



NATIONAL INSTITUTE OF SOLAR ENERGY
An autonomous Institute of Ministry of New & Renewable Energy)
GURGAON

**NOTICE INVITING TENDER FOR SUPPLY AND INSTALLATION OF AC/DC POWER
METER & LED OR DC ELECTRONIC LOAD WITH COMPLETE ACCESSORIES**

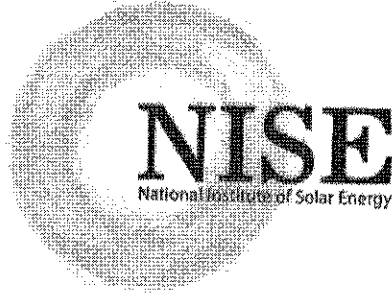
Sealed Tenders are invited by office of the Director General, National Institute of Solar Energy in two parts (Technical and Commercial separately) from original manufacturers/authorized agents for supply & installation of **AC/DC Power Meter & LED or DC Electronic Load with complete accessories** at National Institute of Solar Energy, Gwal Pahari, Gurgaon, Haryana, India. The bidders must have already supplied such or superior system in India or abroad. A clientele list should also be furnished along with the Technical Bid. Please visit Ministry of New & Renewable Energy website: www.mnre.gov.in or NISE website www.nise.res.in for complete Tender Document and detailed Specifications.

Sealed tenders may be submitted in two parts i.e. Part-I containing Technical Bid 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 envelopes should be kept in large size sealed envelope super-scribed as tender for "**AC/DC Power Meter & LED or DC Electronic Load with complete accessories**" and addressed to: Dr. Rajesh Kumar, Deputy Director General, National Institute of Solar Energy, Gurgaon – Faridabad Road, Gwal Pahari, Gurgaon 122003, Haryana, India. Closing time and date for receipt of tenders at NISE will be 12:00 PM 15th January, 2016. The technical bids will be opened at 03:00 PM on 16th January, 2016.

Tender DOCUMENT

For

***Supply & Installation of AC/DC Power Meter & LED or DC Electronic Load
with complete accessories***



NIT NO: 01/01(06)/2015/NISE-LED

Closing Date: 15/01/2016

At

NATIONAL INSTITUTE OF SOLAR ENERGY

19th Milestone, Institutional Area,

Gurgaon-Faridabad Road, Gwalpahari, Gurgaon, Haryana,

INDIA

Telefax No. : +91-124-2579207

File No: 01/01(06)/2015/NISE-LED

National Institute of Solar Energy

Faridabad-Gurgaon Road
Gwalpahari, Gurgaon-122003 Haryana

TENDER NOTICE

Subject:Supply & Installation of *AC/DC Power Meter & LED or DC Electronic Load with complete accessories* at National Institute of Solar Energy, Gurgaon.

On behalf Office of Director General, National Institute of Solar Energy sealed tenders are invited from reputed agencies in two parts (Technical and Commercial separately) for supply, installation of *AC/DC Power Meter & LED or DC Electronic Load with complete accessories* at National Institute of Solar Energy, GwalPahari, Gurgaon, Haryana, India. The important dates and information are given below in the table:

Tender Details

Sl.No.	Description	Details
1	Notice Inviting Bid(NIT) No	<u>01/01(06)/2015/NISE-LED</u>
2	Scope of work	Supply, Installation and warranty for min 1 year, of <i>AC/DC Power Meter & LED or DC Electronic Load with complete accessories</i> at NISE.
3	AC/DC Power Meter	A 2 channel AC/DC Power Meter with complete accessories.
4.	LED or DC Electronic Load	300W, 0-60V (or 0-80V), 0-60A, 2 channel (or Modules) with complete accessories.

5	Place of issue & submission of bid document and address for communication # The Envelope should be superscribed as Tender for “ <i>AC/DC Power Meter with ratings</i> ” & “ <i>LED or DC Electronic Load with ratings</i> ” separately.	NATIONAL INSTITUTE OF SOLAR ENERGY Gurgaon-Faridabad Road, GwalPahari, Gurgaon, Haryana-122003, India
6	Availability of Tender Document	The Tender document can be downloaded from NISE website: www.nise.res.in
7	Last date & time of submission of bid	15/01/2016 at 12.00PM
8	Date & time of opening of Part – I (Technical Bids)	16/01/2016 by 15.00PM
9	Date & time of opening of Part – II (Price-Bid)	Tentatively after 8 days of opening the technical bid
10	Earnest Money (Refundable)	Rs. 50,000/-
11	Time of supply	Maximum six week, after issue of P.O.
12	Validity of offer	The offer will remain valid for 4 months from the date of tender publication date
13	Validity of earnest money	The earnest money shall be submitted by the bidder in the form of CDR/FDR/BG from any bank operations in India pledged to the Director General NISE. This shall remain valid for 12 months from the date of submission of bids.

