

“जलसंपदा विभागाच्या संकेतस्थळावर कृपया भेट द्या -<https://wrd.maharashtra.gov.in>”

जा.क्र. / १५७८ /उसियांविक्र.२चंद्र / ताशा-२ / धा.क्र.४४ / ब.ऑफर / २०१७	कार्यकारी अभियंता यांत्रिकी उपसा सिंचन विभाग क्र.२, बाबुपेठ, चंद्रपुर - ४४२४०३ यांचे कार्यालय
☎ :- (०७१७२)२२७३८२	
फॅक्स :- (०७१७२)२२७३८२	
ई मेल :- mlidn2@rediffmail.com	दि. ०४ /०७ /२०१७.

प्रति,

मा. अधिक्षक अभियंता
यांत्रिकी मंडळ , नागपुर

विषय :- डोंगरगाव ठाणेगाव उपसा सिंचन योजना ता. आरमोरी जि. गडचिरोली

व्ही.टी. पंपींग यंत्रासामुग्रीच्या यांत्रिकी व विदयुत घटक भागाचे संकल्पन,निर्मिती, पुरवठा ,
उभारणी,चाचणी व कार्यान्वितीकरण कामाची बजेटरी ऑफर संकेतस्थळावर प्रसिध्द
करणेबाबत.

महोदय,

या पत्रासोबत डोंगरगाव- ठाणेगाव उपसा सिंचन योजनेच्या व्ही.टी. पंपींग यंत्रासामुग्रीच्या यांत्रिकी व विदयुत
घटक भागाचे संकल्पन,निर्मिती, पुरवठा , उभारणी,चाचणी व कार्यान्वितीकरण कामाची बजेटरी ऑफर क्रं.
६ / २०१७-१८ (GST चा अंतर्भुत करून) यांत्रिकी संघटनेच्या संकेतस्थळावर (www.mahayantriki.gov.in)
प्रसिध्द करण्यात यावी हि विनंती.

कार्यालय	कार्यकारी अभियंता, यांत्रिकी उपसा सिंचन विभाग क्र.२, चंद्रपुर
बजेटरी ऑफर प्रसिध्द करण्याची अंतिम तारीख	दि. १२.७.२०१७
बजेटरी ऑफर स्विकारण्याची अंतिम तारीख	दि. २६.७.२०१७.

सबब आपले माहिती व पुढील योग्य कार्यवाहीस्तव सविनय सादर.

सहपत्र :- बजेटरी ऑफर क्र. ०६ /२०१७-१८ — १ प्रत

कार्यकारी अभियंता
यांत्रिकी उपसा सिंचन विभाग क्र.२
चंद्रपुर

Budgetory Offer No. 6 / 2017-2018

Name of Work: Design with Quality Assurance plan at all stages ,Manufacturing, Supply, Erection, Testing and Commissioning of Vertical Turbine Pump – 3 Nos. with allied equipments at **Dongargao Thanegao L.I.S**, Th. Armori Dist.:- Gadchiroli.

<i>Sr No.</i>	<i>Estimated Quantity</i>	<i>Item of work</i>	<i>Estimated Rate</i>	<i>Total Amount</i>
1	3 Nos	<p>Item No.1 (A) – Vertical Turbine Pumps</p> <p>Providing, installing at site of works and giving test to full load Capacity, vertical turbine pumps non-pull out type, complete with strainer, suction bowl, complete column pipe assembly ,Discharge head, Motor stools, Flexible coupling, sole Plates, base frame foundation, non reversible rotation Ratchet arrangement, etc. suitable for following duties, Specification and conforming to details specification under item No. 1 of Vol. II</p> <p>a) Duty point discharge 470 LPS</p> <p>b) Duty point head 40 m</p> <p>c) Maximum rpm synchronous 1000 rpm</p> <p>d) Efficiency</p> <p>1. Bowl efficiency 90 %</p> <p>2. Pump efficiency 88 %</p> <p>3. Overall efficiency 85 %</p> <p>e) Head range 30 m to 44 m</p> <p>f) Lubrication system Forced water</p> <p>g) Discharge type Sub Surface</p> <p>h) No. of stages Single Stage</p> <p>i) Column pipe dia. Minimum (ID) 550 mm</p> <p> I) Pump floor level 214.00 m</p> <p> II) Sump Bottom Level 196.9 m</p> <p>j) Column pipe thickness minimum 5 mm</p> <p>k) Line shaft dia. Minimum 60 mm</p> <p>l) Sole plate thickness minimum 60 mm.</p> <p>m) Diameter of shaft enclosing tube (minimum) 90 mm suitable for item (k) above.</p>		
2.	01 set	<p>Item No. 1(B) – Forced Water Lubrication and Cooling System</p> <p>Providing, installing at site of works and giving satisfactory test of Forced water lubrication and cooling system with all piping arrangements and conforming to details specification under item No. 1 of Vol. II</p> <p>. (As per Requirement)</p> <p>i) Pressure Filters 3 Nos.</p> <p>ii) Booster pumps (2 Nos.i.e.1+1 standby) As per required Capacity)</p>		

