



**IRRIGATION AND WATERWAYS DIRECTORATE
GOVERNMENT OF WEST BENGAL**

METROPOLITAN DRAINAGE MECHANICAL DIVISION

***[Invitation for Expression of Interest/for
Budgetary Quotation]***

EOI No WBIW/EE/MDMD/EOI-10 /2021-22

Sl No	Particulars	Details
01	Start Date of Issuance of EOI Document	13.01.2021
02	Last date of submission of Queries	18.01.2022
03	Pre bid Conference	19.10.2022
04	Issue of Corrigendum	20.01.2022
05	Last Date of Issuance EOI Document	21.01.2022
06	Last Date and time for Submission of EOI	24.01.2022

NAME OF THE WORK :

" Supply, installation, testing and commissioning including trial run and five (05) years successful operation and maintenance of external water lubricated Vertical turbine pump sets of Sixteen (16) nos. 150 cusec with electro-mechanical installation complete for the proposed additional pump house (augmentation of existing pump house) at Kulti for lower Bagjola khal in P.S Haroa, Mouja: Kamargati, G.P: Kulti, Block: Haroa, Dist: North 24 Parganas, State: West Bengal. "

EXECUTING DIVISION: Metropolitan Drainage Mechanical division

YEAR: 2021-22

1.0 Invitation for EOI / Single stage of Bidding

The Executive Engineer, Metropolitan Drainage Mechanical Division invites EOIs from prospective bidders ('Bidders') for the work **“Supply, installation, testing and commissioning including trial run and five (05) years successful operation and maintenance of external water lubricated Vertical turbine pump sets of Sixteen (16) nos. 150 cusec with electro-mechanical installation complete for the proposed additional pump house (augmentation of existing pump house) at Kulti for lower Bagjola khal in P.S Haroa, Mouja: Kamargati, G.P: Kulti, Block: Haroa, Dist: North 24 Parganas, State: West Bengal.”**. The successful Bidder will carry out the scope of work in accordance with the specifications provided in a detailed Request for e-NIT document which will be brought out by the Executive Engineer, Metropolitan Drainage Mechanical Division in later stage after obtaining administrative approval of the work. Now, Executive Engineer, Metropolitan Drainage Mechanical Division seeks EOI for budgetary quotes **from Bidders of repute for the above work from Bidders who meet the pre-qualification criteria specified in this document will be short-listed** to have comparison of cost between various prospective bidder. In case of non compliance they may offer their own solution.

2.0 Introduction to the project

The Irrigation and Waterways Department of the Government of West Bengal is responsible for the main system of drainage Canals which drain away both Sewage and from water from different municipalities including Kolkata Municipal Corporation.

One of the main draining system is Bagjola Khal which is draining important parts of the northern and north-eastern parts of Kolkata.

As its downstream and the Bagjola Khal drains into the Kultigong which is part of the Sundarban delta system. The Kultigong, at the outfall location of the Bagjola Khal, has a tidal fluctuation of about 4.5M during monsoon period. To ensure drainage into Kultigong during the higher tidal water levels a pump house of 2400 cusec (2,44,800 m³ / hr) has been proposed for construction.

3.0 Indicative scope of work

The Basic scope covers the design, manufacturing, supply and inspection, testing, delivery, installation and commissioning of 16 nos. 150 cusec VT pump for the proposed pumping station for the proposed additional pump house (augmentation of existing pump house) at Kultigong for lower Bagjola Khal in P.S: Haroa, Mouja: Kamargati, G.P: Kulti, Block-Harua, Dist: North 24 Parganas, State: West Bengal with bell mouth, column assembly, discharge elbow, motor stool, thrust bearing , non reversing device & lubricating system .

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Each Vertical Turbine pump shall be capable of developing the required total head at rated capacity for continuous operation at the required total head at low water level in the sump. The pump will be required to work without parallel operation satisfactorily over the head requirements as per system resistance curves. Supply and installation of E.O.T. crane of 15 MT, MS Gratings, Bore well with submersible pump and centrifugal pump for cooling and lubrication purpose are also in the scope of work.

The design, drawing, manufacture, fabrication, erection, testing/ inspection of 33 KV outdoor substation shall be carried out strictly as per Indian Electricity Rules , Latest BIS code of practices and prior approval of Directorate of Electricity , Govt of West Bengal.

