

राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर हमीरपुर177005-(हि .प्र.) NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P.)-177005

[An Institute of National Importance under Ministry of Education (शिक्षा मंत्रालय)]

E-TENDER NOTICE

Sealed online e-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned below.

Sr. No.	Name of works/item	Qty/ No.	Earnest Money In Rs.	Time Limit
1	Supply and installation of Real Time controller for Grid Integrated High Power EV charger solutions For detailed specifications etc please refer to SBD	1	45400	60 days

1. Availability of bid document and mode of submission:-The bid document is available online and bid should be submitted in online mode on website http://www.eprocure.gov.in/ and http://www.nith.ac.in/. Bidder would be required to register in the web-site which is free of cost. For submission of bids, the bidder is required to have Digital Signature Certificate (DSC) from one of the authorized certifying authorities (CA).

2. Key dates: (1)

1	Date of online publication	08.11.2025 at 6.00 PM
2	Document download start and end date	08.11.2025 to 27.11.2025 10.30 AM
3	Bid submission start and end date	08.11.2025 to 27.11.2025 10.30 AM
4	Physical submission of EMD, technical documents and cost of tender document etc.	On or before 05.30 PM on 27.11.2025
5	Date of opening of technical bid	28.11.2025 at 11.30 AM

- (II) Objections/representation if any against the bidders will be entertained only within three days after publication/uploading of technical bid opening summary on net and thereafter that the date of opening of financial bid of technically qualified bidders will be published /uploaded on net.
- 3. Tender Details:-The tender Documents shall be uploaded in 2 cover:-

Cover 1:-Shall contain scanned copies of all "Technical Documents/Eligibility information".

Cover 2:- Shall contain "BOQ/Financial Bid", where supplier will quote his offer for each item.

(a) Submission of Original Documents: The bidders are required to submit (a) original demand draft towards the cost of bid document if any and (b) original bid security/Earnest Money deposit (EMD) and other technical documents in the Store & Purchase section, NIT Hamirpur-177005 (HP) as specified in the key dates of Sr. no.2

on tender opening dates & schedule, failing which the bids will be declared non-responsive. EMD in the form of DD/FDR must be attached with in favour of Director, NIT, Hamirpur (H.P) -177 005. The EMD should remain valid for a period of 90 days beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released after successful execution of supply order.

4. BID OPENING DETAIL: - The bids shall be opened as per schedule specified in the key dates of Sr. no.2. in the store & Purchase section, NIT, Hamirpur by the authorized officer. In their interest the tenderer are advised to be present along with original documents at the time of opening of tenders. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time & venue.

5. The bids shall remain valid for acceptance for a period of not less than 120 days after the deadline date for bid submission. Other details can be seen in the bidding documents. The officer inviting tender shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt notify the bidder of any bid updates. The Employer shall not be liable for any information not received by the bidder. It is the bidders responsibility to verify the website for the latest information related to the tender.

6. The copy of enlistment order & renewals, Copy of PAN issued by Income tax Department and copy of GST Certificate must accompany in the cover-1

7. The bidder preferably must have successfully supplied similar items in recent years. The bidders shall have to produce supporting documents giving date of award, date of commencement and completion from the concerned competent authority and should be included in cover-1

8. Destination: F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must include the charges for Packing, Forwarding, Freight, etc., if any.

9. Price/Rate: The price of items may be quoted in Indian rupees.

10. GST:- All the firms may invariably mention their GST/PAN numbers on tender failing which quotations may not be considered valid. Further, this Institution does not issue any Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.

11. The bidders/firms have to supply the complete catalogue/brochure of the products to be supplied along with the Technical bid.

12. The technical bids will be evaluated on the basis of terms & conditions of the tender and details of the product to be supplied as per condition 11 of the tender notice. The committee reserves the right to reject any technical bid on the basis of technical specifications/catalogue/brochure submitted.

13. Conditional/ telegraphic tenders shall summarily be rejected.

14. For any clarifications bidders are requested to contact FI (Purchase), NIT Hamirpur at his E-mail ID i.e. fip@nith.ac.in.

15. The tender/bid shall be kept in a sealed envelope superscribed as "Tender for (Name of work and date of opening_____".

