

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

Revision No. : 05  
 Dt of Revision : 27.08.2020  
 Page No. : 1 of 2  
 Section : Formats  
 Topic : Price Bid format for local supplies (Indigenous offer)

Issue No. : 02  
 Issue Dt. : 30.06.2003  
 Issued by : P A  
 Document : PPM  
 FORMAT NO.:CPRI/PUR/ePBID/IND

**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-Nashik-01

Description of the Equipment/Goods/Services : Fully Automatic 3 Positions, 200 A Energy Meter Test System.

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
1	<b>Basic Price (Including mandatory spares, packing and forwarding charges)</b> (The list of mandatory spares shall be provided in the technical bid without mentioning the price) <b>Insurance is under Supplier's Scope</b>	1		0.00
1(a)	<i>GST rate as applicable in percentage only</i>			
	IGST			0.00
	CGST			0.00
	SGST			0.00
	UTGST			0.00
	CESS if any			0.00
2	<b>Transportation Charges (To be Quoted in Lumpsum ,if applicable)</b>			0.00
2(a)	<i>GST rate as applicable in percentage only</i>			
	CGST			0.00
	IGST			0.00
	SGST			0.00
	UTGST			0.00
	CESS if any			0.00
3	<b>Installation and Commissioning Charges (To be Quoted in Lumpsum ,if applicable)</b>			0.00
3(a)	<i>GST rate as applicable in percentage only</i>			
	CGST			0.00
	IGST			0.00
	SGST			0.00
	UTGST			0.00
	CESS if any			0.00
	<b>TOTAL LANDED COST</b>			<b>0.00</b>
	<b>Total Landed Cost in Words</b>			

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**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 warranty comprehensive AMC including, Labour, Travel, Spare Parts etc. in INR (lumpsum) (This cost is optional hence will not to be considered for cost comparison 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. (This cost is optional hence will not to be considered for cost comparison evaluations.)			
6	<b>Guarantee/Warranty 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 expenditure , Ministry Of Finance , GOI.</b>			
12	<b>Name and address of the customer, if any to whom 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 mandatorily to be filled in.
- 3) As a policy of CPRI High Sea Sales bids are not acceptable and shall be rejected.
- 4) CPRI reserves the right to conduct "pre-dispatch inspection" prior to dispatch at the works of the supplier and the expenditure towards PDI shall be borne by CPRI. However information regarding the readiness of the equipment/machinery for the PDI shall be communicated in writing at least 70 days in advance.
- 5) UNDER TAKING: THE OFFER MADE IS IN STRICT COMPLIANCE WITH THE QUALITY AND OTHER TECHNICAL REQUIREMENT MENTIONED IN SECTION - IV T.

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 (Import) offers

Issue No : 2  
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 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-Nashik-01

Description of the Equipment/Goods/Services : Fully Automatic 3 Positions, 200 A Energy Meter Test System.

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	Particulars	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)	GST as applicable (GST rate in percentage only)				
	IGST				0.00
	CGST				0.00
	SGST				0.00
	UTGST				0.00
	CESS if any				0.00
	<b>TOTAL COST</b>				<b>0.00</b>
	<b>Total Cost in Words</b>				

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**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	Particulars	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 WIIIL BE CONSIDERED.

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

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FORMAT NO.:CPRI/PU/RT/CTBD/GTP

**Section IV T -Technical Specification**

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

Tender Enquiry No : STDS/12-01/2020-21/PU/RTL-Nashik-01

Description of the Equipment/Goods/Services : Fully Automatic 3 Positions, 200 A Energy Meter Test System.

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	Parameters	CPRI Specification/Requirements	To be Completed by the Bidder			
			Qty	Details of guaranteed technical parameters offered by the bidder	Guaranteed Technical Particulars (GTP)	Deviation/Remarks specify if any
1	Objective	To provide facilities for carrying out testing of Routine, Acceptance and Type Test test on all types of 1 Phase /3 Phase whole current & 3 phase CT/PT operated energy Meters, prepaid meters, smart meters and Thread through ( Built in CT with through hole primary ) Energy Meters in Active, Reactive and apparent Energy Mode up to 200A.	One Set			
2	Scope	Design, Engineering, Manufacture, Supply, Installation, Commissioning and training				
3	Training	Two days training excluding duration of Installation and commissioning to CPRI Engineers on all aspects of operation and maintenance at CPRI Nashik.				
4	Warranty	Warranty of the test system is required covering all the supplies for period of Three (3) years from the date of successful installation and commissioning. Continued technical support during warranty period to be provided.				
5	Calibration	Reference standard, Voltage and Current Source, ICT, shall be calibrated from ISO/IEC 17025 accredited laboratory. All the parameters with full ranges indicating with the claimed accuracies shall be covered in the certificate. Factory certificate will not be accepted for these items.				

