

Estimate

Name of work: Supply, Erection, Testing and Commissioning of Electrical Pole Shifting and New Work at Various Location in Jabalpur Under Smart City Mission.

Prepared on the Basis of UADD GoMP Elect. SOR 2012 , PWD sor2014

S.No.	Description of Items	Unit	Rate	Qty	Amount
13.2	Supply of support for overhead line RS joist / H-beam of I.S. standard including welding, drilling of required hole etc. Complete as required.				
6	H-Beam 152x152mm , Std weight 37.1 kg per meter	Meter	1779.30	1250	2224125.00
13.13	Erection of steel tubular or steel rail pole or H-Beam of length exceeding 8 meters but not exceeding 10 meters in cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation, base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.)	Each	1946.70	180	350406.00
13.14	Erection of steel tubular or steel rail pole or H-Beam of length exceeding 10 meters but not exceeding 13 meters in cement concrete 1:3:6 (1 cement :3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation , base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.)	Each	2306.70	90	207603.00
13.79	Supplying and erection of 11kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required.	Set	337.50	150	50625.00
13.8	Supplying and erection of 11kV disc insulator for 11kV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required.	Set	980.10	80	78408.00
13.81	Supplying and erection of 33kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required.	Set	910.80	18	16394.40
13.82	Supplying and erection of 11kV disc insulator for 33kV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required.	Set	2760.30	24	66247.20
13.86	Painting of Pole Bracket cable Protecting Pipe and its clamps in two coatings of All enamel based Primer as directed by Engineer-Charge.				
13.86.2	Primer Cost over new Steel and other metallic surface with red oxide/zinc chromide paint complete with supply of material labour etc. Including preparation of Surface.	Sqm	18.90	2000	37800.00
13.86.3	Primer cost with aluminum paint, brushing complete with material and labour including preparation of surface.	Sqm	25.20	2000	50400.00

15.3	Supplying installing and testing of AB isolating switch assembly set gang operated suitable for 11/0.4 KV, DP structure with brass part contacts, operating rod with required GI pipe, handle locking arrangement on On-Off position conforming to IS complete with required material and installing on existing structure to complete the job as required as per specification.				
1	11 kV	Set	6389.10	18	115003.80
15.4	Supplying, installing ,testing of 11 KV D.O. fuse assembly with brass part contact for 11/0.4 KV DP Structure set of 3 with fuse with barrel with required fuse element & other materials as per specification on existing D.P. structure as required.(set of 3nos.)				
1	11kV	Set	4230.00	18	76140.00
13.84	Supplying and erection of three piece nonlinear resistor type lighting arrester suitable for 3 wire, 11kV overhead lines with rated voltage of 9kV (rms) with a nominal discharge current rating of 5 KA and complete with galvanized clamping arrangement, G.I. bolts, nuts, washer etc. as required.	Set	3855.60	18	69400.80
15.7	Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator 200 amper on incoming, bus bar and 66 S.P.M.C.C.B.of 60 A" .on outgoing side for 63 KVA transformer				
	(i)Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator 200 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 90 A" .on outgoing side for 100 KVA transformer	Each	15332.40	2	30664.80
	(i)Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator of 600 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 120 A" .on outgoing side for 200 KVA transformer	Each	25553.70	2	51107.40
12	Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator of 600 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 120 A" .on outgoing side for 315 KVA transformer	Each	29634.30	2	59268.60
13.5	Supplying and drawing All Aluminum Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any)				
4	0.075 sq.inch / 48 sq.mm Alloy Aluminum Conductor	KM	53224.20	2.8	149027.76
13.65	Supplying of 50mmx 8mm M.S. Flat iron pole top bracket/cross arm for single 11/22/33kV overhead line conductor complete with fixing bolts, nuts and washers drilling holes for insulator pins, painting with primer and finish paint as required.	Each	252.00	40	10080.00
14.8	Supplying and fixing cramping type Alum. lugs as per I.S.S.Specification suitable for following size of cable with Alu. /Copper solid/stranded conductor evenly cramped with high/pressure tool and connected to switch gear/Bus/M.C.C.B./ M.C.B. etc. as required complete.For Conductor Size-				
6	95 Sq.mm	Each	21.60	250	5400.00
8	150 Sq.mm.	Each	39.60	150	5940.00
11	300 Sq.mm.	Each	116.10	120	13932.00
15.13	Supplying, installing, testing of earth Coil (coil of 115 turns of 50mm dia, and 2.5 Mtrs. Lead of 4 mm G.I wire.	Each	197.10	75	14782.50