16. The jurisdiction of the law of court shall be at Hamirpur (HP).

FI (Purchase)

Dated: 07-11-2025

No: NIT/HMR/DoEE/S&PS/ 2025/682-84

Copy forwarded to the following for information please:-

1. The HOD, DoEE, NIT, Hamirpur

2. Dr. Upasana Sharma, Assistant professor, DoEE, for information please.

3. The FI (CC), for getting the advertisement displayed in the Institute website for wider publicity under head: - Supply and installation of Real Time controller for Grid Integrated High Power EV charger solutions for Electrical Engineering Department of NIT Hamirpur.

FI (Purchase)



राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर हमीरपुर177005-(हि .प्र.) NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR (H.P.)-177005 [An Institute of National Importance under Ministry of Education (शिक्षा मंत्रालय)]

NIT-SBD

Subject: - Supply & installation of of Real Time controller for Grid Integrated High Power EV charger solutions for DoEE of NIT Hamirpur.

Sealed online E-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned in the tender notice.

Sr.	Name of works/item		Earnest	Time
No.			Money	Limit
1	Supply and installation of Real Time controller for Grid Integrated High Power EV charger solutions For detailed specifications etc please refer below:-	1	In Rs. 45400	60 days

Detailed Technical Specification for supply and installation of Real Time controller for Grid Integrated High Power EV charger solutions

Sr.	Item Name	Item Description & Specification	Qty.
1	Real Time Controller for Grid Integrated High Power EV Charger solutions	a) Real Time Controller (Quantity 01) Customized RCP Controller along with the control software specifications and configuration as below:	01
		Controller:	
,		 SoC Processor Dual Core Processors Programmable FPGA 512 MB DDR3 RAM PWM Outputs: 	
		16 PWM Outputs or more	
		5V/15V Software Selectable PWM Outputs with Galvanic Isolation Pair of PWM outputs along with +5V/+15V Supply output on a DE9 Connector	
		Direct Connection to Power Converter using Shielded DE9 Cable	
		Configurable PWM generator	
1		User selectable sample time and divider	

Carrier wave type: Ramp Positive, Ramp Negative, Triangular Wave, Inverse triangular Wave

Configurable high and low threshold

Configurable PWM Dead band generator

PWM Short circuit protection with Master Trip and Error Flag Indication.

Embedded Voltage Sensors:

4 embedded voltage sensors or more

Isolated +/- 1000V AC/DC Measurement or more

Dedicated 16-bit Delta-Sigma Analog to Digital Converter per Channel or more

200 KSPS per channel sampling rate per channel or more

Parallel Sampling of all channels

Instantaneous Under Voltage Protection with configurable Threshold limit.

Definite Time Under Voltage Protection with configurable Threshold limit.

Instantaneous Over Voltage Protection with configurable Threshold limit.

Definite Time Over Voltage Protection with configurable Threshold limit.

Fault Indication and configurable action.

Embedded Current Sensors:

4 embedded current sensors or more

25A (RMS) measurement or more

Isolated Closed Loop Fluxgate Current Measurement

Dedicated 16-bit Delta-Sigma Analog to Digital Converter per Channel or more

200 KSPS per Channel Sampling rate per channel or more

Parallel Sampling of all channels

Instantaneous Under Current Protection with configurable Threshold limit.

Definite Time Under Current Protection with configurable Threshold limit.

Instantaneous Over Current Protection with configurable Threshold

Multiple Dashboards for easier user interaction.

Error Indication for Protection schemes & Expression panel

Controller device library should be available in MATLAB Simulink Environment

Direct MATLAB/Simulink model development flow: Modelling to binary generation within Simulink environment

b) Data Acquisition System (Quantity 01)

Analogue Outputs:

+/- 10V 16-bit DAC Buffered Output.

8 Analog Output Channels

Up to 200KSPS Sampling per Channel

BNC Connector per Channel

Relay Outputs

4 channels, 230V 5A SPDT Relay with Fast Operating Time

Digital Input & Outputs:

16 Digital Inputs and 16 Digital Outputs

Analogue Inputs:

8 channels

16-Bit ADC Channels

Up to 200KSPS sampling per channel

BNC Connector per channel

Vendor has to install all the software and implement the EV charger algorithm by implementation on the 30 KVA PFC after the tender or whenever required

Note: Vendors should guarantee compliance with the below mentioned compatibility criteria to ensure seamless integration and effective operation within the project framework:

- Power Conversion Unit: 30 kVA, 1500 V AC power rating with a 25 kW Power Factor Correction (PFC) unit
- Software Tools: MATLAB, PSIM, and other allied simulation software commonly used for design, control, and analysis

Other Terms & Conditions

Vendor participating must be responsible for integration of all hardware items with software items.

limit.