DETAILED TENDER NOTICE

Name of Work: Supply and Installation of *AC/DC Power Meter & LED or DC Electronic Load with complete accessories* at NISE.

1. ELIGIBILITY CRITERIA

1.1 The original manufacturers or their authorized suppliers who have past experience of manufacturing, or authorized Indian supplier. A list of clients should be enclosed.

2. Technical Specifications:

Specification of AC/DC Power Meter

S.No	Parameter	Specification(or Range)	
1.	Channel	2	
2.	Measurement Parameter	Voltage, peak Voltage, current, peak current, Watt, VA, VAR, Power Factor, Crest Factor, Frequency, THD Voltage, THD Current, Efficiency	
3.	AC/DC Voltage Measurement Range	0 to 600 V or 0 to 1000 V	
	Voltage Accuracy	DC: $\leq 0.1\%$ of Reading & $\leq 0.2\%$ of range 15 Hz to 1 KHz: $\leq 0.1\%$ of Reading & $\leq 0.2\%$ of Range	
4.	AC/DC Current Measurement Range	1 mA to 20 A	
	Current Accuracy	DC: $\leq 0.2\%$ of Reading & $\leq 0.2\%$ of range 15 Hz to 1 KHz: $\leq 0.1\%$ of Reading & $\leq 0.2\%$ of Range	
5.	Harmonic Measurement	Voltage Accuracy	15 Hz to 1 KHz: $\leq 0.20\%$ of Reading & $\leq 0.35\%$ of Range
		Current Accuracy	15 Hz to 1 KHz: $\leq 0.40\%$ of Reading & $\leq 0.50\%$ of Range
6.	Fundamental Frequency Range	DC, $1\text{Hz} \leq f \leq 100\text{KHz}$	
7.	Power Measurement Accuracy	DC: $\leq 0.1\%$ of Reading & $\leq 0.2\%$ of range 15 Hz to 1 KHz: $\leq 0.2\%$ of Reading & $\leq 0.2\%$ of Range	
8.	Display	7-Segment, 4 Item display, 5 Digits or 6 digits	
9.	Interface	Serial Interface(RS 232C), USB PC Interface, Ethernet Interface	
10.	Operating Environment	Temperature: $5\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$ Humidity: $\geq 80\%$ RH	
11.	Supply Voltage(AC)	100 to 240 V $\pm 10\%$	
	Supply Frequency	50/60 Hz	
12.	Software	Application software with data logging will log all parameters and having compatibility with Window XP, 7,8 or 10	
13.	Calibration Certification	Provided	
14.	Accessories	<ol style="list-style-type: none"> 1. Current, voltage or other measurement probe should be provided. 2. All communication cable (RS 232, USB PC Interface, Ethernet interface) should be provided. 3. Power cord 4. Instruction manual & Measurement guide 	