4					
61		<b>QUALIFYING REQUIREMENTS :</b>			
62		Should have supplied at least two test benches of same configuration and make & should be in successful operation at ISO/IEC 17025 accredited Govt laboratories on the date of offer.			
63		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.			
64		The bids may be submitted by the manufacturer or their sole authorized representative duly supported by certificate of authorization.			
7		The Bidder should have its own service centre and trained engineers dedicated for trouble shooting and technical support permanently posted in India.			
8	Power supply	Meter Test System shall be CE compliant for Operating and Safety Requirement. The test system shall meet requirement of IEC60736 The meter test system shall be suitable for giving an uninterrupted service in following conditions: Ambient temperature (+) 10°C to (+) 40°C for operation. Relative humidity up to 90%, Mains voltage shall be 3x240V ±10% for three phase supply. Frequency 50Hz ± 5 %, The Equipment must be Dust proof. Meter Test system shall be designed to work satisfactory on power supply fed from UPS.			
9		<b>CONFIGURATIONS &amp; TESTS TO BE PERFORMED</b>			
91		<b>Test bench shall be suitable to test 3 nos of meters of current rating up to 200A simultaneously for Active , Reactive and apparent Energy with following configuration :</b>			
92		1 PH 2 W (3 positions with closed link) Active, Reactive and Apparent Energy for prepaid and post paid meters and smart meters			
93		3 PH 4 W (3 positions with closed link) Active, Reactive & Apparent Energy for prepaid and post paid meters and smart meters			
94		Three numbers of single phase and three phase thread through meters( current connections through hole of built in CT in meters )			
95		3 PH 4 W (3positions transformer operated) Active, Reactive & Apparent Energy for prepaid and post paid meters and smart meters			
96		3 PH 3 W (3 positions transformer operated) Active, Reactive & Apparent Energy for Energy meters			
97		1phase 4 wire ABT meters ( 1 phase 4 wire 3 positions) in Active, Reactive and Apparent			
98		Three 4 wire phased meters, 3 positions			
10		Calibration of Electronic Reference Standard meter shall be feasible.			
12		The offered meter test system shall be capable to perform the following tests on the meters as per IEC 62052-11, 62053-11 ,21, 22, 23, IS 13010, IS 13779, IS 14697 , IS 15884, IS 16444 part 1 &2, IEC 62055-21 and CMBP26			
121		Test of Meter constant			
122		Test of Starting Condition and No load condition ( pulse count /edge count )			
123		Test of No Load			
124		Test of Power Consumption			
125		Voltage Dips and Short interruptions with programmable interruption time as per IEC 62052-11 and IS 13779, IS 14697			
126		Test of Self heating			
127		Test of Heating			
128		Test of Immunity to Earth fault			
129		Test of Influence quantities: voltage variation, frequency variation			
131		Accuracy Test for Active & Reactive Energy - With optical Pulse output , Dial Reading and frequency out put			
132		Limits of Error ( Balanced & Unbalanced in all 4 Quadrants)			
133		Test of repeatability of error			
134		Voltage variation and frequency variation			
135		Wave form: 10% of 3 <sup>rd</sup> harmonic in the current			
136		Harmonics Components in the Current & Voltage circuits (IEC 62053 -21 Table 8).			
137		DC & Even harmonics in AC current circuit(IEC 62052-11, 62053-11 and 21, and IS 13779) Rectifier set of 220 A minimum to be supplied			
138		Harmonic in current and voltage circuit in phase and antiphase as per IEC 62052-11			
139		Harmonics in current circuit - burst fire waveform as per IEC 62052-11 , IEC 62053 -21 , 22			
140		Odd Harmonics in current -90 degree phase fund waveform as per IEC 62052-11, IEC 62053 -21 AND Sub Harmonics in AC Current circuits. ( as per IEC 62052-11 & IEC 62053 -21 )			
141		Reverse Phase sequence test			
142		Voltage Linearity test			
10		<b>CONSTRUCTION AND COMPONENT OF SYSTEM</b>			