13.8	Supplying and drawing guard wire/earth wire/bearer wire 13mm ² (4mm. Dia) G.I. including stringing, binding at existing insulators or brackets, jointing, jumpering, connecting etc. as required and clearing of obstacles (if any)	KM	8258.40	3.4	28078.56
13.24	Supplying and erection of stay set complete (Galvanized) with 19mm.dia 1.8 meter long stay rod, anchor plate of size 300mm x 300 mm x 6.4mm thimble stay clamps, bowtightener, 7/3.15 dia G.I. stay wire and strain insulator etc. in cement concrete 1:3:6 (1 Cement : 3 Coarse and : 6 graded stone aggregate 40mm nominal size) foundation including excavation and refilling etc. as required.	Each	2370.60	34	80600.40
13.62	Supplying and erection of galvanized stay set for 33kV overhead line complete with 19/20mm dia x 1.8 meters long stay rod, anchor plate of size 45cm x 45cm x 7.5mm thick, thimble, stay clamps, turn buckle (20mmx 600mm), 7/4.00mm dia G.I. stay wire and 33kV strain insulator etc. in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm. nominal size) foundation including excavation and refilling etc. as required.	Each	2615.40	18	47077.20
13.58	Supplying of angle/channel flat iron fitting for overhead lines such as cross arms, clamps, brackets, welding and other necessary materials as per specifications.	KG	48.60	2750	133650.00
181	Cable Connector 35mm	Each	81.00	60	4860.00
13.57	Dismantling poles/street light standards/struts embedded in cement concrete foundation etc. as required.	Each	548.10	156	85503.60
1	Supplying & Laying of following ISI marked PVC insulated PVC sheathed 660/1100 V grade armored/Unarmored aluminium conductor cables of approved make.				
a	1100 Volts single AB cable XLPE/PVC 3X70+1X16+1X35 Sqmm.	Meter	153.00	600	91800.00
b	1100 Volts single AB cable XLPE/PVC 3X95+1X16+1X50 Sqmm.	Meter	191.70	2000	383400.00
c	1100 Volts single AB cable XLPE/PVC 3X120+1X16+1X70 Sqmm.	Meter	316.80	390	123552.00
d	1100 volt single core XLPE/PVC insulated unarmored alum Conductor Cable 300 sqmm.	Meter	198.00	390	77220.00
e	1100 volt single core XLPE/PVC insulated unarmored alum Conductor Cable 150 sqmm.	Meter	103.50	670	69345.00
2	Supply & drawing/laying of PVC Insulated XLPE Aerial bunch Power Cable conductor H2/H4 grade Aluminum Solid/Stranded Confirming to SI – 7098 Part – II Aluminum alloy messenger of approved make in air with necessary material as per specification of required size as mentioned below- (11 KV grade Arial Bunch Cable)				
a	3X70+1X70 sqmm	Meter	441.00	785	346185.00
b	3X95+1X80 sqmm	Meter	520.20	1000	520200.00
c	3X150+1X120 sqmm	Meter	684.00	110	75240.00
3	Supply & drawing/laying of PVC Insulated Under-Ground XLPE Power Cable of following size Al. conductor, armoured, XLPE insulated, PVC sheathed, 11KV cable in ready made underground trench / duct / pipe etc. The cable should conform to IS: 7098 Part-2, 2011 with up to date amendment. The item includes providing of necessary clamps and hardware for cable laying.				
a	3X70 Sq.mm.	Meter	568.80	100	56880.00

b	3X95 Sq.mm.	Meter	568.80	120	68256.00
c	3X120 Sq.mm.	Meter	638.10	120	76572.00
d	3X150 Sq.mm.	Meter	717.30	150	107595.00
e	3X185 Sq.mm.	Meter	802.80	160	128448.00
f	3X240 Sq.mm.	Meter	1027.80	120	123336.00
g	3X300 Sq.mm.	Meter	1184.40	120	142128.00
3	Providing & Making cable end termination with Heat shrinkable Jointing kit Complete with all accessories including lugs suitable for 11 KV 3 core XLPE alum conductor cable as required as per specification and as per accepted standard including connection testing complete.				
a	3X50-95 sqmm	Set	5475.60	12	65707.20
b	3X120-185 sqmm	Set	5992.20	7	41945.40
4	Supplying and drawing All Aluminum Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any) 0.10(Dog) Conductor	KM	56896.20	8.1	460859.22

