

**PROCUREMENT PROCEDURE OF CPRI (NON WORKS)**

<b>Revision No. : 05</b>	<b>Issue No. : 02</b>
<b>Dt of Revision : 27.08.2020</b>	<b>Issue Dt. : 30.06.2003</b>
<b>Page No. : 1 of 2</b>	<b>Issued by : P A</b>
<b>Section : Formats</b>	<b>Document : PPM</b>
<b>Topic : Price Bid format for local supplies (Indigenous offer)</b>	<b>FORMAT NO.:CPRI/PUR/ePBID/IND</b>

**Section IV L - Price Bid for local supplies**

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

**Tender Enquiry No : STDS/12-01/2020-21/PUR/RTL-NK-09**

**Description of the Equipment/Goods/Services: Portable Three Phase Electronic Reference Standard Meter**

**Name and address of the Bidder \***

**Quotation Number and Date\***

**HSN code (Harmonized system nomenclature)\***

**GSTIN No\***

**SAC code (Services Accounting Code)\***

**Income Tax permanent account number(PAN)\***

**Details of EMD submitted\***

Sl.No	Particulars	Qty	Unit Rate in Rupees	Total Amount in Rupees
<b>1</b>	<b>Basic Price (Including mandatory spares, packing and forwarding charges)</b>	<b>1</b>		<b>0.00</b>
	<b>(The list of mandatory spares shall be provided in the technical bid without mentioning the price)</b>			
	<b>Insurance is under Supplier's Scope</b>			
<i>1(a)</i>	<i>GST rate as applicable in percentage only</i>			
	<i>IGST</i>			<b>0.00</b>
	<i>CGST</i>			<b>0.00</b>
	<i>SGST</i>			<b>0.00</b>
	<i>UTGST</i>			<b>0.00</b>
	<i>CESS if any</i>			<b>0.00</b>
<b>2</b>	<b>Transportation Charges (To be Quoted in Lumpsum ,if applicable)</b>			<b>0.00</b>
<i>2(a)</i>	<i>GST rate as applicable in percentage only</i>			
	<i>CGST</i>			<b>0.00</b>
	<i>IGST</i>			<b>0.00</b>
	<i>SGST</i>			<b>0.00</b>
	<i>UTGST</i>			<b>0.00</b>
	<i>CESS if any</i>			<b>0.00</b>
<b>3</b>	<b>Installation and Commissioning Charges (To be Quoted in Lumpsum ,if applicable)</b>			<b>0.00</b>
<i>3(a)</i>	<i>GST rate as applicable in percentage only</i>			
	<i>CGST</i>			<b>0.00</b>
	<i>IGST</i>			<b>0.00</b>
	<i>SGST</i>			<b>0.00</b>
	<i>UTGST</i>			<b>0.00</b>
	<i>CESS if any</i>			<b>0.00</b>
	<b>TOTAL LANDED COST</b>			<b>0.00</b>
	<b>Total Landed Cost in Words</b>			

**PROCUREMENT PROCEDURE OF CPRI (NON WORKS)**

Revision No. : 05  
Dt of Revision : 27.08.2020

Issue No. : 02  
Issue Dt. : 30.06.2003

Page No. : 2 of 2  
Section : Formats  
Topic : Price Bid format for local supplies (Indigenous offer)

Issued by : P A  
Document : PPM  
FORMAT NO.:CPRI/PUR/EPBID/IND

**Section IV L - Price Bid for local supplies**

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

4	<b>OPTION-1 :</b> Post warrenty comprehensive AMC including, Labour, Travel, Spare Parts etc. in INR (lumpsum) (This cost is optional hence will not to be considered for cost comparission evaluations.)			
5	<b>OPTION-2 :</b> Optional accessories in INR (lumpsum) List of items with breakup price to be furnished in case CPRI demands for the same.			
6	<b>Guarantee/Warrantee period</b>			
7	<b>After sales and service facility (location of the facility and address to be furnished)</b>			
8	<b>Delivery period</b>			
9	<b>Validity of the offer</b>			
10	<b>Payment terms (as per CPRI payment terms)</b>			
11	<b>Details of enlistment if any under Department of expenditutre , Minsitry Of Finance , GOI.</b>			
12	<b>Name and address of the customer, if any to whome a similar equipment/items has been supplied with their purchase order number and date (as per the APPENDIX I).</b>			
13	<b>Whether a similar equipment could be demonstrated to our representative in case required.</b>			
15	<b>Acceptance for submission of security deposit in the event of placement of order.</b>			

