
16	Copper L-Piece 50x225x10mm (LS)	Nos	1210	4	4840	4	4840



A.E. (RESSPO)

13-



S.E. (RESSPO)

Sl.No	Particulars	Unit	Rate (Rs.)	250 kVA 11/0.4 kV on double pole structure		400 kVA 11/0.4 kV on double pole structure	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
17	Copper L-Piece 62x225x12mm (LS)	Nos	1320	4	5280	4	5280
18	LT XLPE cable Al. 3.5x400 sq mm	M	1438	15	21570	0	0
19	LT XLPE cable Al. 1x400 sq mm	M	376	0	0	30	11280
20	LT XLPE cable Al. 1x240 sq mm	M	232	0	0	15	3480
21	Al Leg long barrel, off size (LS)	Nos	60	24	1440	40	2400
22	4 core LT MCB with box (LS)	Nos	23000	1	23000	1	23000
23	Danger board	Nos	144	1	144	1	144
24	Barbed wire G.I. including jumper	Kg.	131	5	655	5	655
25	Stay set complete	Nos	523	2	1046	2	1046
26	Concreting of poles (0.880 Cu.m.each)	Nos	942	2	1884	2	1884
27	Earthing of pole by MS earthing rod of 20x2500mm & 6SWG earthing wire etc.	Nos	922	2	1844	2	1844
28	Red oxide paint	Lt.	192	2	384	2	384
29	Aluminium paint	Lt.	268	2	536	2	536
30	Plinth for size 2x2x1.5M						
	1) Cement	Bag	392	14	5488	14	5488
	2) Fine Sand	Cu.mtr	1503	3	4509	3	4509
	3) Coarse sand	Cu.mtr	2541	1.2	3049	1.2	3049
	4) Brick Ballast	Cu.mtr	1530	0.45	689	0.45	689
	5) 1st Class Bricks	Per 1000 Nos.	7639	6	46	6	46
	6) Stone Ballast (40mm)	Cu.mtr	2251	0.4	900	0.4	900
	7) MS Channel 125x65mm	Kg.	51	48	2429	48	2429
	8) MS Twisted bar of size 20mm	Kg.	53	40	1728	40	2112
	Total				758503		1138005
	Total (Say)				7.59		11.38

A.E. (RESSPO)

14-

S.E. (RESSPO)


PART - B
ABSTRACT OF VARIOUS TYPES OF 33 KV LINES

Plains 2024-25

Rs. in Lacs

Sl. No.	Name of works	Cost of material (Incl. GST)	Cartage charges on non-GST material cost @7%	Erection charges on non-GST material cost @8%	Total of Col. 4 & 5	GST @ 18% on col. 6	Total of Col. 3,6&7	3% Contingency charges on Col. 8	1.5% T&P charges on Col. 8	Total of Col. 8+9+10	13.5% of Estb. & AA Charges on Col. 11	Total of Col. 11&12	References	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
(i) Overhead (Per Kilometer)														
1	On 13 M long STP with ACSR Panther conductor	12.65	0.75	0.86	1.61	0.29	14.55	0.44	0.22	15.20	2.05	17.25	Annexure-8	
2	On 11 M long STP with ACSR Panther conductor	11.34	0.67	0.77	1.44	0.26	13.04	0.39	0.20	13.62	1.84	15.46	Annexure-8	
3	On 11 M long STP with ACSR Dog conductor	7.76	0.46	0.53	0.99	0.18	8.93	0.27	0.13	9.33	1.26	10.59	Annexure-8	
4	On 9 M long PCC with ACSR Dog conductor	5.60	0.33	0.38	0.71	0.13	6.44	0.19	0.10	6.73	0.91	7.64	Annexure-8	
5	On 11 M long STP with ACSR Raccoon conductor	7.23	0.43	0.49	0.92	0.17	8.31	0.25	0.12	8.69	1.17	9.86	Annexure-8	
6	On 9 M long PCC with ACSR Raccoon conductor	5.07	0.30	0.34	0.64	0.12	5.83	0.17	0.09	6.09	0.82	6.91	Annexure-8	
(ii) Underground (Per Kilometer)														
1	Conventional Method (Straight Through)	33 kV Al XLPE 3×120 mm ²	20.04	1.19	1.36	2.55	0.46	23.04	0.69	0.35	24.08	3.25	27.33	Annexure-13
2		33 kV Al XLPE 3×300 mm ²	26.73	1.59	1.81	3.40	0.61	30.74	0.92	0.46	32.12	4.34	36.46	Annexure-13
3	HDD Method	33 kV Al XLPE 3×120 mm ²	34.43	2.04	2.33	4.38	0.79	39.59	1.19	0.59	41.38	5.59	46.96	Annexure-14
4		33 kV Al XLPE 3×300 mm ²	41.15	2.44	2.79	5.23	0.94	47.32	1.42	0.71	49.45	6.68	56.13	Annexure-14

- Note:-** i) The cartage and erection charges have been taken @ 5% & 10% of the cost of material respectively. The actual charges may vary from site to site.
ii) Cost of materials i.e. centralized and de-centralized materials, is inclusive of GST. (col. 3)
iii) GST shall further be applicable on the total estimated cost (col. 13) for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/organizational consumers.
iv) Labour cess shall further be applicable as per rule.