Supply, installation, testing, commissioning of 3 nos. 5MVA 33KV/6.6KV , , and 2 nos. 250 KVA 33KV/0.433KV power transformer, 6.6KV VCB consumer panel, ACB at Sub Station (433 V), 1 set LT panel at Pump House ,Capacitor Bank , HT < Cabling , Earthing, , Internal illumination and allied electrical works ,Lightening conductor, instrumentation and communication system, Batter bank with charges also in the scope of work.

The contractor shall confirm of having visited site and collected and verified the data relating to site condition. The contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility. The contractor shall be responsible for overall verification of equipment under the scope of work eg. Make, Model, specifications and responsible for detailed design of mechanical and electrical works of the proposed pumping station. Compliances with these specifications does not limit the responsibility of the contractor for the overall performance of the pumping station. Contractor can offer changes in design for better performance. Justification of such changes shall be provided by the contractor. such changes are subject to approval by E.I.C.

5.0 Instructions to Bidders

- 5.0.1 Bidders are advised to study all instructions, forms, terms, requirements and other information in the EOI documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the EOI documents with full understanding of its implications.
- 5.0.2 The response to this EOI should be full and complete in all respects. Failure to furnish all information required by the EOI documents or submission of a proposal not substantially responsive to the EOI documents in every respect will be at the Bidder's risk and may result in rejection of its proposal.
- 5.0.3 For better understanding of work, brief description of work as per our preliminary assessment are given for better understanding of the project. In this stage bidder are requested to propose their work description, with quoting rate , so that in later stage under detailed NIT, complete scope of work and

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technical specification may be enclosed , so that bid may be evaluated on equal footing.

5.1 EOI proposal preparation costs & related issues

- 5.1.1 The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by the Purchaser to facilitate the evaluation process, unless explicitly specified to the contrary .
- 5.1.2 Purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 5.1.3 These Expression of Interest (EOI) are purely for estimation purpose and to know the present market rate and under no circumstance, It shall be construed as quotation for placing the supply order. For competitive bidding separate notice inviting Tender will be published.

5.2 Pre-bid Meeting

- 5.2.1 Superintending Engineer ,Mechanical & Electrical Circle , Kolkata shall hold a pre-bid meeting (both offline and online) with the prospective Bidders on **<19.01.2022 at 15:00 Hrs > at <O/O Superintending Engineer ,Mechanical & Electrical Circle , Kolkata ,6 th Floor ,Jalsampad Bhawan, Salt Lake City ,Kolkata-91>** The Bidders will ensure that their queries with regard to the EOI, to be addressed by the EOI issuing Authority during the Pre-Bid meeting shall reach by post, facsimile or email on or before **<15.01.2022 at 14:00 Hrs >** to the officer whose details are provided below (Nodal Officer):

Executive Engineer
Metropolitan Drainage Mechanical Division
Jalasampad Bhawan (4th floor), Salt Lake City, Kolkata-91
Telephone No-03323345768, Email Id: ee-metromecdvn@wbiwd.gov.in
[/mdmdiwd@gmail.com](mailto:mdmdiwd@gmail.com) ,Mobile No- 9476155032/ 9875503310

5.3 Responses to pre-bid queries and issue of corrigendum

- 5.3.1 The Nodal Officer notified by the EOI issuing authority will endeavor to provide timely response to all queries. However, the department makes no representation or warranty as to the completeness or accuracy of any response made in good faith.
- 5.3.2 At any time prior to the last date for receipt of bids, EOI inviting authority may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the EOI document by issuing a corrigendum.

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5.3.3 The corrigendum (if any) & clarifications to the queries from all Bidders will be posted on the <<https://wbtenders.gov.in>>, ([www. www.wbiwd.gov.in](http://www.wbiwd.gov.in)) and emailed to all participants of the pre -bid conference.

5.3.4 Any such corrigendum shall be deemed to be incorporated into this EOI.

5.3.5 In order to afford prospective Bidders reasonable time in which to take the corrigendum into account in preparation of their bids, Purchaser may, at its discretion, extend the last date for the receipt of EOI Bids .

5.4 Right to terminate the EOI process

5.4.1 EOI issuing authority may terminate the EOI process at any time without assigning any reason. EOI issuing authority makes no commitments, expression or implied that this process will result in a business transaction with anyone.

5.5 Bid Submission Procedure

<Option 1: In case of Online Submission on e-Procurement portal>(This EOI may not be submitted through e procurement portal)

Bidders should submit their responses to an EOI as per the procedure specified in the e-Procurement portal (*specify URL*) being used for this purpose. *Generally, the items to be uploaded on the portal would include all the related documents mentioned in this EOI , such as:*

- Tender Fee (in this case , no EMD is required)
- Pre-qualification response
- Additional certifications/documents Eg. Power of Attorney, CA certificates on turnover, etc.

