

Government of West Bengal  
Irrigation & Waterways Directorate  
Office of the Superintending Engineer  
Mechanical & Electrical Circle  
"Jalasampad Bhavan" (6<sup>th</sup> floor)  
Salt Lake City, Kolkata - 700 091.  
Ph No 03323218430 e-Mail semeciwd2017@gmail.com

NOTICE INVITING EXPRESSION OF INTERESTS (EOI)  
(for Budgetary quotes)

Expression of interest for obtaining competitive budgetary quotes at competitive market prices is being invited from reliable reputed resourceful manufacturer of pump in connection with the determination of estimated cost for the work "Supply, installation, testing, commissioning including trial run and one year successful operation and maintenance (with spares) of (water lubricated) vertical turbine mixed/Axial flow pump sets of five (5) nos 150 cusec & two (2) nos 50 cusec as per schedule of work & specified make list of equipments for the proposed 2<sup>nd</sup> Additional Uttarbhadra Pumping Station at Uttarbhadra, P.O. Brindakhali, P.S. Baruipur, Dist South 24 Parganas of West Bengal under Irrigation & Waterways Department, Govt. of West Bengal" by the Superintending Engineer, Mechanical & Electrical Circle, Irrigation & Waterways Directorate on behalf of the Governor of West Bengal.

**Issue of EOI documents :**

The EOI documents can be obtained from the departmental website [www.wbiwd.gov.in](http://www.wbiwd.gov.in) as well as from the office of the Superintending Engineer, Mechanical & Electrical Circle during office hours on working days till 06.09.2017.

**Submission of EOI :**

The intending agencies should submit their most competitive budgetary quotes, as per current market price as per the BOQ FORMAT in a sealed envelope super scribing on the top EOI for the budgetary quotes for the work "**Supply, installation, testing, commissioning including trial run and one year successful operation and maintenance (with spares) of (water lubricated) vertical turbine mixed/Axial flow pump sets of five (5) nos 150 cusec & two (2) nos 50 cusec pump**" in the tender box to be available at the following offices:

1. Office of the Superintending Engineer, Mechanical & Electrical Circle, Jalasampad Bhavan (6<sup>th</sup> floor), Bidhannagar, Kolkata - 700091.  
Or
2. Office of the Executive Engineer, Metropolitan Drainage Mechanical Division, Jalasampad Bhavan, (4<sup>th</sup> floor), Bidhannagar, Kolkata - 700091:

The intending agencies should submit their most competitive budgetary quotes as per enclosed schedule of work (BOQ) conforming to detailed specifications with reputed manufacturers name. Rate and amount to be quoted should be legible and both in words and figure.

The budgetary quotes rates should be inclusive of GST & all other statutory taxes/duties applicable in the State of West Bengal.

GA Drawing of pump house is enclosed for ready reference of the EOI.

Intending agencies or their authorized representatives may remain present while opening of the sealed covers containing Eois.

The Superintending Engineer, Mechanical & Electrical Circle., I & W Dte. reserves the right to accept or reject any or all EoIs without assigning any reason thereof.

Since, the Notice Inviting Expression of Interests (EoIs) is being made to assess the value of the work, no work order will be issued in favour of any agency against the EoIs.

**Pre-Qualification / Credential :**

The intending agencies should possess the following and self-attested copies of the same are to be submitted with the EoI.

- i) At least one work any where in any Govt. Sector in India for procurement, supply & installation of similar work.
- ii) Suitable document determining financial strength of the bidder & authorization of reputed manufacturer in India.

Inspection of site and its premises before submission of EoIs :

Before submitting EoIs, the intending agencies should make themselves acquainted thoroughly with the exact requirement of works and details of existing civil installation/structures accompanied with the official/representative of the Executive Engineer, Metropolitan Drainage Mechanical Division, having its office at the 4<sup>th</sup> floor of Jalasampad Bhawan, Bidhannagar, Kolkata - 700091 (Mobile Nos. 9476155032) during any working day between 11.30 hours and 17.00 hours prior to the date of submission of proposal.

