



National Institute of Solar Energy

(An Autonomous Institution under Ministry of New and Renewable Energy
Government of India)

No. 3/ 02/ 003/ NISE - PVTF

NOTICE INVITING TENDER

On behalf of the Office of Director General, National Institute of Solar Energy (NISE), Gurugram invites sealed tenders from reputed suppliers of Water Bath for PVTF laboratory for **Supply, Installation & Commissioning of Two no's of Temperature controlled water bath of different capacities each as per specifications.**

Tender document may be downloaded free of cost from the website of NISE i.e. www.nise.res.in. The last date of receipt of bids will be 12:00 Hrs on **20th April, 2017.**

National Institute of Solar Energy

(An Autonomous Institute of Ministry of New & Renewable Energy)

Gwal Pahari,
Gurugram-Faridabad Road
Gurugram - 122 003; Haryana**Subject: Supply, Installation & Commissioning of Two no's of Temperature controlled water bath of different capacities each at NISE Campus.**

On the behalf of Director General, National Institute of Solar Energy, Gurugram sealed tenders are invited from reputed suppliers of water bath having an turnover of not less than Rs 2 Cr in their last 3 Yrs for supply, installation and commissioning of **Two no's water Bath** at NISE Campus as per technical specifications & standards given in tender document.

The NISE scientific staff can visit the qualified bidder's factory to assess & inspect the job as per tender requirement before dispatch the water bath.

Notice Inviting Bid (NIT) No	No. 3/ 02/ 003/ NISE - PVTF
Scope of Work	Supply, installation and Commissioning of Two nos. of Water bath at NISE Campus
Supply, Installation and Commissioning	As per technical specification – Annexure – 1 and Annexure-2
Submitting of Tenders	Sealed tenders are to be submitted in two parts i.e. Part-I containing Technical competence/literature along with Demand Draft for EMD, and Part-II containing only commercial invoice in a separate sealed envelope, super scribed as commercial bid. Both the technical and commercial envelops should be kept in large size sealed envelope super-scribed "Supply, installation and Commissioning of Two nos. of Water bath at NISE Campus and addressed to: Dy. Director General, National Institute of Solar Energy, Gurugram – Faridabad Road, Gwal Pahari, Gurugram – 122 003, Haryana, India. Ph: +91 124 - 285 3088 / 2853089/ 2579084. Note: the company particulars should be written on the Main envelop cover contain clear Correspondence – Address, EMD details, valid Email ID and Phone No.
Bid Validity	Bids shall be valid for at least 90 days from the date of technical bid opening.
Earnest Money Deposit	Rs. 50,000/- Fifty Thousand Only) (refundable to the unsuccessful bidders without any interest) by Demand Draft drawn in favor of " National Institute of Solar Energy " payable at Gurugram **Relevant certificate shall be submitted with the bids in case bidder(s) is/are exempted to furnish the EMD**

Client list	The bidders are requested to provide a minimum of 5 (Five) previous customer's details list to whom similar equipment has been satisfactorily supplied and completed. This is mandatory, which needs to be submitted along with the Technical bid.
Performance Security	<ul style="list-style-type: none"> i. Performance Security should be for an amount of 10% (Ten per cent) of the value of the contract. ii. Performance Security may be furnished in the form of an Account payee Demand Draft, fixed deposit Receipt from a Commercial bank, Bank guarantee from a Commercial bank.
Delivery time	(2 – 3 weeks) Two to three weeks
Last date for submission of bids	12.00 Noon on 20th April, 2017 (Note : In case this date is declared as holiday by NISE or Govt. of India in future, then next working day shall be the last date for submission of Bids or Technical bidding opening
Date of opening of Technical bids	12.30 P.M. on 20th April, 2017
Opening of Price Bids	The time & date for opening of price bids will be intimated to the technically qualified bidders preferably opened on the next day.
Address for Communication	The Deputy Director General (Administration), National Institute of Solar Energy, Gurugram - Faridabad Road, Gwal Pahari, Gurugram - 122 003, Haryana, India. Email: ddgsk.nise@gmail.com , pvtf.nise@gmail.com Ph: +91 124-285 3060 (Reception) / 285 3095 (Direct)

