

तात्काळ

जा.क्र. 660 /उसियाविक्र.१भं/तांशा-१/बजेटरी ऑफर/२०१९.	कार्यालय कार्यकारी अभियंता उपसा सिंचन यांत्रिकी विभाग क्र.१ भंडारा-४४१ ९०४
☎ (०७१८४) २५२१६६	
ई मेल - ksmech1@gmail.com	दिनांक :- 29 APR 2019

प्रति,

मा. अधीक्षक अभियंता
यांत्रिकी मंडळ
नागपुर

विषय :- बजेटरी ऑफर महायांत्रिकी संकेतस्थळावर www.mahayantriki प्रसिध्द करणेबाबत,
बजेटरी ऑफर क्रमांक ०२ सन २०१९-२०

महोदय,

या पत्रासोबत पाठविण्यात येत असलेली बजेटरी ऑफर महायांत्रिकी संकेतस्थळावर प्रसिध्दीस देण्यात यावी ही

बिन्नती.

१	कार्यालयाचे नांव	कार्यकारी अभियंता, उपसा सिंचन यांत्रिकी विभाग क्र.१, एस.टी. वकेशाप समोर, नागपुर रोड, भंडारा.
२	बजेटरी ऑफर महायांत्रिकी संकेतस्थळावर प्रसिध्दीची अंतीम तारीख	०२/०५/२०१९

सहपत्र :- बजेटरी ऑफर - प्रत्येकी १ प्रती.

(स. सु. हाणी)
कार्यकारी अभियंता,
उपसा सिंचन यांत्रिकी विभाग क्र.१
भंडारा.

प्रतिलिपी :- १) उप अभियंता, उपसा सिंचन यांत्रिकी उपविभाग क्र. १ अंबाडी यांना माहितीस्तव अग्रेषित.
२) उप अभियंता, उपसा सिंचन यांत्रिकी उपविभाग क्र. २ गोंदिया यांना माहितीस्तव अग्रेषित.

सहपत्र :- बजेटरी ऑफर - प्रत्येकी १ प्रती.

३) उप अभियंता, उपसा सिंचन यांत्रिकी व विद्युत उपविभाग क्र.१, भंडारा यांना माहितीस्तव अग्रेषित.

सहपत्र :- बजेटरी ऑफर - प्रत्येकी १ प्रती.

४) उप अभियंता, यांत्रिकी अभियांत्रिकी कर्मशाळा उपविभाग क्र.१, भंडारा यांना माहितीस्तव अग्रेषित.

५) कार्यकारी अभियंता, उपसा सिंचन यांत्रिकी विभाग क्र.१ भंडारा यांचे कार्यालयातील नोटीस बोर्डावर लावण्यासाठी.

सहपत्र :- बजेटरी ऑफर - १ प्रती.

६) मा. अधीक्षक अभियंता यांत्रिकी मंडळ नागपुर यांचे कार्यालयातील नोटीस बोर्डावर लावण्यासाठी.

सहपत्र :- बजेटरी ऑफर - १ प्रती.


RATE PROFORMA				
GOVERNMENT OF MAHARASHTRA				
WATER RESOURCES DEPARTMENT				
Budgetary Offer No. 02 of 2019-20				
Issue Date - 02/05/2019, Closing Date - 16/05/2019, Opening date - 17/05/2019				
Executive Engineer, Lift Irrigation Mechanical Division No.1, Bhandara				
Sealed rates (excluding GST) are invited from contractor by the Executive Engineer, Lift Irrigation Mechanical Division No.1, Bhandara. (Phone No.07184 - 252166) for the purpose of estimation of the following works.				
Name of work - Design, manufacturing, supplying, erection, testing & commissioning with quality assurance plan at each stage of 03 Nos of force water lubricated type vertical turbine pump with allied equipments at Devari Navegaon Lift Irrigation Scheme Stage-1, Tah.- Gondia, Dist. - Gondia.				
Est Qty may be more or less	Unit	Description of work	Rate per Unit	Amount
3	Nos	Item No. 1(A) - Vertical Turbine Pumps.		
		Providing, installing at site of works and giving test to full Capacity, vertical turbine pumps non-pull out type, complete with strainer, suction bowl, column 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 the detailed specification Under item no.1 of details' item wise specification Vol. II.		
		a) Duty point discharge -	0.67 m ³ /s	
		b) Duty point head -	59.30 m	
		c) Maximum rpm synchronous -	750	
		d) Efficiency :-		
		1. Bowl efficiency -	92 %	
		2. Pump efficiency -	90 %	
		3. Overall efficiency -	85 %	
		e) Head range -	44 to 66 m	
		f) Lubrication system -	Forced water	
		g) Discharge type -	Sub Surface	
		h) No. of maximum stages -	2 Stage	
		i) Column pipe dia Minimum (I.D.) -	650 mm	
		j) Column pipe thickness minimum -	10 mm	
		k) Line shaft dia. Minimum -	100 mm	
		l) Maximum no of pump working in parallel - Upto 3 Nos		
		m) Sole plate thickness minimum -	80 mm	
		n) Suspended length of column pipe assembly - 16 m.		
		o) Capacity- 599 HP		
		p) Diameter of shaft enclosing tube (minimum) - 150 mm. [suitable for item No. (k) above].		
1	Job	Item No. 1 (B) - Forced Water Cooling & Lubrication System.		
		Providing, installing at site of works and giving satisfactory test of forced water Cooling & Lubrication system.		
		i) Pressure Filters with all accessories - 03 Nos. (suitable for above VT pump specifications).		
3	Nos	ii) Booster Pumps (35 HP) - 1+1 Nos. (suitable for above VT pump specifications).		
		Item No. 2 - Non Return Valve 600 mm Dia.		
		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 confirming to detailed specification, under item no.2 of volume II.		
		a) Diameter -	600 mm	
		b) P.N. rating -	1.0	
		c) Working pressure -	6 Kg/cm ²	
		d) Differential working pressure -	6 Kg/cm ²	
		e) Maximum working pressure -	9 Kg/cm ²	
		f) Maximum rate of flow in LPS -	870	