A.E. (RESSPO)


S.E. (RESSPO)

COST ANALYSIS OF ONE KILOMETER OF 33 KV LINE WITH ACSR 'PANTHER', ACSR 'DOG' and ACSR 'RACoon' CONDUCTOR

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs.)	ACSR Panther conductor				ACSR Dog conductor				ACSR Racoon conductor				
				On STP 13 Mtr.		On STP 11 Mtr.		On STP 11 Mtr.		On PCC 9 Mtr.		On STP 11 Mtr.		On PCC 9 Mtr.		
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	Cost of single support															
	STP 13 Mtr. (Annex-9)	Nos	58340	14	536760	0	0	0	0	0	0	0	0	0	0	0
	STP 11 Mtr. (Annex-9)	Nos	29770	0	0	14	416780	14	416780	0	0	14	416780	0	0	0
	PCC 9 Mtr. (Annex-10)	Nos	13520	0	0	0	0	0	0	16	216320	0	0	16	216320	0
2	Extra cost of section and heavy angle points on double pole															
	STP 13 Mtr. (Annex-11)	Nos	47330	0.5	23665		0									
	STP 11 Mtr. (Annex-11)	Nos	39070	0	0	0.5	19535	0.5	19535	0	0	0.5	19535	0	0	0
	PCC 9 Mtr. (Annex-12)	Nos	23480	0	0	0	0	0	0	0.5	11740	0	0	0.5	11740	0
3	Extra cost of stay at right angle	Nos	2157	2	4314	2	4314	2	4314	2	4314	2	4314	2	4314	2
4	ACSR "Panther" conductor	KM	217016	3.09	670579	3.09	670579	0		0		0		0		0
5	ACSR "Dog" conductor	KM	98820	0	0	0	0	3.09	305354	3.09	305354	0	0	0	0	0
6	ACSR "Racoon" conductor	KM	81537	0	0	0	0	0	0	0	0	3.09	251949	3.09	251949	0
7	Neutral-cum-Earth wire G.I 6SWG	Kg	78	127	9906	0	0	127	9906	0	0	127	9906	0	0	0
8	Aluminium jointing sleeves	Nos	440	1	440	3	1320	3	1320	3	1320	3	1320	3	1320	3
9	Earthing complete	Nos	922	14	12908	16	14752	14	12908	16	14752	14	12908	16	14752	16
10	Extra cost of Road/communication lines /11 kV lines crossing (L.S)	Nos	10000	0.5	5000	0.5	5000	0.5	5000	0.5	5000	0.5	5000	0.5	5000	0.5
11	Tree cutting compensation (L.S)	KM	1200	1	1200	1	1200	1	1200	1	1200	1	1200	1	1200	1
	Total (Rs.)				1264772		1133480		776317		560000		722912		506595	
	Total (Say) Rs. in Lakhs				12.65		11.34		7.76		5.60		7.23		5.07	

A.E. (RESSPO)

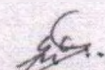
S.E. (RESSPO)

**COST OF SINGLE LINE SUPPORT ON ST POLE OF 11 METER OR 13 METER
(INCLUSIVE OF FITTING)**

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs.)	On STP 13 Mtr.		On STP 11 Mtr.	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
1	13 meter ST Pole - SP-70	No.	28771	1	28771		
2	11 meter ST Pole - SP-55	No.	20356			1	20356
3	33 kV V-Type Steel Cross Arm	No.	1315	1	1315	1	1315
4	Cross arm holding clamps with bolts and nuts	No.	325	1	325	1	325
5	F-bracket for 33 kV	No.	331	1	331	1	331
6	33 kV Pin Insulators	No.	419	3	1257	3	1257
7	33 kV pin with nut	No.	267	3	801	3	801
8	Earth wire clamp with bolts & nuts	No.	183	1	183	1	183
9	Armour rod with ferules	Set	534	3	1602	3	1602
10	Stone pad (300x300x75 mm)	No.	168	1	168	1	168
11	Number plates with clamp and nut & bolt	No.	318	1	318	1	318
12	Danger board with clamp for 33 kV	No.	144	1	144	1	144
13	Barbed wire GI	Kg.	131	2	262	2	262
14	Bolts & Nuts all sizes (L.S)	Kg.	220	1	220	1	220
15	Aluminium paint	Ltr	268	1	268	1	268
16	Red oxide paint	Ltr	192	1	192	1	192
17	Aluminium binding wire 6 SWG	Kg.	317	1	317	0.5	159
18	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	No.	922	1	922	1	922
19	Concreting of supports (0.268 cu.m/Pole)	No.	942	1	942	1	942
Total					38338		29765
Total (say)					38340		29770


A.E. (RESSPO)



S.E. (RESSPO)

Annexure-10


**COST OF SINGLE LINE SUPPORT ON PCC POLE OF 9 METER
(INCLUSIVE OF FITTING)**

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6
1	9.0 M long PCC pole	No.	4758	1	4758
2	33 kV V-Type Steel Cross Arm	No.	1315	1	1315
3	Cross arm holding clamp with bolts & nuts	No.	325	1	325
4	F-bracket for 33 kV	No.	331	1	331
5	33 kV Pin Insulators	No.	419	3	1257
6	33 kV pin with nut	No.	267	3	801
7	Armour Rod with Ferrules	Set	534	3	1602
8	Stone pad (300x300x75mm)	No.	168	1	168
9	Number plates with clamp for PCC poles	No.	318	1	318
10	Danger board with clamp for 33 kV	No.	144	1	144
11	Barbed wire GI	Kg.	131	2	262
12	Bolts & Nuts all sizes (LS)	Kg.	220	1	220
13	Aluminium binding wire 6 SWG	Kg.	317	0.5	159
14	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	No.	922	1	922
15	Concreting of support (0.268 Cub.M/Pole)	No.	942	1	942
Total				1	13524
Total (Say)					13520


A.E. (RESSPO)

18-


S.E. (RESSPO)

