

BOQ Cum Price Schedule for Water Evacuation System					
<b>Customer</b>	<b>Pragati Power Corporation Ltd. PPCL</b>				
<b>Project:</b>	<b>400kV substation at Bamnauli, Delhi</b>				
<b>Scope:</b>	Supply, Installation, Testing and Commissioning of the <b>Water Evacuation System</b> including Vertical Stand, Earthing Material (75X12 mm GI flat), Piping System for Suction and Discharge, Cabling including Gable Glands, Ferrules and other consumables required for termination and piping etc to complete the system.				
<b>Scope of Services:</b>	Following inputs shall be provided by contractor - a. Detailed drawings showing following - (i) Arrangement of pump motor with provision of main and standby. (ii) Discharge piping with clamping arrangement for both main and standby. (iii) Mounting arrangement of local control panels complete with canopy. (iv) Mounting arrangements of Pump motor. b. Schematic drawing for LCP for auto start and auto off. c. Technical data sheet for pump/motor set and level switches etc.				
<b>Description:</b>	For each Sump Pit there is provision of two Motor Pump (one as Main and another as Standby). One Local Control Panel shall be provided for two Sump Motor Pump (Main and Standby). One single phase AC supply incomer shall be provided to Local Control Panel. There shall be provision of two outgoing three phase AC supply from local control panel to two Motor Pump (main and standby) and same arrangement shall be provided in Local Control Panel by Changeover Switch. Auto Start and Auto Off feature shall be provided for Main and Standby Motor Pump in respective Local Control Panel (No. of locations = 4).				
SI.No.	Item Description	Unit	Qty	Unit Rate (Rs.)	Amount (Rs.)
1	Supply and installation of <b>Monoblock Pump with motor</b> (suitable for mounting on ground foundation) complete with fixing/ mounting arrangement and other accessories as required for drainage of water from a Sump Pit located inside the trench. <b>Technical parameters of the pump are</b> <b>Discharge Range (LPM) = 1125-550.</b> <b>Head Range (meters) = 9-18.</b> <b>Selected HP of motor = 5 HP (3.7 kW).</b>	No.	8	28183.68	225469.44
2	Supply and installation of <b>Auto Start and Auto Stop Level Switch</b> complete with mounting arrangement and accessories. <i>These level switches are required for giving start and stop commands to the pump.</i>	Set	8	3022.56	24180.48
3	Supply and installation of <b>Suction Piping (GI/ PVC/ HDPE)</b> (to suit the Pump Capacity) (@4mtrs for each Monoblock Pump)	mtrs	32	251.10	8035.20
4	Supply and installation of <b>Discharge Piping (GI/ PVC/ HDPE)</b> (minimum 1 no. bend to suit the Pump capacity) complete with clamping arrangement for securing the pipe to suit site condition (@6mtrs for each Monoblock Pump).				
a	Discharge Pipe	mtrs	48	849.38	40770.00
b	90 deg bend	No.	8	800.00	6400.00
5	Supply and installation of <b>Non Return Valve and Manually Operated Valve</b> of suitable dia.	No.	8	25000.00	200000.00
6	Supply and installation of Local Control Panel, suitable for outdoor i.e. IP55 with the following functionality - 1. Provision for termination of incoming supply (4core 6sq.mm armored Al cable, each TB shall be suitable for 16 sq mm cable). 2. Interlocking arrangement with high and low level switches such that the pump starts on high level in the sump and stops at low level. Contactors as required to implement this requirement. 3. Automatic and manual selector switch. 4. Manual switching on and switching off of the pump through PBs. 5. Status indication of incoming supply healthy, pump on and pump trip. 6. Starter & Overload protection arrangement for pump motor (TPN MCB & ELCB). ( 1no. Local Control Panel for Main and Standby Pump)	Set	4	51840.00	207360.00
7	Supply, Fabrication and Installation of Vertical Stand (MS Angle) for mounting of Local Control Panel. The stand should be complete with a small canopy to prevent direct rain hit on the panel.	No.	4	4344.00	17376.00
8	Supply & installation of earthing material (75X12 mm GI flat)	No.	8	1642.35	13138.80
9	Supply of <b>4CX6 sq. mm Copper Armoured Cable</b>	Mtrs	4000	189.30	757200.00
10	Laying and termination of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of <b>4CX6 sq. mm Copper Armoured Cable</b> direct in ground including excavation, sand cushioning, protective covering by bricks and refilling the trench etc. as required <b>as per attached drawing-Annexure1</b>	Mtrs	3000	206.00	618000.00
11	Laying and termination of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of <b>4CX6 sq. mm Copper Armoured Cable</b> direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc. as required <b>as per attached drawing-Annexure1</b> .	Mtrs	1000	141.00	141000.00
12	Testing and commissioning of the <b>Water Evacuation System</b> in all respect.	Lot	1	15000.00	15000.00
<b>(A)</b>	<b>Total Amount (Rs.)</b>				<b>22,73,929.92</b>
<b>(B)</b>	<b>Applicable percentage (%) above /below/at par to the total amount</b>				<b>.....% above/ below/ at par</b>
<b>(C)</b>	<b>Total Cost for subject works after consideration of percentage above/ below/at par</b>				
<b>Note:</b>					
1	Bidders to quote a percentage above/ below/at par at SI. No. (B) which shall be applicable uniformly on all item rates of BOQ.				
2	Transportation, unloading, handling, shifting to & from stores, proper storage, assembly and watch & ward of all equipments/ materials covered in this NIT shall also be in the scope of the bidder.				