

**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. Bhuvaneswari 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
- Meets the stringent 600 V CAT IV, 1000 V CAT III safety standard required for measurements at the service entrance.
- 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
- Analyze and log harmonics digitally or graphically
- Should be able to use this power analyzer with a compatible power log software
- Minimum Memory of 4 MB to store the data, event and waveform
- Should be suitable for HT and LT application. The instrument should have CT/PT ratio programming facility
- Having a large frequency range - preferably from DC to 100 Hz (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 **30/11/2011** up to **5:00 PM**.

Name : Prof. G. Bhuvaneswari  
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.

Dept. Electrical Engg  
On 16 NOV 2011  
Ref. No.: 2011 Been..... 2491

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.
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