EXTRA COST OF SECTIONAL DOUBLE POLE STRUCTURE WITH 11 METER OR 13 METER STP IN CASE OF LINE ON STP

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs.)	On STP 13 Mtr.		On STP 11 Mtr.	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
1	13 meter ST Pole - SP-70	No.	28771	2	57542		
2	11 meter ST Pole - SP-55	No.	20356			2	40712
3	M.S. Angle Iron 65x65x6mm, 4300 mm long bracing with clamp	No.	3823	1	3823	1	3823
4	Top channel 125x65mm 3200 mm (10.70 kg/M)	No.	1926	1	1926	1	1926
5	Stone pad (300x300x75mm)	No.	168	2	336	2	336
6	Disc insulators B&S type 7000 kg	No.	240	24	5760	24	5760
7	Disc fittings 7000 kg	No.	351	6	2106	6	2106
8	33 kV Pin Insulators	No.	419	3	1257	3	1257
9	33 kV Pin with nuts	No.	267	3	801	3	801
10	Earth wire clamp with bolts & nuts	No.	183	1	183	1	183
11	PG clamps	No.	105	12	1260	12	1260
12	F-bracket for 33 kV	No.	331	3	993	3	993
13	Number plates	No.	318	1	318	1	318
14	Danger board with clamp for 33 kV	No.	144	1	144	1	144
15	Barbed wire GI	Kg.	131	4	524	4	524
16	Aluminium Binding wire-6 SWG	Kg.	317	1	317	1	317
17	Aluminium paint	Ltr.	268	2	536	2	536
18	Bolts & Nuts all sizes (LS)	Kg.	220	3	660	3	660
19	Red oxide paint	Ltr.	192	2	384	2	384
20	Complete Stay Set	No.	499	8	3992	8	3992
21	Concreting of supports (0.268cu.m /Pole)	No.	942	2	1884	2	1884
22	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	No.	922	1	922	1	922
Total cost					85668		68838
Less Cost of single supports as per Annexure-9					38340		29770
Extra Cost of section double pole in place of single support					47328		39068
Total (Say)					47330		39070

A.E. (RESSPO)

19-

S.E. (RESSPO)

**EXTRA COST OF SECTIONAL DOUBLE POLE STRUCTURE WITH 9 METER
LONG PCC POLE IN CASE OF LINE ON PCC POLE**

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6
1	9.0 M long PCC pole	No.	4758	2	9516
2	MS Angle Iron 65x65x6mm bracing with 4 clamps	No.	3823	2	7645
3	Top channel 125x65x 3200 mm with clamp	No.	1926	1	1926
4	Stone pad (300x300x75mm)	No.	168	2	336
5	Disc insulators B&S type 7000 kg	No.	240	24	5760
6	Disc fittings 7000 kg	No.	351	6	2106
7	33 kV Pin Insulators	No.	419	3	1257
8	33 kV Pin with nuts	No.	267	3	801
9	Earth wire clamp with bolts & nuts	No.	183	1	183
10	PG clamps	No.	105	12	1260
11	F-bracket for 33 kV	No.	331	3	993
12	Number plates	No.	318	1	318
13	Danger board with clamp for 33 kV	No.	144	1	144
14	Barbed wire GI	Kg.	131	4	524
15	Aluminium paint	Ltr.	268	1	268
16	Bolts & Nuts all sizes (LS)	Kg.	220	3	660
17	Complete Stay Set	No.	499	1	499
18	Concreting of supports (0.268 cu.m each)	No.	942	2	1884
19	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	No.	922	1	922
Total cost					37002
Less cost for Single pole (Annexure-10)					13520
Extra Cost for sectional double pole in place of single pole					23482
Total (Say)					23480

A.E. (RESSPO)

20-

S.E. (RESSPO)

**COST ANALYSIS OF ONE KILOMETER 33 kV UNDERGROUND LINE/CABLE
(Conventional Method - Straight Through)**

S.No.	Particulars	Unit	Rate (Rs.)	33 kV 3×120 mm ²		33 kV 3×300 mm ²	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
1	33 kV XLPE cable 3×120 mm ²	Km.	1458916	1.1	1604807.6		
2	33 kV XLPE cable 3×300 mm ²	Km.	2061724			1.1	2267896.4
3	Cable jointing kit straight through 33 kV 120 mm ²	No.	38855	2	77710		
4	Cable jointing kit straight through 33 kV 300 mm ²	No.	40725			2	81450
5	Cable jointing kit outdoor 33 kV 120 mm ²	No.	18262	2	36524		
6	Cable jointing kit outdoor 33 kV 300 mm ²	No.	19571			2	39142
7	G.I. Pipe 6" dia	Mtr.	1732	20	34640	20	34640
8	Cable laying along with cost of digging, bricks & sand (LS)	Mtr.	250	1000	250000	1000	250000
Total					2003681.6		2673128.4
Total (Say) Rs. in Lakhs					20.04		26.73



A.E. (RESSPO)

21-



S.E. (RESSPO)

**COST ANALYSIS OF ONE KILOMETER 33 kV UNDERGROUND LINE/CABLE
(HDD Method)**

S.No.	Particulars	Unit	Rate (Rs.)	33 kV 3×120 mm ²		33 kV 3×300 mm ²	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
1	33 kV XLPE cable 3×120 mm ²	Km.	1458916	1.10	1604807.6		
2	33 kV XLPE cable 3×300 mm ²	Km.	2061724			1.10	2267896.4
3	ST Pole 11 Mtr.	No.	20356	7	142492	7	142492
4	33 kV V-type Steel Cross Arm	No.	1315	2	2630	2	2630
5	Cross arms holding clamp	No.	325	2	650	2	650
6	Cable jointing kit indoor 33 kV 120 mm ²	No.	14695	1	14695		
7	Cable jointing kit indoor 33 kV 300 mm ²	No.	16783			1	16783
8	Cable jointing kit out door 33 kV 120 mm ²	No.	18262	5	91310		
9	Cable jointing kit out door 33 kV 300 mm ²	No.	19571			5	97855
10	33 kV Pin Insulator	No.	419	9	3771	9	3771
11	33 kV Pin with Nut	No.	267	9	2403	9	2403
12	G.I. Pipe 6" dia	Mtr.	1732	100	173200	100	173200
13	HDPE Pipe 140 mm	Mtr.	655	900	589500	900	589500
14	Aluminum binding wire	Kg.	317	1	317	2	634
15	Danger board with clamp and bolt & nut	No.	144	7	1008	7	1008
16	Number plate with clamp and bolt & nut	No.	318	7	2226	7	2226
17	Bolts & Nuts all sizes (LS)	Kg.	220	1	220	1	220
18	Aluminium paint	Ltr.	268	7	1876	7	1876
19	Red Oxide paint	Ltr.	192	7	1344	7	1344
20	Stay set Complete	No.	499	4	1996	4	1996
21	Concreting of Pole	No.	942	7	6594	7	6594
22	Earthing Complete	No.	922	2	1844	2	1844
23	Cable laying by digging/drilling (L.S)	Mtr.	800	1000	800000	1000	800000
Total					3442883.6		4114922.4
Total (Say) Rs. in Lakhs					34.43		41.15