PN:

- 1) The price bid shall be submitted in this format only.
- 2) All blue fields are madatorily to be filled in.
- 3) As a policy of CPRI High Sea Sales bids are not acceptable and shall be rejeced.
- 4) 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.
- 5) UNDER TAKING: THE OFFER MADE IS IN STRICT COMPLAINE WITH THE QUALITY AND OTHER TECHNICAL REQUIREMENT MENTIONED IN SECTION - IV T.

**PROCUREMENT PROCEDURE OF CPRI (NON WORKS)**

Revision No. : 05

Issue No : 2

Dt of Revisio : 27.08.2020

Issue Dt. : 30.06.2003

Page No. : 1 of 2

Issued by : Q A

Section : Formats

Documents : PPM

Topic : Price bid format for Non - Local supplies (Import) offers

FORMAT NO.:CPRI/PUR/EPBID/IMP

**Section IV NL - Price Bid format for Non - Local supplies (Import) Offer**

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

Tender Enquiry No :STDS/12-01/2020-21/PUR/RTL-NK-09

Description of the Equipment/Goods/Services : Portable Three Phase Electronic Reference Standard Meter

Name and address of the Bidder

Quotation Number and Date

*HSN code (Harmonized system nomenclature)*

*GSTIN No (if applicable)*

*SAC code (Services Accounting Code)*

*Income Tax permanent account number(PAN)*

*Details of EMD submitted*

Sl.no	Partuculars	Qty	Unit Rate in Figures	Currency Type	Amount
1	FOB value of the complete system (Including mandatory spares, packing and forwarding charges) (The list of mandatory spares shall be provided in the technical bid without mentioning the price)	1			0.00
2	Insurance charges upto CPRI(ware house to ware house basis in Lumpsum)				0.00
3	Freight Charges,As applicable(Lumpsum)				
	3a) Air Freight Charges.(Lumpsum)				0.00
	3b) Sea Freight Charges.(Lumpsum)				0.00
4	Total CIP/CIF cost				0.00
	Total CIP/CIF cost in words				
5	Installation and commission charges in INR (Lumpsum)				0.00
5(a)	<i>GST as applicable (GST rate in percentage only)</i>				
	<i>IGST</i>				0.00
	<i>CGST</i>				0.00
	<i>SGST</i>				0.00
	<i>UTGST</i>				0.00
	<i>CESS if any</i>				0.00
	<b>TOTAL COST</b>				<b>0.00</b>
	<b>Total Cost in Words</b>				

**PROCUREMENT PROCEDURE OF CPRI (NON WORKS)**

Revision No. : 05  
 Dt of Revision : 27 08 2020  
 Page No. : 2 of 2  
 Section : Formats  
 Topic : Price bid format for Non - Local supplies  
 (Import) offers

Issue No : 2  
 Issue Dt : 30 06 2003  
 Issued by : O A  
 Documents : PPM  
**FORMAT**  
**NO.:CPRI/PUR/EPBID/IMP**

**Section IV NL - Price Bid format for Non - Local supplies (Import) Offer**

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

Sl.no	Partuculars	Qty	Unit Rate in Figures	Currency Type	Amount
6	<b>OPTION-1 :</b> Post warrenty comprehensive AMC including, Labour, Travel, Spare Parts etc. in INR (lumpsum) (This cost is optional hence will not to be considered for cost comparission evaluations.)				
7	<b>OPTION-2 :</b> Optional accessories in INR (lumpsum) List of items with breakup price to be furnished in case CPRI demands for the same. (This cost is optional hence will not to be considered for cost comparission evaluations.)				
2	<b>Guarantee/Warrantee period</b>				
3	<b>After sales and service facility (location of the facility and address to be furnished)</b>				
4	<b>Delivery period</b>				
5	<b>Validity of the offer</b>				
6	<b>Payment terms (as per CPRI payment terms)</b>				
9	<b>Name and address of the customer, if any to whome a similar equipment/items has been supplied with their purchase order number and date (as per the APPENDIX I).</b>				
10	<b>Whether a similar equipment be demonstrated to our representative in case required.</b>				
12	<b>Acceptance for submission of security deposit in the event of placement of order.</b>				