**Pre Bid Meeting :**

Pre bid meeting will be held at the office chamber of the Superintending Engineer, Mechanical & Electrical Circle on the following dates and interested agencies may attend the meeting for technical discussions.

EoIs so received in sealed covers will be opened in the chamber of the Superintending Engineer, Mechanical & Electrical Circle in presence of the intending agencies those who will be present at that time.

**Schedule of Dates for EoIs :**


Sl No.	Activity	Date & Time	Remarks
1	Publishing Date	18.08.2017	
2	Pre Bid Meeting	23.08.2017 at 12.00 Hrs	
3	Pre Bid Meeting	04.09.2017 at 12.00 Hrs	
4	E.o.I submission end date	07.09.2017 at 15.00 Hrs	
5	Date of E.o.I opening	07.09.2017 at 15.30 Hrs	

**Memo No: 1317(10)/1T-6**

**Dated: 17.08.2017**

Copy submitted for favours of kind information to :-

- 1) The Secretary to the Govt of West Bengal, I. & W. Directorate.
- 2) The Chief Engineer (South), I. & W. Directorate. Govt. of West Bengal
- 3) The Joint Secretary (Works) to the Govt of West Bengal, I. & W. Department
- 4) The Dy Secretary (Works) to the Govt of West Bengal, I. & W. Department
- 5) The Superintending Engineer, Metropolitan Drainage Circle, I&W Dte.
- 6) The Superintending Engineer, Eastern Circle, I&W Dte.
- 7) The Superintending Engineer, Western Circle-I, I&W Dte.
- 8) The Superintending Engineer, Greater Calcutta Drainage Circle, I&W Dte
- 9) The Superintending Engineer, Western Circle-II, I&W Dte
- 10) The Financial Advisor, I & W Deptt.

Handwritten signature and date: 17/08/17

Superintending Engineer  
Mechanical & Electrical Circle

Memo No: 1317 / 1(4) / 1T- 6

Dated: 17.08.2017

Copy Forwarded for favours of kind information to :-

- 1) The Executive Engineer, Metropolitan Drainage Mechanical Division for wide circulation.
- 2) The Executive Engineer & T.A to Superintending Engineer Mechanical & Electrical Circle for wide circulation.
- 3) The Director of information, department of Information & cultural Affairs, NABANNA (9<sup>th</sup> Floor) 325, Sarat Chatterjee Road, Howrah - 711102 for wide circulation.
- 4) The Notice Board of Mechanical & Electrical Circle.

Handwritten signature and date: 17/08/17

Superintending Engineer  
Mechanical & Electrical Circle

### ACCEPTABLE MAKES

SI. NO.	PARTICULARS	ACCEPTABLE MAKES
1	V.T Pumps	Mathers & Platts (WILO)/Kirloskar/WPIL/Jyoti/Flowmore
2	Sluice Valve	Indian Valve Company/Kirloskar/VAG/Audco
3	EOT Crane	Safex/Electromech/Mukund/Plicare
4	C.I Pipes & Fittings	IISCO/Electrosteel/Kejriwal
5	M.S/G.I Pipe & Fittings	Jindal/Tata/Sail
6	Bearing	SKF/FAG
7	Centrifugal Pump	KSB/Kirloskar/CRI/Crompton
8	Pressure Gauge	Bells control/JN Marshal/IT Guru/Maxometer India
9	Induction Motor (Both H.T & L.T)	BHEL/Kirloskar Electric/Crompton/Jyoti/Marathon/Siemens/ABB
10	M.S gratings	Tata/SAIL/IISCO

  
17/08/17  
Superintending Engineer

Mechanical & Electrical Circle  
I & W Dte.