Sr No.	Estimated Quantity	Item of work	Estimated Rate (in figure)	Total Amount
3.	03 Nos.	Item No. 2 Non Return Valve (Cast Steel) :- Providing, installing at site of works and testing cast iron, non slam, double flanged type non return valve with by pass arrangement complete, suitable for following duties specification and conforming to details specification under item No. 2 of Vol. II. a) Diameter - 500 mm b) P.N. rating - 1.0		
4.	03 Nos.	Item No. 3 : Butterfly Valve (Cast steel) :- Providing, installing at site of works and testing double flanged butterfly valves conforming to relevant IS/BS 5155 with electrical actuators with 415 volts A.C. Motors D.O.L. starting etc. complete, suitable for following duties, specifications and conforming to details specification under item No3 of Vol. II. a) Diameter - 500 mm b) P.N. rating - 1.0		
5.	03 Nos.	Item No. 4 : Kinetic Air Valve 100 mm Dia. Providing, installing at site of works and testing kinetic air valves tamper proof with isolating sluice valve For releasing air from the delivery pipes, etc. complete as per detailed specification and conforming to details specification under item No. 4 of Vol. II. . i) Diameter - 100 mm , ii) P.N. - 1.0		
6.	75 mtr.	Item No. 5 : Delivery pipelines 500 mm Dia. Manufacturing, Providing, Supply, erection ,testing and joining at site of works and testing of delivery pipe line including jointing in between pump and up to rising main/manifold complete. Suitable for following duties, specification and conforming to detailed specification under item No. 5 of Vol. II . (a) Diameter (NB) 500 mm (b) Wall Thickness 5 mm		

Sr No.	Estimated Quantity	Item of work	Estimated Rate (in figure)	Total Amount
7.	03 Nos.	Item No. 6 : Rubber Expansion Joint :- Providing & installing at site of works & testing of rubber expansion joint in delivery pipe line complete suitable for following specification and conforming to details specification under item No. 6 of Vol. II i) Diameter = 500 mm ii) Internal Test Pressure =15.00 Kg./cm ² iii) Vacuum Test Pressure in mm of Hg 750 mm		
8.	03 Nos.	Item No.7: Supply, Installation and testing of orifice plate/ meter in the delivery pipe line with proper calibration.		
9.	03 Nos.	Item No.8: H.T. Induction Motors 6.6 KV 230 KW, 3 Phase, 1000 rpm, 50 Hz.. Providing, installing at site of works and testing to full capacity, solid shaft squirrel cage induction motors, CACW type, F Class insulation, suitable for operation on voltage mentioned below, 3 phase, 50 cycles per second with voltage variation of +/- 10% and frequency of +/-3%, suitable for direct coupling with pumps under Item no. 1(A) as per the latest revision of IS 325, IS 4722 and other relevant IS specification to meet the power requirement of pumps with 10% additional capacity over entire operating range suitable for following duties, specification and conforming to detailed specification under Item no. 7 of detailed itemwise specification under vol. II. (a) Operating voltage - 6.6 KV (b) Minimum BHP (KW) rating of motor - 230 KW		
10.	03 Nos	Item No 9: FCMA soft starter Providing and installing at site of work and testing of FCMA soft starter suitable for above motor mentioned in item No.8 and conforming to details specification under item No. 9 of Vol. II		
11.	03 Nos	Item No. 10 : Capacitor Cubicle 6.6 KV, 3 Phase, 50 Hz, 80 KVAR Providing, installing at site of works and testing of 6.6 KV, 3 phase, 50 cycles per second capacitor cubicles for the motors mentioned against Item no. 7 above, to improve the power factor to 0.98. The KVAR capacity of the capacitor cubicles should not exceed the magnetizing KVAR of motor. The capacitor shall be conforming to detailed specification under Item no. 10 of detailed item wise specification under vol. II		

