

Budgetary Offer Notice No 1. of 2019-20

For the Estimation Purpose Only

Government of Maharashtra

Water Resources Department

Executive Engineer, Mechanical Division, Solapur

Budgetary offer for the Job work of Design, manufacturing , supply ,erection, testing and commissioning of pumping machinery of 8 Nos. 1940 HP each and allied equipments for **KRISHNA MARATHWADA LIS SCHEME 1 STAGE 1 (Ujani Dam to Sina Kolegaon Project)** (Non DSR items) are invited by the Executive Engineer, Mechanical Division, Ujani colony, Kumatha naka, Solapur 413003 on behalf of Govt. of Maharashtra *for estimation purpose* from the Reputed OEM(Original Equipment Manufacturer).

The brief of work is given below. Interested Agencies are requested to go through the details and send the budgetary offers for proposed work. The rates should cover all taxes and duties applicable. The interested parties are requested to quote the offer up to 24/11/2019. Further it is requested to forward relevant technical literature, brochures of equipments and your comments if any in this matter. For detailed specifications of equipments and scope of work involved if required, please contact to this division office .

Sr. No.	Name of Work	Qty.	Rate	GST	Total
1	Vertical Turbine Pump (1940 HP)- Providing & Installing at site of works and giving test to full capacity, Vertical Turbine pumps complete with strainer, suction assembly, Discharge Case / Discharge Tee, Motor stool, flexible couplings, sole plates, base frame foundation, non reversible-rotation ratchet arrangement, Thrust Bearing etc with all priming arrangements & cooling arrangement. Suitable for following duties specification and confirming to detailed specifications. a) Duty point discharge 4.2586 m3/sec b) Duty point head 29 Mtr. c) Maximum rpm synchronous = 500 RPM d) Pump efficiency = 85 %	8			
2	Forced water lubrication system- Forced water lubrication system with two no. of booster pump & two no. of pressure filters & Allied Equipments all.	1			
3	Non Return Valve -Providing, Installing the Non Return valve of A] Diameter - 1600 mm B] P.N. Rating – 2	8			
4	Butterfly Valves - Providing, Installing at site of works and testing Double Flanged Butterfly Valves conforming to relevant IS/BS 5155 with Electric Actuators with 415 volt A.C. motors D.O.L. starting etc. complete suitable for following duties, specifications and conforming to detailed specifications. A] Diameter - 1600 mm B] P.N. Rating – 2	8			
5	Kinetic Air Valve - Providing, Installing at site of works and testing Kinetic Air valves of 320 mm dia. For releasing air from the delivery pipe etc. complete as per detailed specifications. A) Dia 320 mm	8			

	b) PN Rating - 1.6 or as per latest IS				
6	Delivery Pipe line - Providing and Erecting Delivery pipes at site of works and testing delivery pipe lines conforming to relevant IS code including joints of all in between valves and upto rising main / manifold complete, suitable for following duties specifications and conforming to detailed specifications.a. Diameter - 1650 mmb. Wall thickness - 12 mm & Length 25 mtr. for each PUMP Suction pipe line. Diameter - 1600 mmb. Wall thickness - 12 mm & Length 100 mtr. for each Delivery Pipeline	8			
7	Dismantling Joints - Providing, installing dismantle joint at site of works and testing M.S. Dismantling joints in pump delivery pipe line complete, suitable for following specifications and confirming to detailed specifications. a. Diameter – 1600 mm b. Wall thickness – 12 mm	8			
8	Induction Motors (H.T. Motors) - Providing, Erecting, testing & trial of Squirrel Cage Induction Motors Vertical Flange Mounted CACW (Closed Air Circuit Water Cooled), Forced Water Cooled conforming to IS IS: 4691 / IEC: 60034-5 having continuous rating suitable for Operation at 6.6 KV +/- 10 % , 3 Phase, 50 Hz +/- 3%, with F class insulation, Temp Rise limited to Class B Insulator. Motor shall be fitted with Suitable Space Heater & Six No of RTDs for Stators & Bearings installing at site of works and testing to full capacity, solid shaft suitable for Continuous 10 % Overload Operation On voltage mentioned below 3 phase 50 Hz with voltage variation of 6 % and frequency variation 3% suitable for direct coupling with pumps under item No.1 as per latest revision of IS 325, Is 4722 & other Relevant IS specifications to meet the power requirement of pumps with 5 % additional capacity over entire Operating range, suitable for following duties, specifications & conforming to detailed specifications. HT MOTORS : Operating volt - 6.6 kV Minimum Motor O/P rating of 1870 kW, motor rpm=500 rpm,motor efficiency 95 %.	8			
9	Capacitors Cubicle - Supplying,erecting bank of all polypropylene capacitors with capacity 6.6 Kv ,3 phase ,600 KVAR or as per the actual requirement (app.)suitable for maintaining motor PF above 0.95	8			
10	Soft Starter -FCMA Soft starter - Supplying & erecting at site work , testing and commissioning of FCMA electrical soft starter suitable for above motors as per 6.6 KV and 1870 KW Motor.	8			
11	H.T. Panel (6.6 KV, 21.9 KA) - Providing, installing & testing of sheet steel, dust & vermin proof, indoor, floor, mounting type H.T. panels, complete assembled wired tested, painted conforming to relevant ISS complete, suitable for following duties, specification and conforming to detailed specifications (2 I/C ,1 B/C, 8 M/F, 2 spare M/F, 2 Capacitor Cubicle, 1 Aux Transformer, i.e. Total 16 Nos)	1			

