

INVITATION FOR QUOTATION

TEQIP-III/WB/fetj/25

27-02-2018

To,

Sub: Invitation for Quotations for Supply of Goods

Package Code: TEQIP-III/2018/fetj/Shopping/21

Dear Sir,

- 1) You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications as given at Annexure - I,

Sr. No	Brief Description	Qty.	Delivery Period (In days)	Place of Delivery	Installation Requirement (if any)
1	Data acquisition system for 1 kW peak Grid connected Solar PV system	01	45	School of Energy Studies	Yes

- 2) Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.


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3) Quotation:

- a) The contract shall be for the full quantity as described above.
- b) Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
- c) All duties and other levies payable by the supplier under the contract shall be included in the total price.
- d) **Applicable taxes shall be quoted separately for all items.**
- e) The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- f) If you require any "waybill" for transportation of goods to Kolkata, you have to apply in advance separately with a copy of Invoice enclosing a copy of order.
- g) **The Prices should be quoted in Indian Rupees only.**

4) Each bidder shall submit only one quotation for most suitable one for the item mentioned only, without any optional item.

5) **Validity of quotation:** Quotation shall remain valid for a period not less than 45 days after the last date of quotation submission.

6) Evaluation of Quotations:


The Purchaser will evaluate and compare the quotations found to be substantially responsive i.e. which

- a) are properly signed ; and
 - b) Conforming to the terms and conditions, and specifications.
- 7) The Quotations would be evaluated for all items together.


- Quotations will be compared on the basis of quoted price (Total Cost including all taxes) for goods at its final destination.
- Past performance & experience may be furnished to consider the credential of the bidder

8) Award of contract: The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

a) Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.


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- b) The bidder whose bid is accepted will be notified for the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
- 9) Delivery:
- 9.1 Delivery period mentioned in the Purchase Order received by the vendor must be maintained. In case of failing the delivery within stipulated date the order maybe canceled if proper justification is not received from the vendor in time.
- 10) Payment:
- 10.1) Payment shall be made in Indian Rupees as follows:
100% of the total cost after delivery, satisfactory installation along with demonstration and testing of the goods and also acceptance by the department.
- 10.2) Payment will be done by online transfer to the bank account of the vendor by NPIU, New Delhi after formalities. Vendor must provide the following details for bank transfer. (a) Account holder Name, (b) Account No., (c) Bank Name, (d) Branch Name, (e) IFSC No., (f) PAN, (g) TAN, (h) GSTIN, (i) TIN, (j) Mobile number.
- 11) All supplied items are under normal commercial warranty/ guarantee of not less than 12 months from the date of successful acceptance of items, unless specified of warranty for longer duration in the specification.
- 12) Rate of AMC may be furnished separately, which will be applicable at the end of the normal commercial warrant period.
- 13) You are requested to submit your offer on or before 15:30 hours on 19-03-2018. Bids will be opened on the same day at 16:00 hours.
- 14) Detailed specifications of the items are at Annexure I.
- 15) Training Clause (if any) Demonstration at the time of Installation are to be confirmed.
- 16) Testing/Installation Clause (if any) Satisfactory Installation & Testing is required
- 17) Submission of video footage of the successful installation and testing along with Model No. & SL. No. is preferred.
- 18) Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.


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19) Sealed quotation to be submitted/ delivered, within 15:30 hours of 19-03-2018, at the address mentioned below,

TEQIP CELL, 2nd Floor, Aurobindo Bhavan, Jadavpur University, 188, Raja S. C. Mallick Road, Kolkata- 700 032.

We look forward to receive your quotation and thank you for your interest in this project.



Prof. Sanjib Acharyya

Nodal Officer, Procurement

TEQIP, Phase-III, JU

Nodal Officer (Procurement)

