

Detailed Estimate

Name of Work :- Supply , Installation testing & Commissioning of 33 KV / 0.433 Sub-Station 1 x 800 KVA)

Rate : i) SOR for Electrical works issued by Engineer - in - Chief CGPWD w.e.f 01/06/2020 (S.No. 01 to 18)
ii) As per Market Rate (S.No. 19 to 22)

S N	SOR	Description of item	Unit	Qty	Rate INR	Amount
1	21.2.3	Supplying and installation of outdoor type Transformer ONAN type with copper winding having following continuous KVA rating, 33 /0.415 KV 3 Phase 50 Hz Vector group DYn-11, (Online tap changer) tapings in steps of $\pm 2.5\%$, $\pm 5\%$, $--7.5\%$ with oil conservator, silica gel breather having connecting terminals on HV side suitable for bare conductor/HT cable connection, cable end box on medium voltage side suitable for 1.1 KV single core UG cable(upto 300 sq mm)/bus ducting arrangement and confirming to IS:1180 Part-2 Level 3 on existing Brick /CC/RCC platform with all fittings, accessories, filled with filtered transformer oil including testing and commissioning etc. complete as per specification 800 KVA	Each	1.00		
2	15.3.20	Supplying and laying following sizes one number FRLS PVC insulated /XLPE, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade in existing RCC/ HUME/ STONEWARE/ METAL/ HDPE pipe as per specification, IS: 1554 (1988, Part 1) / IS: 7098 (1988, Part 1). 3.5C x 300 sq. mm.	Metre	60.00		
3	15.23.21	Supplying and making end termination with brass compression gland and aluminum lugs for following size armoured aluminum conductor power cable of 1.1 KV grade as required. 3.5C x 300 sq. mm. (63 mm)	Each	16.00		
4	21.5	Providing and erecting floor mounted sand/ water bucket stand for keeping 4 nos. of fire bucket, 1500 mm in length and 900 mm in height made out of 30 X 30 X 4 mm angle iron welded with 4 hooks and duly painted with one coat of zinc cromate primer and 2 coat of synthetic enamel paint of post box red colour etc complete.	Each	1.00		
5	21.6	Supplying G.I. Fire buckets with round bottom having at least 9 lit. capacity duly painted with one coat of zinc cromate primer and 2 coat of synthetic enamel paint of post box red colour and filled with dry sand and kept on provided wall hook or stand etc complete.	Each	4.00		
6	21.7	Supply and laying SMC chequere plate in size 1m x 1m x 2.5mm (thick) to withstand 22 KV Electrical stress near LT or 11 KV HT panel etc complete.	sqm	4.00		
7	21.4	Supplying and spreading hard stone aggregate 25mm size in out door switch yards as per direction of Engineer-in-charge.	Cum	20.00		
8	30.6	Filling hard moorum in foundation or under floor in layers including ramming and watering.	Cum	50.00		
9	12.1	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal and salt as per specification.	Set	4.00		

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10	12.2	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe, with charcoal and salt as per specification and IS Code 3043: 1987(R 2016)	Set	3.00		
11	12.3	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe, with charcoal and salt as per specification.	Set	3.00		
12	12.5	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including soldering, excavation and refilling the trench etc. as per specification.	Metre	65.00		
13	12.16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as per specification.	Metre	75.00		
14	10.2.2	Providing and fixing approved make, Electrically Operated, draw out type, 415/500 volts, 4 pole air circuit breaker complete with all standard accessories as per manufacturers specifications including drilling holes on the board, connections, earthing the body, testing and commissioning etc. as per specification and Ics = Icu = Icw for 1 second, IS/IEC: 60898. 1250 amps, 4 pole, 50 KA	Each	2.00		
15	21.8	Supplying and erecting chain link mesh fencing for electric sub-station switch yard of 2.5 m approx. height from ground level using angle iron size 50 X 50 X 6 mm erected in C.C. foundation 15 X 15 X 40 cm deep at every 2 metre fitted with flat iron support of size 25 X 6 mm on top, bottom and mid way and chain link mesh 50 x 50 mm aparture and 4 mm dia G.I. hard wire securing and screwing with 2mm dia G.I. wire, G.I. staples, G.I.U-nails or steel pins to the angle iron at every distance of 30 cms, by iron studs complete duly painted with one coats of red oxide and two coats of approved colour paint. (Area of fencing i.e. height x length is to be measured)	Sq.m	80.00		
16	21.9	Supplying and erecting MS gate of approx. size 2.0 m (W) x 2.0 m (H) in two laps for electric sub-station switch yard fencing frame made of angle iron size 50 X 50 X 6 mm on top bottom and sides fitted with flat iron support of size 25 X 6 mm on mid way horizontally and square bar of size 8 mm at every 100mm vertically including 3 sets of heavy duty MS hinges and aldrop complete duly painted with one coats of red oxide and two coats of approved colour paint.	Sq.m	4.00		
17	26.17.3	ABC Fire Extinguisher 4KG Nitrogen Store Pressure As per IS: 15683:2018 Body Sheet Not Less Than 2mm Thickness, CE Mark NRV Valve With ABC Powder 90% UL 299 FIRE RATING: 2A, 89B. With all accessories.	Each	2.00		
18	26.17.5	CO2 type Fire Extinguisher ISI marked confirming to IS:15683:2018 Capacity 4.5Kg. INITIAL CHARGE:- Carbon dioxide used in extinguishers shall comply with IS 15222. FIRE RATING:- 55B. Complete with Hose Assembly and horn , locking arrangement, operation manual, bracket with two screw and sleeve	Each	2.00		

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19	NON SOR Item	Construction of plinth for ,Transformer in RCC including excavation, laying of PCC, neatly dressed, plastered, supply of all materials as required for completeness, as per attached specification/ drawing, CSPDCL standards and direction of EIC.	Cum	6.00		
20	NON SOR Item	Supply assembly,Erection testing and commissioning of two pole structure for transformer substation complete with 2 nos H beam pole 152x152 mm, 11 mtr long painted with aluminium paint necessary Civil work ,3 Nos heavy duty Lightening arrester for 3 wire, 33 KV overhead lines with rated voltage 30 KV (rms) with a nominal discharge current rating of 10 KA (station class),01 No.33 KV gang operated air break switch complete with Operating Handle pipe/pad ect as required, 1 set 33 KV D.O. fuse unit for two pole structure with insulators and all other accessories complete, 01 set 33 KV glazed porcelain disc type insulator with tension hardware ,pin insulators 1 set with GI pin tec as required .The structure should complete with cross arm(minimum X-section 100 mm x 50 mm)clamp nut bolts & other accessories hardware necessary anticlimbing device etc. as required as per CSPDCL specification.	Set	1.00		
21	NON SOR Item	Supply & Erection of Raccoon 6/1/4.09mm dia with calculated aluminium area 78.83 sq.mm , ACSR conductor from MEDP to first insulator & upto transformer , HT bushing termination through G.O Switch, DO switch & Lightenting Arester tec Including binding as required	Job	1.00		
22	NON SOR Item	Sub Station Liasioning work for getting HT connection from CSPDCL including preparation of electrical drawing / necessary approval from Electrical Insepector , submission of test report,Inspection of substation & getting permission to charge the Subsation.(33 KV Transformer 1 x 800 KVA)	Job	1.00		
Total Amount INR						
Add 27.3% Extra on SOR Items(Rs 2152547.00) for Expected tender Rate						
Grand Total Amount						
Say Rs						