

PROCUREMENT PROCEDURE OF CPRI (NON WORKS)

Revision No. : 04

Dt of Revision : 27.08.2020

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Section : Formats

Topic : Technical Specifications format

Issue No : 2

Issue Dt. : 30.06.2003

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Documents : PPM

FORMAT NO.:CPRI/PUR/eTBID/GTP

Section IV T -Technical Specification

CENTRAL POWER RESEARCH INSTITUTE, BENGALURU/BHOPAL Web: www.cpri.in, www.tenderwizard.com/CPRI

Tender Enquiry No : CPRI/BLR20ERED77SPON630

Description of the Equipment/Goods/Services : Temperature data logger

Note : 1) The technical bid submitted in other than this format is liable to be rejected.

2) All blue fields are mandatorily to be filled in.

Name and address of the bidder					
Quotation Number and Date					
Sl.No.	Technical Specifications/Parameters	Qty	To be completed by the Bidder		
			Details of guaranteed technical parameters offered by the bidder	Guaranteed Technical Particulars (GTP)	Deviations from GTP
1	Place where equipment /service to be supplied /provided- ERED, CPRI, Bengaluru, India				
2	Scope- Supply, installation, commissioning and training	1 set			
3.1	Pre qualification criteria- The supplier should have supplied similar equipment to any national or international laboratories. Proof of document may be furnished along with the technical specification.				
3.2	Introduction The temperature data logger is an instrument which is capable of measuring and recording temperature values of thermocouple or RTD type when one end is connected to the test equipment and other to the measuring instrument.				
3.3	Purpose- The purpose of the instrument is :- 1. To continuously monitor the temperature of LED lighting systems components like body, connectors, top surface, driver circuit, etc. during the temperature rise test for more than 500 hours of continuous operation 2. Thermal testing of solar inverters during 8 hours of operation for minimum of 30 components within the inverter.				
4	Channel Capacity Should be able to measure minimum of 60 temperature points. (60 channels) for both thermocouple based and RTD based sensors				
5	Math functions System should support 60 computed channels. Calculations include: time, maximum, minimum, average, basic arithmetics, integration, time of max. value and min. value, etc. shall be in-built				
6	Measuring capability minimum 100 readings/second				
7	Input Types required DC Voltage, Resistance, Thermocouple (TC) and RTD. Demonstration needs to be done for all input types.				
8.1	ADC resolution Should have minimum 12-bit or higher effective resolution if present in the data logger (DC measurements may not require ADC)				
8.2	Temperature resolution- 0.01°C				
8.3	Temperature range- Measurement range: -40°C to 125 °C				
8.4	Temperature accuracy- +/- 0.5 °C or better				

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9	Temperature Probes- Vendor shall also supply the Thermocouple (T-type) having 2-wire type of 30 Nos. with length of minimum 5 meters per cable/wire along with calibration report/certificate from a ISO 17025 or NABL accredited laboratory				
10	Input Voltage Range- Must be capable of measuring temperature from 1mV to 100V DC or appropriate				
11	Voltage Accuracy- 0.015% or 0.1V or higher				
12	Voltage Resolution- 1 mV or better				
13	Data logger compatibility- Data logger shall also be capable of measuring all thermocouple types like T type, K type, S type , etc.				
14	Resistance Range required- 1 milli-Ohm to 200 Ohms or better for RTD measurements				
15	Software- Must be supplied with Software for Data storage/ logging and remote configuration.				
16	Power supply- Should be operating with 230V AC, 50Hz and must provide the power cable along with the equipment				
17	Accuracy of data logger with Thermocouples- +/- 1 °C or better for temperature measurements with T type TC				
18	Safety- Equipment shall have basic safety protection while handling it. Equipment shall be shock proof, have immunity to external radiating components, etc.				
19	Operating Temperature- 10 °C to 45 °C or higher				
20	Storage Temperature- - 10 °C to 55 °C and 5% RH to 80% RH				
21	Interfaces- Ethernet or USB interfaces				

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22	Viewing panel-Monitor function for real-time viewing on equipment and by using laptop (to be supplied by vendor) with accessories like keyboard, mouse, etc. and it shall be high end configurations of latest versions (Windows 10 or				
23	Altitude- Equipment should operate with minimum 952 m altitude				
24	Accessories- All the essential accessories like 1. Basic digital multimeter (1 No.), min. 3.5 digit, 2. Thermal glue/ tape to stick TC points on surface of the test component, 3. RTD Probe (1 No.).				
25	Documentation- 2 copies of instruction manuals along with calibration reports/ certificates for the items procured in this set shall be provided				
26	Calibration- Calibration report/ Certificate shall be from ISO/IEC 17025 or NABL accredited laboratory. Calibration date should be after the purchase order date. Calibration report/ certificate shall be in the name of M/s. Central Power Research Institute, Bengaluru				
27	Warantee- Equipment shall be waranteed for 1 year from the date of completion of commissioning at CPRI.				

PN: 1) Mere statement of "Complied" do not suffice the requirement. The details of technical parameters in proof of CPRI requirements shall be furnished along with technical write-up, catalogues, brochures, literatures, phamplates, or any other documents shall be submitted in hard copy along with technical bid.

2) Calibration reports/certificates, factory test reports/certificates from an accredited agencies/facilites shall be submitted wherever applicable.

3) CPRI reserves the right to conduct "predispatch inspection" prior to dispatch at the works of the supplier and the expenditure towards PDI shall be borne by CPRI. However information regarding the rediness of the equipment/machinary for the PDI shall be communicated in writing at lease 70 days in advance.