



सरदार वल्लभभाई राष्ट्रीय प्रौद्योगिकी संस्थान, सूरत
**SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY,
SURAT, GUJARAT-395007.**

SVNIT

(An Institute of National Importance, Ministry of Education, Govt. of India)

NOTICE INVITING TENDER AND SCHEDULE OF TENDER

The S. V. National Institute of Technology, Surat invites ONLINE bids (e-tender) under **Two bid** system from only eligible Class-I & Class-II suppliers in line with Government Public Procurement Order No. **P-45021/2/2017-BE-II** dated: **04.06.2020** for the following:

Sr. No.	Name of the Item	Quantity	Validity of the bid	Delivery Period	Warranty period
1	Supply, Installation, Commissioning and Training of Solar array photovoltaic simulator, 600V, 8A with its accessories. (Detailed technical specifications of the items as per chapter – 8 enclosed with this notice)	01 Set	90 Days	30 Days	02 Years
	Bid Security/EMD	The bidder has to submit EMD of Rs. 12,000/- in the form of a Demand Draft submitted in favor of Director, SVNIT, MHRD Fund payable at Surat.			
	Performance Security	3% of the contract value valid till 60 days beyond the completion of warranty period			

Note:

1. Tender Documents with detailed terms & conditions can be downloaded from the website: <http://eprocure.gov.in/eprocure/app>
2. *The bidders are requested go through the complete Notice Inviting Tender and Tender document before submitting their bids.*
3. All the details/document pertaining to the tender such as tender document, pre-bid report (if any), corrigendum and any further updates will be available on SVNIT, Surat website and Central Public Procurement Portal.
4. Bids/Quotations may be submitted directly by the OEM or their Authorized distributors/Dealers/Resell Agents/Channel Partners with proof of authorization.

SVNIT Surat shall not be responsible for non-receipt bid due to internet issues or any other reasons. For any issues related to tender please contact Store Section. Tel. +0261-220 1726
Email; centralstore@svn.ac.in

Yours sincerely,

Faculty In-charge Central Store
For and on behalf of the Director, SVNIT
(The Purchaser)

CHAPTER-2
SCHEDULE OF TENDER

SI. No.	Event	Date and Time/ Remarks
01	Commencement of Downloading of Tender Document	Refer to critical dates on tender details page on http://eprocure.gov.in/eprocure/app
02	Bid Submission Start Date	Refer to critical dates on tender details page
03	Last date & Time of Submission of Bids Online (Technical and Financial Bid)	Refer to critical dates on tender details page
04	Date & Time of Opening of Technical Bids	Refer to critical dates on tender details page
05	Date of Completion of Examination of Technical Bid	To be declared on http://eprocure.gov.in/eprocure/app
06	Date & Time of Opening of Financial Bid	To be declared on http://eprocure.gov.in/eprocure/app
07	All the communications with respect to the tender shall be addressed to:	Faculty I/c Central Store Estate & Store Section Contact No.:0261-2201726 Email : centralstore@svnit.ac.in
08	For taking assistance, if any	CPP Portal website: www.eprocure.gov.in CPP Portal Help Desk Toll Free No.: 18002337315, 180030702232

Note:

-) If the tender is not opened on the above date, due to unforeseen circumstances, then the next working day will be considered as tender opening date.

CHAPTER-7
TECHNICAL ELIGIBILITY CRITERIA

Sr. No	Details	Compliance Yes/No	Deviations/Remarks, if any
1	The Bidder shall necessarily be a legal entity either in the form of a sole proprietorship, partnership or a Limited Company registered under the Companies Act. (A proof of status shall be submitted by the bidder.)		
2	The Bidder should be OEM/Authorized Distributors/Dealers etc. and should have existence of firm for a minimum period of 3 Years. (Certificate of Incorporation/ Registration/ Authorization by OEM should be attached)		
3	Bidder Acceptance of Tender Document as per Annexure-1 attached.		
4	Bid Security Declaration Certificate as per Annexure-3 attached.		
5	List of other Govt. Departments, Public Sector units and Central Autonomous Bodies/Centrally Funded Technical Institute for which the bidder has supplied material or having the similar type of contracts and submit the certificates regarding the satisfactory performance of the contract. (Duly filled Annexure-4 along with Purchase order copies and satisfactory performance certificates should be attached)		
6	The average annual financial turnover of 'The bidder' during the last three years (excluding the year 2020-21), ending on 31st March of the previous financial year, should be at Rs. 7 Lakhs as per the annual report (audited balance sheet and profit & loss account) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India or equivalent in relevant countries. (Duly certified by the valid Chartered Accountant as per the Annexure-5 must be enclosed with the technical bid)		
7	WORK EXPERIENCE: The Vendors / Bidders should have work experience as per following parameters. Supportive documents like copy of P.O. completion certificate etc. should be uploaded in this regard. (i) Three similar completed works costing not less than Rs. 3 Lakhs in last 3 (three) years for any Govt./Semi Govt./ autonomous organizations where they have completed the similar works. OR (ii) Two similar completed work costing not less than Rs. 4 Lakhs in last 3 (three) for any Govt./Semi Govt./ autonomous organizations where they have completed the similar works. OR		