111		The source shall be Modular type of rack design in which components of the source and reference standard shall be placed. Cabinet shall have cooling fan of sufficient capacity to avoid temperature increase in side the cabinet during normal operation. The source cabinet shall have protective earth terminal & mains switch on front or side panel. Emergency switch shall be provided on bench.			
112		Protection against under voltage and over voltage of mains supply shall be provided			
113		Provision of limit setting of output voltage and current			
114		System shall be easily programmable to give reference output frequency independent of mains from 45 Hz to 65 Hz in steps of 0.01 Hz			
115		<b>THE SYSTEM SHALL COMPRISE MINIMUM OF :</b>			
116		Voltage Source Minimum 500 VA per phase			
117		Current Source Minimum 1000 VA per phase, 200 AMP CONTINUOUS CURRENT. The source should have not overload at 200A continuous current for minimum 4 hours. Source of 10 % higher current is preferable			
118		3 phase Isolation current transformers 3 nos			
119		Three Phase Reference Meter of 0.02 Accuracy class.			
120		Connecting cables.			
121		Meter Mounting Rack with Local Error display units.			
122		Harmonic Injection facility for Voltage & Current source.			
123		Scanning head and error display unit			
124		Operation, control, measurement and report making Software			
125		PC and Printer			
126		10 KVA ON Line UPS with 2 hours back up.			
14		<b>Voltage source capability</b>			
141		It should have output VA burden rating not less than 500 VA per phase			
142		Electronic protection against overload and short circuit. LED indication for fault shall be provided on amplifiers.			
143		Distortion factor less than 0.5 %			
144		Provision for superposition of voltage and current			
145		harmonic(Programmable) for the range of 2 <sup>nd</sup> to 20 <sup>th</sup> harmonics With In Phase & Anti Phase with Fundamental frequency			
146		0% to 10 % up to 5th harmonic as per IEC 62052-11, latest with phase angle setting			
147		Resolution - better than 0.01 %			
148		Test voltage range: 40-300 V (Phase-Neutral) and 70-500V(Phase to Phase)			
149		Accuracy of the test setting amplitude -0.05 % or better			
1400		Accuracy of the test setting phase adjustment 0.01 ° or better			
15		<b>CURRENT SOURCE CAPABILITIES:</b>			
151		It should have output VA burden rating not less than 1000 VA per phase.			
152		Electronic protection against open circuit and over load.			
153		Stability 100 ppm /h with integration time of 60 sec			
154		Accuracy of the test setting amplitude 0.05 % or better			
155		Accuracy of the test setting phase adjustment 0.01 °			
156		Distortion factor <0.5 %			
157		Provision for superposition of voltage and current harmonics up to 20th (Programmable) for the range of 2 <sup>nd</sup> to 5 <sup>th</sup> harmonics With In Phase & Anti Phase with Fundamental frequency as per IEC 62052-11			
158		0% to 40 % for 2nd to 5th harmonic as per IEC62052-11			
159		The peak value of the superimposed current or voltage shall not exceed 1.4 I <sub>max</sub> resp. 1.4 U <sub>max</sub> as per IEC 62052-11			
160		Test Current range 1 mA to 200A			
161		Test voltage and test current system should be freely selectable as symmetrical & Un symmetrical with change in phase sequence			
162		Star systems(Phase angle 120°)			
163		Any non symmetrical system			
164		Any non balanced system			
165		Angle setting in step of 0.01° or better			
16		<b>ISOLATING CURRENT TRANSFORMER AT ALL 3 POSITIONS</b>			
161		The meter test system shall have isolating current transformer( ICT) for each phase and at all 3 positions to test single phase and three phase closed link whole current meters			
162		There shall be provision to bypass ICT automatically (electronic protection) when secondary of ICT is kept open.			
163		LED Indication shall be provided on ICT to indicate healthiness of ICT.			
164		Technical requirements of ICTs shall be as follows.			
165		Primary current -200A Continuous			
166		secondary current - 200A Continuous			