1) INSTRUCTIONS TO BIDDERS

1. Eligibility of Bidders

- (i) The Bidder should be reputed water bath suppliers having an turnover of not less than Rs 2 Cr during their last three financial years. The proof of turnover and list of clients will be submitted with the technical bids. Such equipment must be of the most recent series/models incorporating the latest improvements in design. The models should be in successful operation for at least one year as on date of Bid Opening.
- (ii) Details of Service Centres located in Gurugram or adjoining areas and information on Service support facilities that would be provided after the warranty period (In the Service Support Form).
- (iii) The Bidder shall be equipped and able to carry out the Supplier's maintenance, repairs and Spare parts, stocking obligations prescribed by the conditions of the contract.
- (iv) That the adequate and specialized expertise is already available or will be made available following the execution of the contract in the Purchaser's city, to ensure that the support services are responsive and adequate.
- (v) That the Bidder will assume total responsibility for the fault-free operation of equipment and Maintenance during the warranty period and provide necessary maintenance services for three years after end of warranty period if required.
- (vi) Bidders who does not meet the criteria given above, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure, etc. are subject to disqualification.
- (vii) Two year after the expiration of warranty period. An extended warranty for 3 years shall be quoted separately i.e optional.

Note: Submission of the bid only does not suffice for deeming the Order to the bidder; all bidders will undergo a strict scrutiny process to evaluate the bids received by the committee.

2) Technical Specifications

Please refer **Annexure – 1** and **Annexure- 2** for Technical Specifications of **Two no's of Temperature controlled water bath of different capacities.**

Note: Efforts are made to prepare the specifications of water bath without any typographical errors while maintaining the quality. In case of any errors, please bring to the notice of NISE.

3) GENERAL CONDITIONS OF CONTRACT

1. Codes & Standards: Water bath and its components shall comply with the latest edition of the applicable standards.

2. Inspections and Tests: All routine test & acceptance tests as per relevant standards and specification shall be carried out by the vendor on the premises of the MANUFACTURER. Charges for all these tests for all the equipment & components shall be included. Drawings and production data shall be furnished to the inspectors at no charge basis to the Purchaser, Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods.

3. Commissioning Check Tests/ Performance and Guarantee Test: In addition to the checks and test recommended by the manufacturer, the contractor shall supervise the following acceptance tests to be carried out on each set.

4. Certificate: The vendor shall furnish, at its own cost, test certificate for the various material and equipment as called for. Such certificate shall be from the manufactures for the particular consignment / lot/piece and shall be duly authenticated by respective consultants.

5. Packing: The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

6. Delivery and Documents: Delivery of the goods should be made within **(2 – 3 weeks) Two to Three Weeks** from the date of placement of purchase order at **National Institute of Solar Energy, Gurugram – Faridabad Road, Gwal Pahari, Gurugram - 122003, Haryana, India.**, Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail/phone the full details of the shipment including contract number, railway receipt number/ AWB etc. and date, description of goods, quantity, name of the consignee, invoice etc. The Supplier shall mail the following documents to the purchaser with copy to the insurance company:

- i) Copies of the Supplier invoice showing contract number, goods' description, quantity, and unit price, total amount;
- ii) Acknowledgment of receipt of goods from the consignee(s) by the transporters;
- iii) Insurance certificate, if any.
- iv) Manufacturer's/Supplier's warranty certificate;
- v) Inspection Certificate issued by the Competent Authority, and the Supplier's factory inspection report; and Certificate of Origin.
- vi) Two copies of the packing list identifying the contents of each package.

The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

7. Insurance: For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier to an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes.

8. Transportation : Where the Supplier is required under the Contract to transport the Goods to a specified place of destination including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

9. Warranty: The vendors must provide full comprehensive warranty for a period of 24 months (Two years) post installation. During this period they should provide all spare parts required for repair and maintenance. Along with repair maintenance service within 12 hrs. of communication of such services, warranty of 2 years against manufacturing defects shall be provided. Warranty should be provided by the original manufacturer.

10. Performance Guarantee: Performance Guarantee shall be provided against warranty for a period of up to Two (02) years for 10% of contract value.

11. Performance Security: Performance Security should be for an amount of 10% (Ten per cent) of the value of the contract in the form of account payee Demand Draft/ Fixed Deposit Receipt from a commercial bank/ Bank Guarantee from a Commercial Bank in an acceptable form to NISE, Gurugram for a period of 60 (Sixty) days beyond Warranty period.

