#### MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

No. F5(1134)ST/MNIT/MECH/2017		Phone: 0141-2713312,2713352	
		Fax No.: 0141-2529078	
M/s			

#### **NOTICE INVITING QUOTATIONS**

1. Registrar, MNIT, Jaipur invites sealed "QUOTATIONS" for the supply of Vapour absorption machine and Integrated Solar Collector(CPC) with thermal storage system for Mechanical Engineering Department of this Institute in two bid system (Technical & Financial bids separate envelop), as per schedule given below:

Event	Date & Time
Download of Tender	08.03.2017
Bid submission	28.03.2017 by 2.00 PM
Technical bid opening	28.03.2017 at 3.00 PM
Financial bid opening	Will be intimated on dated
Tender document fee	Rs. 500/-
Earnest Money	According to annexure 1st

2.	Quotation must be enclosed in a properly sealed envelope addressed to the MNIT, Jaipur with kind
	attention to Assistant Registrar (S&P), MNIT, Jaipur by designation and not by name. The quotation
	must be super scribed "Quotations for the supply of Vapour absorption machine and Integrated
	Solar Collector(CPC) with thermal storage system as called for in Tender Notice
	NoAM/PM. The Quotation mus
	reach on or beforeAM/ PM on or before the due date and time mentioned in the tende notice/tender document.

ALL TENDERERS MUST ENCLOSED A DD OF RS. 500/- OF TENDER FEE (NON REFUNDABLE) IN FAVOUR OF REGISTRAR MNIT JAIPUR SEPERATELY.

- 3. THE DOCUMENTS MUST BE DROPPED IN THE TENDER BOX AVAILABLE IN CENTRAL STORE DURING OFFICE HOURS (9.30AM to 6.00PM) ON ALL WORKING DAYS. BIDS DELIVERED TO ANY OTHER PLACE OR ANY INDIVIDUAL SHALL NOT BE CONSIDERED AS VALID DOCUMENT. QUOTATIONS SENT BY E-MAIL WILL NOT BE CONSIDERED VALID.
- 4. THE RATES QUOTED SHOULD BE F.O.R. JAIPUR inclusive of all charges e.g. packing, forwarding local taxes, railway freight, transit insurance, for outside firms and free delivery at Institute stores in the case of local firms. The rates may also be quoted separately "ex-godown/F.O.R. dispatching station. In case of Ex-Godown rates, please mention your packing and forwarding charges. Where there is no mention regarding delivery period in the quotations or where the items are offered ex-stock, the firms will be required to supply goods within one-month time.
- 5. Quotations should preferably be given only for those articles, which are available ex-stock. Other items should be quoted separately giving the delivery period. Rates of imported goods be quoted excluding custom duty as this institution is exempted from payment of custom duty. The rates of indigenous equipments may be quoted without Excise Duty as this institute is exempted from payment of Excise Duty.

- 6. As far as possible, quotations should be given for goods of India manufacture and foreign goods, which are readily available. Foreign goods quoted and proposed to be supplied should be covered by normal import quota of the dealer. This institute is exempted from payment of custom duty.
- 7. Detailed specifications and "make" of each item should be clearly given supported by the illustrated pamphlets wherever possible. Quotations without specifying the make and other particulars may be rejected. The payment will be made after the goods have been received, opened, checked and found to be in order up to our entire satisfaction. The accessories included in the equipment should also be clearly mentioned.
- 8. Losses or damage in transit will be in to the account of the supplier in case of rates **F.O.R. JAIPUR.** The supplier may, if he so desires, get the goods insured and include such charges in the tendered rate.
- The payment for the ordered items would be made after the articles have been received and found in order.
   Payment will be made by RTGS. Kindly send the RTGS details and cancelled cheque along with the Invoice.
- 10. Your rates should be valid at least for three months from the last date of receipt of quotations.
- 11. All legal proceedings, if necessity arises to institute may be any of the parties (Institute or Contractor/Supplier) shall have to be lodged in the courts situated at Jaipur and not elsewhere.
- 12. The undersigned is not bound to accept the lowest tender and may reject any tender or any part of the tender giving justification for such an action.
- 13. The rates must be quoted item-wise by giving Serial No. of our enquiry letter.
- 14. The quotations should preferably be sent duly typed.
- 15. (a) The Penalty Clause is as under:-

Should the tenderer fail to deliver the goods within the period specified in the tender form the Institute may, at its discretion, allow an extension in time subject to recovery from the tenderer as agreed liquidated damages, and not by way of penalty, a sum equal to the percentage of the value of stores which the tenderer has failed to supply for period of delay as stated below: -