**PART - A (MECHANICAL PORTION)**  
**NAME OF THE WORK**

**Supply ,installation, testing and commissioning including trial run and one year successful operation and maintenance of forced lubricated Vertical turbine pump sets of five(05) nos. 150 cusec and two(02) nos. 50 cusec with allied Electro mechanical complete for the proposed 2nd Additional Uttarbhadg Pumping Station at Uttarbhadg,P.O- Brindakhali, P.S. Baruipur, Dist- 24 PGS(south) .**

SL. NO.	DESCRIPTION OF ITEM	Proposed Modification of Specification, if any to commensurate the scope of work	RATE (RS)	UNIT	QTY.	AMOUNT (RS.)
1	Supply,installation, testing, commissioning of vertical wetpit, axial/ mixed flow, non pull out type continuous rating pump complete with bowl assembly, column pipe, discharge head and base plate fitted with automatic air release valve and all accessories-conforming to the latest revision of IS 1710/IS 5120 and hydraulic institute standard, USA and shall be designed to be protected against reverse direction of rotation.Suitable for following duties and enclosed G.A. drawing: (The enclosed G.A. drawing & actual site condition to be verified by the bidder)					
	(a) 150 Cusec (4.25 Cumec) Pump i) RL of sump bottom level = - 4.00 m (ii) RL of Discharge outlet C/L level = +5.1 m (iii) RL of Minimum water level = -0.5m iv) 4.25 Cumecs discharge, < 500 rpm, v) Bowl efficiency = 85%			per job	5 jobs	
	(b) 50 Cusec (1.42 Cumec) Pump i) RL of sump bottom level = - 4.00 m (ii) RL of Discharge outlet C/L level = +5.1 m (iii) RL of Minimum water level = -1.8m iv) 1.42 Cumecs discharge, < 600 rpm, v) Bowl efficiency = 85%			per job	2 jobs	

SL. NO.	DESCRIPTION OF ITEM	Proposed Modification of Specification, if any to commensurate the scope of work	RATE (Rs)	Unit	Qty.	AMOUNT (Rs)
2	Supply, delivery storing at site,erection, testing & commissioning of 475 KW (output) totally enclosed fan cooled (TEFC) squirrel cage dry pit vertical flange mounting induction motor, F class insulation and temparature rise limited to B class, suitable to operate on 6.6 KV, 3ph, 50Hz AC Supply with voltage variation of $\pm 10\%$ and frequency variation of $\pm 3\%$ , synchronous speed 500 r.p.m(12 pole) suitable for S 1 duty, direct coupling with 150 cusec pumps and as per latest version of JS 325, JS 4722, and other releventIS specification to meet the power requirement of the pump with 95% efficiency, 5% additional capacity.			per job	5 jobs	
3	Supply, delivery storing at site,erection, testing & commissioning of 180 KW (output) screen protected drip proof (SPDP)/TEFC squirrel cage dry pit vertical flange mounting induction motor, F class insulation and temparature rise limited to B class, suitable to operate on 415V, 3ph, 50Hz AC Supply with voltage variation of $\pm 10\%$ and frequency variation of $\pm 3\%$ , synchronous speed 600 r.p.m(10 pole) suitable for S 1 duty direct coupling with 50 cusec pumps and as per latest version of JS 325, JS 4722, and other releventIS specification to meet the power requirement of the pump with 95% efficiency, 5% additional capacity.			per job	2 jobs	