However, each of the above documents must be uploaded in the format specified for this purpose and as per the specified folder structure in the e-Procurement portal.

The bidder must ensure that the bid is digitally signed by the Authorized Signatory of the bidding firm and has been duly submitted (freezed) within the submission timelines. The Department will in no case be responsible if the bid is not submitted online within the specified timelines.

All the pages of the Proposal document must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bidder's Proposal.

OR

<Option 2: In case of physical submission of bids at office of Executive Engineer >

- a. Bids shall be submitted in a single sealed envelope and superscripted **<Name of the Work >** and **<Reference EOI No.>**. This envelope should contain two hard copies of EOI proposal marked as "First Copy" and "Second Copy" and one soft

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copy in the form of a non-rewriteable Compact Disc (CD). CD media must be duly signed using a permanent pen/ marker and should bear the name of the Bidder.

Bids are to be dropped in tender box kept in the O/O Executive Engineer, Metropolitan Drainage Mechanical Division

- b. Bids shall consist of supporting proofs and documents as defined in the Pre - qualification section.
- c. Bidder shall submit all the required documents as mentioned in the Appendix including various templates (Form 1 to Form 4). It should be ensured that various formats mentioned in this EOI should be adhered to and no changes in the format should be done.
- d. Envelope should indicate clearly the name, address, telephone number, Email ID and fax number of the Bidder.
- e. Each copy of the EOI should be a complete document and should be bound as a volume. The document should be page numbered, must contain the list of contents with page numbers and shall be initialed by an authorized representative of the Bidder.
- f. Different copies must be bound separately.
- g. Bidder must ensure that the information furnished by him / her in respective CDs is identical to that submitted by him in the original paper bid document. In case any discrepancy is observed by the authority in the contents of the CDs and original paper bid documents, the information furnished on original paper bid document will prevail over the soft copy.
- h. EOI document submitted by the Bidder should be concise and contain only relevant information as required under the EOI Bids shall consist of supporting proofs and documents as defined in the Pre - qualification section.

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- h. Bidder shall submit all the required documents as mentioned in the Appendix including various templates (Form 1 to Form 4). It should be ensured that various formats mentioned in this EOI should be adhered to and no changes in the format should be done.
- i. Envelope should indicate clearly the name, address, telephone number, Email ID and fax number of the Bidder.
- j. Each copy of the EOI should be a complete document and should be bound as a volume. The document should be page numbered, must contain the list of contents with page numbers and shall be initialed by an authorized representative of the Bidder.
- k. Different copies must be bound separately.
- l. Bidder must ensure that the information furnished by him / her in respective CDs is identical to that submitted by him in the original paper bid document. In case any discrepancy is observed by the Purchaser in the contents of the CDs and original paper bid documents, the information furnished on original paper bid document will prevail over the soft copy.
- m. EOI document submitted by the Bidder should be concise and contain only relevant information as required under this EOI.

5.6 Short listing criteria

- 5.6.1 Purchaser will shortlist Bidders who meet the pre-qualification criteria mentioned in this EOI.
- 5.6.2 Any attempt by a bidder to influence the bid evaluation process may result in the rejection of its EOI proposal.

5.7 Evaluation Process

- 5.7.1 Superintending Engineer, Mechanical & Electrical Circle, Kolkata will constitute a committee to evaluate the responses of the Bidders in response to this EOI document (Tender Committee).
- 5.7.2 The Tender Committee constituted by the Superintending Engineer, Mechanical & Electrical Circle, Kolkata shall evaluate the responses to the EOI and all supporting documents & documentary evidence. Inability to submit requisite supporting documents or documentary evidence, may lead to rejection of the Bidder's EOI proposal.
- 5.7.3 Each of the responses shall be evaluated to validate compliance of the Bidders according to the pre-qualification criteria, forms and the supporting documents specified in this EOI document.
- 5.7.4 The decision of the Tender Committee in the evaluation of responses to the EOI shall be final. No correspondence will be entertained outside the evaluation process conducted by the Purchase Committee.
- 5.7.5 The Tender Committee may ask for meetings with the Bidders to evaluate its suitability for the assignment
- 5.7.6 The Tender Committee reserves the right to reject any or all proposals .