Definite Time Over Current Protection with configurable Threshold limit.

Fault Indication and configurable action.

Encoder Interface:

2 channels or more

Differential Hall Encoder Inputs.

Connector Interface for direct Encoder connection

2 CANBUS Ports

2 RS 485 ports & 1 RS 232 port

Controller Software Features:

Real Time Signals Software framework for Remote Programming, Run time Control, Online Signal Analysis and Measurement Functions

32 virtual inputs for run time control commands and online tuning of user selected control parameters.

32 virtual outputs for display, plot and recording of user selected signals (slow rate-10KSPS per signal)

32 virtual Probes for display, plot, measurement and recording of user selected signals (fast rate-200KSPS per signal)

Controller Management Functions: Controller discovery, status check, Binary compatibility check, Remote Programming, Firmware update

Instantaneous Time Plot for inputs, outputs, probes and measurement signals. Offline analysis (Pause & Analyze). Export signal data to CSV format. Up to 16 number of Time Plots with 6 Signals per Plot

XY Plot for X vs Yn signal plot

Power Calculation Panel – Active Power(P), Reactive Power(Q), Apparent Power(S), Power Factor (PF) and Instantaneous Power calculation for Single Phase 2 wire setup, Two Phase 3 wire setup, Three Phase 3 wire setup, Three Phase four wire setup and Four Phase setup.

FFT Measurement – Fundamental Frequency, THD calculation, Distortion Factor, Harmonic components of signal (RMS, Peak)

Power Analyzer – DC, Fundamental and Harmonics measurement-RMS, Peak, Angle, Power and Power Factor, Phasor Diagram, Power Vector Diagram

Energy Panel - Active Energy and Reactive Energy calculation

covered in order as penalty per day subject to a maximum of 5% (five percent) will be imposed unless extension is obtained in writing from the office on valid ground before expiry of delivery period

10. Price/Rate: The price of equipment/items may be quoted as per BOQ clearly mentioning the Basic rate & GST in the specified columns of BOQ in Indian rupees. Tender will be awarded to the participating bidder who will be lowest in terms of total of all items

- 11. **GST:** All the firms may invariably mention their GST/PAN numbers on quotation/tender failing which quotations may not be considered valid. Further, this Institution does not issue any C/D Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
- 12. **NIT/NIQ Opening**: Representative of the firm may be present at the time of opening of the Quotations, if it wishes.
- 13. Payment: 100% payment shall be made immediately after receipt of material in good condition and successful installation of the same.(Certificate of the same to be given by the indenter/inspection committee NIT, Hamirpur)
- 14. Right of Acceptance/Rejection: Right of acceptance and rejection of any tender/quotation in part or full without assigning any reason are reserved with the institution authorities. The number of items to be purchased could be increased or decreased depending on the requirement of end user.
- 15. In case of any dispute the jurisdiction of Hamirpur (HP) Courts shall apply. For any clarifications please contact: Dr. Jiwanjot Singh (Mobile 9872581018)

FI (Purchase)

- Vendor participating can be called for onsite demonstration with sample product for quality and feature analysis during the technical evaluation.
- Technical committee / PI / Co-PI can accept or reject any bid based upon the product quality & unsatisfactory operation of the equipment.
- Bids will be rejected in case of any technical deviation in compliance.
- Bidders must have similar past experience in providing the similar products in other IITs / NITs or any central / state organisations.
- Vendor has to give demonstration and training for the supplied equipments at NIT Hamirpur, Department of Electrical Engineering.