**NOTE : CPRI IS EXEMPTED FROM PAYMENT OF CUSTOMS DUTY UNDER NOTIFICATION NO.51/96 DATED 23-071996 AND AMENDED NOTIFICATION NO.24/2007-CUSTOMS DATED 1-3-2007(HOWEVER CONCESSIONAL CUSTOMS DUTY AND ADDITIONAL CUSTOMS DUTY AS APPLICABLE WIIL BE CONSIDERED.**

**UNDER TAKING: THE OFFER MADE IS IN STRICT COMPLAINCE WITH THE QUALITY AND OTHER TECHNICAL REQUIREMENT MENTIONED IN SECTION IV T**

**PROCUREMENT PROCEDURE OF CPRI (NON WORKS)**

Revision N: 04  
 Dt of Revi: 27.08.2020  
 Page No. : 1 of -----  
 Section : Formats  
 Topic : Technical Specifications format

Issue No : 2  
 Issue Dt. : 30.06.2003  
 Issued by : P A  
 Documents : PPM  
 FORMAT NO.:CPRI/PUR/eTBID/GTP

**Section IV T -Technical Specification**

**CENTRAL POWER RESEARCH INSTITUTE, BHOPAL Web: [www.cpri.in](http://www.cpri.in), [www.tenderwizard.com/CPRI](http://www.tenderwizard.com/CPRI)**

**Tender Enquiry No : STDS/12-01/2020-21/PUR/RTL-NK-09**

**Description of the Equipment/Goods/Services :Portable Three Phase Electronic Reference Standard Meter.**

**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 of the Vendor						
Quotation Number and Date						
Sl.No.	Parameters	CPRI Specification / Requirements	Qty	To be completed by the Bidder		
				Details of guaranteed technical parameters offered by the bidder	Guaranteed Technical Particulars (GTP)	Specify deviations/Remarks if any
1.0	<b>Objective</b>	Accuracy measurement of Energy meters at field or in laboratory.				
2.0	<b>Scope</b>	Design, Engineering, Manufacture, Supply, Installation and Commissioning of Portable Three Phase Reference Meter in active and reactive mode accuracy class 0.05 in Direct mode up to 10 A and accuracy class 0.2 with clamp on CT up to 120A. Place of supply and installation: CPRI Nashik				
3.0	<b>Training</b>	Training on all aspects of operation and maintenance shall be given to Engineers of CPRI at Nashik.				
4.0	<b>Warrantee</b>	One Year form the date of Installation and Commissioning. The supplier has to give undertaking regarding post warranty technical support, service and supply of spare parts for successful operation of the equipment's for ten year.				

5.0	<b>Calibration</b>	Reference standard shall be calibrated from ISO/IEC 17025 accredited laboratory. All the parameters with full ranges indicated with the claimed accuracies in the bid shall be covered in the certificate. Factory certificate will not be accepted.				
6.0		<b>QUALIFYING REQUIREMENTS (FOR MANUFACTURERS):</b>				
6.1		Should have supplied at least two similar or better equipment of same OEM during the last five years and the equipment should be in successful operation at ISO/IEC/ 17025 laboratory since last three years.				
6.2		Bidder must give details like Copy of P.O, name of the users, contact person, address and phone no. of user who is using similar system in support of above.				
6.3		The bids may be submitted by the manufacturer or their sole authorized representative duly supported by certificate of authorization.				
6.4		The Bidder should have its own service centre and trained engineers dedicated for trouble shooting and technical support permanently posted in India.				
7.0	<b>Power supply</b>	Mains voltage shall be 240V $\pm$ 10% phase to neutral. Frequency 50Hz $\pm$ 5 %. Operating temperature- 10 to 40 deg C The Equipment must be Dust proof. Reference Meter shall be designed to work satisfactory in laboratory on mains supply and available supply at site.				
8.0	<b>General Features</b>	1. The Portable Three Phase Reference standard shall be suitable for use with phantom load at lab and on site with consumers load for testing of single phase or three phase energy meters.				
9.0	<b>Measurement Mode</b>	Single Phase two wire active and reactive Three phase three wire active , reactive and Apparent Three phase four wire active, reactive & apparent				
10.0	<b>Reference Meter measurement Rating</b>					
a)	<b>Voltage Range</b>	Voltage Range : 100mV to 300V (Phase to Neutral) Voltage Resolution: 0.01V to 0.0001V (with dynamic decimal point) Voltage Accuracy : <0.05 % Voltage measurement Long Term Stability : 100 PPM/Year				
b)	<b>Current Range</b>	Current Range : 10 mA ... 10 A minimum ( Direct Connection) Current Range : 50mA ... 120A ( with CT)				