SL. NO.	DESCRIPTION OF ITEM	Proposed Modification of Specification, if any to commensurate the scope of work	RATE (Rs)	Unit	Qty.	AMOUNT (Rs.)
4	Supply, installation, testing, commissioning of following delivery C.I.D.F pipes and fittings complete with all accessories as per specification including jointing conforming to the latest revision of IS : 1710/IS : 5120, IS: 1537-1976 & IS:1538- 1993.					
	(a) Straight pipe of 1500 mm. dia. & 4500 mm. long (one piece 2.5 m ) including puddle collar of 1500 x 1000 mm. for 4.25 cumec pumps.			per M.T.	35.50 M.T	
	(b) Straight pipe of 900 mm. dia. & 4500 mm. long (one piece not exceeding 2.5 m). including puddle collar of 900 x 1000 mm. for 1.42 cumec pumps.			per M.T	5.4 M.T	
5	Supply, delivery, installation, testing of 1500 mm/900 mm. dia. Single flange, C.I. make self operated single flap swing check non return type double hung flap valve with pressure rating as per specific standard, [Body, flap (Cast iron, IS:210, FG:260) Body & Flap set-ring: stainless steel, AISI 304, Hinge pin: Stainless steel AISI 410] as per following specification - a) P.N. rating - 1.0 b) Working pressure - c) Maximum rate of flowing in lps. -					
	(a) 1500 mm. dia. Non-return valve			per job	5 jobs	
	(b) 900 mm. dia. Non-return valve			per job	2 jobs	
6	Supply, installation, testing, commissioning of domestic regenerative type, horizontal, single/multi-stage 6m <sup>3</sup> per hour, fitted with 2.2 Kw motor 23 mtr. Head continuous rating centrifugal service pump for forced lubrication system with approved brand complete squirrel cage induction motor with motor base plate, coupling etc. along with suction, delivery pipe with all fittings, non-return valve, sluice valves and all accessories for suction from CWR including required booster pump, strainer and allied equipments all as per approved design and drawing.					
				per job	4 sets	


SL. NO.	DESCRIPTION OF ITEM	Proposed Modification of Specification, if any to commensurate the scope of work	RATE (Rs.)	UNIT	QTY.	AMOUNT (Rs)
7	Supply, Installation, testing & commissioning of pressure gauge meter at delivery flanges complete with copper tubing and completer with control cocks, pressure snuffer and suitable class of enclosure, including all sundries, fixtures as required as per specification and direction of E.I.C.			per job	7 sets	
8	Supply, delivery, installation and testing at site of removable secondary gratings to fit in the bay size of 2450 mm. x 7000 mm. - 2 nos., 4050 mm. x 7000 mm. - 5 nos. fabricated from ISMC 150+ (150 mm. x 76 mm), M.S. flat of 75 mm. x 20 mm., ISA 75 mm. x 75 mm. x 10 mm. maintaining suitable MS flat spacing as per solid handling capacity of the pumps., in three parts excluding erection of guide channel. Material should be hot dip galvanized MS (IS: 2062) All the steel materials should be of SAIL / TATA steel. The work includes all sundries, fixtures as required and as per direction of E.I.C.			per M.T.	30.75 M.T.	
9	Supply, delivery, installation and testing at site of the mono rail crane as per BS: 3243/ equivalent with chain pulley block having adequate length of chain of required capacity, provided with guide for effective guidance, stripper for effective disengagement of chain from wheel, idler wheel in the block to prevent twisting of chain and bending of links, forged heat treated alloy carbon steel lifting hook, machine cutted gear of carbon steel, automatic load break, fabricated tracks from rolled sections of approved brands e.g. SAIL/TATA with all necessary clamps, hanger rods and other fittings. Track shall be braced laterally and longitudinally to prevent excessive sway in case of suspended from hanger rods. Trolley shall be fabricated from structural steel with drop forged/ rolled wheel having single/ double row combination of radial and axial thrust, antifriction precision type pre-lubricated sealed bearing, including all sundries, fixtures as required as per specification and direction of E.I.C.					
	a) 5 ton capacity, 30000 mm. span length travel with lift 12000 mm.			per job	1 job	