A.E. (RESSPO)

22-



S.E. (RESSPO)

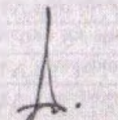
PART-C
ABSTRACT OF VARIOUS TYPES OF 33/11 kV SUB-STATION

Plains: 2024-25

Rs. in Lacs

Sl. No.	Name of works	Cost of material (Incl. GST)	Cost of civil works (Incl. GST)	Cartage charges on non-GST material cost @ 3%	Erection charges on non-GST material cost @ 4%	Total of Col. 5 & 6	GST @ 18% on col. 7	Total of Col. 3,4,7&8	3% Contingency charges on Col. 9	1.5% T&P charges on Col. 9	Total of Col. 9+10+11	13.5% of Esttb. & AA Charges on Col. 12	Total of Col. 12 & 13	References
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	33 kV New Sub stations													
1	1x5 MVA	102.26	79.06	2.60	3.47	6.07	1.09	188.48	5.65	2.83	196.96	26.59	223.55	Annexure-15
2	2x5 MVA	174.56	79.06	4.44	5.92	10.36	1.86	265.84	7.98	3.99	277.80	37.50	315.31	Annexure-15
3	1x8 MVA	109.55	79.06	2.79	3.71	6.50	1.17	196.28	5.89	2.94	205.11	27.69	232.80	Annexure-15
4	2x8 MVA	189.14	79.06	4.81	6.41	11.22	2.02	281.44	8.44	4.22	294.10	39.70	333.81	Annexure-15
5	1x10 MVA	145.17	79.06	3.69	4.92	8.61	1.55	234.39	7.03	3.52	244.93	33.07	278.00	Annexure-15
6	2x10 MVA	260.38	79.06	6.62	8.83	15.45	2.78	357.66	10.73	5.36	373.75	50.46	424.21	Annexure-15

- Note: i) The cartage and erection charges have been taken @ 3% & 4% of the cost of material respectively. The actual charges may vary from site to site.
 ii) Cost of materials i.e. centralized and de-centralized materials, is inclusive of GST (col. 3)
 iii) GST shall further be applicable on the total/final estimated cost (col. 14) for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/organizational consumers.
 iv) Labour cess shall further be applicable as per rule.


A.E. (RESSPO)


S.E. (RESSPO)

COST ANALYSIS OF 33/11 kV SUB-STATION

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs)	1x5 MVA		2x5 MVA		1x8 MVA		2x8 MVA		1x10 MVA		2x10 MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	Terminal Gantry	Nos	219933	1	219933	1	219933	1	219933	1	219933	1	219933	1	219933
2	Main bus bar complete with structure	Nos	402370	1	402370	1	402370	1	402370	1	402370	1	402370	1	402370
3	33 kV Pin insulator	Nos	419	3	1257	3	1257	3	1257	3	1257	3	1257	3	1257
4	33 kV Pin with nut	Nos	267	3	801	3	801	3	801	3	801	3	801	3	801
4(i)	33 kV Line Isolator	Nos	41403	1	41403	1	41403	1	41403	1	41403	1	41403	1	41403
(ii)	33 kV Bus Isolator	Nos	38491	1	38491	2	76982	1	38491	2	76982	1	38491	2	76982
(iii)	Structure for above	Nos	26252	2	52503	3	78755	2	52503	3	78755	2	52503	3	78755
5(i)	33 kV Post insulator	Nos	632	6	3792	6	3792	6	3792	6	3792	6	3792	6	3792
(ii)	Structure for above	Nos	12616	2	25232	2	25232	2	25232	2	25232	2	25232	2	25232
6(i)	33 kV lightning arrestors	Sets	5089	2	10178	3	15267	2	10178	3	15267	2	10178	3	15267
(ii)	Structure for above	Nos	10514	2	21028	3	31541	2	21028	3	31541	2	21028	3	31541
7	Plinth & foundations for structure	Included in the cost of structure													
8	33/11 kV transformers														
	i) 5 MVA	Nos	5059933	1	5059933	2	10119866	0	0	0	0	0	0	0	0
	ii) 8 MVA	Nos	5788882	0	0	0	0	1	5788882	2	11577764	0	0	0	0
	iii) 10 MVA	Nos	9350571	0	0	0	0	0	0	0	0	1	9350571	2	18701142
9	90 lbs Rail pieces for transformer (44.64kg/M)	M	4230	6.92	29268	13.8	58536	6.92	29268	13.8	58536	6.92	29268	13.8	58536
10	Plinth of transformer	Nos	162984	1	162984	2	325967	1	162984	2	325967	1	162984	2	325967

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24

S.E. (RESSPO)