12. AMC: The vendor must have provision for prompt and high quality after-sales services after Completion of the warranty period in an AMC basis (Hardware Portion) and must quote the cost of such AMC in the main tender after warranty period for Three (03) years.

13. Payment: 90% against delivery and installation at site & 10% after testing & commissioning and acceptance of the system /equipment to the entire satisfaction of the Purchaser and on production of unconditional performance bank guarantee of the amount of 10% of the Contract Value which will be retained for a period of warranty.

14. Taxes and Duties: Suppliers shall be entirely responsible for all taxes, duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. Being the purchases for scientific purpose, the customs/Excise duty exemptions are applicable.

15. Penalty Clause: If the Supplier fails to deliver the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty (Half percent of contract price per week of delay subject to a ceiling of 5% of final contract price).

16. Applicable Law: The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction in Gurugram, Haryana.

17. FREE MAINTENANCE AND DEFECTS LIABILITY PERIOD OF TWO YEARS. The vendor service center shall be in Delhi NCR with at least two years of local after-sales Service history in Delhi NCR. Following are the works shall be carried out during the free maintenance period.

- Emergency call back service
- Inspect, clean, where necessary
- Adjustment of machinery
- Replacement of any defective parts

18. Rejection of Tender: Incomplete, conditional, fax, late tenders and tenders without EMD will be rejected summarily. Director General, National Institute of Solar Energy reserves the right to reject any or all the tenders at his discretion without assigning any reason thereafter.

19. Interested bidders are requested to inspect the work site at the address above mentioned and get them acquainted with the nature of work and local conditions that may have a bearing on the rates.

THE FOLLOWING FORMS TO BE FILLED BY THE BIDDER as part of the Technical Part of the Bid.

- (i) Performance Statement Form (As per the attached Format)**
- (ii) Service Support details;**
- (iii) Manufacturer's Authorization Form**
- (iv) Certificate of experience of Five similar jobs.**

NOTES

- a) NISE, Gurugram reserves right to accept or reject any or all applications without assigning any reasons..
- b) OFFERS with INCOMPLETE INFORMATION ARE LIABLE TO BE REJECTED, which may be noted.

The Director General
National Institute of Solar Energy
Gurugram-Faridabad Road
Gwal Pahari
Gurugram – 122 003, Haryana

TECHNICAL SPECIFICATIONS OF TEMPERATURE CONTROLLED LARGE AREA WATER BATH FOR WET LEAKAGE CURRENT TEST AT PVTF:

Purpose: A temperature controlled water bath having the capability to operate in the heat and cool mode and shallow trough or tank of sufficient size to enable the PV Module with frame to be placed in the solution in a flat, horizontal position.

S.No	Parameter	Description	
I	Technical Details		
	1.1	Temperature range inside the water bath	(10 to 80°C)±5°C. A provision to set the desired temperature need to be provided.
	1.2	Temperature stability	±2°C or better
	1.3	Spatial deviation in temperature	±0.5°C or better
	1.4	Temperature sensor	Pt 100 (preferably water proof, rugged, durable & corrosion resistant)
	1.5	Location of temperature sensors	Set of temperature sensors need to be located in equidistant points in the form of array (preferably with markings) distributed across the tank to ensure the uniformity and placed slightly above the floor to measure the temperature of the Fluid.
	1.6	No. of temperature sensors	09 Nos. (easy to attach/detach)
	1.7	Temperature Measurement	All the temperature measurements have to be recorded and displayed on the screen. The mean value of the temperature reading shall be calculated by taking the average value of the measurements.
	1.8	Accuracy of temperature sensor	0.1°C or better
II	Constructional Details of shallow water tank		
	2.1	Internal Dimensions (working space) (LxBxH)	2.5 m x 2mx0.3m
	2.2	Volume	1500 Liters
	2.3	Working capacity	Min: 250 Liters, Max: 1250 Liters.
	2.4	Tank Cabinet	The tank should be made-up of rugged, corrosion resistant wall, floor with double walled built-in cabinet shell need to have 75 mm and Filled with good standard thermal insulation material.
	2.5	Outer body walls	Shall be constructed with SS 304 of 16 gauge sheet with, duly pretreated with heavy-duty corrosion resistant and high voltage protective Fiber Reinforced Plastic Layer outside of 2.5 mm.
	2.6	Inner body walls	The inside walls of the unit made up of heavy gauge stainless steel of grade SS 316 of 16 gauge sheet with inner epoxy coating.
	2.7	Water level indicator	A water level indicator with clear, visible and indelible markings must be provided.
	2.8	Thermal characteristics	The tank material should sustain the high temperature gradient of 150°C/min and shall have better thermal insulation characteristics to be provided.