Sr No.	Estimated Quantity	Item of work	Estimated Rate	Total Amount
12.	01 set.	<p>Item No. 11 : H.T. Incomer cum distribution Panel 6.6 KV, 3 Phase, 800 Amps.</p> <p>Providing, installing at site of works and testing of sheet steel, dust and vermin proof, indoor floor mounting type H.T. Panel, completely assembled, wired tested, painted, conforming to relevant IS, complete suitable for following duties, specification.</p> <p>(a) Electrical System 6.6 KV, 3 Phase, 50 Hz, A.C. with fault level of 25 KA.</p> <p>(b) Capacity 630 Amps.</p> <p>(c) Panel shall comprise of the following</p> <p>(i) 2 Nos. incoming breakers with following rating</p> <p>Current 630 Amps</p> <p>Minimum Rupturing capacity 250 MVA</p> <p>(ii) 1 No. Bus coupler breaker with following rating</p> <p>Current 630 Amps</p> <p>Minimum Rupturing capacity 250 MVA</p> <p>(iii) 4 nos. outgoing breakers with following rating</p> <p>Current 630 Amps</p> <p>Minimum Rupturing capacity 250 MVA</p> <p>(1) Breakers for outgoing feeders for motors 3+1 with the following ratings.</p>		
		Current - 630 Amps.		
		Minimum Rupturing capacity 250 MVA		
13.	01 Set	<p>Item No. 12 : L.T. Distribution Panel 415 v 3 Phase , 800 Amp.</p> <p>Providing , installation at site of work and testing of 415 Volts, 3 phase, 50 c/s, 800 Amp LT distribution panels comprising of following.</p> <p>1. 415 volts, 630 amp, ACB for auxillary transformer incoming feeder 1 no.</p> <p>2. 415 volts, 100 amp, HRC switch fuses unit 3 no .</p> <p>3. 415 volts, 63 amp, HRC switch fuses unit 4 nos.</p> <p>4. 415 volts, 32 amp, HRC switch fuses unit 4 nos.</p> <p>5. 415 volts, 16 amp, HRC switch fuses unit 5 nos.</p> <p>3 Nos electrical motor starter DOL type reversible push button operted suitable for BF Value under item no. 3 above.</p>		

Sr No.	Estimated Quantity	Item of work	Estimated Rate (in figure)	Total Amount
14.	01 set	Item No. 13 : Batteries, battery charger & DCDB. Providing, installing at site of work & testing batteries , battery charger & DCDB Complete unit comprising of following. 1. Batteries 2 x 55 cell 110 volts DC 200 AH hour capacity along with all accessories. 2. Battery Charger 110 volts 300 Amp for above batteries comprising of one float charger and one boost charger respectively complete with protective relays etc. 3. DCDB comprising of two incoming double pole miniature circuit breakers (MCB)50 AMPs, 2 Nos,55 amps, outgoing feeder with MCB or switch fuse unit , complete will all accessories.		
15.	01 set	Item No. 14 : Temperature Scanner Panel Providing, installing at site of work & testing of temperature scanner panel comprising of 4 nos. microprocessor temperature scanners having 12 points each to monitor H.T. motor winding and bearings temperature, complete as per detailed specification under Item No. 14 of Vol. II.		
16.		Item No. 15 : Preparation of cable schedule and supply, installation and testing of cable as below.		
	400 mtr.	50 sq.mm x 3 core,6.6 Kv XLPE Al armoured earthed cable Ht panel to HT Motor.		
	250 mtr.	35 sq.mm x 3 core, 6.6 KV Al XLPE armoured cable, (From HT panel to capacitor & Auxillary Transformer)		
	300 mtr.	50 sq.mm x 3.5 core, 1.1 armoured PVC insulated AL cable, (From LT panel to EOT & LT panel to Booster pump)		
		6 sq.mm x 4 core, 1.1 PVC armoured insulated AL cable, (From LT panel to BFV Actuator)		
		Control Cable		
	150 mtr.	4 sq.mm x 3 core, 1.1 KV PVC insulated copper conductor cable		
	150 mtr.	6 sq.mm x 4 core 1.1 KV PVC insulated copper conductor cable		
	300 mtr.	1.5 sq.mm x 4 core 1.1 KV PVC insulated copper conductor cable		
	375 mtr.	2.5 sq.mm x 7 core 1.1 KV PVC insulated copper conductor cable		
	225 mtr.	1.5 sq.mm x 27 core 1.1 KV PVC insulated copper conductor cable		

17.	Lumsump	Item No. 16 : Earthing. Providing, installing at site of work earthing comprising of adequate no. of earth stations, earth bard and individual double earthing to all electrical equipment as per detailed specification under Item no. 16 Vol. II.		
18.	01 No.	Item No. 17. Water Level Indicator :- Providing, Installing at site of work & testing of water level indicator operating on 230 volts, 50 c/s, AC supply.		
19.	01 set	Item No.18 Remote Control panel :- Providing, Installing at site of work & testing of sheet floor mounted vermin proof and powder coated and tropically remote control panel with control switches , ammeter, annunciation focia window, indication lamp etc. for control & monitoring of breakers , pump/ motor ancillary equipment panel etc. Incoming breakers/Bus coupler - 03 Nos. Pump Motor breaker - 03 Nos. Booster Pumps - 02 Nos Butterfly Valve - 03 Nos. Water Level indicator - 02 Nos. Capacitors - 03 Nos Cooling System - 03 Nos		
20.	01 Lot	Item No. 19 : Spares & tools. Providing at site of works tools and spares complete as per detailed specification in Vol-II		
21.	01 Job	Item No. 20 : Testing, Commissioning, Trial & operation of Pums and allied equipments Testing, Commissioning, Trial operation of the complete equipment and performance tests as per detailed specification under Item no.1 to 19 of Vol. II		
		Total Rs.		

Note :- Rates are inclusive all prevailing taxes including G.S.T.

Executive Engineer
Mechanicle Lift Irrigation Dn.No.2
Chandrapur