Specification for LED or DC Electronic Load

S.No	Parameter		Specification or Range
1.	Output Rating	Voltage	0-60V(or 0-80V)
		Current	0-60 A
		Power	300 W per Channel
2.	Channel (or Modules)		2
3.	Operating Mode		CC , CR, CV, CP, Dynamic Mode
4.	Constant Current Mode	Range	0-60A
		Accuracy	≤ (0.2% of setting+ 0.2% of range.)
		Resolution	≤ 16mA
5.	Constant Voltage Mode	Range	0-60V(or 0- 80V)
		Accuracy	≤ (0.1% of setting + 0.1% of range.)
		Resolution	≤ 20mV
6.	Constant Resistance Mode	Range	1Ω to 5 KΩ (300W/60V (or 80V))
		Resolution	≤ 200 μsec
		Accuracy	≤ (0.2 % of setting + 0.2 of Range)
7.	Constant Power Mode	Range	0-300W
		Resolution	≤ 80 mW
		Accuracy	≤ (0.5% of setting + 0.5% of range.)
8.	Dynamic Mode	T high & T low	0.10 msec to 50 sec (or 50μs to 9.999s)
		Slew rate	4-250 mA/μs (or 0.001-0.25 A/μs) 0.04-2.5 mA/μs (or 0.01-2.5A/μs)
		Accuracy	≤ 10% of setting
9.	Supply Voltage		100 to 240 V±10%
	Supply frequency		50/60 Hz
10.	Operating Environment		Temperature: 5 °C to 40 °C Humidity: ≥80 % RH
11.	Interface		RS 232C,USB PC interface
12.	Software		Hardware Unit will be programmed directly through Software and software should have data logging, to log all required parameter. And having compatibility with Window XP, 7,8 or 10
13.	Functions		<ol style="list-style-type: none"> 1. Flexible CC, CR, CV,CP& Dynamic operation Modes provided. 2. Should have Battery operating Mode (or LED Mode with Vo, Io, Vf, Rd coefficient)
11.	Accessories		<ol style="list-style-type: none"> 1. All necessary measurement probe should be provided. 2. Should provide the calibration certificate. 3. Communication Cable (RS 232C & USB) , Power cord & User Manual should be provided.

3. EARNEST MONEY DEPOSIT (EMD)

A sum of Rs.50,000/- should be submitted as Earnest Money Deposit (EMD) **along with the technical bid** in the form of **bank demand draft/Bank Guarantee** drawn in favor of "National Institute of Solar Energy" and payable at Gurgaon, Haryana". The EMD of the accepted tender will be retained as Security Deposit and the EMD of other unsuccessful bidders would be returned.

4. RATES:

The rates should be quoted specifically on the following lines:

- a. Firm and final cost of the *AC/DC Power Meter & LED or DC Electronic Load with complete accessories* as per the above specifications and features along with costs of the installation charges as per the above specifications and features, should be provided.
- b. Taxes and freight etc. if any applicable should be indicated separately and clearly.

5. DELIVERY PERIOD: *AC/DC Power Meter & LED or DC Electronic Load with complete accessories* should be delivered in a single consignment at the site/consignee within 6 to 8 weeks from the date of issue of confirmed supply order.

6. INSPECTION: The supplier should satisfy himself/herself that *AC/DC Power Meter & LED or DC Electronic Load with complete accessories* at NISE is as per the above specifications and features along with options, accessories, conform to the specifications by carrying out complete pre-inspection of each component before dispatch.

7. CONSIGNEE: Director (SPV)/ Store Keeper, National Institute of Solar Energy, Ministry of New and Renewable Energy, GwalPahari, Gurgaon, 122003 Haryana, India.

8. GUARANTEE/WARRANTY: Measuring instruments supplied should be covered by standard terms of warranty for a period of min 12 months from the date of installation.

9. PENALTY:

- i. The supplier shall supply the stores in accordance with the particulars as expressly specified at the time/times and at the place/places only.
- ii. The time for and the date of the stores stipulated shall be deemed to be the essence of the supply/work order.

iii. If for any reasons the contractor is unable to adhere to the contract delivery dates, he may seek extension in delivery/completion dates well in time by sending a request in writing in this regard to the office issuing the contract/supply order. The purchaser reserves the right to allow the extension of delivery period subject to such conditions as he may think fit. However, the decision of the purchaser shall be final and binding.

10. **DISPUTES:** In case of any dispute the decision of the Director General, National Institute of Solar Energy will be final and binding on both parties. Further dispute, if any will be settled in the Court of Law at New Delhi jurisdiction only.

11. **VALIDITY:** The Tenders should be valid for 180 days from the date of opening.

12. **REJECTION:** 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.

13. **SUBMISSION 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 envelopes should be kept in large size sealed envelope super-scribed "**AC/DC Power Meter with ratings** " & "**LED or DC Electronic Load with ratings**" separately at NISE due for opening on 16/01/2016 and addressed to: Dr. Rajesh Kumar, Deputy Director General, National Institute of Solar Energy, Gurgaon – Faridabad Road, GwalPahari, Gurgaon 122003, Haryana, India.

- **Note:Suppliers / Manufacturer scan submit bids for part / full supply of AC/DC Power Meter & LED or DC Electronic Load.**