	2.9	Electrical Characteristics	A water resistant Isolation of the tank to the ground from the High voltages up to 3000V DC.
	2.10	Water fill/Drain pump, valve and pipe.	Higher capacity pump need to be supplied along with the provision to control the flow of the water. Automatic Cut-off at desired water level and knob on/off switch to drain the water should be provided.
	2.11	Rigid structural base	Structure should be built with a non-corrosive material like Anodised coating Aluminium Extrusions / SS 304 with epoxy coating and shall have good mechanical integrity, ability to withstand heavy loads upto 3 tons. *Quoted separately for Aluminium and SS304
	2.12	Covering Lid	A necessary insulated cover should be supplied to close the water bath to prevent evaporation and to avoid dust deposition inside the chamber under standby mode. The lid must be weightless, easy to carry or remove and made of Non Corrosive Material with suitable transparent windows (Glass Reinforced Plastic).
	2.13	Shelves/Sample mounting Test rig	A Thick slab of insulator fixed vertically to the floor throughout the length of the cabinet and placed transversely for housing different sizes of PV module has to be provided. And it shall be easily detachable.
	2.14	Water Circulating pump	A provision to circulate the water to maintain the uniform temperature need to be provided and Flow rate must be specified.
	2.15	Feed Through/access port on the side walls	2 Nos of Thermally Insulated feed through comprising of 6 insulated and independent ports to facilitate the Testing preferably on top of the tank cabinet
III	Control and operational elements		
	3.1	Display	LCD touchscreen preferably showing set and actual values of temperature.
	3.2	Heating unit	Heating unit is equipped with Heating coils, of adequate heating capacity should be provided.
	3.3	Heating time	20 to 40 min. (time to heat the fluid)
	3.4	Cooling unit	The cooling unit can comprises of CFC free compressors with sufficient cooling capacity has to be provided.
	3.5	Cooling time	20 to 40 min. (time to cool the fluid)
	3.6	Compressor	Low noise and vibration free environment friendly compressors with Suitable rating from reputed make shall be provided.
	3.7	Temperature Controller	PID controller or Microprocessor or PLC based controller has to be provided.
	3.8	PC connectivity and software	RS-232/RS-485/LAN via USB cable and

			PC software enabling to monitor, Trend graph, and storing each sensor data to be provided.
	3.9	Power supply and stabilizer	3-ph Star connection AC: 400V±10%, 50Hz±5% (preferable for higher wattage). Or 1-ph AC: 230V±10%, 50 Hz±5% (power rating has to be specified). A suitable Stabilizer of reputed make of required capacity has to be supplied.
IV	Protection features		
	4.1	Over temperature limiters	Adjustable over temperature cut-out Shall be provided.
	4.2	AC Shock proof body	Shall be provided.
	4.3	Low liquid level cut-out	An acoustic visible and audible alarm shall be provided.
	4.4	Earth Fault/Leakage current Protection	Protection shall be provided against leakage current > 5mA.
	4.5	Other features	Emergency stop
Phase sequence protection (applicable for 3-Phase systems).			
Over current and Voltage protection.			
No sharp edges.			
V	Documentation		
	5.1	Declaration of conformity for the components used in the water bath along with accessories	Each component/product used in the water bath should have valid qualification certificate traceable to National / International standards for the following items: a) Chamber material. b) Heating unit. c) Cooling unit. d) Switchgear & Protective devices. e) Temperature Sensors
	5.2	Certificate of Examination by manufacturer/company	The inspection report shall be included the following things i. Standards followed to design and built the Water bath. ii. Water Leak proof. iii. Type of Refrigerant. iv. Min/max Allowed Temperature. v. Controller. vi. Volume. vii. Compressor unit. viii. Insulation resistance of MAT. ix. Temperature uniformity Distribution. x. Safety & Protection class.
	5.3	Manual	The Manual shall include the work instructions, controller configuration, troubleshooting guidelines, mechanical layout and electrical connection diagrams, list of parts used, Operation and maintenance plan shall be provided.
	5.4	Operating conditions Environmental	Temperature (10 to 50) ±5°C Humidity (10 to 90%)±5% RH (non-condensing)
	5.5	Calibration and Traceable	NABL Calibration certificate and