	(iii)One similar completed work costing not less than Rs.6 Lakhs in last 3 (three) years for any Govt./Semi Govt./autonomous organizations where they have completed the similar works.		
8	Delivery Period: The material should be delivered within 30 Days from the date of receiving the purchase order.		
9	Warranty: 2 year from the date of Installation and commissioning of the item.		
10	Training: Training should be imparted to Five officials of the institute for One day at purchaser's premises.		
11	Whether firm is MSEs Unit: If YES, then please Specify the category of ownership: SC/ST or Women: (Please Submit the Documentary Evidence for UAM and ownership details.)		
12	Whether firm is Local Supplier as per Make in India Order: (Please Submit the Documentary Evidence for Local Content issued by OEM as per Annexure-9)		
13	Whether the goods offered are from a country which shares a land border with India If Yes, the details of Registration with Department of Promotion of Industry & Internal Trade (DPIIT), Government of India.		

Notes:

1. Make/Model of all items should be clearly mentioned in your bid.
2. Latest & Valid Authorization Certificate from Original Equipment Manufacturer should be enclosed along with your offer
3. In the event of purchase order, training should be imparted to Five officials of the institute for One day at purchaser's site.
4. In the event of a work-order, Performance Security @ 3% of the work order value is to be submitted.
5. The institute is entitled for availing concessional GST of 5% (Refer chapter 5 clause No. 23 of tender document for details.)
6. Bidder should submit the **EMD of Rs. 12,000/-** with technical bid (Refer chapter 5 clause No. 05 of tender document for details) and MSE bidder should submit the Security Declaration Certificate as per **Annexure-3**
7. **Bids not complying to the above technical eligibility criteria and non-submitting the required documents are liable to be rejected.**

CHAPTER-8

TECHNICAL SPECIFICATIONS

Technical specifications of Solar array photovoltaic simulator, 600 V, 8 A is given below

-) **Output Voltage & Current:** 0 – 600 V, 0 – 8 A
-) **Output Power:** 4800 W
-) **Efficiency at 230 V AC Input, full load :** 87%
-) **Power factor:** 0.99 @ full load
-) **Load Regulation @ (100% load) CV mode:** 10 mV
- CC mode: 8 mA
-) **Line Regulation:**
 - CV mode: 3 mV
 - CC mode: 2 mA
-) **Ripple (BW = 1 MHz)**
 - CV mode: 25 mV rms
 - CC mode: 10 mA rms
-) **Programming Speed: (at 100% load)**
 - Rise time: 450 ms (10% to 90%)
 - Fall time: 600 ms (90% to 10%)
-) **Recovery time:** 300 μ s to recover within 500mV for 50 -100% load step
-) **Programming and Monitoring input:**
 - 0 - 5V/ 0 - 10V (User selectable)
-) **Resistor Programming:**
 - 0 – 5/ 10 K full scale (User selectable)
-) **Front Panel controls:**
 - Mains ON/ OFF, Voltage and Current setting with encoders,
 - Switch Settings: Over Voltage, Under Voltage, Foldback, Remote/ Local, Output ON/ OFF
-) **Front Panel indicators:** LEDs for CV, CC, Over Voltage, Under Voltage, Foldback, Remote & Output ON
-) **Programming Interfaces:** Analog, USB, RS232, RS485
-) **Voltage Programming Specifications (Digital Programming):**
 - Resolution: 15 bit or Better
-) **Accuracy:** 0.05% V_{out} + 0.05% of V_{rated}
-) **Temperature Coefficients**
 - (after warm up of 30 min and during 8 Hrs)
 - CV : 80 ppm/ $^{\circ}$ C
 - CC : 80 ppm/ $^{\circ}$ C
-) **Output Stability**
 - (after warm up of 30 min and during 8 Hrs)

CV : 100 ppm

CC : 100 ppm

) **Display Resolution:**

4 digit display for Voltage & 3 digit display for Current

) **Protections:** Over Current, Over Voltage, Short circuit, Fold back, Over temperature

) **Operating temperature:**

0 to 50°C

) Verify MPPT efficiency of PV inverters using PV Simulator software

) Verify MPPT performance of the inverters for dynamic profiles as per EN50530

) **Modes of operation:** - Static, Dynamic and Shadow

) Load and Save P-V and I-V data from excel file.

