

BHEL::HYDERABAD
M&S (P&C) DEPARTMENT
TENDER No.M&S/P&C/2019/34 DT.19/07/2019
NAME OF WORK: ELECTRICAL WORKS FOR UPGRADATION OF 52
BUILDING SUBSTATION

SCOPE OF WORK

- 1) The works are to be carried out in accordance with IE rules 1956. After completion of erection works, the contractor has to arrange inspection by CEA and obtain the permission for charging the sub-station. BHEL will provide all relevant drgs and other necessary arrangements will be borne by the contractor.
- 2) The quantities indicated are tentative and may increase or decrease. Any other works not mentioned but required for completion of the project are to be carried out by the contractor.
- 3) The contractor should follow all the statutory requirements, Environmental Management System (EMS), Occupation Health and Safety Management System (OHSAS) while executing the work.

		UNIT	QTY
1	Unpacking and disassembly of VCBs for shifting inside the substation. The job includes removal of packing, removing covers, disconnecting interconnecting busbars and removal of VCB trucks	Nos	15.00
2	Shifting, Assembly, Erection, Testing and Commissioning of 6.6KV, VM-12, BHEL make, Indoor type stand-alone VCBs. The VCBs shall be erected on the trenches by providing MS material. The job includes primary injection, secondary injection and testing of relays mounted on VCB panels. Approx. Size: 820(L) x 2355(W) x 2700(H) mm and Wt: 1500kgs each.	Nos	2.00
3	Shifting, Assembly, Erection, Testing and Commissioning of 11KV, VM-12, BHEL make, Indoor type VCBs. The VCBs shall be erected on the trenches by providing MS material. The job includes primary injection, secondary injection and testing of relays mounted on VCB panels. Approx. Size: 820(L) x 2355(W) x 2700(H) mm and Wt: 1500kgs each.	Nos	13.00
4	Removal/disconnection of existing cables, dismantling, shifting to Scrap Yard or handing over of the following items to Power distribution or following the instructions of the Site Engineer		
	a) 11kV, BVP-4/BVP-3 MOCB. Approximate Dimensions: 600mm(L)X1400mm(W)X2500mm(H). Approx. Weight: 1 Ton	Nos	13.00
	b) 6.6kV, BVP-4/BVP-3 MOCB. Approximate Dimensions: 600mm(L)X1400mm(W)X2500mm(H). Approx. Weight: 1 Ton	Nos	1.00
5	Shifting and laying of the following HT power cables (UE). The job includes Dressing & Tagging, Fixing of free issued trefoil clamps for Single Core cable at 1mt interval etc.		
	a) 1C X 630 sq.mm, 11KV (UE) aluminum armoured cable	Mts	0.00
	b) 3C X 95 sq.mm, 11KV (UE) aluminum armoured cable	Mts	86 Building
	c) 3C X 300 sq.mm, 6.6KV (UE), aluminum armoured cable'	Mts	86 Building
6	Supply of the end termination kits for the following cables. Make: Raychem/3M		
	6.6KV (UE) Cables		
	a) 1C X 630 sq.mm XLPE aluminum armoured cable	Nos	0.00
	b) 3C X 300 sq.mm XLPE aluminum, armoured cable	Nos	1C X 630 sq.mm, 6.6KV (UE), XLPE
	c) 3C X 120 sq.mm, 6.6KV (UE), PILC cable	Nos	2.00
	11KV (UE) Cables		
	d) 1C X 630 sq.mm XLPE aluminum armoured cable	Nos	0.00
	e) 1C X 500 sq.mm XLPE aluminum armoured cables	Nos	Terminations
	f) 3C X 95 sq.mm XLPE aluminum armoured cable	Nos	3C X 120 sq.mm, 6.6KV (UE), PILC

7	Supply and execution of straight through joints for 3C X 120 sq.mm, 6.6KV (UE), PILC aluminum cable	Nos	2.00
8	Execution of end joints and reconnection of the following cables in the VCBs. The job includes making holes of sufficient size in the gland plates, adjusting the cables in the trench and providing mechanical support for the cables, sealing of cable entries with wall putty, tagging of cables		
	6.6KV Cables		
	a) 1C X 630 sq.mm XLPE aluminum armoured cable	Nos	0.00
	b) 3C X 300 sq.mm XLPE aluminum, armoured cable	Nos	1C X 630 sq.mm, 6.6KV (UE), XLPE
	c) 3C X 120 sq.mm, 6.6KV (UE), PILC cable	Nos	2.00
	11KV Cables		
	c) 1C X 630 sq.mm XLPE aluminum armoured cable	Nos	0.00
d) 1C X 500 sq.mm XLPE aluminum armoured cables	Nos	Terminations	
e) 3C X 95 sq.mm XLPE aluminum armoured cable	Nos	3C X 120 sq.mm, 6.6KV (UE), PILC	
9	Supply and Erection of Earth pits for Equipment body earthing with 65mm dia GI pipe Medium (class-B), strictly as per IS: 3043, 3000mm long with holes of 12mm dia at 150mm apart at random & 50x6x260mm MS Earthing plate welded to pipe as per drawing. The work includes supply of material for alternate layers of charcoal(75kgs), salt(150kgs) and making RCC/brick chambers with MS/cast iron cover. Contractor shall dig 300mm depth and 200mm width trench in the soil for laying the earth flat from earth pit electrode to earth mat/equipment.	Nos	6.00
10	Shifting, Fabrication and Erection of structural steel for equipment/cable tray support	Tons	1.00
11	Shifting & Earthing of Equipment from nearest Earth riser with 50x6mm/ 25x3mm GI flat	Mts	200.00
12	Shifting & Erection of cable tray upto 600mm width of ladder / perforated type. The job includes fabrication of cable tray bends wherever required.	Mts	300.00
13	Shifting and laying of the following LT cable		
	a) 3C/4C X 2.5 sq.mm Copper armored cable	Mts	100.00
	b) 12C X 1.5 sq.mm Copper armoured cable	Mts	300.00
14	Termination of the following LT cable. Copper/Aluminum lug, double compression glands are in the scope of contractor		
	a) 3C/4C X 2.5 sq.mm Copper armored cable	Nos	4.00
	b) 12C X 1.5 sq.mm Copper armoured cable	Nos	10.00
15	Identification of old cables, disconnection from equipment, drawing out from trench and shifting to scrapyards/as per the instructions of site engineer	Mts	300.00