5.8 Pre-qualification evaluation criteria

#	Basic requirement	Specific requirements	Documents required
1	Legal Entity	<ul style="list-style-type: none"> - Should be a company registered under the provisions of the Indian Companies Act, 2013 or a partnership firm registered under the Indian Partnership Act, 1936 or the Limited Liability Partnerships Act, 2008. - Registered with the GST authorities . - Should have been operating for the last three years. 	<ul style="list-style-type: none"> - Certificate of incorporation / Partnership deed - GST registration - Certificate of commencement of business (if applicable)
2	Board resolution / Power of attorney in favour of authorised signatory	A board resolution OR power of attorney in the name of the person executing the bid, authorizing the signatory to commit the Bidder.	Board resolution; OR Power of attorney with appropriate supporting documents
3	Sales turnover	<p>Annual sales turnover generated from services related to system integration during each of the last three financial years (as per the last published Balance sheets), should be at least INR <value in numbers and words>.</p> <p>This turnover should be on account of Information Communication Technology (ICT) systems development and implementation (i.e. revenue should be on account of system integration/turnkey solutions or products and their associated maintenance or implementation services, packaged software etc.) only</p>	Extracts from the audited balance sheet and profit & loss; OR Certificate from the statutory auditor
4	Technical capability	<p>Bidder must have successfully completed at least the following numbers of work for Manufacturer, supply of floating trash skimmer equipment (with or with out O&M) of value specified herein :</p> <ul style="list-style-type: none"> - One project of similar nature not less than the amount <value equal to 80% of quoted cost>; OR - Two projects of similar nature not less than the amount equal <value equal to 60% of quoted cost cost>; OR - Three projects of similar nature not less than the amount equal <value equal to 40% of quoted cost 	Completion certificates from the competent authority ; OR Work order + Self certificate of completion (Certified by the statutory auditor)

5	Debarment	<i>Debarment should used as a mandatory Pre-Qualification criterion to restrict organizations that have been either debarred by by the tendering department for breach of ethical conduct or fraudulent practices, etc. as specified in Rule 151 of GFR.</i>	Self Certified letter that the bidder (or any of its successor) is not in the active debarred list published by: a) Central/ State Public Procurement Portal; and
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5.9 Examination of Bids and Determination of Responsiveness

The Bid evaluation committee (TEC) will evaluate whether each Bidder is satisfying the eligibility and qualifying criteria prescribed in the pre-qualification document and declare names of the qualified Bidders.

Prior to the details evaluation, the tender accepting authority will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations.

Assessment: The detailed assessment for pre-qualification shall be based on the following information submitted by the Bidder:

1. Data submitted in prescribed format given in tender documents.
2. Bidder's techno-commercial proposals for carrying out the entire works in accordance with the specifications in this document.

The techno-commercial submissions must principally demonstrate the adequacy of bidders' appreciation of the:

- The project
- Design and detail engineering
- The methods proposed for mobilization and establishment of site installation and for the timely completion, testing and commissioning and O&M of the project.
- The arrangements for the logistic support for completion, testing and commissioning of all works of the project.
- Requirements of the Department.

Bidders are advised to note that the evaluation of techno-commercial bids will be based on the detailed examination of the submittals and would be carried out mainly on the basis of the following principal aspects of the techno-commercial bids.

- (i) Financial Strength
- (ii) Experience of Similar Class of work
- (iii) Performance of Work
- (iv) Personnel & Establishment
- (v) Plant and Equipments

5.10 FOMAT FOR LETTER OF RESPONSE (ANNEXURE-A)

(ANNEXURE-A)

To
The Executive Engineer
Metropolitan Drainage Mechanical Division
Irrigation & Waterways Directorate
JalsampadBhawan , 4 th Floor
Salt Lake .Kol – 700091

Sub :- RESPONSE TO – EOI

Dear Sir ,

1. We , the undersigned , offer the following information in response to the Expression of Interest sought by you vide your EOI – No. Dated
2. We are duly authorized to represent and act on behalf of _____ (hereinafter the “respondent”)
3. We have examined and have no reservations to the EOI Document including Addenda No(s) _____
4. I/We understand that
 - a) This EOI is intended to procure trash skimmer boat by Irrigation and waterways Department , Govt. of West Bengal.
 - b) Irrigation and waterways Department , Govt. of West Bengal may float a separate Tender (based on their requirement) , with all conditions like Eligibility Criteria , and our participation in this EOI doesn't guarantee any qualification to that tender .
5. We are attaching with this letter , the copies of original documents defining :-
 - a) The Respondent's legal status ;
 - b) Its principal place of business;
 - c) Its place of incorporation (if respondents are corporations); or its place of registration (if respondents are cooperative institutions, partnerships or individually owned firms);
 - d) Self-certified financial statements of Last three years , clearly indicating the financial turn over and net worth.
 - e) Copies of any project undertaken for the last 5 years , in any Govt department .
6. We shall assist Irrigation and waterways Department , Govt. of West Bengal its authorized representatives to obtain further clarification form us , if needed .
 - a) Executive Engineer of Metropolitan Drainage Mechanical Division is authorized representative may contact the following nodal persons for further information on any aspects of the Response :