TERMS AND CONDITIONS:-

- 1. Validity: Minimum validity of the quotation will be 03 months from the date of opening of the quotation/tenders.
- 2. **Time Limit:** The firm/supplier has to the supply and install the equipments within 60 days from the date of the award letter.
- 3. **Guarantee/warranty**: The supplier has to provide equipment guarantee/warranty supplied for 02 years from the date of successful installation of the equipment supplied. (Certificate of the same to be given by the supplier)
- 4. **Demonstration & Training:** The supplier will have to demonstrate and impart training to concerned users at NIT, Hamirpur after successful supply & installation. (Certificate of the same to be given by the concerned user/indenter).
- 5. EMD: EMD in the form of DD/FDR /Bank Guarantee must be attached in favour of Director, NIT, Hamirpur (H.P) -177 005. The EMD should be remained valid for a period of 120 days beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released only after submission of 3 % Performance bank Guarantee which should be valid till expiry of warranty period. EMD/PBG exemption is permissible as per Govt. rules.
- 6. Make in India preference:- NIT Hamirpur shall compare all substantially responsive bids to determine the lowest evaluated bid. The Institute is following and abide with the revised Public Procurement (Preference to Make in India), Order No. P- 45021/2/2017 PP (BE-II) dated 16.09.20 issued by DPIIT, Ministry of Commerce and Industry, Govt. of India & subsequent instructions of Ministry. Accordingly, preference will be given the make in India products while evaluating the bids. However, it is sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India along with respective documentary evidence in the technical bid itself.
- 7. Technical Evaluation:- Technical evaluation of the participating firms will be done strictly on the basis of catalogues/brochures/literature/technical details of the product to be supplied along with relevant experience & fully complying all the terms & conditions of the SBD & tender notice. It is mandatorily to physically submit the technical literature/catalogue of the product to be supplied along with make & model no. failing which the technical bid of the participating bidder will be straightforward rejected. NIT Hamirpur also reserves the right to seek clarification from any of the participating firm during technical evaluation. The participating bidder has to submit undertaking that they fully complies to our abovementioned technical specifications.
- 8. **Destination**: F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must be quoted inclusive of all taxes and charges.
- 9. Penalty: In case the firm/vendor fails to supply the equipments within the stipulated period penalty without assigning any reasons @ 1/2% (half percent) of the total value of the item

Annexure I - Bidder's Information

(Bidder should duly fill and send with technical documents via post/courier)

1	Name of the Bidder	1	
2	Address of the Bidder		
3	PAN No.		
4	GSTIN No.		
5	E-mail ID	•	77
6	Contact Person's Name & Designation		
7	Mobile No.	†	
8	Email ID		
		1.	

Annexure II -Questionnaire
(Bidder should duly fill and send with technical documents via post/courier)

Sr.No.	Ouestions	Response		
1	Whether all the terms and conditions of the NIT document have been complied. Compliance (Yes/No)			
2	Whether all the items specified in the technical specification has been compiled and have been quoted in the bidding engine. Compliance (Yes/No)			
3	Confirm that you have read all the instructions carefully and have complied with the instructions accordingly. Compliance (Yes/No)			
4 .	In case bidder does not manufacture goods offers to supply have submitted Manufacturer's Authorisation letter. Compliance(Yes/No)			
5	Mention Delivery period	4 3 18 18 18 18 18 18 18 18 18 18 18 18 18		
6	Mention Warranty of the material			
7	Mention HSN/SAC code of the material			
8	In case of import supplies whether you have mentioned nearest international port of shipment in the technical bid (if not applicable please mention 'NIL').			

Signature and Seal of the Manufacturer / Bi						
Place:						
Date:						

ANNEXURE III - DECLARATION OF LOCAL CONTENT

(To be given on company letter head - For tender value below Rs.10 crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 crores)
(Bidder should duly fill and send with technical documents via post/courier)

	Date:
To,	
The Faculty Incharge Purchase, National Institute of Technology, Hamirpur-177005 (HP)	
Sub: Declaration of Local content	
Tender Reference No:	
Name of Tender: -	
Country of Origin of Goods being offered:	
2. We hereby declare that items offered has	% local content
3. Details of Location at which local value addition is	
"Local Content" means the amount of value added in offered minus the value of the imported content in the thetotal value, in percent.	India which shall, be the total value of the item being item (including all customs duties) as a proportion of
The bidders cannot claim services such as transportation and after sales service support like AMC/CMC etc as le	on, insurance, installation, commissioning, training ocal value addition.
"*False declaration will be in breach of Code of Integr Financial Rules for which a bidder or its successors ca (iii) of the General Financial Rules along with such oth	rity under Rule 175(1)(i)(h) of the General
Yours faithfully,	
(Signature of the Bidder, with Official Seal)	