163	VA rating & Burden :100VA				
164	Accuracy Ratio Error 0.05% or better				
165	1A to 200A.Phase angle error : 1 minute or better				
166	Accuracy ratio error : 0.1% or better				
167	Below 1 A.Phase angle error :4 minutes or better				
173	<b>THREE PHASE REFERENCE METER OF 0.02 ACCURACY CLASS</b>				
174	The class of accuracy of reference standard should be 0.02 % for active and reactive energies and independent of the measuring mode.				
175	Voltage range from 10-500 V ( Phase - neutral )				
176	Working Current range of reference standard should be 1 mA to 200 A Direct connected.				
177	Frequency OUTPUT/INPUT proportional to the power to calibrate reference standard against High or Lower precision reference standard.				
178	RS 232 serial communication port for communicating with PC				
179	Reference standard should have auto-range selection facility.				
1740	Measuring modes :				
1741	2 wire active & Reactive				
1742	3 wire active & reactive & apparent mode				
1743	4 wire active & reactive & apparent mode				
1744	Frequency Range :45 .. 65 Hz Fundamental Indicate harmonic measurement capabilities.				
1745	Accuracy of Parameters.				
1746	Voltage : better than 0.01 %				
1747	Current : better than 0.01 %				
1748	<b>Power / Energy ( For active and reactive measurement )</b>				
1749	0.02 % or better at $\cos \theta / \sin \theta = -1$				
1750	0.04% or better at $\cos \theta / \sin \theta = 0.5$ , Phase Angle Accuracy 0.05 °				
1751	0.1% or better for the range of 1mA to 50mA at $\cos \theta / \sin \theta = -1$				
1752	Drift for individual parameters shall be defined clearly in the offer.				
1753	Temperature drift for voltage & current measurement shall be 3 PPM/°C or better. Define value of drift in the offer.				
1754	Temperature drift for power measurement shall be 10PPM/K or better				
1755	<b>The reference meter shall have following display parameters.</b>				
1756	True RMS value of each voltage & current input				
1757	Phase angle between voltage , current and defined reference				
1758	Power factor of each phase. Waveform of voltage and current				
1759	Active, reactive & apparent power of each phase				
1760	Total active, reactive & apparent power				
1761	Phase Sequence				
1762	Frequency				
1763	Integration time				
1764	Facility to select integration time between 1 to 99 second				
1765	Meter constant				
1766	Vector Graphical display on LCD or PC				
1767	Representation of Harmonic voltage & Current in Bar Chart mode & THD				
1768	<b>Reference Channel</b>				
1769	The RSM shall have facility to select reference for phase angle measurement. Selection of reference shall be provided manually & automatically.				
1770	<b>Frequencies output for calibration of reference standard.</b>				
1771	This shall provide frequency output proportional to power to calibrate the reference standard against high precision reference standard. This output shall be in commonly used BNC type socket.				
1772	BNC type socket is preferred for output.				
1773	<b>Frequency Input for calibration of substandard meters:</b>				
1774	Frequency input connections shall be provided preferably with BNC socket to receive electrical pulses from substandard meters. It shall be possible to calibrate substandard meters on offered system.				
18	<b>CONNECTION CABLES:</b>				
181	All cables required to test 3 meters simultaneously in the following range and configuration shall be provided.				
182	200A whole current three phase four wire 3 nos. of meters for direct connection				
183	Voltage connections of 3 meters.				
184	200A whole current three phase four wire 3 nos. of meters for ICT connection.				
185	Voltage connections of 3meters.				
186	200A whole current three phase four wire 3 nos. of meters for thread through Meters.				
187	Voltage connections of 3 meters.				
188	10A CT PT operated three phase – four wire for 3 nos. of meters				
189	Voltage connections of 3meters.				
190	Current cables for 60A. Three phase meters . Connectors from ICT for 3 Meters				
191	Voltage connection from bench to meter				
192	Voltage connection cable for testing ERSS - 1 sets				
193	Current connection cable for testing ERSS - 1 sets				
19	<b>METER MOUNTING RACK WITH ERROR DISPLAY UNIT</b>				
194	The rack shall consist of a light weight aluminum frame for mounting of sensor heads, display devices and meters.				
195					
196	The meter mounting rack shall be provided with necessary number of BNC sockets for absolute measurement. The offered software shall have facility to test the external and internal reference standards by using this BNC terminals these terminal shall be provided with necessary hardware. Necessary cables shall be provided along with equipment to test ERS having frequency output on BNC socket.				
197	Emergency button to shut the system shall be available at easy accessible points.				
198	Current connection:				
199	Incoming and out going terminals of current Source suitable for 200A continues rating shall be provided on front desk.				
200	<b>Voltage connections :</b>				
201	All voltage connections shall be available on desk of bench with safety connector.				
202	<b>SCANNING HEAD AND ERROR INDICATION UNIT</b>				
203					
204	Photoelectric scanning head for each position suitable for reading the marking from the disc of Ferraris wheel meters without opening the cover of the meter. Same scanner should also be suitable for reading the pulse output of electronic meters with LED & LCD Display.				
205	Mounting arrangement for scanning head should have facility to move vertical, horizontal, forward or backward directions.				
206	The scanning heads must be insensitive to ambient light and shall meet the requirements of IEC 62052-11, Clause 5.11.				
207	The pulse frequency shall be minimum 500 Hz & actual frequency shall be stated by the manufacturer.				
208	An Error indication device shall be mounted on each test position. The resolution of error indicate shall be 4/decimal point shall be configurable by software. There shall be provision on the error indication to reset the error to report or if something is wrong.				
20	<b>SOFTWARE FEATURES Shall have provisions for:</b>				
209	Operation of the test equipment, display of the actual values, processing and display of the test results and print out of test report should be effected by the test software.				
210	The window based software must have facility of making tables for common and changing information.				
211	The computer should be interfaced to the measuring device and power source.				
212	The user friendly software should be menu driven operated with the help of mouse and keyboard in manual and automatic mode.				
213	The manual operation mode shall have following tasks:				
214	Control of source				
215	Actual value on PC screen				
216	Waveform of output and harmonic analysis				
217	Perform the accuracy test of the energy meters				
218					
219	The window based software should have different module to prepare test sequence to carry out the testing in fully automatic mode. These module shall be designed in such a way that user can prepare test sequence very easily. Program should supports the following tasks.				
220	User interface to operate the system. Easy to operate test table				
221	Supervision and control of the test procedure.				
222	Supervision and display of the test current and voltage				
223	Indication of the meters under test, evaluation and report of the test results				
224	Facility to define test parameters in terms of percentage and absolute term				
225	Facility to define error limit in two level				
226	Facility to protect the system from over voltage in manual mode and automatic mode				
227					
228	Facility to check meters for short circuit and open circuit conditions prior to start of testing in fully automatic mode for each sequence				
229	Facility to limit maximum current and voltage of the meter under test for protection of the meter				
230	It shall have facility to interrupt and restart testing				
231	Printout facility with desired header				
232	Back up facility				
233	Testing facility of at least 3 different meter with 3 different meter constant				
234	Software shall have facility to display of different voltage and current				
235	Display of curve of test voltage and current in presence of harmonics				
236	The software shall have facility to display following parameters				
237	Individual phase voltage				
238	Individual phase current				