Sl No.	Contact Name	Address	Telephone	E-mail

[Expression of Interest]

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7. This application is made in the full understanding that:
- Reserves the right to reject or accept any or all applications , cancel the EOI and subsequent bidding process without any obligations to inform the respondent about the grounds of same .
 - We confirm that we are interested in participating in the selection process through this EOI .
8. We certify that our turnover and net worth in the last three years is as under :

Financial Year	Turn over	Net worth

9. In response to the EOI we hereby submitting the following details annexed to this application :
10. The undersigned declare that the statements made and the information provided in the duly completed application are complete , true , and correct in every detail . We also understand that in the event of any information furnished by us being found later on to be incorrect or any material information having been suppressed , may delete our name from the list of potential bidders. We further understand that Irrigation and waterways Department , Govt. of West Bengal will give first preference to the applicants considered relevant for the purpose .

Yours sincerely ,

(sign)

Name

In the Capacity of

Duly authorized to sign

The response for and on behalf of

5.11 SALIENT DESIGN DATA(S) OF THE PUMPING STATION

5.11.1 Civil & Hydraulic Data

SL NO	Particulars	Data for 150 Cusec	
1.2.1	(a) Inlet arrangement	15300 m ³ /Hr.	
1.2.2	H.W.L. (Suction side)	+0.7 M	
1.2.4	(b) Hydraulic parameter of pimping Station		
SL NO	Particulars	Data for 150 Cusec	
	Pump floor level	(+)0.6 M	
1.2.5	Sump bottom level	(-)6.00 M	
1.2.6	(c) Outlet arrangement		
1.2.7	C. L. of Discharge pipe (Above H.W.L)	(+)4.00 M	

2.2 V.T. Pump Design

SL NO	Particulars	Data for 150 Cusec	
01	Service	Suitable for pumping solid bearing liquid such as waste water, industrial discharge, storm and canal drainage.	
02	Type	Axial Flow	
03	Duty	Continuous	
04	Location	Indoor	
05	Design capacity	15300 m ³ /Hr.	
06	Nos. required	16 Nos.	
07	Head in Mtr.	7.634 M	

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08	Speed	<= 500 r.p.m.	<= 500 r.p.m.
09	Min. bowl efficiency required at design capacity (%)	85%	
10	Nos. of pump working in parallel	No parallel operation	
11	Range of operation	Between 70% and 13% of rated capacity.	
12	Design & constructional feature	As per technical specification	
13	Material of construction	Column pipe – CI FG 260 IS 210 Impeller- Duplex stainless steel ASTM 890 Gr CD4MCU Line Shaft – SS ASTMA 276 - 316	
14	Supply of accessories and service	As per technical specification	
15	Tests and inspection	As per technical specification	

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EOI No. WBIW/EE/MDMD/EOI-10 /2021-22

Memo No: 56 /1 (6)/2B-4

Date: 13.01.2022

Copy forwarded for information and taking necessary action please for wide publication to :-

1	The Chief Engineer, Mech & Elect , I&W Directorate, 2 nd Floor, Jalsampad Bhawan ,Govt of West Bengal.
2	The Superintending Engineer, Mechanical & Electrical Circle ,Kolkata, 6 th Floor, Jalsampad Bhawan I&W Dte.
3	Office Notice board.

**Executive Engineer
Metropolitan Drainage Mechanical Division
Irrigation & Waterways Directorate**

QUOTED BID PRICE IN EOI

Schedule of work of the Project: **Supply, installation, testing and commissioning including trial run and five (05) years successful operation and maintenance of external water lubricated Vertical turbine pump sets of Sixteen (16) nos. 150 cusec with electro-mechanical installation complete for the proposed additional pump house (augmentation of existing pump house) at Kulti for lower Bagjola khal in P.S Haroa, Mouja: Kamargati, G.P: Kulti, Block: Haroa, Dist: North 24 Parganas, State: West Bengal.**