) Data logging of different Parameter like Voc, Isc, Pmp, Vmp, Imp, MPPT test Efficiency, Irradiance and Temperature etc.

Accessories:

) CPU: Intel i7 10th generation or more, 512 SSD, 1 TB HDD, 16 GB RAM, 2GB graphics card.

Monitor: FHD, 22 Inch or more, Keyboard and Optical Mouse

ANNEXURE – 11
TECHNICAL COMPLIANCE SHEET

The technical compliance bid must be in this sheet only, otherwise it should be assumed that bidder is not able to offer technically desired product. Information provided elsewhere or in different form will not be considered.

1. Appropriate Columns of this sheet should be compulsorily filled by the bidder, merely asking the office to refer catalogue or brochure will not be entertained.
2. The bidder shall assume full responsibility of the information provided in this sheet. Any false statement should render the breach of basic foundation of the tender.

Item No	Parts	Technical Requirement	Offered Specifications	Any deviation from specification	Remarks
01	Solar array photovoltaic simulator, 600 V, 8 A.	<p>) Output Voltage & Current: 0 – 600 V, 0 – 8 A</p> <p>) Output Power: 4800 W</p> <p>) Efficiency at 230 V AC Input, full load : 87%</p> <p>) Power factor: 0.99 @ full load</p> <p>) Load Regulation @ (100% load) CV mode: 10 mV</p> <p>CC mode: 8 mA</p> <p>) Line Regulation: CV mode: 3 mV CC mode: 2 mA</p> <p>) Ripple (BW = 1 MHz) CV mode: 25 mV rms CC mode: 10 mA rms</p> <p>) Programming Speed: (at 100% load) Rise time: 450 ms (10% to 90%) Fall time: 600 ms (90% to 10%)</p> <p>) Recovery time: 300 µs to recover within 500mV for 50 -100% load step</p> <p>) Programming and Monitoring input: 0 - 5V/ 0 - 10V (User selectable)</p>			

		<p>) Resistor Programming: 0 – 5/ 10 K full scale (User selectable)</p> <p>) Front Panel controls: Mains ON/ OFF, Voltage and Current setting with encoders, Switch Settings: Over Voltage, Under Voltage, Foldback, Remote/ Local, Output ON/ OFF</p> <p>) Front Panel indicators: LEDs for CV, CC, Over Voltage, Under Voltage, Foldback, Remote & Output ON</p> <p>) Programming Interfaces: Analog, USB, RS232, RS485</p> <p>) Voltage Programming Specifications (Digital Programming): Resolution: 15 bit or Better</p> <p>) Accuracy: 0.05% V_{out} + 0.05% of V_{rated}</p> <p>) Temperature Coefficients (after warm up of 30 min and during 8 Hrs) CV : 80 ppm/ CC : 80 ppm/</p> <p>) Output Stability (after warm up of 30 min and during 8 Hrs) CV : 100 ppm CC : 100 ppm</p> <p>) Display Resolution: 4 digit display for Voltage & 3 digit display for Current</p> <p>) Protections: Over Current, Over Voltage, Short circuit, Fold back, Over temperature</p> <p>) Operating temperature: 0 to 50°C</p> <p>) Verify MPPT efficiency of PV inverters using PV Simulator software</p>			
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		<ul style="list-style-type: none">) Verify MPPT performance of the inverters for dynamic profiles as per EN50530) Modes of operation: - Static, Dynamic and Shadow) Load and Save P-V and I-V data from excel file.) Data logging of different Parameter like Voc, Isc, Pmp, Vmp, Imp, MPPT test Efficiency, Irradiance and Temperature etc. <p><u>Accessories:</u></p> <ul style="list-style-type: none">) CPU: Intel i7 10th generation or more, 512 SSD, 1 TB HDD, 16 GB RAM, 2GB graphics card.) Monitor: FHD, 22 Inch or more, Keyboard and Optical Mouse. 			
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Note: Bidder must have submit the Technical Specifications Compliance sheet with the technical Bid.

LIST OF DOCUMENTS TO BE UPLOADED WITH TECHNICAL BID

Sr. No.	Documents
1	Copy of OEM /OEM Authorization certificate/Registration Certificate
2	Copy of Tender Acceptance Letter as per Annexure-1
3	Scan copy of Demand Draft of EMD Copy of Bid Security Declaration Certificate as per Annexure-3
4	Past Experience as per Annexure-4 , and Satisfactory performance certificates.
5	Copy of Duly filled Technical Eligibility criteria as per Chapter-7
6	Copy of Average Annual turnover for last 3 years as per Annexure-5
7	Copy of undertaking regarding LC as per Annexure-9 Copy of Technical Compliance Sheet as per Annexure-11