

**GOVERNMENT OF KERALA**  
**DEPARTMENT OF AGRICULTURE DEVELOPMENT & FARMERS' WELFARE**

**Office of the Executive Engineer (Agri) Southern Region,  
Sanathanapuram PO, Alappuzha- 688 003**

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EE (2) 584/2020

Date: 04/04/2022

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**TENDER NOTICE**

**Tender ID 2021\_AGRI\_434492\_2**

Notice inviting E-tender for the Supply, installation, testing, trial run and commissioning of **Suitable High Discharge at Low Head Submersible Pumpsets at Chengannur LAC and Cheriyanad Grama Panchayat, Alappuzha** District of Kerala with the specifications given below.

On behalf of Governor of Kerala E-tender in two cover system is invited from manufactures or their authorized dealers or authorized distributors for the supply, installation, testing, trial run and commissioning of **Suitable High Discharge at Low Head Submersible Pumpsets** and all other accessories with the following specification, by the **Executive Engineer (Agri) Alappuzha**.

Supply, installation, testing, trial run and commissioning of **Suitable High Discharge At Low Head Submersible Pumpsets** with the specifications listed below: Suitable for handling fresh and silty water with rpm 960 (Syn) or less. The material of construction of the casing and suction bell shall be CI with 2% Nickel, impeller, and shaft shall be of SS of suitable grade and vertical submerged column pipe and delivery pipe (varies from 5 to 10 m length as per site conditions) of MS (IS 226) with 6 mm minimum thickness. A metallic non-corrosive strainer of mesh size not more than 50mm X 50mm should be fitted at mouth of suction column. Any hanging portion of the delivery pipe should be supported with suitable metallic supporting frames or RCC pillars of suitable size as per site requirements. The prime mover for the pump should be 3 phase TEWC squirrel cage submersible induction motor 415 V -15% ,+6%, 50 Hz +/- 5%

connection with class “F” insulation, cubicle type panel board with all necessary protection units and instrumentation. Auto transformer starter of reputed make , MCCB including suitable metering, LED indications, selector switch, single phase and dry running preventer, suitable capacitor etc., wiring and earthing should be as per regulations and specifications of KSEB and Electrical Inspectorate. Suitable water proof, copper power cable 10 mm three core about 20.00 m length or as per the site requirement. A screen with 6 mm GI welded mesh with 50mmX50mm opening size (about 20 sqm area) framed in GI angles and GI tubes shall be fitted at the openings on top and sides of sump to prevent entry of unwanted materials to the pump through inflow water.

The rate quoted should inclusive all the charges for supply, installation including petty civil works, trial run and commissioning, all type of transportation and conveyance, loading and unloading charges, charges for factory testing , GST etc.

Sl. No.	Duty Point Head (M)	Minimum Discharge at Duty Point Head (LPS)	Working head range (M)	Minimum overall efficiency (%)	Available Connected Load (HP)	Quantity (No)
I	3.5	180	0.5-5	65	20	8
II	3.5	200	0.5-5	65	25	5
III	3.5	250	0.5-5	65	30	4

In accordance with respective specification as shown in the tender documents, the tender is to be submitted as e-tenders through [etenders.kerala.gov.in](http://etenders.kerala.gov.in). Since this is an online process only those bidders who have enrolled in the above portal **with their on** Digital Signature Certificate (DSC) can participate in the tender. E tender document and other details can be obtained from the above portal.

EMD (online payment)	:	Rs.3,00,000/-
Tender Fee (online payment. GST payment directly to GST department)	:	Rs.25,000 + 18% GST
Document sale start date and time	:	07/04/2022 @ 5.00 pm
Document sale end date and time	:	17/05/2022 @ 3.00 pm
Pre-bid meeting date	:	11/05/2022 @ 11.00 am
Bid Submission start date and time	:	07/04/2022 @ 5.00 pm
Last date and time of receipt of e-tender	:	17/05/2022 @ 3.00 pm
Date and time of opening of technical bid	:	19/05/2022 @ 3.00 pm
Date upto which the rate is to remain firm for acceptance	:	90 days
Performance Security	:	5% of quoted amount
Period of Supply	:	within three months from the receipt of supply order

Bidders shall remit the tender document fee and EMD using the online payment option of e-procurement system only. Bidders are advised to visit downloads section of e-procurement website <http://etenders.kerala.gov.in> for details instructions on making online payment using internet banking facility of SBT or by NEFT facility. In the bid, the following documents should be submitted by online.

1. BOQ duly filled up and signed.
2. Technical data sheet duly filled up and signed.
  - a) If any more information to be furnished, separate data sheet shall be attached for additional information.
  - b) Scanned copy of performance curve etc should be attached.
3. E-payment form duly filled and signed.
4. Proof of original manufacturer/authorized dealers attested copy of authorization.
5. Scanned copy of preliminary agreement executed in Kerala Stamp Paper worth Rs.200/-
6. EMD exemption certificate (if any) should be submitted online
7. Other details if any required to be furnished in the special condition.

8. Form No.14 duly filled and signed
9. Tender Notice and Special condition of Tender duly signed.
10. Experience Certificate for the last 3 years

Scanned copy of the preliminary agreement in the prescribed format in Kerala Stamp paper with Rs.200/- should be submitted online and original to the undersigned before the opening of e-tender.

The rate should be quoted in Indian Currency only. The rules and regulation prescribed for e-tenders by the Govt. of Kerala shall be applicable to this e-tender also.

Tenders will be opened online in the presence of such bidders or their authorized representatives who have logged in at the prescribed time of opening. If the date fixed for opening happens to be a holiday or due to net failure the tenders will be opened in the next working day at the same time.