SL. NO.	DESCRIPTION OF ITEM	Proposed Modification of Specification, if any to commensurate the scope of work	RATE (Rs.)	UNIT	QTY.	AMOUNT (Rs.)
10	Supply, delivery, installation and testing at site of double girder electrically operated O.H. travelling gantry crane and hoist provided with sufficient slings, ropes, shackles, lifting hooks, auxiliaries and all materials design in accordance with IS : 3177/IS : 807/ BS : 2573/ equivalent at its latest revision , for span length of 7500 mm. (approx.), and bey length of ( approx.) 45000 mm. for 20 MT. main hoist and 5 MT. auxiliary hoist having hoist, cross travel and down soft travel motions. Marked with safe working load (SWL) and the purpose for which they are intended, the down shop conductors should be fully insulated shrouded bas bar type, including all sundries as per direction of E.I.C.			per job	1 job	
11	Supply, delivery, installation (Bore hole installation) and testing at site of 6 m <sup>3</sup> per hour, 1450/2900 rpm: Continuous rating portable vertical submersible pump conforming to IS : 8034- 2002 and coupled with 3 phase, 415 volt, induction motor conforming to IS 9283 - 1995 of approved brand along with NRV and required quantity of 1 x 3 x 4 sq. mm. PVC submersible cable along with required length of G.I. pipe with necessary fittings for connecting pump delivery to under ground well to overhead reservoir. Supply and delivery fittings including sundries, fixtures as required as per direction of E.I.C.			per job	2 jobs	
12	Carrying out CFD analysis of the sump as per design and drawing , based on details of pump being offered at reputed educational institute/ laboratory with prior approval of E.I.C. and to provide suitable arrangement of flow guides, buffers, splitters etc. at the sump to achive smooth pump operation free from vortex, pre rotation, swirl etc.			per job	1 job	
13	Supply, delivery, installation and testing at site of Air release valve of required dia. of PN 1.0 class double acting, as per approved design calculation and drawing complete with other accessories.			per job	7 jobs	

SL. NO.	DESCRIPTION OF ITEM	Proposed Modification of Specification, if any to commensurate the scope of work	RATE (Rs.)	UNIT	QTY.	AMOUNT (Rs.)
14	Sinking of 200 mm. dia. (8") well					
a)	Labour for drilling perfectly vertical bore hole of specified dia and a depth of 250 metre (approx) below ground level in alluvial soil strata by mud rotary rig drilling as required to suit the site condition as per direction of E.I.C. Including use of own rigs and its accessories, tools & plants and consumables etc. for lowering of finished bore suitable for lowering of 200 mm. dia. GI/PVC pipes for housing, fitted with socket and with or without well screen as per necessity for the soft, medium, hard and boulder formation (GI/PVC casing pipes of required by the contractor to protect collapse of over burden portion) including lowering and withdrawing of casing pipe after drilling 200 mm. to 450 mm. dia. in over burden portion.					
b)	Supply of all labour and T & P for lower in the following size GI/PVC pipes with or without slotted pipes as per the necessity from ground level and fitted and fixed up in perfectly vertical position, including cutting and threading of pipe and slotted pipe and fixing all joints, materials etc. complete and keeping the top of the casing pipe threaded including plugging tube wells to prevent entry of foreign materials from the above excluding the cost of fittings and materials.					
c)	Cleaning and developing the production well using their own compressor continuously worked till clear and adequate discharge is obtained from the tube well including supply and use of all necessary equipments and labour as per direction of E.I.C.					
d)	Supply all labours, T & P for packing the bore with washed gravel (Size P - 6) around the pipes in good quality including cost of gravel etc. complete as per direction of E.I.C.					
e)	Supplying all materials, labour and T & P and grouting with cement slurry for sanitary sealing around the GI casing pipe up to 3 mtrs. Below ground level including cost of cement all complete as per direction of E.I.C.					
				per job	3 jobs	

TOTAL

  
 12/08/17  
 Superintending Engineer  
 Mechanical & Electrical Circle  
 Irrigation & Waterways Dte.