	<p>The HT Panel includes 6.6 KV Potential Transformers, Current Transformers, HT Fuses, Motor Protection Relays, Over Current & earth Fault relays, Under Voltage Relays, Trip Circuit Supervision Relays, DC Supervision Relay, Tripping & Interlocking Relays, with adequate Capacity Bus Bar, Annunciators, Indication Bulbs, Control Switches, Voltmeter, Ammeter, Fuses with all required Relays, Contactors, Earthings, Rubber Matings etc. for fulfilling electrical Control & Protection of the Schemes</p> <p>A] VCB Capacity - 3000 Amps each for 2 I/C Breakers, 3000 Amps for 1 B/C, 1200 Amps For 8M/F; 1200 Amps for 2 spare, 1200 Amp for 1 Capacitor Feeder, 1200 Amp for Aux Transformer feeder)</p>				
12	<p>L.T. Distribution Panel- Providing installing at site of works and testing 415 volt, 3 Ph, 50 Hz. 250 A, distribution L.T. Panels comprising of following and as per detailed specifications.</p> <p>I. 415 V, 400 A, A.C.B.. for Aux. transformer Incoming feeder...2 No. & 1 for DG Incomer 200 Amp. with Bus Coupler facility</p> <p>II. 415 V, 100 Amp . H.R.C. Switch fuse unit – 8 Nos</p> <p>III. 415 V, 63 Amp H.R.C. Switch fuse unit :-8 Nos</p> <p>IV. 415 V, 32 Amp ,H.R.C. Switch fuse unit No. 12 Nos</p> <p>V. 415V, 16 Amp, HRC switch Fuse unit 10 Nos</p> <p>VI. Electric Motor starters D.O.L. type - 8 Nos reversible, push button operated suitable for B.F. valves.</p>	1			
13	<p>Batteries, Battery Chargers and D.C. Distribution Board (D.C.D.B)-</p> <p>Providing installing at site of works and testing batteries, battery chargers & D.C.D.B. Complete unit comprising of following and as per detailed specifications.</p> <p>I. Maintenance Free, Dry Type Batteries with 55 cells, 2 Volt each total 110 volt D.C. 250 Amp. Hour capacity along with all accessories.</p> <p>II. 2 sets of battery Charger of float cum boost having rating 30 Amps.</p> <p>III. DCDB would have 15 Nos. of feeders.</p> <p>IV. D.C.D.B. comprising of two incoming, Double pole Miniature Circuit Breakers (MCB) 50 Ampere and 10 Nos. 16 Ampere outgoing feeder with MCB, 5 Nos of 10 Amp or switch fuse unit, complete with accessories etc. The spares for the Charger & Distribution Board Panel such as Thyristor Card, etc. should be provided 1 no each per panel.</p>	1			
14	<p>Preparation of cable schedule and supply, Installation, testing Cables-</p> <p>Providing installing at site of works & testing suitable of HT Power Cable with termination Kit, LT Power cables & wires complete as required for the pump house.</p> <p>1. HT Cables and required termination kit (as per actual) 6.6kv, XLPE, insulated, AL conductor Armoured cable 3x95mm², length as required.</p> <p>2. LT Power and Control Cable with Glands & Lugs complete required as per actual</p>	1			

	3. Control & Screened Multi Core Cable standard Cu Conductor as per actual.				
15	Earthing- Providing, installing & Testing Copper Bonded MS Rod of 3 m each Length and Earth Resistivity enhancing compound as per approved Make at site of works earthing comprising of adequate No. of earth stations, earth bars & individual double earthing to all electrical equipments such as Motors, SoftStarters, HT Panels, Temp Scanner Panels, Remote Control Panel etc .Complete supplying,erectingGI strip of required size iron sheet metal work consisting of CRCA sheet ,rod,bar,MS plate etc fpr panel board or any other purpose completing with bending ,cutting,drilling,welding .	1			
16	Water Level Indicators- Providing installing at site of works & testing water level indicators operating on 230 Volts, 50 Hz, A.C. supply and as per detailed specifications	1			
17	Temperature scanner panels- Providing installing and testing of temperature scanner panels for each HT Motors suitable for operating at 110V DC or 230V AC mounted in a duly painted enclose in a panel provided with NO/NC relay for transmitting signals to VCB for tripping with audible alarm for both winding and bearing RTDs with all other accessories for satisfactory functioning of system etc. complete as per specification ,terms and condition of contract .Temperature scanners having 16 point each to monitor HT motor winding and bearing temperature .	1			
18	Remote Control Panel- Providing installing at site of works & testing of sheet steel, floor mounted, vermin proof & powder coated & Tropicalised Remote control Panels with control switch, Ammeters Annunciation facia windows, indication lamps etc. for control & monitoring of breakers, pumps/motors, ancillary equipments, panels etc. suitable as per requirement	1			
19	Testing ,commissioning ,trial operation & training to the department staff	1			
20	Spares & Tools- Providing at site of works tools & spares complete as per detailed specifications.	1			
21	Complete electrification to complete pump house	1			
22	Air conditioning to control room	1			
23	Fire fighting system to complete pump house	1			
Total					

Note- 1. The rates are required for the estimation purpose only as per guidelines of the prevalent Govt. Resolution dated 3 june 2010.

2. The rates such as GST, Insurance and other relevant taxes, if any should be mentioned separately.

2. The details of rates in the prescribed format in sealed envelope should be reach in the office of Executive Engineer, Mechanical Division, Solapur on or before 24/11/219.

3. Sealed envelope will be opened on date 24/11/2019 at 2:00 pm if possible and will be submitted to the Competent Authority for the Submission of the Rates for further action.

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