2027		Phase angle, power factor symmetrical or unsymmetrical star system			
2028		Total power factor			
2031		Individual phase power(Active, Reactive and Apparent power)			
2032		Total power(Active, Reactive and Apparent power)			
2033		Accuracy			
2034		Phase sequence			
2035		Measurement Mode			
2036		Vector display			
21	Documentation	The bidder shall submit detailed General arrangement drawing for Source, Meter Mounting Rack with different terminal required for voltage and current circuit connection. Fixing arrangement of ICT and connection scheme used for ICT			
211		Wiring during testing and proposed installation scheme of complete system and leads and connectors provided to mount any number of meters on the Meter Mounting Rack along with their offer. In absence of this offer will be liable to rejection			
22		The test system will be installed with UPS. The system shall be able to function on power supply of ON line UPS.			
23		following documents shall be supplied along with each test system.			
		1. Operating manual of each components like reference standard, amplifier, etc.			
		2. Wiring diagram			
		3. Service manual			
		4. Calibration certificate from the laboratory accredited as per ISO/IEC/17025.			
		5. Test certificate of complete test system			
		Procedure to validate software shall be provided.			
24	Installation and Commissioning	The supplier shall be responsible to install & commission the meter test equipment at the purchaser location. The supplier shall submit the layout plan, installation proposal and electric supply requirements within 4 weeks after receiving the purchase order			
25	PC	Shall be supplied with configurations- Colour Monitor - SVGA 18.5" LCD Pentium Processor - 8th Generation Intel core i5 Processor - 2 TB HDD, 8 GB SD RAM Ports (Minimum) - 2 serial, 2 USB, 4 (unshielded) and Ethernet(100, Mbps)(For LAN & Internet) Operation System : Windows latest MAKE - HP/DELL Laser Printer			
26	UPS	10 KVA ON Line UPS with 2 hours back up shall be supplied Make - APC, Tata Libert, Schneider, POWER ONE, Nanorc			
		ADDITIONAL ACCESSORIES			
271		Scanner 2 nos EXTRA			
272		Diodes Rectifier set of 220 A/ For testing DC & Even Harmonics test) ; with connecting cables to meters - 1 SET EXTRA Any other spare parts require to maintain the system			
28		PN : 1. A detailed technical catalogue/literature/pamphlet and any other technical details shall be sent in hard copy in a sealed cover super scribbling enquiry number and due date so as to reach within the due date and time. 2. Letter of authorization issued by the foreign Principal shall also be sent by the Indian agents who have offered on their behalf			

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, pamphlets, 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/facilities shall be submitted wherever applicable.

3) CPRI reserves the right to conduct "pre-shipment inspection" prior to dispatch at the works of the supplier and the expenditure towards PDI shall be borne by CPRI. However information regarding the readiness of the equipment/machinery for the PDI shall be communicated in writing at least 70 days in advance.

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