Sl. No.	Particulars	Unit	Rate (Rs)	1x5 MVA		2x5 MVA		1x8 MVA		2x8 MVA		1x10 MVA		2x10 MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11(a)	33 kV VCB with single T/F control panel and CT 200/100/1A (i) 33 kV VCB (ii) control panel I/C for 33kV single T/F (iii) CT 200/100/1-1A	Nos	392406	1	392406	0	0	1	392406	0	0	1	392406	0	0
11(b)	33 kV VCB with double T/F control panel and CT 200/100/1A (i) 33 kV VCB (ii) control panel I/C for 33kV double T/F (iii) CT 200/100/1-1A	Nos	443960	0	0	1	443960	0	0	1	443960	0	0	1	443960
12	Plinth & foundation of VCB	Nos	30615	1	30615	2	61230	1	30615	2	61230	1	30615	2	61230
13	11 kV VCB														
(I)	600/300/5A.350MVA I/C	Nos	407040	1	407040	2	814080	1	407040	2	814080	1	407040	2	814080
II)	Outgoing 200/100/5A	Nos	343431	4	1373724	6	2060586	4	1373724	6	2060586	4	1373724	6	2060586
III)	Bus coupler 350MVA	Nos	329546	0	0	1	329546	0	0	1	329546	0	0	1	329546
14	11 kV 3 core cable			0	0	0	0	0	0	0	0	0	0	0	0
I)	300 mm sq. XLPE	M	1502	60	90120	120	180240	60	90120	120	180240	60	90120	120	180240
II)	120mm sq XLPE	M	789	240	189360	360	284040	240	189360	360	284040	240	189360	360	284040
15	Laying of 11 kV cable including cost of sand & bricks (I.S)	M	250	270	67500	420	105000	270	67500	420	105000	270	67500	420	105000
16	Making of 11 kV cable boxes mounted with switchgears and transformers (LS)	Nos	25724	6	154344	10	257235	6	154344	10	257235	6	154344	10	257235
17	11 kV cable jointing kit outdoor 120 sq.mm.	Nos	4682	4	18728	6	28092	4	18728	6	28092	4	18728	6	28092
18	11 kV cable jointing kit outdoor 300 sq.mm.	Nos	5635	0	0	2	11270	0	0	2	11270	0	0	2	11270
19	24 Volt battery and battery charger with cabinet	Nos	98480	1	98480	1	98480	1	98480	1	98480	1	98480	1	98480
20	Control Cable														
(I)	4x2.5 mm sq	M	115	100	11500	200	23000	100	11500	200	23000	100	11500	200	23000
(II)	2x2.5mm sq	M	98	100	9800	200	19600	100	9800	200	19600	100	9800	200	19600

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Sl. No.	Particulars	Unit	Rate (Rs)	1x5 MVA		2x5 MVA		1x8 MVA		2x8 MVA		1x10 MVA		2x10 MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
21	Earthing of substation				0		0		0		0		0		0
(a)	Outdoor equipment (earth mat)	Nos	616504	1	616504	1	616504	1	616504	1	616504	1	616504	1	616504
(b)	Indoor equipment	Nos	42959	1	42959	1.5	64439	1	42959	1.5	64439	1	42959	1.5	64439
22	Barbed wire fencing with gate etc (switchyard)	Nos	240933	1	240933	1	240933	1	240933	1	240933	1	240933	1	240933
23	Outdoor switchyard & Approach Road lighting	Nos	198238	1	198238	1	198238	1	198238	1	198238	1	198238	1	198238
24	63 kVA 11/0.4 kV T/F	Nos	149055	1	149055	1	149055	1	149055	1	149055	1	149055	1	149055
25	11kV TPMS switch with fixing clamps	Nos	8216	1	8216	1	8216	1	8216	1	8216	1	8216	1	8216
26	11 kV fuse set with fixing clamps	Nos	2459	1	2459	1	2459	1	2459	1	2459	1	2459	1	2459
27	Cost of accessories for mounting of 63 kVA T/F		39277	1	39277	1	39277	1	39277	1	39277	1	39277	1	39277
28	Painting of S/s structure	LS		-	10000	-	12000	-	10000	-	12000	-	10000	-	12000
29	Sundry stores	LS		-	5500	-	7000	-	5500	-	7000	-	5500	-	7000
	Total cost of material Rs.				10225928		17456182		10954877		18914080		14516566		26037458
	Say Rupees in Lacs				102.26		174.56		109.55		189.14		145.17		260.38

Note: 1- Provision of cost of 1.5 acre Land for substation has not been made. The same may be added as per actuals.



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26-




S.E. (RESSPO)

COST OF CIVIL WORKS FOR CONVENTIONAL 33/11 kV SUB-STATION

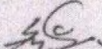
Plains 2024-25

Sl. No.	Type of building	Unit	Rate (Rs)	GST @ 18%	Total of col. 4&5	Conventional type S/s	
						Qty.	Amt. (Rs)
1	2	3	4	5	6	7	8
	Rural Area						
1	Switchgear Rooms	Nos	4060483.90	730887.10	4791371.00	1	4791371.00
2	Road, culverts, Gate, fencing etc.	Nos	2639314.70	475076.65	3114391.35	1	3114391.35
	Total						7905762.35
	Say (Rs. in Lacs)						79.06
3	Urban Area						
(i)	Double storey switch gear building, boundary wall etc.	Nos	14034785.60	2526261.41	16561047.01	1	16561047.01
(ii)	Single storey, switch gear room, boundary wall, collection, room etc.	Nos	9714710.50	1748647.89	11463358.39	1	11463358.39
(iii)	Double storey indoor 33/11kV s/s collection room, boundary wall etc.	Nos	22205370.00	3996966.60	26202336.60	1	26202336.60

Note:-The above rates are exclusive of Retreatment/Black cotton treatment (15%) and white ant protection (5%). These rates do not include contingency, T&P as well as establishment and AA charges.


