

Office of the Dean Research and Development
Indian Institute of Engineering Science & Technology (IEST), Shibpur
Howrah-711 103

Institute fund, Code: 08000000-63-50 PLAN GRANT (50)

Ref.: Tender Advt. No. CGE 0002 dated - 12.12.2019

Centre of Excellence for Green Energy & Sensor Systems
Indian Institute of Engineering Science & Technology (IEST), Shibpur
Howrah-711 103

Notice Inviting Quotations

Sealed quotations are invited for the supply of :


Item 01. Multi-Channel Multi-Cell battery Monitoring Device.

Item 02. DC Electronic Load 30A-120V-300W.

Item 03. 400VDC to 48V 3.6kW DC-DC Bidirectional Phase Shift Full-Bridge DC-DC Converter.

Item 04. 400VDC to 48V 2.2kW DC-DC Unidirectional DC-DC Converter.

As per the following technical specification. The technical specification can be downloaded from the website. The document can be also obtained from the Centre of Excellence for Green Energy & Sensor Systems (Contact : Prof. H. Saha /Dr. Santanu Maity/Prof. B. K. Ghorai) between 10.30 a.m. and 5.30 p.m. on all working days. The invitation is valid for 07 working days from the date of publication of this notice.

Santanu Maity
12.12.2019
**Dr. Santanu Maity**
Assistant Professor
CEGESS, IEST, Shibpur
Howrah-711 103

Rajshree
12/12/2019



Head
Centre of Excellence for
Green Energy and Sensor Systems
IEST, SHIBPUR
Howrah-711103 (W.B.)

SECTION I: TERMS & CONDITIONS

1. The last date of receipt of quotation is valid for **07 working days** from the date of publication of this notice. Quotations received later will not be entertained under any circumstances.
2. Potential supplier are to submit the quotations in Sealed Cover to the Centre of Excellence for Green Energy & Sensor Systems in the following address:

Prof. H. Saha /Dr. Santanu Maity/Prof. B. K. Ghorai
CEGESS
IEST, Shibpur
Howrah-711 103, India.

3. **Item name & tender code must be mentioned on cover otherwise the quotation will not be accepted.**
4. The price quoted should be inclusive of all Taxes in INR, duties and levies. Inclusion of Tax/Levy at a latter stage will not be accepted. Freight, Insurance charges should be clearly indicated. If GST is chargeable then price quoted should be inclusive of GST in INR. @ **5%(CGC will be provided by IEST, Shibpur, if applicable).**
Price should be CIF, IEST, Shibpur basic.
5. Vendor should have proven track record of supply in IEST, IIT, NIT, IISc.
6. Commercial Papers duly signed & must be attached.
7. Quotation has to be kept valid for acceptance for a period of 6 months without any modifications in its terms and conditions.
8. Documents to be submitted with the Quotations :
 - General Conditions (Section I) and Important Instruction (Clint list) in original duly signed by the Proprietor/ Partner/ Director or any authorized person of the company as a token of acceptance of Terms and Conditions of Tender.
 - Latest Income Tax, Sales Tax, Professional Tax, CST clearance certificates and copy of valid Trade License. (Photo copy duly signed) (Compulsory).
9. IEST, Shibpur, reserves the right to accept /reject all or any of the tenders without assigning any reason whatsoever.
10. Custom Duty Exemption Certificate will be provided by the IEST (If applicable).
11. **No advance payment will be made before the delivery of the item.**

SECTION II: TECHNICAL SPECIFICATIONS :-

Item 01.

Multi-Channel Multi-Cell battery Monitoring Device

No of cell to Monitor	18 Cell
Battery-Stack Monitoring Software Interface	Yes
Isolated serial interface	Yes
Fully Redundant Communication Path	Yes
16-Bit Delta-Sigma ADC Resolution	Yes
Complete Solution Required	Yes

Item 02.

DC Electronic Load 30A-120V-300W

Single-Channel Programmable DC Electronic Load

Input Voltage: 230V

120V AC, 0-30A, 150W and 300W

Dynamic mode: up to 10kHz

Resolution of voltage and current: 0.1mV/0.1mA

4 working modes: CV/CC/CR/CW

Remote sensing function

Battery test, automatic test, OPP test, OCP test functions

100 sets of storage

Short circuit function

Current monitoring function

Power off memory function

Interfaces: USB, RS232 and LAN

Input Rating: Power: 300W / Voltage: 0-120V / Current: 0-30A

CC Mode: Range: 0-3A / 0-30A, Resolution: 0.1mA / 1mA, Accuracy: $\pm(0.05\% + 0.05\% \text{ FS})$

CV Mode: Range: 0-18V / 0-120V, Accuracy: $\pm(0.05\% + 0.025\% \text{ FS})$

CR Mode: Range: 0.05 Ω -7.5k Ω , Resolution: 16 bit, Accuracy: $\pm(0.015\% + 0.1\text{s})$

CW Mode: Range: 300W, Resolution: 0.01W, Accuracy: $\pm(0.1\% + 0.1\% \text{ FS})$

Slope: Range: 0-3A / 0-30A, Rising: 0.0001-0.15A/ μs / 0.001-1.5A/ μs , Falling: 0.0001-0.15A/ μs / 0.001-1.5A/ μs

Voltage Measurement: Range: 0-18V / 0-120V, Resolution: 0.1mV/1mV, Accuracy: $\pm(0.025\% + 0.025\% \text{ FS})$

Current measurement: Range: 0-3A / 0-30A, Resolution: 0.1mA / 1mA, Accuracy: $\pm(0.05\% + 0.05\% \text{ FS})$

Power Measurement: Range: 300W, Resolution: 0.01W, Accuracy: $\pm(0.1\% + 0.1\% \text{ FS})$

Item 03.

400VDC to 48V 3.6kW DC-DC Bidirectional Phase Shift Full-Bridge DC-DC Converter


Capacity(Max)	3600 W
Input Range	350VDC-415VDC
Output Range(V)	40VDC-60VDC
Output Range(A)	61 A
Voltage Ripple	< 300mV
Efficiency	>94%

Item 04.

400VDC to 48V 2.2kW DC-DC Unidirectional DC-DC Converter

Power Capacity (Max) - 2200 W
Input Voltage Range - 360VDC -to- 420VDC
Output Voltage Range (V) - 24V / 48V / 72V
Output Current Range (A) - 30A
Voltage Ripple - < 300mV
Efficiency - >90%

Santannu Maity
Dr. Santannu Maity
Assistant Professor
CEGESS, IEST, SHIBPUR
Howrah-711 103



B. Ghosh
12/12/2018
Head
Centre of Excellence for
Green Energy and Sensor Systems
IEST, SHIBPUR
Howrah-711103 (W.B.)