		Current resolution : 0.001mA to 0.0001A (with dynamic decimal point)			
		Current Accuracy : < 0.05 % in Direct Mode			
		Current Accuracy : < 0.2 % with C.T			
		Current measurement Long Term Stability : 100 PPM/Year			
<b>c)</b>	<b>Power/Energy measurement</b>	Measurement Accuracy : better than 0.05 % in Direct Mode			
		: better than 0.2 % with C.T			
		Power/Energy Long Term Stability: 200 PPM/Year			
		Voltage measurement temperatures drift : < 50 PPM/K			
		Current measurement temperatures drift : <50 PPM/K			
		Power/energy measurement temperatures drift : < 100 PPM/K			
<b>d)</b>	<b>Phase Angle measurement</b>	Phase Angle measurement range : 0 to 360°			
		Phase Angle measurement Accuracy : < 0.05°			
<b>e)</b>	<b>Frequency Measurement</b>	Frequency range: 45 ... 65 Hz			
		Frequency Resolution : 0.01 Hz			
		Frequency Accuracy : ± 0.01 Hz			
<b>11.0</b>	<b>Display</b>	The offered unit shall have legible inbuilt LCD display of minimum 6 " to 8" size and shall display the following system parameters selectable through front panel switch			
		a) Phase to Neutral Voltage of each phase			
		b) Phase to Phase Voltage			
		c) Phase current of each phase			
		d) Vector Diagram			
		e) Waveforms			
		f) Total harmonic distortion.			
		g) Phase angle between all voltages and currents			
		h) Active, Reactive and Apparent power			
		i) Power factor for each phase			
		j) Total active, reactive and apparent power			
		k) Phase sequence			
		l) Frequency			
		m) Energy measurement during testing			
n) % Error					
<b>12.0</b>	<b>Interface</b>	a. RS232 connector for connecting to the PC			
		b. Scanning head switch to count pulses.			
		c. Remote snap switch to count pulses.			
		d. Potential free relay contacts for dial test.			
		e. Compensated clamp-on CTs for higher current			

13.0	<b>Memory</b>	The equipment shall have the facility to store minimum 500 test results along with all instantaneous parameters and Date and time of test. It shall be possible to transfer these readings to PC/Laptop for Report preparation. Suitable Window based software shall be provided for report preparation and import of these readings to PC/Laptop.				
14.0	<b>Instantaneous Parameters to be Logged in Memory During Each Test</b>	<ul style="list-style-type: none"> <li>a. Date &amp; Time stamp.</li> <li>b. sr.no. of MUT</li> <li>c. Consumer identification.</li> <li>d. Meter constant of MUT.</li> <li>e. No. of revolution/Pulse for which test is being carried out.</li> <li>f. Instantaneous voltage of each phase.</li> <li>g. Instantaneous current of each phase.</li> <li>h. Instantaneous frequency.</li> <li>i. Instantaneous power factor of individual phases &amp; total P.F.</li> <li>j. Energy logged by equipment (active/reactive/apparent.)</li> <li>k. Instantaneous load in kW, kVA &amp; kVAR</li> <li>l. Percentage error of kWh/kVAh/kVAh.</li> </ul>				
15.0	<b>Scanning Head</b>	Scanning Head shall be provided to sense pulses LED/LCD pulses for accuracy test in automatic mode.				
16.0	<b>Snap Switch</b>	Snap switch be provided to operate equipment in manual mode and for dial testing				
17.0	<b>Dial Test Facility</b>	Relay output for dial test.				
18.0	<b>Constructional Features</b>	<ul style="list-style-type: none"> <li>a. Alphanymeric Keyboard for entering consumer particulars, meter make and serial number, meter constant, test revolutions or pulses and operating the equipment software programme.</li> <li>b. Scanner/ optical sensor head along with detachable lead to be used to count revolutions of the disc in Ferraris wheel meters and LED pulses in static meter as well as for LCD pulses in static meters.</li> <li>c. Snap switch along with detachable lead to be used as an alternative to scanner/sensor head.</li> <li>d. Articulating sensor head clamp to hold the scanner properly in front of the LED/LCD output or revolving disc.</li> <li>e. Detachable Electronic compensated clamp-on CTs which enable the testing without isolating or interrupting the supply of the consumer. The equipment shall have facility to interchange the clamp on CT without affecting the accuracy.</li> </ul>				