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27-


S.E. (RESSPO)

PART-D

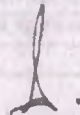
ABSTRACT OF COST OF INCREASING CAPACITY OF 33/11 KV SUB STATION

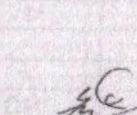
Plains: 2024-25

Rs. in Lacs

SL No.	Name of works	Cost of material (Incl GST)	Cartage charges on non-GST material cost @ 3%	Erection charges on non-GST material cost @ 4%	Total of Col. 4 & 5	GST @ 18% on col. 6	Total of Col. 3,6&7	3% Contingency charges on Col. 8	1.5% T&P charges on Col. 8	Total of Col. 8+9+10	13.5% of Esttb. & AA Charges on Col. 11	Total of Col. (11+12)	Cost of material received back (to be adjusted)	References
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1x3 to 1x5 MVA	69.04	1.76	2.34	4.10	0.74	73.88	2.22	1.11	77.20	10.42	87.62	-24.22	Annexure-17
2	1x3 to 2x3 MVA	51.85	1.32	1.76	3.08	0.55	55.48	1.66	0.83	57.97	7.83	65.80	-4.07	Annexure-17
3	1x3 to (3+5) MVA	78.36	1.99	2.66	4.65	0.84	83.85	2.52	1.26	87.62	11.83	99.45	-4.07	Annexure-17
4	2x3 to (3+5) MVA	58.68	1.49	1.99	3.48	0.63	62.79	1.88	0.94	65.61	8.86	74.47	-24.48	Annexure-17
5	2x3 to 2x5 MVA	119.62	3.04	4.05	7.10	1.28	127.99	3.84	1.92	133.75	18.06	151.81	-48.74	Annexure-17
6	1x5 to (3+5) MVA	51.85	1.32	1.76	3.08	0.55	55.48	1.66	0.83	57.97	7.83	65.80	-4.07	Annexure-17
7	1x5 to 2x5 MVA	77.86	1.98	2.64	4.62	0.83	80.31	2.50	1.25	87.06	11.75	98.81	-3.92	Annexure-18
8	(3+5) to 2x5 MVA	60.49	1.54	2.05	3.59	0.65	64.72	1.94	0.97	67.64	9.13	76.77	-24.22	Annexure-18

- Note:** i) The cartage of erection charges has been taken as 3% and 4% of cost of material respectively. The actual charges may vary from site to site.
 ii) Cost of materials i.e. centralized and de-centralized materials, is inclusive of GST. (col. 3)
 iii) GST shall further be applicable on the total/final estimated cost (col. 13) for deposit works (i.e. construction/shifting of lines/transformers etc.) of individual/institutional/organizational consumers.
 iv) Labour cess shall further be applicable as per rule.


A.E. (RESSPO)


S.E. (RESSPO)

COST ANALYSIS OF INCREASING CAPACITY OF 33/11kV SUB-STATION (1/2)

Plains: 2024-25

Sl. No.	Particulars	Unit	Rate (Rs.)	1x3 MVA to 1x5 MVA		1x3 MVA to 2x3 MVA		1x3 MVA to (3+3) MVA		2x3 MVA to (3+5) MVA		2x3 MVA to 2x5 MVA		1x5 MVA to (3+5) MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1(i)	33 kV bus type isolator	Nos	38491	0	0	2	76982	2	76982	0	0	0	0	2	76982
(n)	Structure for above	Nos	26252	0	0	2	52503	2	52503	0	0	0	0	2	52503
2(i)	33 kV post insulator set	Nos	632	0	0	-3	-1896	-3	-1896	-6	-1	-6	-3792	-3	-1896
(ii)	Structure for above	Nos	12616	0	0	-1	-12616	-1	-12616	-2	-25232	-2	-25232	-1	-12616
3	Transformers bus bar complete with structure	Nos	200186	0	0	1	200186	1	200186	0	0	0	0	1	200186
4(i)	33 kV lightning arrester	Nos	5089	0	0	1	5089	1	5089	0	0	0	0	1	5089
(ii)	Structure for above	Nos	10514	0	0	1	10514	1	10514	0	0	0	0	1	10514
5	33/11 kV Transformer														
(i)	3 MVA	Nos	2422420	-1	-2422420	1	2422420	0	0	-1	-2422420	-2	-4844840	1	2422420
(ii)	5 MVA	Nos	5059933	1	5059933	0	0	1	5059933	1	5059933	2	10119866	0	0
6	90lbs Rail pieces 44.64 kg/M	M	4230	0	0	6	25377	6	25377	0	0	0	0	6	25377
7	Plinth & foundation for transformers		162984	0	0	1	162984	1	162984	1	162984	2	325967	1	162984
8(i)	33 kV VCB with single T/F control panel and CT 200/100/1A (i) 33 kV VCB (ii) control panel I/C for 33kV single T/F (iii) CT 200/100/1-1A	Nos	392406	1	392406	-1	-392406	-1	-392406	0	0	0	0	-1	-392406
(ii)	33 kV VCB with double T/F control panel and CT 200/100/1A (i) 33 kV VCB (ii) control panel I/C for 33kV double T/F (iii) CT 200/100/1-1A	Nos	443960	0	0	1	443960	1	443960	1	443960	1	443960	1	443960
(iii)	Plinth & foundation for VCB	Nos	30615	1	30615	1	30615	1	30615	1	30615	1	30615	1	30615
9	11 kV VCB														
(i)	11kV VCB I/C CTR 600/300/5A .350MVA,630A	Nos	407040	1	407040	1	407040	1	407040	0	0	0	0	1	407040
(ii)	11 kV VCB O/G FDR CTR 200/100/5A,250MVA	Nos	343431	2	686862	2	686862	2	686862	0	0	2	686862	2	686862

A.E. (RESSPO)

S.E. (RESSPO)

