

BILL OF QUANTITIES (BOQ)- 220 kV EHV Cable Maintenance Work					
Name of Work:- Civil & Electrical Supply -Services for re-routing of Ghodbunder LILO 220kV Cable feeders.					
Location : LILO Ghodbunder Cable route.					
Sr. No.	Description of Items	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
<b>Civil</b>					
1	Supply of 250mm HDPE Pipe	M	960.00		0
2	Supply of 110mm HDPE Pipe	M	160.00		0
3	Excavation for Pipe laying upto 2 meter: Excavation only for construction of cable trench for 220 kV cables in all types of soil as required in the minor section of the route as per approved drawing from AEML.	M	200.00		0
4	<b>Civil services for Laying of 6 Nos. of 250 HDPE Pipe &amp; 1 No. of 110mm pipe. Encasement of the same with M20 garde PCC with supply of RCC tiles , Construction of 4 Nos. RCC Joint chamber etc:</b> Supply and Installation of plain cement concrete M-20 for encasing of 6 nos of 250 mm & 1 no of 110 mm HDPE pipe, Supply & Installation of Reinforced cement concrete M-30 grade along with shuttering and all alied works for contruction of joint chambers. Laying of 250 mm HDPE pipes (6 nos) & 1 no 110 mm HDPE pipe PE 100/PN6 grade as per is 4984:1995, Supply and Laying of Pre cast RCC Cover tiles over concrete encased HDPE pipes for protection purpose, Construction of pulling/ Opening Chambers, <b>Laying of 220 kV cable through 250mm HDPE pipe, Laying of OFC cable through 110mm HDPE pipe, Laying of DTS cable along with Y-Phase 220 kV Cable. These cables are to be laid in Duct Bank Methodology as per the direction of Engineer In-Charge. Supply and Filling Bentonite in 250 mm HDPE pipes after laying of 220 kV Cable through it for entire route length.</b> Construction of RCC jointing chamber in M-30 grade (16 Meter x 2.7 meter x 2.5 meter) per circuit ( Total 4 Nos.) and cover it with RCC Precast Slabs in which other circuit in same Joint Chamber will be threaded through concrete encased 250 mm HDPE pipes Backfilling of trench with soft murum and backfilling of joint chamber with Bentonite slurry and soft sand All above works shall be carried out as per drawing approved by AEML.	M	160.00		0
5	<b>M30 Concrete for construction of beam:</b> P & L M30 grade concreteFor all depths: Providing and laying in position Reinforced Cement Concrete manufactured as per mix design of M30 grade with fully automatic batching plant , including pumping of concrete from transit mixer to site of laying, excluding the cost of centering, shuttering and finishing and reinforcement, including the cost of admixtures in recommended proportions as per IS:9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of EngineerLaying in position design mix cement concrete of M30 Grade in substructure with following depths from finished ground level for reinforced concrete work in foundations, in all kinds of work using graded crushed stones (20mm down) as coarse aggregate including conveying, staging, laying,vibrating, compacting and curing etc complete as per drawings & specifications and direction of the Engineer in charge. (Cement, Concrete & all material in the scope of Contractor only)  Note: Shuttering & Fixing steel reinforcement will be paid separately under relevant items.	Cum	8.15		0
6	<b>Reinforcement for Beam Construction: Cutting, bending and laying of reinforcement of Fe 415/Fe 500 grade ( Supply of reinforcement in contractor's scope ):</b> Supply of reinforcement and Cleaning, Cutting, Straightening (if required) bending, placing in position, and binding with 18SWG annealed soft iron wire TMT bars of minimum grade Fe415/Fe500 conforming to IS-1786 reinforcement of all diameters for RCC members as per drawings, specification & directions of Engineer in charge at all elevations.with proper cover blocks, supports, chairs, spacers etc. fixing and binding of reinforcement with 16 SWG black soft annealed wire (Binding wire will not be measured and paid for). The rate shall include labour, T & P, cost of binding wire, preparation of detailed bar bending schedule (BBS) etc. required for s/atisfactory completion of works all complete.	MT	0.82		0
7	<b>Shuttering for beam Construction: Form work :-</b> Providing and fixing Plywood with film face formwork (for substructure) of approved quality for cast-in-situ, plain or reinforced concrete works of any type and section for following depth below Finished Ground Level, including labour, materials, equipment, waste for forms, shoring, strutting, scaffolding, staging, tying, nailing, caulking, bolting, testing, etc. including removal of formwork and staging etc. all complete as per specifications, drawings and instructions of the Engineer. The contractor shall supply, fabricate, erect and dismantle (after use) all staging that is required for all activities covered under 'Form Work'. If it is so desired by the Engineer-in-Charge, the Contractor shall prepare before commencement of the actual work, the scheme and submit alongwith the supporting design calculations and drawings for formwork and staging and get them approved by the Engineer-in-Charge.	SQM	27.90		0
8	<b>RI Charges</b>	M	200.00		0
9	<b>Construction of Link Box / OFC &amp; DTS Chamber: 2 Link Box Chamber &amp; 1 OFC Chamber</b>	LS	3.00		0
<b>Electrical</b>					

10	Electrical Services for 220kV Cable joints, OFC and DTS cable joints, IR Testing for 220kV Cables, OTDR test for OFC / DTS cables, Sheath testing of 220 kV cable.	Nos.	12		0
				<b>Sub Total</b>	-
				GST-18%	-
				<b>Total</b>	-