



MED

SPEED POST

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SARDAR VALLABHBHAI NATIONAL
INSTITUTE OF TECHNOLOGY, SURAT-395 007.

No. MED/Renewable and Sustainable Energy Lab/4575 /2021-22 Date:28/02/2022

To,
Institute website

1 MAR 2022

SUB: - Enquiry for supply of test facility of Heat pump system with necessary instrumentation for Renewable and Sustainable Energy Laboratory.

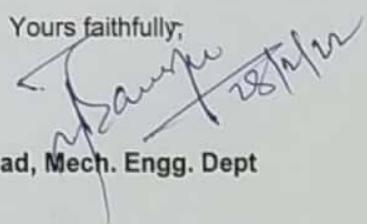
Dear Sir,

You are requested to quote your prices for supply of stores listed overleaf in annexure-1. The quotation may be sent to the undersigned in a sealed envelope and subscribed as: "Quotation with reference to Enquiry No. MED/ Renewable and Sustainable Energy Lab 4575/2021-22 dtd: 28/02/2022. Your quotation should reach the undersigned on or before **08/03/2022 at 5:00 pm.**

The quotations should be furnished with the following information.

- 1) The brand or make of each item should be specifically stated and wherever necessary, Complete set of specifications and dimensions should be given.
- 2) If asked, samples are accompany the quotations
- 3) Sales tax, General tax, Central Sales tax, Custom duty, Insurance charges, Packing and Forwarding charges, if not included in the prices quoted, should be clearly specified.
- 4) The period of validity of the quotation should be at least 45 Days. Offers subject to prior sale may please be avoided.
- 5) The delivery period is to be clearly mentioned in the quotation.
- 6) The mode of delivery of the stores may be mentioned. The delivery should be F.O.R. Surat or at the Institute.
- 7) All concessions available to an educational institution should be specified and also taken into account while quoting.
- 8) This Institute is located within the limits of Surat Municipal Corporation (S.M.C.) & exempted from the paying of octroi duty on incoming goods from outside limits of S.M.C.
- 9) This Institute is registered with the dept. of scientific & industrial Research (DSIR) for the purpose of availing custom duty exemption & central excise duty exemption, and hence the certificate to this effect will be issued wherever it is necessary on demand.
- 10) Payment is normally made by cheque drawn on the S.V.N.I.T. Branch Office of State Bank of India, Surat-395007 within a period of thirty days from the date of receipt of stores.
- 11) Your specifications & terms- conditions should be as per the format attached, must be on your company letterhead & signed by an authorized person.
- 12) Offered quotation may be rejected if any ambiguity is found in offered specifications, terms & conditions supplied by party in specified tabular format.
- 13) The Director reserves the right to accept stores, which are not strictly in confirming with the specifications but otherwise, found suitable.
- 14) The fabricated experimental test facility will be placed on terrace of Renewable and Sustainable Energy Laboratory.
- 15) Training to operate the test facility must be provided.

Yours faithfully,


Head, Mech. Engg. Dept

Specifications

Sr. No.	* Description (Annexure-1)
	Specifications of Heat pump system with necessary instrumentation
1.	Energy meter (Qty: 2) The energy meter must be digital and highly accurate, and precise. Measure power consumption by compressor and pump.
2.	Digital variable area flow meter (Qty: 2) Transmitter range 50-500 lit/hr working fluid are water and refrigerant R-134a with different working fluid R-410a, R-404a, R-12, R-22 and chilled water etc. To measure the volume flow rate of fluid.
3.	Braze plate heat exchanger (Evaporator) (Qty: 1) Heat exchange with water(hot fluid) and refrigerant(refrigerant) with a capacity of heat exchange 3.5 kW.
4.	Spiral heat exchanger (Qty: 1) Immersed coil heat exchanger (Condenser) Material- copper Which cover the maximum area of the 500 liters capacity cylindrical tank.
5.	Variable speed DC compressor (Qty: 2) For different cooling capacities maintain optimum speed and compatible with different refrigerant such as R-134a, R-410a, R-404a, R-12, and R-22. Required cooling Capacity: 3250 Watt and 650 Watt. The speed of the compressor is controlled by feedback from the electronic expansion valve from the evaporator exit.
6.	Electronic expansion valve (Qty: 1) For controlling the flow of refrigerant based cooling load. Percentage opening of valve according to the load and feedback given to the compressor to cut ON/OFF the system.
7.	DC pump (Qty: 1) To Flow the water through the chiller circuit. Solar power DC variable speed pump with a flow rate of 300-1000 lit/hr.