Sl. No.	Particulars	Unit	Rate (Rs.)	1x3 MVA to 1x5 MVA		1x3 MVA to 2x3 MVA		1x3 MVA to (3+3) MVA		2x3 MVA to (3+5) MVA		2x3 MVA to 2x5 MVA		1x5 MVA to (3+5) MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
9	Bus coupler 350 MVA	Nos	329546	0	0	1	329546	1	329546	0	0	0	0	1	329546
10	11 kV 3 Core cable														
(i)	120 mm sq. XLPE	M	789	0	0	120	94680	120	94680	0	0	120	94680	120	94680
(ii)	185 mm sq. XLPE	M	1024	120	122880	30	30720	0	0	0	0	0	0	30	30720
(iii)	300 mm sq. XLPE	M	1502	50	75100	0	0	30	45060	60	90120	60	90120	0	0
11	Laying of 11 kV cable including cost of sand & bricks (1.5)	M	250	170	42500	150	37500	150	37500	60	15000	180	45000	150	37500
12	Making of 11 kV cable boxes mounted with switchgears and T.F (LS)	Nos	25000	2	50000	4	100000	4	100000	2	50000	4	100000	4	100000
13	11 kV cable jointing outdoor 120 sq. mm.	Nos	4682	0	0	2	9364	2	9364	0	0	2	9364	2	9364
14	11 kV cable jointing outdoor 185 sq. mm.	Nos	5103	2	10206	0	0	0	0	0	0	0	0	0	0
15	Control cable														
(i)	4x2.5 mm sq	M	115	100	11500	100	11500	100	11500	0	0	0	0	100	11500
(ii)	2x2.5 mm sq	M	98	100	9800	100	9800	100	9800	0	0	0	0	100	9800
16	Earthing of indoor equipments	Nos	42959	0	0	0.5	21480	0.5	21480	0	0	0	0	0.5	21480
17	Painting of S's structure (LS)	Nos	10000	0	0	1	10000	1	10000	1	10000	1	10000	1	10000
18	Sundries (LS)	Nos	5500	1	5500	1	5500	1	5500	1	5500	1	5500	1	5500
Total Cost of new materials					6904342		5184622		7836475		5868112		11961934		5184622
Total Cost of new materials (Rs.in Lacs)					69.04		51.85		78.36		58.68		119.62		51.85
Total cost of material received back					-2422420		-406918		-406918		-2447653		-4873864		-406918
Total cost of material received back (Rs.in Lacs)					-24.22		-4.07		-4.07		-24.48		-48.74		-4.07

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A.E. (RESSPO)


30-

S.F. (RESSPO)

COST ANALYSIS OF INCREASING CAPACITY OF 33/11 kV SUB-STATION (2/2)


Plains: 2024-25

Sl. No.	Particulars	Unit	Rates (Rs.)	1x5 MVA to 2x5 MVA		(3+5) MVA to 2x5 MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
1(i)	33 kV bus isolator	Nos.	38491	1	38491	0	0
(ii)	Structure for above	Nos.	26252	1	26252	0	0
2(i)	33 kV Post insulator set	Nos.	632	3	1896	0	0
(ii)	Structure for above	Nos.	12616	1	12616	0	0
3	Transformer bus complete with structure	Nos.	200186	1	200186	0	0
4(i)	33 kV lightning arrester	Set	5089	1	5089	0	0
(ii)	Structure for above	Nos.	10514	1	10514	0	0
5	33/11 kV Transformer						
(i)	3 MVA	Nos.	2422420	0	0	-1	-2422420
(ii)	5 MVA	Nos.	5059933	1	5059933	1	5059933
6	90 lbs Rail pieces (44.64kg/M)	M.	4230	6	25377	0	0
7	Plinth & foundation of transformer	Nos.	162984	1	162984	0	0
8(i)	33 kV VCB with single T/F control panel and CT 200/100/1A (i) 33 kV VCB (ii) control panel I/C for 33kV single T/F (iii) CT 200/100/1-1A	Nos	392406	-1	-392406	0	0
(ii)	33 kV VCB with double T/F control panel and CT 200/100/1A (i) 33 kV VCB (ii) control panel I/C for 33kV double T/F (iii) CT 200/100/1-1A	Nos	443960	1	443960	0	0
8(iii)	Plinth & foundation of VCB	Nos.	30615	1	30615	0	0
9	11 kV VCB						
(i)	Incoming CTR 600/300/5A 350 MVA	Nos.	407040	1	407040	0	0
(ii)	Outgoing CTR 200/100/5A 250 MVA	Nos.	343431	2	686862	2	686862
(iii)	Bus coupler 350 MVA	Nos.	329546	1	329546	0	0
10	11 kV 3 core cable						
(i)	120 mm sq XLPE	M.	789	120	94680	120	94680
(ii)	300 mm sq XLPE	M.	1502	30	45060	30	45060



A.E. (RESSPO)

31-



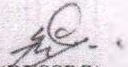
S.E. (RESSPO)

Sl. No.	Particulars	Unit	Rates (Rs.)	1x5 MVA to 2x5 MVA		(3+5) MVA to 2x5 MVA	
				Qty.	Amt. (Rs.)	Qty.	Amt. (Rs.)
1	2	3	4	5	6	7	8
11	Laying of 11 kV cable including cost of bricks and sand (L.S.)	M.	250	150	37500	150	37500
12	Making of 11 kV cable boxes mounted with switchgears and transformers (Kit)	Nos.	25000	4	100000	4	100000
13	11 kV cable jointing kit 120 sq.mm	Nos.	4682	2	9364	2	9364
14	Control cable				0		0
(i)	4x2.5 mm sq	M.	115	100	11500	0	0
(ii)	2x2.5 mm sq.	M.	98	100	9800	0	0
15	Earthing of indoor equipments	Nos.	42959	0.5	21480	0	0
16	Painting of S/s structure (L.S)	Nos	10000	1	10000	1	10000
17	Sundries (LS)	Nos	5500	1	5500	1	5500
Total cost of new materials					7786245		6048899
Say (Rs. in Lacs)					77.86		60.49
Cost of materials received back					-392406		-2422420
Say (Rs. in Lacs)					-3.92		-24.22



A.E. (RESSPO)