	certificate	traceable to international standards for Controller and Temperature sensors.
5.6	Warranty	At least 2 year warranty along with necessary spare parts should be provided.
5.7	Extended warranty and calibration service (optional)	Additional warranty for another 3 years and onsite calibration charges should be quoted separately.
VI	Additional Supplies	
6.1	Disinfectants	To prevent mold and microorganisms growth suitable chemicals need to be supplied.
6.2	Spray equipment	Portable Non corrosive spraying equipment easy to move across the PV Module of different sizes need to be supplied.
6.3	Insulation mat	Electrical insulation mats which will be laid on the ground to protect the operating personnel need to be supplied.
6.4	High voltage gloves	A two No's of gloves, capable to withstand the high voltage upto 20 kV to be provided.
6.5	Surfactants	Suitable chemicals to regulate the surface tension of water to be supplied.
Note: Price of additional supplies should be mentioned separately.		

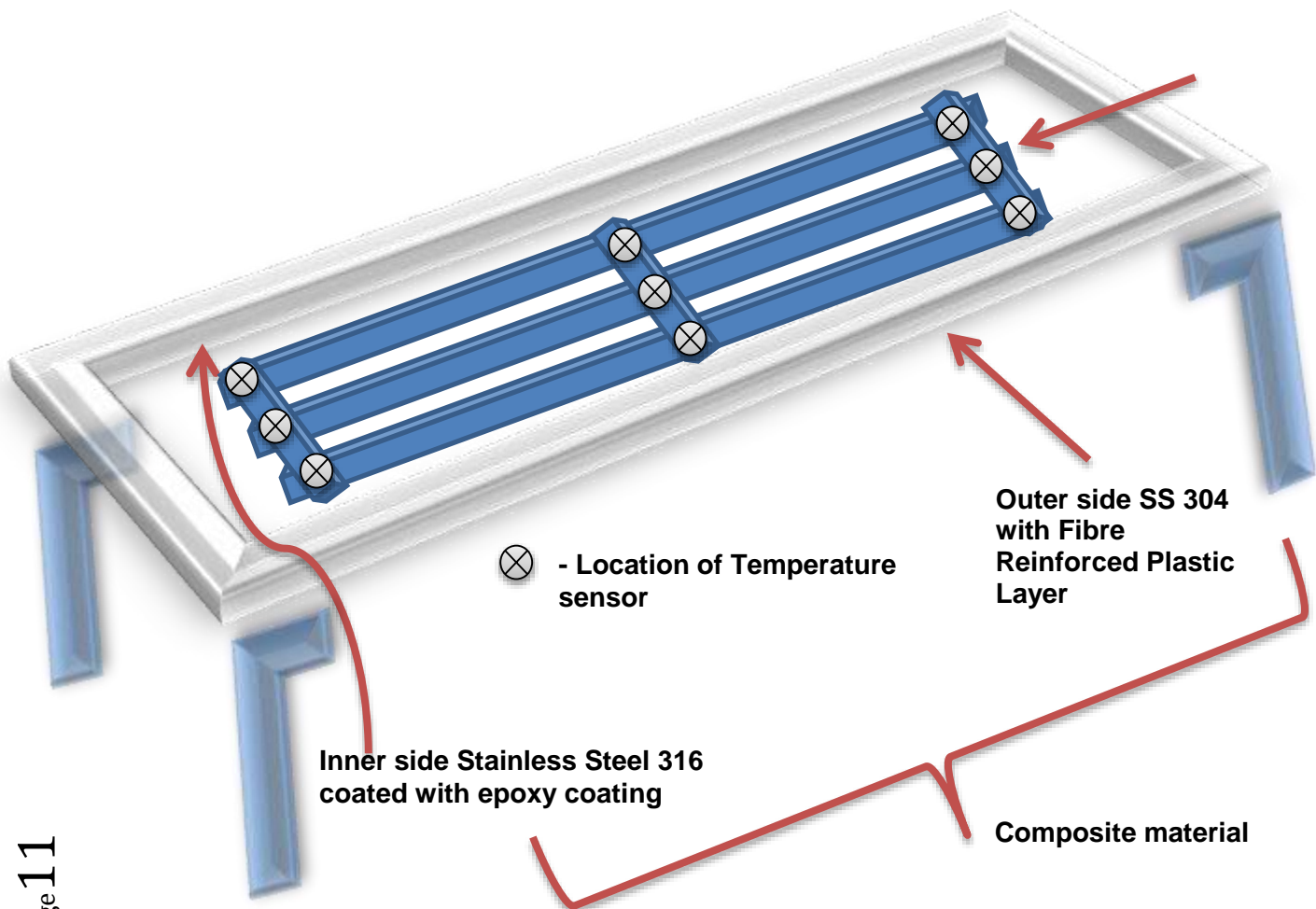


Figure 1 Tentative Schematic Diagram of Temperature controlled water bath Along with the location of temperature sensors. Figure Not to scale, only for representation purpose only.

Annexure- 2

TECHNICAL SPECIFICATIONS OF THERMAL WATER BATH FOR BATTERY LAB:

Purpose: A temperature controlled water bath having the capability to operate in the heat and cool mode and tank of sufficient depth which enables to submerge the batteries for long-term thermal conditioning.

S.No.	Parameter	Description	
I	Technical Details		
	1.1	Temperature range inside the water bath	0 to 100°C
	1.2	Temperature stability	±2°C or better
	1.3	Spatial deviation in temperature	±0.5°C or better
	1.4	Temperature sensor	Pt 100 (preferably water proof, rugged, durable & corrosion resistant)
	1.5	Location of temperature sensors	Set of temperature sensors need to be located in equidistant points in the form of array (preferably with markings) distributed across the tank to ensure the uniformity and placed slightly above the floor to measure the temperature of the Fluid.
	1.6	No. of temperature sensors	09 Nos. (easy to attach/ detach)
	1.7	Temperature Measurement	All the temperature measurements have to be recorded and displayed on the screen. The mean value of the temperature reading shall be calculated by taking the average value of the measurements.
	1.8	Accuracy of temperature sensor	0.1°C or better.
	1.9	Timing circuit	A provision to refresh water for every 24hrs to prevent buildup of acid and stale water.
II	Constructional Details of shallow water tank		
	2.1	Internal Dimensions (working space) (LxBxH)	1.3 m x 0.8 m x 0.8m
	2.2	Volume	832 Liters
	2.3	Working capacity	750 Liters
	2.4	Tank Cabinet	The tank should be made-up of rugged, corrosion resistant wall, floor with double walled built-in cabinet shell need to have 75 mm and Filled with good standard thermal insulation material.
