

GOVERNMENT OF KERALA
DEPARTMENT OF AGRICULTURE DEVELOPMENT & FARMER'S
WELFARE
DIRECTORATE OF AGRICULTURE DEVELOPMENT & FARMER'S
WELFARE

Vikas Bhavan, Thiruvananthapuram-695033

Phone: 04712306748 / 9383470065

email: saekerala@gmail.com.

ADFW/11420/2022-TG3/NS

Date: 20/12/2023

NOTICE INVITING TENDER
(E-tender id : 2023_AGRI_634291_1)

Notice inviting E-tender for the supply, installation, trial run and commissioning of Submersible Axial Flow pump sets in KOLE LANDS of THRISSUR and MALAPPURAM Districts of KERALA with prime mover, delivery line, panel board and all other accessories.

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, trial run and commissioning of submersible axial flow pump sets and all other accessories with the following specification, by the Director of Agriculture, Trivandrum.

Tender ID :

Description of Pumpsets
Supply, installation, testing, trial run and commissioning of Submersible Vertical Axial Flow Pumpsets with the specifications listed below, suitable for handling brackish and silty water with small solid particles, with rpm 960 (Syn) or less and overall efficiency at duty-point heads listed below, not less than 70%. The material of construction of the Bowl, Casing, Impeller should be SS 316, shaft and sleeve should be SS 316, and that of suction and delivery pipe should be SS 304 with thickness not less than 6 mm, length of column up to bottom of delivery pipe should be as per in-situ requirement. A non-corrosive metallic strainer of mesh size not more than 50 mm x 50 mm should be fitted at mouth of

the suction column. Any hanging portion of the delivery pipe should be supported with suitable supporting frames.

The prime mover for the pump should be a 3 phase TEWC squirrel cage submersible induction motor suitable for 415 V +/- 10 %, 50 Hz +/- 5 % connection with class "F" insulation and BIS certification for all necessary couplings and other fittings.

The cubicle type Panel Board with all necessary protection units and instrumentation including suitable starter of reputed make, incomer MCCB including suitable metering, LED indications, protection, selector switch, single phase/ 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, about 20.00 m length or as per site requirement.

A screen with 6 mm G I welded mesh with 50mm x 50mm opening size, framed in GI angles and GI square tubes should be fitted at all the openings of sump where the pump is installed to prevent entry / dumping of unwanted materials to the pump through inflow water.

Sl. No.	Duty Point Head (m)	Minimum Duty Point Discharge (lps)	Minimum Overall Efficiency (%)	Available Power Allocation (hp)	Qty	District		
						Thrissur	Malappuram	Total
1	3	140	70	10	1	0	1	1
2	4	125	70	10	2	0	2	2
3	3	325	70	20	2	1	1	2
4	4	250	70	20	7	7	0	7
5	4	265	70	25	2	2	0	2
6	3	475	70	30	1	1	0	1
7	4	350	70	30	3	3	0	3
8	5	275	70	30	2	2	0	2
9	5	700	70	70	1	1	0	1
			Total		21	17	4	21

In accordance with respective specification as shown in the tender documents, the tender is to be submitted as e-tenders through

<https://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. Details of locations of proposed installation and power availability at sites are appended.

EMD (online payment)	: ₹3,57,400/-
Tender Fee (online payment. GST payment directly to GST department)	: ₹25,000/-
Document sale start date and time	: 22.12.2023, 6:00 p.m.
Document sale end date and time	: 25.01.2024, 2:00 p.m.
Bid submission start date and time	: 22.12.2023, 6:00 p.m.
Last date and time of receipt of e-tender	: 25.01.2023, 2:00 p.m.
Date and time of opening of technical bid	: 27.01.2024, 3:00 p.m.
Date up to which the rate is to remain firm for acceptance	: 120 days
Performance Security	: 5% of quoted amount
Period of Supply	: six months

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 day at the same time.

Scanned copy of the preliminary agreement in the prescribed format in Kerala Stamp paper worth 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.

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 cavitation 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 /saline 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 / mixed 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 anti friction 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 SS 316 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 cavitation 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 hydro static 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 declaration of the product offered 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, all taxes etc., but excluding GST.
2. The firm has to supply the items at the locations specified or 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 and EMD remains the same.
4. The quantity of supply may increase up to 10%, and 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 cost of tender form directly to GST Department and upload the Chellan in the portal and also submit along with the hard copy 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 ten years. The selected bidder should attend the repairs within 48 hours in case of registration of complaints and fault should be rectified within this period. Successful bidders, for 25 or more pump sets shall set up service centre, with all equipment and facility for conducting service and repair of the pump sets, in Thrissur Kole area, within a period of six months from the commissioning of the pump sets.
9. Schedules of rates for spare parts and services should be submitted along with the bid documents.
10. Training programmes in operation and minor repair should be arranged for selected pump operators and Padasekhara samithi members (three times the number of pump sets supplied) and training programme on repair and maintenance should be arranged for selected technical persons (number equal to the number of pumpsets supplied) by the supplier at their own cost.
11. 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.
12. The Tender Inviting Authority reserves the right to order full quantity of supply to any one bidder or distribute the supply to different bidders as per decision of the technical committee constituted for the purpose.
13. A scanned copy of Preliminary Agreement signed in Kerala Stamp Paper worth Rs. 200/- should be uploaded along with tender documents.
14. The successful tender 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.
15. 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.
16. Tenders, incomplete in any respect, will be summarily rejected and the decision of the undersigned will be final.
17. The supply and installation should be completed within 6 months on receipt of supply order.
18. Bidders should be prepared to do necessary petty civil construction works associated with the installation, if any required, within the quoted amount.

19. Bidders are advised to visit the locations of proposed installations, before quoting.
20. 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 (Declaration of the product offered).
21. All annexure should be duly filled and uploaded with the tender.
22. Any legal disputes that may arise in relation to the e-tender and related supply will be restricted to the jurisdiction of Thiruvananthapuram District Court.

Communications to be addressed to:

Director of Agriculture

Directorate of Agriculture,
Development and Farmers Welfare Department,

Thiruvananthapuram Kerala Pin : 695033,

Ph: 9383470065

saekerala@gmail.com

Sd/-
State Agricultural Engineer
For Director of Agriculture