

## Department of Electrical Engineering IIT Delhi

Date: 23/02/2012

**Minutes of the meeting of the purchase committee to purchase power quality analyzer/meter (hand-held with battery) to decide specifications and NIQ:**

Members Present: Dr. G. Bhuvanewari Prof. Bhim Singh Dr. S. Mishra and Dr. N. Senroy

The following specifications were decided for the Power quality Analyzer/ Meter to be purchased under project no. RP2506:

Power quality analyzers/ meters to be purchased should be easily portable with waveform display facility.

The specifications are as follows:

The power quality analyzer

- Should be usable with Variable Speed Drives, UPS, lighting.
- Should be able to measure Voltage, current, frequency, power, power consumption (energy), unbalance and flicker, harmonics and inter-harmonics – **preferably in 3-phase power supplies.**
- Capable of capturing events like dips and swells, transients, interruptions and rapid voltage changes.
- Should be able to measure harmonics for voltage, current upto 50<sup>th</sup> order for all phases and neutral
- Clamp meter should be able to work even with distorted waveforms present on electronic loads with low-pass filter
- Should have a setup with large backlit color display of waveforms and trends
- Minimum Memory of 4 MB to store the data and waveform
- Should be suitable for HT and LT application.
- Having a **large frequency** range - preferably from DC to 1 kHz (minimum)

**TERMS & CONDITIONS**

1. Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as "Technical Bid" and Financial Bid". Both the sealed envelopes should be sent in a single sealed envelope, with clearly marked as "Quotations for Power Quality Measurements". The quote should reach the following address on or before **9/03/2012** up to **5:00 PM.**

**Name** : Prof. G. Bhuvanewari  
**Address** : Block II 102  
 Deptt. of Electrical Engineering  
 Indian Institute of Technology, Delhi  
 Hauz Khas, New Delhi-110016 (India)

2. Please quote prices at FOB/ CIF New Delhi, inclusive of installation charges.
3. Quote should be in Indian Rupees or foreign currency and should be valid for at least three months.
4. Attach all the technical literature and a list of similar installations done in India.
5. A minimum of three years comprehensive onsite warranty needed.
6. Mention if you can provide any technical support like training of IIT Delhi personnel at IIT Delhi or in your organization. Kindly mention about this in technical bid.

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Please put it on the web site.

7. If the quote is being submitted by the representative of the Principals/manufactures themselves, a valid Agency ship/Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed.
8. The Institute reserves the rights to accept/reject any/all quotations without assigning any reasons thereof.
9. Complete set of manuals for the operation and servicing of equipment should be given. All circuit diagrams, other mechanical and electrical schematics must be provided to Main unit, sub systems and accessories.
10. Delivery as early as possible in weeks on receipt of PO.
11. Clearly specify the installation requirements – such as space, power, frequency, environment (Temperature and humidity) etc.
12. If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating “Certified that ----- is a proprietary item of M/s ----- and no other manufacture make these items”.
13. If the bidder is Indian agent, the agency certificate should be enclosed.
14. Please produce compliance certificate for the specification.
15. Please ensure that the Indian agent has been enlisted with the Department of Expenditure, evidence may please be attached.
16. All bank charges payable in India are to buyer’s account and bank charges in seller’s country to seller’s account.

(Members of the Purchase Committee)

Dr. G.Bhuvanewari



Prof. Bhim Singh



Dr. Sukumar Mishra



Dr. N. Senroy