TEQIP Phase-III

Jadavpur University

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Annexure I

Package Code: TEQIP-III/WB/fetj/25

Sr. No	Item Name	Specifications														
1	Data acquisition system for 1 kW peak Grid connected Solar PV system	<p>1. Power Analyser with recording and analysing facility:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Measurement line type</td> <td>Single-phase 2-wire, Single-phase 3-wire, Three-phase 3-wire or Three-phase 4-wire plus one extra input channel CH4 for voltage/current, (all channels AC/DC measurement)</td> </tr> <tr> <td>Voltage ranges</td> <td>Voltage measurement: Up to 1000.0 V rms or DC, Transient measurement 2.200 kV peak or More</td> </tr> <tr> <td>Current ranges</td> <td>50 mA AC to 5 kA AC or more , 10 A DC to 2 kA DC or more</td> </tr> <tr> <td>Basic accuracy</td> <td>Voltage: $\pm 0.2\%$ of nominal voltage, Current: $\pm 0.1\%$ rdg. $\pm 0.1\%$ f.s. + current sensor accuracy, Active power: DC $\pm 0.5\%$ rdg. $\pm 0.5\%$ f.s. + current sensor accuracy, AC $\pm 0.2\%$ rdg. $\pm 0.1\%$ f.s. + current sensor accuracy or more accuracy</td> </tr> <tr> <td>Measurement items</td> <td> <ol style="list-style-type: none"> 1. Transient over voltage : 200 kHz sampling 2. Frequency cycle : Calculated as one cycle 3. Voltage (1/2) RMS, Current (1/2) RMS: one cycle calculation refreshed every half cycle 4. Voltage swell, Voltage dips, Voltage interruption, RVC(Available in future firmware update) : Voltage (1/2) RMS calculation 5. Inrush current : half-cycle calculation: Calculated as the current RMS value for current waveform data sampled every half-cycle. 6. Frequency 200 ms: Calculated as 10 or 12 cycles 7. 10-sec frequency: Calculated as the whole-cycle time during the specified 10 s period 8. Voltage waveform peak, Current waveform peak 9. Voltage, Current, Active power, Apparent power, Reactive power, Active energy, Apparent energy, Reactive energy, Energy cost, Power factor, Displacement power factor, Voltage unbalance factor, Current unbalance factor 10. Voltage crest factor, Current crest factor 11. Harmonic/ Harmonic phase angle (voltage/ current), Harmonic power: 0 th to 50 th orders or more 12. Harmonic voltage-current phase angle: 1 th to 50 th orders or more 13. Total harmonic distortion factor (voltage/ current) 14. Inter harmonic (voltage/ current): 0.5 th to 49.5 th orders or more 15. K Factor (multiplication factor) </td> </tr> <tr> <td>Record</td> <td>Maximum recording interval: 1 year, Maximum number of recordable events: 9999×365 days</td> </tr> <tr> <td>Interfaces</td> <td>SD/SDHC card, RS-232C (for communication/LR8410 link, available in future firmware update), LAN (HTTP server/FTP/send e-mail, available in future firmware update), USB 2.0 (for communication)</td> </tr> </table>	Measurement line type	Single-phase 2-wire, Single-phase 3-wire, Three-phase 3-wire or Three-phase 4-wire plus one extra input channel CH4 for voltage/current, (all channels AC/DC measurement)	Voltage ranges	Voltage measurement: Up to 1000.0 V rms or DC, Transient measurement 2.200 kV peak or More	Current ranges	50 mA AC to 5 kA AC or more , 10 A DC to 2 kA DC or more	Basic accuracy	Voltage: $\pm 0.2\%$ of nominal voltage, Current: $\pm 0.1\%$ rdg. $\pm 0.1\%$ f.s. + current sensor accuracy, Active power: DC $\pm 0.5\%$ rdg. $\pm 0.5\%$ f.s. + current sensor accuracy, AC $\pm 0.2\%$ rdg. $\pm 0.1\%$ f.s. + current sensor accuracy or more accuracy	Measurement items	<ol style="list-style-type: none"> 1. Transient over voltage : 200 kHz sampling 2. Frequency cycle : Calculated as one cycle 3. Voltage (1/2) RMS, Current (1/2) RMS: one cycle calculation refreshed every half cycle 4. Voltage swell, Voltage dips, Voltage interruption, RVC(Available in future firmware update) : Voltage (1/2) RMS calculation 5. Inrush current : half-cycle calculation: Calculated as the current RMS value for current waveform data sampled every half-cycle. 6. Frequency 200 ms: Calculated as 10 or 12 cycles 7. 10-sec frequency: Calculated as the whole-cycle time during the specified 10 s period 8. Voltage waveform peak, Current waveform peak 9. Voltage, Current, Active power, Apparent power, Reactive power, Active energy, Apparent energy, Reactive energy, Energy cost, Power factor, Displacement power factor, Voltage unbalance factor, Current unbalance factor 10. Voltage crest factor, Current crest factor 11. Harmonic/ Harmonic phase angle (voltage/ current), Harmonic power: 0 th to 50 th orders or more 12. Harmonic voltage-current phase angle: 1 th to 50 th orders or more 13. Total harmonic distortion factor (voltage/ current) 14. Inter harmonic (voltage/ current): 0.5 th to 49.5 th orders or more 15. K Factor (multiplication factor) 	Record	Maximum recording interval: 1 year, Maximum number of recordable events: 9999×365 days	Interfaces	SD/SDHC card, RS-232C (for communication/LR8410 link, available in future firmware update), LAN (HTTP server/FTP/send e-mail, available in future firmware update), USB 2.0 (for communication)
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Power supply	AC adapter (100 V to 240 V AC, 50/60 Hz, rated current 1.7 A), Battery pack (Continuous use: 8 hr or more, Charging time: Max. 5 hr 30 m with AC adapter)
Accessories	Instruction manual ×1, Measurement guide ×1, Voltage cord (Red/Yellow/Blue/Gray/Black, Alligator clip, Spiral tube), Color spiral tube (for identifying clamp sensor color), Spiral tube, AC adapter, Strap, USB cable, Battery pack, PQ ONE (software, CD) And 02 nos 600 A AC/DC current sensors.
2. Data logger for solar radiation and module temperature:	
Number of channels	2 or more channels (isolated; select voltage of thermocouple for each channel), Input terminals: M3 screw type terminal block
Measurement items	Voltage/ Thermocouple (K, T)
Measurement range	[Voltage] ±50 mV or less to ±50 V or more, Max. resolution 0.01 mV or more [Thermocouple] -200 °C to 999.9 °C, Thermocouples (K, T), Max. resolution 0.1 °C or more
Measurement accuracy	[Voltage] ±0.05 mV (50 mV range) or more accuracy [Thermocouple] ±0.8 °C (Thermocouple K -100 °C to 999.9 °C) or more accuracy
Display items	Measurement value, date, time, number of recorded data, maximum value, minimum value, and average value
Functions	Alarm, Scaling, Recording operation hold function, Erroneous operation prevention, Comment recording function, Power saving function, Authentication function, Free run
Recording capacity	500,000 data items for each channel or more
Power source	AC Adapter 100 V to 240 V, 50 Hz), AA alkaline batteries, External power DC5 V to 13.5 V


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FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Package Code:TEQIP-III/WB/fetj/25

To: _____

Date: _____

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Applicable Taxes	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. -----
(Amount in figures) (Rupees ----- amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of ----- months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No: _____

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