	2.5	Outer body walls	Shall be constructed with SS 304 of 16 gauge sheet with, duly pretreated with heavy-duty corrosion resistant and high voltage protective Fiber Reinforced Plastic Layer (2.5mm) outside.
	2.6	Inner body of the Tank	The inside walls of the unit made up of heavy gauge stainless steel of grade SS 316 of 16 gauge sheet with inner epoxy

			coating.
	2.7	Water level indicator	A water level indicator with clear and visible markings must be provided.
	2.8	Thermal characteristics	The material should sustain the high temperature gradient and having better thermal insulation characteristics to be provided.
	2.9	Water fill/Drain pump, valve and pipe.	Suitable capacity pump shall need to be supplied along with provision to control the flow of the water and Automatic Cut-off at desired water level. Also a knob on/off switch to drain the water should be provided.
	2.10	Rigid structural base	Structure should be built with a non-corrosive material like Anodized coating Aluminium Extrusions / SS304 with epoxy coating and having good mechanical integrity, ability to withstand heavy loads upto 2 tons. Wheels have to be provided for easy movement. <ul style="list-style-type: none"> Quoted separately for Aluminium and SS304 material
	2.11	Covering Lid	A necessary insulated cover should be supplied to close the water bath to prevent evaporation and to avoid dust deposition inside the chamber under standby mode. The lid must be weightless, easy to carry or remove and made of Non Corrosive Material with suitable transparent windows (Glass Reinforced Plastic).
	2.12	Shelves/Sample mounting Test rig	A Thick slab of insulator fixed vertically to the floor throughout the length of the cabinet and placed transversely for housing different sizes of PV module has to be provided. And easily detachable.
	2.13	Water Circulating pump	A provision to circulate the water to maintain the uniform temperature Shall be provided. Flow rate must be specified.
	2.14	Feed Through/access port on the side walls	2 Nos of Thermally Insulated feed through comprising of 6 insulated and independent ports to facilitate the Testing preferably on top of the tank cabinet
III	Control and operational elements		
	3.1	Display	LCD touchscreen preferably showing set and actual values of temperature.
	3.2	Heating unit	Heating unit is equipped with Heating coils, of adequate heating capacity should be provided.
	3.3	Heating time	15 to 30 min.
	3.4	Cooling unit	The cooling unit can comprises of CFC free compressors with Proper cooling capacity to be provided.
	3.5	Cooling time	15 to 30 min.
	3.6	Compressor	Low noise and vibration free environment friendly compressors with Suitable rating from reputed make shall be provided

