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FACULTY OF AGRICULTURAL ENGINEERING
Department of Food Engineering

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Ref. E-Tender ID: 2018_BCKV_150292_1

NOTICE INVITING e-TENDER (3rd Time)

PI of the Project entitled “Infrastructural Support for Establishment of a Solar Assisted Vapour Absorption Refrigeration System for Cooling of Fruits and Vegetables” under RKVY is inviting tenders from competent and *bonafide* vendors/ parties/ distributors/ dealers/agents/ manufacturers having registration of GST for supply of following items to Department of Food Engineering, BCKV, Mohanpur campus within 12th February, 2018 at 5.00 pm as per specifications appended bellow.

1) Quotation of equipment must include essential accessories also, like, gas cylinder, regulator, exhaust hood, computer, voltage stabilizer, UPS from branded company, in Indian Rupees only, even if the main equipment is quoted in foreign currency. Without essential accessories tender will be considered as incomplete.

2) Quoted rates of all the equipment and items, including imported ones are must be FOR DESTINATION (up to delivery at the laboratory) and satisfactory installation and demonstration. Vendors are requested to include the cost involved in transportation from airport to laboratory, airport tax, custom duty (if applicable), etc in their quotations. However, University will provide valid DSIR and authorization certificate to the clearing agent, if required. Bid papers must accompany the scanned copy of authorization certificate from original manufacturer, trade license.

3) All supporting documents are to be uploaded to the WB tender portal. Vendor who will sign the bid on behalf of company or firm must produce registered documents in respect of their competency and specificity on demand.

4) An EMD (Earnest Money Deposit) of Rs. 5,000/- (Rupees Five Thousand) only must be drawn in favour of ‘**Bidhan Chandra Krishi Viswavidyalaya**’ payable at Kalyani. Scanned copy of EMD draft must be uploaded during submission of tender. Without EMD quotations will not be considered for technical or financial comparison.

5) Preparation of bids: the tender should be submitted under two bid system (i.e. technical and financial bid) with validity for a period of six months.

6) Submission of e-tender: the tender shall be submitted on line within 12th February, 2018 at 5.00 pm. Technical quotations may also be uploaded through online.

vi) Supporting documents:

a) Bid papers should accompany authorization certificate from original manufacturer, trade license, GST registration, etc

b) Scanned copy (self attested) of the original supporting document in favour of the specification –claim for each items must have to be uploaded separately.

c) User list along with certificate from reputed users also need to be uploaded for each items.

d) Scanned copy of supporting document of assured after sale service in Eastern India and availability of spare parts need to be uploaded.

Price bid of the vendors will be compared only if technical specificity as appended against each item is fulfilled. The Viswavidyalaya reserves the right to accept or reject any tender without showing reason.

(P.K. Sahoo)

SL No.	Name of the Item/Equipment	Qty.	Detail Specifications
1.	Cooling Chamber with Air Handling Units (AHU) for storage of fruits and vegetables	1(One)	<p>(i) Supply of pre-fabricated 60mm thick PUF panel cold rooms with inter locking system, density 40kg/m³, internal & external finish with 24gauge pre-painted GI sheet and floor with 100mm thick polystyrene/60mm PUF slab. Cold room shall be of 3 chamber construction with flush type swing door of size: 78inch X 34inch, 60mm PUF. Each chamber shall be of size: 3.0 m (Length) X 3.0 m (Width) X 2.4 m (Height) (external dimensions).</p> <p>(ii) Supply of floor mounted air handling units (3 nos.) with copper pipe, aluminium finned chilled water cooling coil(inlet 3.5 degC& outlet 5.5 degC, flow 7.5m³/hr.max.) and water spray system to maintain humidity. AHU shall be Aluminium frame & double wall insulated construction, forward curve fan, belt drive <i>motor etc.</i></p> <p>(iii) Supply of MS ERW heavy chilled water pipe line 40mm NB with 19mm thick elastomeric nitrile rubber insulation with necessary valves &</p>

			<p>fittings (Total Lengths of pipe lines of about 36.0 m).</p> <p>(iv) supply of MS ERW heavy chilled water pipe line 25mm NB with 19mm thick elastomeric nitrile rubber insulation with necessary valves & fittings (Total Lengths of pipe lines of about 18.0 m).</p> <p>(v) Supply of electrical panel with VFD for air handling unit, digital temperature controller and humidistat for maintaining room temperature & humidity with necessary instrumentation & cabling. Room temperature can be set & maintain between 7 degC to 15 deg C & RH between 70% to 90%.</p> <p>(vi) Chilled water re- circulation pump 7.5 m³/hr at 25 mtr head. Installation, commissioning, testing of the entire system and two years service warranty.</p> <p>(vi) Supply of Twelve (12) number of powder coated MS perforated rack with Four (4) shelves of size:1.2mX0.4m X2.0m(height). Also supply of plastic crates of 144 (One hundred forty four) numbers of size 500mmX350mmX350mm(approx.) to store fruits & vegetables for experimental purposes.</p>
2.	Reverse Osmosis (R.O) plant for production of soft water	1(One)	<p>Capacity 250 l/h, TDS in treated water will be less than 100 ppm, proper pretreatment along with two numbers of UF (ultra filtration) filter cartridge, UV, raw and treated water storage tank, raw and treated water SS pump and pipelines, panel and automation system. Installation and commissioning, warranty and free service etc.</p>

<p>3.</p>	<p>Electric Hot Water Generator</p>	<p>1(one)</p>	<p>(i) Specifications Rating : 36KW Temperature Control : Microprocessor/PLC based step controller Test Pressure : 150 psig Temperature Inlet : 85⁰ C Temperature Outlet : 90⁰ C Flow rate : 103 LPM</p> <p>(ii) Materials of construction: Enclosure: Hot Water Generator made out of steel and should be suitable for Indoor installation. Shell :made of MS sheet Connection: Inlet & outlet pipe with MS flange end and mating flanges, descaling & drain outlets. Heating Elements: Electrical resistance type heating elements capsulated in seamless copper tubes suitable for 240V±10% 50Hz 1 phase supply.</p> <p>(iii) Electrical Characteristics : Temperature Control Panel:Micro processor/ PLC based multistage electronic progressive staging sequencer with thermistor/ PT100 sensor to control the HWG in stages. Panel should be designed for automatic change over from solar system to Hot water Generator and vice versa. Panel should be suitable for 415V, 50 Hz, 3 Phase 4 wire system. Audio Visual Alarm: Trip indication lights for low water level & High temp. with audio alarm shall be provided.</p> <p>(iv) Controls & Accessories: 100mm dia. Temp Gauge for inlet and outlet water lines. Pressure Safety valve Auto Air Vent Sockets for Descaling Drain pipe Low water level cutout Master safety thermostat/ sensor for high temperature cutout. Internal Cabling and control wiring with Copper conductor wires etc. Sensor for solar</p>
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			temperature sensing. Solenoid valves for solar system and hot water generator control. (v) Installation and commissioning, service warranty etc.
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