5	Supplying of R.S. Joist of 175mm x 85 size of 19.3 Kgs/ Mt weight 9.3 Mt. Long.	Meter	1097.10	950	1042245.00
6	Supplying & Fixing of <u>A.B. Cable Hanging Clamp</u>	Each	163.80	70	11466.00
7	Supplying & Fixing of <u>Distribution Box</u> for housing 5No. Accessories for fixing with pole switch for A.B. X.L.P.E. cable as per specification.	Each	1524.34	70	106703.73
8	Removal & fixing existing D.T.R. metering end other fitting as per required places.	Each	1800.00	6	10800.00
10	Providing <u>earthing</u> as per IS : 3043 complete with supply of 2.5 Mt. Long 38 mm dia G.I. Pipe, 600 mmx600mmx6 G.I. Plate, wood coal and salt complete with digging & refilling.	1 Job	4387.50	6	26325.00
11	<u>Dismantling</u> of following over head electric lines ONLY after obtaining shut down on these lines by MPSEB. The job includes dismantling of all overhead conductors & G.I. Guarding and properly arranging these in coil form as directed by Engineer-incharge, dismantling of all insulators and bobbins, M.S. brackets & hardware and depositing all material in stores as directed by Engineering in charge.				
a	HT 3 phase line 11/33 KV	Per Km.	5576.40	8.5	47399.40
b	LT 3 Phase line 5 wire	Per Km.	4374.00	8.2	35866.80
14.1	Supply of XLPE Insulated power cable (conforming IS-7098) 1100 Volt grade/Heavy duty power cable conforming to IS 1554-1100 Volts grade , 2 core /3½ core/4 coreISI MARKED with Alu. Stranded /solid conductor				
14.1.2	ARMOURED 2 Core				
	2.5 Sq.mm.(Heavy Duty)	Mtr	92.7	100	9270.00
	4 Sq.mm.(Heavy Duty)	Mtr	102.6	80	8208.00
	6 Sq.mm.(XLPE)	Mtr	124.2	50	6210.00
	10 Sq.mm.(XLPE)	Mtr	138.6	100	13860.00
	16 Sq.mm.(XLPE)	Mtr	162	100	16200.00
14.1.8	ARMOURED 4 CORE				
	6 Sq.mm.(XLPE)	Mtr	151.2	105	15876.00
	10 Sq.mm.(XLPE)	Mtr	164.7	50	8235.00
	16 Sq.mm.(XLPE)	Mtr	206.1	50	10305.00
	25 Sq.mm(XLPE)	Mtr	252.9	50	12645.00
	35 Sq.mm(XLPE)	Mtr	322.2	102	32864.40
	50 Sq.mm(XLPE)	Mtr	416.7	128	53337.60
	70 Sq.mm(XLPE)	Mtr	543.6	100	54360.00
14.10	CABLE LAYING				
17	Laying and fixing of one number PVC insulated and PVC sheathed aluminium conductor cable of 1.1kV grade of size not exceeding 25 Sq.mm on surface etc. as required.	Mtr	31.50	399	12568.50
18	Laying and fixing of one number PVC insulated and PVC sheathed aluminium conductor cable of 1.1kV grade of size exceeding 25 Sq.mm but not exceeding 120 Sq.mm on surface etc. as required.	Mtr	72.00	410	29520.00

42.64 PWD SOR	Supplying, installing, testing and commissioning of 11/0.4 K.V. 3 Phase 50 Cycle oil immersed, naturally cooled, out door type transformer connected delta on H.T. side and star on L.T. side, hand operated off load Tap changer switch above 100 kVA, oil conservator with drain valve, plug 63 KVA and above, dehydrating silica gel breather on eye level, rating and diagram plate, two earthing terminal, lifting lugs, oil level gauge, drain valve with plug, temperature not exceeding 50°C on load, oil filling hole with plug, four unidirectional roller, arcing horns, explosion vent, terminal arrangement bushing on H.V. side and cable box on LV side, first filling of oil upto desired level and transformer installing on existing structure with all required materials arrangement as required as per IS specification. Marked ISI & 3 Star rating				
42.64.2	Copper wound				
42.64.2.1	200 KVA	Each	363423.6	2	726847.20
42.64.2.2	315 KVA	Each	590474.7	1	590474.70
13	Preparation to drawing of exiting pole mounted substation up to 500 KVA 11 KV/0.4 KV rating, getting the drawing aprover from electrical inspectorate, getting the inspection of this substation installation done by Competent Authority of Electrical Inspectorate getting this installation of sub Station approved & acquiring provisional permission for charging & submitting the approved drawing and the provisional permission for charging to competent authority of JMC and getting this substation charged from MPSEB.	1 Job	16200.00	6	97200.00
Total					9999982.17