3	Nos	Item No. 3 - Butterfly Valve 600 mm Dia.		
		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. starter etc. complete, suitable for following duties, specifications and conforming to detailed specification under item no. 3 of detailed itemwise specification under volume II.		
		a) Diameter - 600 mm		
		b) P.N. rating - 1.0		
		c) Working pressure - 6 Kg/cm ²		
		d) Differential working pressure - 6 Kg/cm ²		
		e) Maximum working pressure - 9 Kg/cm ²		
		f) Maximum rate of flow in LPS - 870		
3	Nos	Item No. 4 - Kinetic Air Valve 150 mm Dia.		
		Providing, installing at site of works and testing kinetic air valves of 150 mm dia. PN-1.0 rating for releasing air from the delivery pipes, etc. complete as per detailed specification, Item no. 4 of Volume II.		
60	Mtr	Item No. 5 - Delivery Pipe.		
		Providing and joining at site of works and testing delivery pipe lines including jointing of all in between valves and up to rising main/manifold complete. Suitable for following duties, specification and conforming to detailed specification under item No. 5 of detailed itemwise specification in volume II.		
		(a) Diameter - 600 mm		
		(b) Wall thickness - 10 mm		
		(c) Hydraulic test pressure - 9.0 kg/cm ²		
3	Nos	Item No. 6 - Dismantle Joint.		
		Providing, installing at site of works and testing of Dismantle Joint in pump delivery pipe line complete, suitable for following duties, specification and conforming to detailed specification under item No. 6 of detailed itemwise specification in volume II.		
		(a) Diameter - 600 mm		
		(b) Internal test pressure - 9.0 kg/cm ²		
3	Nos	Item No. 7 - H.T. Induction Motors 6.6 KV, 491 KW, 3 Phase, 750 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 +/- 6% 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 5% 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 491 KW		
3	Nos.	Item No 8: FCMA soft starter		
		Providing and installing at site of work and testing of FCMA soft starter suitable for above motor mentioned in item No.7 and conforming to details specification under item No. 8 of Vol. II		
3	Nos	Item No. 9 - Capacitor Cubicle 6.6 KV, 3 Phase, 50 Hz, 200 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. 9 of detailed itemwise specification under vol. II		