32-



S.E. (RESSPO)

PART - E


HVDS (1/3)

ESTIMATED COST OF ONE POLE WITH AVERAGE SPAN OF 40 METER OF 11 KV 3 PHASE WIRE SPUR LINE WITH ACSR WEASEL CONDUCTOR ON 8.5 METER LONG PCC POLE TO BE LAID INSIDE VILLAGES FOR VILLAGE ELECTRIFICATION


Plains: 2024-25

Sl. No.	Items	Unit	Rate (Rs.)	Qty.	Amt. (Rs.)
1	Pole PCC 8.5 Meter Long	No	3243	1	3243
2	Conductor Weasel ACSR	Meters	30.351	185	5615
3	11 kV Pin Insulators	Nos	141	3	423
4	11 kV Pin with nut	Nos	61	3	183
5	11 kV V-type Steel Cross Arm	Nos	814	1	814
6	Guarding Cross-arm (M.S. angle 65x65x6mm/1.6 Meter long).5.8kg./M-9.28kg.	Nos	563	1	563
7	L.T. Cross arm (MS angle 65x65x6mm, 1.00 Meter long)	Nos	352	1	352
8	E-bracket with bolt & nuts	Nos	183	1	183
9	G.I. wire 6 SWG and 10 SWG for guarding, lacing and street light cable catenary	Kg.	80	22	1760
10	L.T. PVC Al. 2x4sq. mm cable for street light	Meters	57	50	2850
11	X-arms holding clamps with bolts and nuts (3 No.X-arms)	Nos	325	3	975
12	Eye bolts for guard wires and LT cable catenary wires	Nos	70.4	3	211
13	Danger Board, number plate with fixing clamp, nuts and bolts	Set	462	1	462
14	G.I. Barbed wire	Kg.	131	1	131
15	Stone Pad (300x300x75mm)	No	168	1	168
16	Stay set complete	No	523	0.50	262
17	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	No	922	1	922
18	Grouting of pole (0.268 cu.m) @ 1800	No	942	1	942
Total Cost of materials (Incl. GST)					20059
19	i) Cartage charges @ 7%		1404.12	1	1404
	ii) Erection charges @ 8%		1604.71	1	1605
Sub Total					23068
20	O.H. charges @ 18% on (19) above (13.5% Establishment +1.5% T&P +3% contingency)				4152
Grand Total					27220
Total (Say)					27220

Note - Labour cess as per rule, if applicable.


A.E. (RESSPO)

33-



S.E. (RESSPO)

HVDS (2/3)

Plains: 2024-25

Sl. No.	Items	Unit	Rate (Rs.)	Qty.	Amt. (Rs.)
1	Pole PCC 8.5 Meter Long	No	3243	2	6486
2	Stone Pad (300x300x75 mm)	No	168	2	336
3	M.S. Channel Cross Arm (100X50X75mm) Top Channel	No	892	1	892
4	Cross bracing M.S. Angle (50X50X6mm) 4.5 Kg/M with clamp	Sets	899	1	899
5	Clamps with Nuts & Bolts for top Channel	Nos	363	2	726
6	Barbed wire GI	Kg.	131	2	262
7	Danger Board & Clamps with bolts &nuts	No.	144	1	144
8	Concreting Of poles (0.268 cm)	No.	942	2	1884
9	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	No.	922	2	1844
10	"E" Bracket with nuts & bolts	No.	183	3	549
11	11 kV Disc Insulators T&C Type	No.	122	6	732
12	11 kV Disc fittings 45 KN	No.	120	6	720
13	11 kV pin insulators	No.	157	3	471
14	11 kV pin with nut	No.	61	3	183
15	PG Clamps	No.	105	6	630
16	Stay set complete	No.	523	6	3138
17(a)	11 kV TPMO with fixing clamps	No.	8216	1	8216
17(b)	11 kV Fuse Sets with clamps	No.	2459	1	2459
Total Cost of materials (Incl. GST)					30571
18	i) Cartage charges @ 7%		2140	1	2140
	ii) Erection charges @ 8%		2446	1	2446
Sub Total					35156
19	O.H. charges @ 18% on (18) above (13.5% Establishment +1.5% T&P +3% contingency)				6328
Grand Total					41485
Total (Say)					41480

Note - Labour cess as per rule, if applicable.


A.E. (RESSPO)

34-


S.E. (RESSPO)

HVDS (3/3)

Plains: 2024-25

Sl. No.	Particulars	Unit	Rates (Rs.)	10 kVA	
				Qty.	Amt. (Rs.)
1	2	3	4	5	6
1	Transformers				
	10 kVA, 11/0.4 kV, 1 Ph. T/F.	Nos.	59318	1	59318
2	Meter Box (M.B.)	Nos.	216	1	216
3	Clamps for M.B. (LS)	Nos.	220	2	440
4	Clamps for T/F (75x8mm)	Nos.	363	2	726
5	ACSR Weasel Jumpers	M.	30	10	304
6	11 kV Pin Insulator	Nos.	157	2	314
7	11 kV Pins with nut	Nos.	61	2	122
8	Eye bolts for service cables	Nos.	70	3	211
9	PVC Cables				
	i) 10 Sq. mm	M.	88	5	440
10	Stay set complete	Set	523	1	523
11	Earthing of pole by MS earthing rod of 20x2500 mm. and 6 SWG earthing wire etc.	Nos.	922	2	1844
Total Cost of materials (Incl. GST)					64458
12	i) Cartage charges @ 7%		4512	1	4512
	ii) Erection charges @ 8%		5157	1	5157
Sub Total					74127
13	O.H. charges @ 18% on (12) above (13.5% Estt. +1.5% T&P +3% contingency)				13343
Grand Total					87470
Total (Say)					87470

Note - Labour cess as per rule, if applicable.


 A.E. (RESSPO)

35


 S.E. (RESSPO)