		<p>g. voltage leads with injection type crocodile clips/any other suitable clamping arrangement with insulated leads.</p> <p>h. Indication LED/LCD screen or otherwise that Reference standard is in correct active mode.</p> <p>j. Equipment shall have facility to measure and display active, reactive and apparent power(along with sign) for each phase.</p> <p>k. Equipment should have facility to display harmonics up to 40th order in tabular form, bar graph fprm for voltage and current circuit with angle of superimposition.</p> <p>l. Harmonics distortion in each phase and total harmonic distortion</p> <p>m. Equipment shall have facility to test total active ( Fundamental+ harmonics) / Reactive and apparent three phase energies simultaneously.</p>			
19.0	<b>Measurement of Harmonic</b>	Measurements up to 40th harmonic with display of 3phase currents, 3phase voltages effective active, reactive and apparent power due to each harmonic and % THD.			
20.0	<b>Carrying Case</b>	The equipment shall be supplied in a suitable carrying case for rugged use and to prevent damage during transit. The equipment should be immune to vibrations and shocks in normal transportation and handling.			
21.0	<b>Software</b>	The equipment shall be supplied along with PC software. The software shall be suitable for downloading the test results in to PC using RS 232 port or USB port. Software shall have facility to generate test report and print the test results. Manufacturer shall update the software during warrantee period free of cost.			
22.0	<b>Circuit Protection:</b>	Alert / protection shall be provided for over load beyond the limits specified in the voltage & current circuits.			
23.0	<b>Accessories</b>	<p>1) Common optical sensor for automatic testing, which can be used to sense disc revolutions in electromechanical meters as well as indicating LED's/LCD in static meters (2 Nos.)</p> <p>2) Mounting arrangement with clamp for the optical sensor.</p> <p>3) Snap switch along with cable.</p>			

		<p>4) 1 set of three nos. Compensated clamp on CT of class 0.2 upto 120A with minimum internal diameter of 12mm for online testing.</p> <p>5) 1 set of 4 nos. of voltage with insulated clips.( Red , Yellow, Blue, Black)</p> <p>6) 1 Set of clips and connectors each consisting of:</p> <ul style="list-style-type: none"> <li>· Cable Adapter/connection Pins = 10 Nos</li> <li>· Voltage adaptors = 4 Nos</li> <li>· Banana Clips (straight) = 6 Nos</li> <li>· Banana Clips (bend) = 4 Nos</li> <li>· Crocodile Clips (Wide) = 3 Nos</li> <li>· Crocodile Clips (Slim) = 3 Nos</li> </ul> <p>7) 1 Set of 6 nos of Current leads to connect portable three phase calibrator in direct mode. ( 2Red , 2Yellow, 2Blue)</p> <p>8) Serial Communication cord with RS232 / USB connector to retrieve stored data from the portable three phase reference standard and download the data to a PC.</p> <p>9) Base computer software (BCS)</p> <p>10) One Mains cable.</p> <p>11) Spare parts for trouble free operation of equipment for five years shall be quoted separately.</p> <p>12. Carrying case</p>			
<b>24.0</b>	<b>Make &amp; Model</b>	Bidder shall have to specify the Make & Model of the offered equipment.			
<b>25.0</b>	<b>Weight</b>	Weight of the offered equipment shall be specified by bidder.			
<b>26.0</b>	<b>Documents</b>	One Set of Operation & User manual in English			

Address : Joint Director (Purchase), Purchase Authority,  
Central Power Research Institute, Govindpura, Bhopal-462023  
Telefax: 0755-2586283, email:khairwar@cpri.in , web : www.cpri.in