Sd/- M. K. KAMAKAR DRAUGHTSMAN	Sd/- S. A. HAKIM ASSISTANT DIRECTOR CENTRAL DESIGN OFFICE	Sd/- AMIYA BERA DEPUTY DIRECTOR CENTRAL DESIGN OFFICE	Sd/- M. P. GHOSH DIRECTOR CENTRAL DESIGN OFFICE
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REFERENCE:-  
1. MEMO NO. 3F-2 / 1791 DT. 30.09.15 S.E. METROPOLITAN CIRCLE.  
2. MEMO NO. 5M-21 / 661 DT. 18.04.16 S.E. METROPOLITAN CIRCLE.

REVISION DRG. NO. - PH-74/1/10/(R-1)/16 DATE : 18.07.16

REVISION MADE	SIGNATURE
FILE DA HAS BEEN CHANGED FROM 600MM TO 750MM & PILE CAP HAS BEEN MODIFIED.	
DRAUGHTSMAN C.D.O.	ASSISTANT DIRECTOR C.D.O.
DEPUTY DIRECTOR C.D.O.	DIRECTOR C.D.O.

- NOTES :
- ALL DIMENSIONS ARE IN MM AND ALL LEVELS ARE IN METRE EXCEPT OTHERWISE SPECIFIED.
  - DO NOT SCALE ANY DIMENSION ; ONLY WRITTEN DIMENSIONS ARE TO BE TAKEN. IN CASE OF OMISSION OR DISCREPANCY REFER TO THE DESIGN OFFICE.
  - ALL P.C.C. WORKS SHALL BE OF 1:2:4 CONCRETE UNLESS OTHERWISE MENTIONED.
  - (a) CONCRETE USED FOR R.C.C. WORKS EXCEPT PILES SHALL BE OF M - 25 (DESIGN MIX) CONFORMING TO IS - 456 - 2000.  
(b) PILES ARE OF M-35 GRADE CONCRETE.
  - MAXIMUM SIZE OF COURSE AGGREGATES USED SHALL BE 20 mm BOTH FOR P.C.C. & R.C.C. WORKS.
  - MINIMUM COVER TO MAIN REINFORCEMENT  
(a) PILE & PILE CAP 50mm.  
(b) OTHER R.C.C. WORKS 50 mm.
  - 200 mm LDPE FILM SHALL BE PROVIDED UNDER P.C.C. TO PREVENT WATER PERCOLATING IN TO THE SOIL.
  - 50 MINIMUM DIA PIPE SHALL BE EMBEDDED IN THE WALL ( ABUTMENT WALL / RETAINING WALL ) AS WEEP HOLES. ITS HORIZONTAL ROWS OF WEEP HOLES SHALL BE PROVIDED AS PER SUITABILITY AND SITE CONDITION. HORIZONTAL & VERTICAL SPACING BETWEEN ROWS SHALL BE 1000 mm. INVERTED FILTER IS TO BE PROVIDED AT THE BACK OF THE WALL IN TWO LAYERS EACH OF 300 mm THICK.
  - ISIS Z' TYPE SHEET PILE SHALL BE USED AS SHOWN.
  - GRADE FOR SECONDARY CONCRETE SHALL BE LEFT WHERE GUIDE CHANNEL, SILL BEAM ETC. ARE TO BE EMBEDDED.
  - REINFORCING STEEL BARS USED SHALL BE HIGH YIELD STRENGTH DEFORMED BARS OF Fe-415 GRADE CONFORMING TO IS - 1786 - 1985.
  - SPLICING IN REINFORCEMENT BARS MAY BE ALLOWED IN STAGGERED POSITION AND DEVELOPMENT LENGTH OF BARS IN SPLICING SHALL BE 50 TIMES THE DIA OF BAR.

- 5 NOS. OF BAY @ 3.80M. CLEAR, FOR EACH 150 CUSEC PUMP.
- 2 NOS. OF BAY @ 2.20M. CLEAR, FOR EACH 50 CUSEC PUMP.