1	Set	Item No. 10 - H.T. Panel 6.6 KV, 3 Phase, 630 Amps 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 ISS, complete suitable for following duties, specification and conforming to detailed specification under Item No.10 of detailed itemwise specification under vol. II (a) Electrical System 6.6 KV, 3 Phase, 50 Hz, A.C. with fault level of 25KA (b) Capacity 630 Amps. (c) Panel shall comprise of the following (i) 2 Nos. incoming breakers with following rating Current 630 Amps. Minimum rupturing capacity 250 MVA (ii) 1 No. Bus coupler breaker with following rating Current 630 Amps. Minimum rupturing capacity 250 MVA (iii) 4 nos. outgoing breakers with following rating Current 630 Amps. Minimum rupturing capacity 250 MVA (iv) Breakers for outgoing feeders for motors 3+1 with the following ratings. Current 630 Amps. Minimum rupturing capacity 250 MVA		
		Item No. 11 - L.T. distribution Panel 415 V, 3 Phase, 630 Amps. Providing, installing at site of work and testing of 415 volts, 3 phase, 50 c/s 630 amps. L.T. distribution panels comprising of following as per detailed specification under Item no. 11 of Vol. II. (i) 415 Volt, 630 amps. A.C.B. for aux.transformer incoming feeder 1 no. (ii) 415 Volt, 100 amps. H.R.C. switch fuses unit 2 nos. (iii) 415 Volt, 63 amps. H.R.C. switch fuses unit 3 nos. (iv) 415 Volt, 32 amps. H.R.C. switch fuses unit 3 nos. (v) 415 Volt, 16 amps. H.R.C. switch fuses unit 4 nos. Automatic star-delta Starter for booster pumps-02 Nos.		
		Item No. 12 - Batteries, Battery charger & D.C.D.B. Providing, installing at site of work & testing Batteries, battery chargers & D.C.D.B. complete unit comprising of following and as under detailed specification under Item no. 12.1, 12.2 & 12.3 of Vol. II (i) Batteries 2 X 55 cell 110 volts D.C. 200 AH Hour capacity along with all accessories. (ii) Battery charger 110 volts, 30 Amp. For above batteries comprising of float charger cum boost charger-02 No. complete with protective relays, etc. (iii) D.C.D.B. comprising of two incoming double pole miniature circuit breakers (MCB) 50 Amps. -2 Nos., 10Amps 10 - nos. outgoing feeder with MCB or switch fuse unit, complete with all accessories, etc		
		Item No. 13 - Preparation of cable schedule and Supply, Installation and Testing of cable as below. Providing, installing at site of work & testing of suitable cables & wires complete as per requirement of pump house as given below as per detailed specification under Item no. 13 of Vol. II		
200	Mtr.	a) 70 sq.mm X 3 core, 6.6 KV X.L.P.E. AL armoured earthed cable H.T. Panel to H.T. Motor and Capacitor, Motor to Soft Starter.		
300	Mtr.	b) 50 sq.mm X 3.5 core, 1.1 KV armoured PVC insulated AL cable L.T. Panel to E.O.T. and LT Panel to Booster Pump.		
200	Mtr.	c) 6 sq.mm x 4 core, 1.1 KV PVC armoured Insulated AL cable L.T.Panel to BFM actuator.		
		Control Cable		
200	Mtr	d) 6 sq.mm X 4 core, 1.1 KV PVC Insulated copper conductor cable		
300	Mtr	e) 1.5 sq.mm X 4 core, 1.1 KV PVC Insulated copper conductor cable		
200	Mtr	f) 2.5 sq.mm X 7 core, 1.1 KV PVC Insulated copper conductor cable		
150	Mtr	g) 1.5 sq.mm X 30 core, 1.1 KV PVC Insulated copper conductor cable		

1	LS	Item No. 14 - Earthing Providing, installing at site of work earthing comprising of adequate no. of earth sttions, earth bard and individual double earthing to all electrical equipment as per detailed specification under Item no. 14 Vol. II.		
1	Set	Item No. 15 - Temperature Scanner & Remote Control Panel (A) Temperature Scanner Panel Providing, installing at site of work & testing of temperature scanner panel comprising of 3+1 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. 15 of Vol. II. (B) Remote Control Panel Providing, Installing at site of work & testing of sheet steel floor mounted vermin proof and powder coated and tropicailized remote control panels with control switches, ammeter, annunciation facia windows, indication lamps etc. for control & monitoring of breakers, pump/motor ancillary equipment/panels, etc. suitable for following items and conforming to detailed specification under Item no. 15 of Vol. II. (a) Incoming breakers/Bus coupler-3 nos. (b) Pump motor breakers 3+1 nos. (c) Soft Starter 3 nos. (d) Capacitors 3 nos. (e) Butterfly valves 3 nos. (f) Booster pumps 2 nos. (g) Cooling system 3 nos. (h) Water level indicators 2 nos.		
1	Set	Item No. 16 - Water Level Indicator Providing, installing at site of work & testing of water level indicator, operating on 230 volts, 50 C/s.AC supply as per detailed specification under Item No.16 of Vol. II		
1	Lot	Item No. 17 - Spares & Tools. Providing at site of works tools and spares complete as per detailed specification under item No. 17 of detailed itemwise specification in volume II.		
3	No	Item No. 18 - Orifice meter Providing, installing at site of works and giving test to full capacity orifice meter for delivery pipe dia.600 mm ,delivery pipe thickness 10 mm & discharge per pump 0.667 m3/s as per detailed specification under item No. 18 of detailed itemwise specification in volume II.		
1	Job	Item No. 19 - Sump model Test As per detailed specification under item No. 19 of detailed itemwise specification in volume II.		
1	Job	Item No. 20 - Testing, Commissioning, Trials & operations for one year after performance guarantee test. Testing, commissioning, trial operation of the complete equipment and performance tests and training to department staff as per detailed specification under item No. 20 of detailed itemwise specification in volume II.		

Note - The above rates are excluding of GST.


(S. S. Dani)
Executive Engineer
Lift Irrigation Mechanical Division No.1
Bhandara