#### **General Requirements:**

- 1 The efficiency of the pumping unit supplied shall be as high as practicable, consistent with the best modern design.
- 2 The pump set shall be capable of operating in open conditions in the range without being overloaded at any point with a margin of at least 10% of power in the motor pump set over entire operating range.
- 3 The pump set characteristics shall be of stable nature such that the efficiency is fairly steady for the water level variations. The maximum efficiency point will be nearer to the duty point and fairly constant for larger range on either side. The pump sets should run smoothly over the entire operating range without cavitations and vibration. The variation in the efficiencies for any point of operation in the entire operating range should be minimum.
- 4 The pump set shall be suitable for pumping of raw/ brackish water containing silt, coarse sand and gravel/suspended solids up to 50 mm size.
- 5 The pump set shall be suitable for non-stop continuous 24 hours operation without interruption.
- 6 The pump set shall be Axial Flow type with fixed blade angle according to the type used. The pump sets shall be comprised of suction bell mouth pump casing, impeller and motor on single common shaft, long life antifriction bearing (drive and non driving end) oil chamber with mechanical seals etc.
- 7 The pump set casing shall be designed for easy removal of impeller & bearings.
- 8 Impeller/propeller blades shall be made of Stainless Steel with resistance to corrosion. The impeller blades shall be hand finished to remove rough spots and excessive irregularities. The rotating parts shall be balanced dynamically to

eliminate the vibrations as far as practicable. The interior surface and passages shall be smoothly finished to obtain the highest efficiency and shall be designed to ensure smooth operation free from any cavitations or vibrations.

- 9 The clearance between bell mouth, strainer and sump floor and also nearing walls should be such that vortex free operation is obtained.

#### 10 HYDROSTATIC TEST/DYNAMIC BALANCE TEST FOR PUMP SETS

- (a) All pump set casing shall be subjected to hydrostatic test at manufacturer's works.
- (b) Dynamic balancing test of impellers and impeller shaft shall be arranged at manufacturer's works.

#### 11 PERFORMANCE TEST AT FACTORY FOR PUMP SETS

- a All pump set shall be subjected to performance test as per IS 9137 at manufacturer's work at duty point head, minimum and maximum head.
- b Performance testing shall include determination of head, discharge, power demand and efficiency.
- c The manufacturer shall furnish the facility available, agency and place for conducting above test.

#### 12 The supplier shall furnish the following documents

- (a) Final constructional drawings of the pump set.
- (b) Operation, maintenance and spare parts manual for pump set.
- (c) Weight of pump set and required minimum crane capacity.
- (d) Material of casting certificate for pump components

#### 13 The pump set manufacturer has to declare the performance parameters separately as Guaranteed Performance Parameters. These shall include discharge, pump set efficiency and overall efficiency.

#### 14 The manufacturer has to provide technical data as given in Annexure - II for the product they have quoted.

### **Special Conditions:-**

1. The basic rate quoted should be inclusive of all charges for supply, installation, trial run, commissioning, transportation, handling, charges for factory testing, , all taxes etc., but excluding GST. GST has to be quoted separately in GST Column.
2. The firm has to supply the items at the locations specified as per direction from the undersigned.
3. The bidders can quote, for all / any / some of the items as per their choice, but the cost of tender form remains the same.
4. The successful bidder will be bound to supply the items as per the requirement of the

Tender Inviting Authority.

5. Bidder has to pay the GST portion of tender fee directly to GST Department and upload the chalan in the portal and also submit along with the hardcopy of tender documents.
6. The Bidder should specify the Make and Model of pump set quoted.
7. The Bidder should submit authorized Dealership/Distribution ship certificate from Manufacturer.
8. The supplier should confirm the repair and service facilities, availability of spare parts etc. of the items supplied for a minimum period of 10 years. The selected bidder should attend the pump set and rectify the trouble within 48 hours in case of registration of complaints.
9. Training programmes in operation and minor rapair should be arranged for selected pump operators and padasekhara samithi members
10. All pump set shall be subjected to performance test as per IS 9137 at manufacturer's work for different head, discharge and efficiency in presence of tender inviting authority or authorized persons.
11. The Tender Inviting Authority reserves the right to order full quantity of the supply to any one bidder or distribute the supply to different bidders as per decision of the technical committee constituted for the purpose.
12. A scanned copy of Preliminary Agreement signed in Kerala Stamp Paper worth Rs. 200/- should be uploaded along with tender documents.
13. The successful bidder will have to execute an agreement in Kerala Stamp Paper worth Rs.200/- in prescribed form and manner and also to furnish the required security amount @ 5% of total quoted amount within 14 days of the receipt of selection notice.
14. The payment shall be released only after satisfying the quantity, quality and specifications of the items supplied and successful commissioning and trail run of the item supplied by the bidder and inspection of the technical committee constituted for the same.
15. Tenders, incomplete in any respect, will be summarily rejected and the decision of the undersigned will be final.
16. The supply should be completed within 3 months on receipt of the supply order
17. Bidders should be prepared to do necessary petty construction works associated with the installation, if any required, within the quoted amount.
18. Bidders are advised to visit the locations of proposed installations, before quoting.
19. A minimum warranty period of three years is to be assured for the items supplied and the details of AMC, thereafter, should be mentioned along with the tender documents.

20. All annexure should be duly filled and uploaded with the tender.
21. Any legal disputes that may arise in relation to the e-tender formalities will be restricted to the jurisdiction of Alappuzha District Court.

Communications to be addressed to:

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**Alappuzha**