Sl. No	Description of work as per preliminary assessment	Qty.	Unit	Description of work proposed by the bidder (for budget quotes)	Quantity (for budget quotes)	Unit (for budget quotes)	Rate excluding GST (Rs.) (budget quotes)	Applicable GST Amount	Amount (Rs). (budget quotes)
1	Supply, delivery, storing at site, installation, testing & commissioning of vertically suspended wetpit installation, axial/mixed flow, non pull out type, continuous rating VT pump complete with bowl assembly, column pipe assembly, discharge assembly, base plate, motor stool, thrust bearing assembly etc. 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 conforming to detailed specification and enclosed G.A. drawing including two coats of painting with approved paint . Pump should be suitable for pumping solid bearing liquid such as wastewater, industrial discharge, storm or canal drainage etc.								
1.1	a) Pump capacity - 15300 M ³ /Hr (each) b) TDH =7.634 (as per preliminary calculation) c) Maximum static head = 5.8 m. (as per preliminary calculation) d) Column pipe dia. = 1500 mm (as per preliminary calculation) e) Motor speed <= 500 rpm (as per preliminary calculation) f) Lubrication & cooling = pressurized external clear water g) Bowl efficiency = 85% (Minimum) h) Sump data : sump floor level - (-)6.00 M, C/L of delivery pipe - (+)4.0 M, pump house floor level- (+)6.15M, sump bay width- 4000mm i) Delivery below pump house floor level (The enclosed G.A.drawing, actual site condition and all preliminary calculated datas are to be verified by the bidder)	16	Nos						

Sl. No	Description of work as per preliminary assessment	Qty.	Unit	Description of work proposed by the bidder (for budget quotes)	Quantity (for budget quotes)	Unit (for budget quotes)	Rate excluding GST (Rs.) (budget quotes)	Applicable GST Amount	Amount (Rs). (budget quotes)
2	Supply, delivery storing at site,erection, testing & commissioning of 500 KW (output) screen protected drip proof (SPDP) 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 IS 325, IS 4722, and other releventIS specification to meet the power requirement of the pump with 95% efficiency, 5% additional capacity confirms to detailed specification. Motor rating to be selected keeping in sufficient factor of safety over the pump shaft input power and to conforming to the latest version of IS 325/IEC 60034. Make- Jyoti/Marathon/CGL/Siemens/Kirloskher.	16	Nos						
3	Supply, delivery, storing at site, installation, testing & commissioning of C.I.D.F delivery pipes with flange and fittings complete with all accessories as per specification including jointing conforming to the latest revision of IS: 1537 & IS:1538.	110	MT						
3.01	Straight pipe of 1500 mm. dia. & 4000 mm. long(approx.) (one piece not exceeding 2.5m)								
4	Supply, delivery, storing at site, installation, testing & commissioning of C.I. Single flange, swing type double hung flap valve with pressure rating as per specific standard (Body, flap Cast iron, IS:210, FG:260, Body & disc set: stainless steel, AISI 304, Hinge pin: Stainless steel AISI 410), flange standard IS 1538, leakage as per IS 13349 class 3 and as per specificaton -	16	Nos						
4.01	Size: 1500mm, Rated flow - 15300 M ³ /Hr, Velocity at rated flow - 2.4 m/sec Design Pressure - 15 MWC, Testing as per IS 14858								
5	Supply, delivery, storing at site, installation, testing & commissioning of lubrication and cooling water pump horizontal, single/multi-stage, 12m ³ (approx) per hour capacity, fitted with suitable capacity motor 30 mtr. Head(approx) contineous rating centrifugal pump of approved brand complete with squirrel cage induction motor with base plate, coupling etc.along with with all fittings, non-return valve, sluice valves, strainer pipes and all accessories for suction from water reservoir and allied equipments all upto delivery of common header pipe as per approved design and drawing.	8	Nos						

Sl. No	Description of work as per preliminary assessment	Qty.	Unit	Description of work proposed by the bidder (for budget quotes)	Quantity (for budget quotes)	Unit (for budget quotes)	Rate excluding GST (Rs.) (budget quotes)	Applicable GST Amount	Amount (Rs.) (budget quotes)
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150 MT
37
8 Nos

5 ~~Supply, installing by fitting fixing and testing of Cast Iron Sluice valve with rating PN 1.6 of required NB(nominal bore) of approved brand & make of reputed manufacturers with all fittings, sealants, materials, accessories and application of approved primer and paints complete, as per desired Technical Specifications & Standards and to the satisfaction of the E.I.C.~~ 8 Nos