	3.7	Temperature Controller	PID controller or Microprocessor or PLC based controller has to be provided.
	3.8	PC connectivity and software	RS-232/RS-485/LAN via USB cable and PC software enabling to monitor and Trend graph, store the data to be provided
	3.9	Power supply and stabilizer	3-ph Star connection AC: 400V±10%, 50Hz±5% (preferable for higher wattage). Or 1-ph AC: 230V±10%, 50 Hz±5% (power rating has to be specified). A suitable Stabilizer of reputed make of required capacity has to be supplied.
IV	Protection features		
	4.1	Over temperature limiters	Adjustable over temperature cut-out Shall be provided.
	4.2	AC Shock proof body	Shall be provided.
	4.3	Low liquid level cut-out	An acoustic visible and audible alarm shall be provided.
	4.5	Other features	Emergency stop
Phase sequence protection (applicable for 3-Phase systems).			
Over current and Voltage protection.			
No sharp edges.			
V	Documentation		
	5.1	Declaration of conformity for the components used in the water bath along with accessories	Each component/product used in the water bath should have valid qualification certificate traceable to National / International standards for the following items: a) Chamber material. b) Heating unit. c) Cooling unit. d) Switchgear & Protective devices. e) Temperature Sensors
	5.2	Certificate of Examination by manufacturer/company	The inspection report shall be included the following things xi. Standards followed to design and built the Water bath. xii. Water Leak proof. xiii. Type of Refrigerant. xiv. Min/max Allowed Temperature. xv. Controller. xvi. Volume. xvii. Compressor unit. xviii. Temperature uniformity Distribution. xix. Safety & Protection class.
	5.3	Manual	The Manual shall include the work instructions, controller configuration, troubleshooting guidelines, mechanical layout and electrical connection diagrams, list of parts used, Operation and maintenance plan shall be provided.
	5.4	Operating conditions Environmental	Temperature (10 to 50) ±5°C Humidity (10 to 90%)±5% RH (non-

			condensing)
	5.5	Calibration and Traceable certificate	NABL Calibration certificate and traceable to international standards for Controller and Temperature sensors.
	5.6	Warranty	At least 2 year warranty along with the necessary spare parts should be provided.
	5.7	Extended warranty and calibration service (optional)	Additional warranty for another 3 years and onsite calibration charges should be quoted separately.
VI	Additional Supplies		
	6.1	Disinfectants	To prevent mold and microorganisms growth suitable chemicals to be provided.
	Note: Price of additional supplies should be mentioned separately.		

No. 3/02/003/NISE - PVTE

Performance Statement Form

(For the last three years)

Name of Bidder: _____

Order No. & Date	Client	Contact person/ phone	Description & quantities of ordered items	Value of order (in Rs Lakhs)	Date of completion		Satisfactory completion
					As per contract	Actual	

To be attached: Documentary evidence (client's letter or certificate) in support of satisfactory completion of above orders. Minimum 5 Customers

Signature and seal of the Bidder

Date

Price Bid Format
(on Company's Letterhead)

Ref No.

Date:

PRICE BID

The Director General
National Institute of Solar Energy (NISE)
Gurugram – Faridabad Highway
Gwal Pahari; Gurugram – 122 003
Haryana

Subject: Purchasing of 02 no's of Temperature controlled Water Bath of different capacities at NISE Campus – No.3/02/006/NISE – PVTF - reg.

S No	Item	Basic Price (in Rs)	AMC Charges for 3^rd Year (Rs)	Taxes (in Rs)	Other Charges (if any) (in Rs)	Total (in Rs)
	Total					

Amount (in words) Rupees

Signature: _____

Name of the Representative Submitting the Bid:

Designation:

Company Seal