(i)	Delay up to one month	1%
(ii)	Delay exceeding one month but not exceeding two month	2%
(iii)	Delay exceeding two month but not exceeding three month	5%
(iv)	Delay exceeding three month	5% for each month and part there of subject to maximum 10%

(b) In case of failure to supply the goods within the prescribed time and in accordance with the specifications give in the Quotations, the institute shall be free to cancel the order and make purchases from the next higher tenderer or from the open market as the case may be. In that case the loss sustained by the institute shall be recovered from the defaulting supplier. The institute will be at liberty to recover the loss from the permanent earnest money/or any other pending claims of the supplier without prejudice to its general right to affect recovery from the supplier.

- 16. EARNEST MONEY: A Demand Draft for according in **annexure 1**<sup>st</sup> in the name of the **Registrar**, **M.N.I.T.** may please be sent along with your tender as Earnest Money <u>without which no tender shall</u> <u>be considered. Cheques are not accepted as earnest money amount</u>. No interest is paid by us on the amount of earnest money.
- 17. Successful Bidder has to Provide Performance security @10% of the equipment cost, valid for 1 Year + 2 month in the form of Bank's Guarantee from A nationalizes Bank.
- 18. Specification Enclosed.

ASSISTANT REGISTRAR
(Store & Purchase)

## Annexure -1st

Sr. No.	Name of Items	<b>Earnest Money Amount</b>
01	Vapour absorption machine	30,000/-
02	Integrated Solar Collector(CPC) with thermal storage system	15,000/-

## **Vapour Absorption Chiller (VAC/VAM)**

# **Specification**

(a) Nominal Cooling capacity : 5 -10 TR

(b) Min. Temperature to be provided : 4 + -1 °C

(c) Heat Input/ Driven by : Hot Water/ Thermal Oil

(d) Working Solution: : Ammonia-water/ Lithium Bromide

(e) Power consumption : Approx. 2000 W

(f) Communicability : Remote performing monitoring system

(g) Maxm. working pressure : 10 Kg/cm2

(h) Warranty : 12 months from date of commissioning

(i) Supply includes : Heat rejection condenser, Evaporator, Pumps,

Valves, connecting pipes, working solution,

etc.

(j) Electrical supply : AC 415 volt, 50 HZ, 3 phase supply.

#### Specifications for Integrated Solar Collector (CPC) with thermal storage system

- 1) The collectors shall be suitable for mounting on the roof/ground with minimum civil work.
- 2) Array of Solar Collectors (CPC) connected together should be able to heat 2.7 m<sup>3</sup> water per hour at 95°C with Delta T of 10°C for typical weather condition of Jaipur (Rajasthan)
- 3) Array of Solar Collector shall have total absorber area of at least 80 Sq. mtr.
- 4) Hot water of Minimum 95 Deg C is to be achieved through collector.
- 5) System should be designed for operating pressure of 10 Bar.
- 6) Collector efficiency should be greater than or equal to 42%.
- 7) Collector should be EN 12975 certified.
- 8) These Solar Collectors are needed to be integrated with Thermal storage system of min. 3000 Ltr. Capacity.

### **Typical Single Unit Specifications:**

Sr.	Description	UOM	<b>Technical Specifications</b>	
No.			_	
1	Specification			
	Shape		Flat rectangular	
	Glass tube		Borosilicate glass 3.3	
	Glass tube	mm	47/37/1.6/1500	
	(OD/ID/Thickness/Length)			
	No. of evacuated tubes	Nos.	18/12	
	$\Pi_0$ in relation to aperture,EN12975	%	> 64	
	Heat transfer Coefficient a <sub>1</sub>	$(W/m^2K)$	0.89	
	Temperature dependent transfer	$(W/m^2K^2)$	0.001	
	Coefficient a <sub>2</sub>			
	Max Stagnation temperature	Deg C	250	
	Operating pressure	bar	10	
	Tubes		Copper	
	Insulation Material		Mineral wool / Rockwool	
	Manifold profile		Aluminum	
	Absorber coating material		Aluminum Nitride	
	Material		Al/Cu/Glass/Silicon/PBT/EPDM/	
			TE	
2	Mechanical Data (Approx.)			
	Size	m	2.0 x 1.5 x 0.1	
	Gross surface area	sq. m	3.0	
	Aperture surface area	sq. m	2.8	
	Weight	kg	50	
	Collector Liquid contents	L	2.5	

Above mentioned specifications are the minimum specification of the system. Specification better than this may be accepted provided vendor is able to establish clearly the advantages/salient features of the offers.

