



# **Fiji Electricity Authority**

## **Tender Document for Supply of Equipment Power Quality Analyzer Complete with Accessories**

**(Tender #: MR-144/2016)**

Tender Closing date: 30 November 2016

## Invitation to Bid MR 144/2016

### **SUPPLY OF EQUIPMENT- POWER QUALITY ANALYZER COMPLETE WITH ACCESSORIES FOR FIJI ELECTRICITY AUTHORITY**

Fiji Electricity Authority (“FEA”) invites Bids from eligible, qualified and reputable companies for the **Supply of Power Quality Analyzer complete with Accessories.**

Interested bidders, please address your queries or questions in writing at the address given below

Mr. Abdul Nasim,  
Unit Leader Strategic Procurement, Inventories and Properties  
Supply Chain Office,  
2 Marlow Street, Private Mail Bag,  
Suva  
or email: [Abduln@fea.com.fj](mailto:Abduln@fea.com.fj)

### **SECTION I - INSTRUCTIONS TO BIDDERS**

**Notes to Bidders:** *This section provides detailed information necessary for Bidders to prepare their Bids, in accordance with the requirements specified by the FEA. It also provides information on Bid submission, opening, and evaluation, and on the award of contract*

#### **1. Scope**

1.1 The entity of the FEA specified above invites Bids for the Supply of Power Quality Analyzer complete with Accessories as described in the Bidding Document.

#### **2. Eligibility Of Bidders**

2.1 This bidding is open to all eligible companies

2.2 FEA in its sole unfettered discretion, disqualify or otherwise determine ineligible any potential Bidder that the FEA believes is, has been or will be, whether directly or indirectly, engaged in criminal or any other unethical behavior, financially unsound, or otherwise unfit in the FEA's opinion to participate in the bidding exercise.

2.3 In its Bid, the Bidder shall indicate the origin of Good proposed.

2.3 A Bidder shall not be eligible to participate in this bidding or in the performance of the contract under consideration if such Bidder:

- Is bankrupt or being wound up, is having its affair administered by the courts, has entered into an arrangement with creditors, has suspended business activities, is the subject of proceedings

concerning those matters or is in any analogous situation arising from a similar procedure provided in national legislation or regulations.

- Has been subject of a judgment which has the force of judicator for fraud, corruption, involvement in a criminal organization or any other illegal activity detrimental to the financial interests of FEA.
- Is guilty of misrepresentation in supplying the information required as a condition of participation in this bidding exercise or fail to supply this information.
- Is subject to a conflict of interest.

### **3. Bid Prices**

- 3.1 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total Bid Price of the offered goods.
- 3.2 The Bidder's separation of price components will be solely for the purpose of facilitating the comparison of Bids by FEA and will not in any way limit the FEA's right to contract on any of the terms offered.
- 3.3 All non-exempt duties, taxes and other levies payable by the Contractor under the Contract/Purchase Order, or for any other cause shall be included in the rates, prices and total Bid price submitted by the Bidder.

### **4. Bid Currency**

- 4.1 Unless otherwise specified in Section II, the unit rates and Prices shall be quoted by the Bidder entirely in FJD (VIP).

### **5. Period Of Validity Of Goods**

- 5.1 Unless otherwise specified in Section II, bids shall remain valid for a period of 90 days after the deadline for the receipt of Bids. A Bid valid for a shorter period shall be rejected by FEA as non-compliant.
- 5.2 In exceptional circumstances, FEA shall may solicit the Bidders' consent to an extension of the period of validity. The request and the responses thereto shall be made in writing.

## SECTION II – TENDER SPECIFICATIONS

1. Failure to submit the required technical specifications will automatically result in the disqualification of the tender bid.
2. Infrared Camera complete with Accessories.

Technical Specifications			Bidders Remarks
	Voltage	Current	
Input Channels	4 (isolated)	4	
Measuring Range (RMS)	A, B & C channels: 0-600 VAC GND channel: 0 - 60 VAC	0-3000 Amp	
Frequency Range	50Hz nominal (42.5Hz - 57.5Hz) 60Hz nominal (51.0Hz –	50Hz nominal (42.5Hz - 57.5Hz) 60Hz nominal (51.0Hz – 69.0Hz)	
Instrument Accuracy	A, B & C channels: $\pm 0.4\%$ reading $\pm 1$ lsd GND channel: $\pm 1\%$ reading	$\pm 0.4\%$ reading $\pm 1$ lsd	
System Accuracy	$\pm 0.4\%$ reading $\pm 1$ lsd	1% reading $\pm 1$ lsd (0.5M Current probes)	
Resolution Logged Data	A, B, C & GND channels: 0.01 Volt	0.01 Amp	
Resolution Display	0.1 Volt	0.1 Amp	
Instrument Type	Class B (IEC 61000-4-30)		
Samples / Cycle	204 @ 50Hz, 170 @60Hz		
Samples rate	PLL synchronized		
Logged Parameters	IEC61000-4-30 V, A, Min/Max, Freq, TPF, DPF, kW, KVA, kVAR		
Frequency	IEC61000-4-30 (+/- 0.02Hz)		
Total Harmonic Distortion	IEC61000-4-7 (THD-F & THD-R)		
Harmonics	IEC61000-4-7 (Up to 48th, Magnitudes & Angles)		
Inter-harmonics	IEC61000-4-7 (Up to 48th)		
Flicker (Pst & Plt)	IEC61000-4-15 (10min Pst, 2hr Plt, logged every 10min)		
Voltage & Current Unbalance	IEC61000-4-30		
Waveform Capture	Duration: 400ms Triggers: Half cycle RMS dV/dt		
RMS Capture	Half Cycle RMS 50Hz - 5s to 30s configurable 60Hz - 5s to 25s configurable		
Sag / Swell Capture	Half Cycle RMS		

Circuit Connections	Star/Wye, Delta, Delta, Split Phase, Single Phase, Generic Independent Measurement.	
Display	Graphic LCD 128 x 64bits	
Memory Capacity	15MB FLASH	
Communications	USB1.1 for Local operation, RS232 for Remote operation	
Power Consumption	Maximum 12 VA (10 W typical) from Phase A	
Power Source Main	Phase A to Neutral 60 – 600 Volts AC 50 or 60 Hz	
Power Source Backup	6 V 0.5 Ah Rechargeable Sealed Lead Acid (not user replaceable)	
RTC Battery	3 V 950 mAh Li-Manganese Dioxide / Organic Electrolyte (not user replaceable)	
Dimensions	230 mm (l) x 120 mm (w) x 90 mm (d) or 9.1" (l) x 4.72" (w) x 3.6" (d)	
Weight	Maximum of 3 kg (7 lbs) instrument only, maximum of 7kg (16 lbs) typical with accessories in carry case	
Ambient Temperature	-20°C to +60°C (-4°F to +130°F) Note: standby battery is disabled when ambient temperature exceeds +45°C (113°F)	
Protection Class	AS 60529-2004 - IP66	
Safety Category	IEC 61010-1 2001 Pollution Degree 3 Measurement Category IV 600 Volts (Double Insulation or Reinforced Insulation, Altitude up to 2000 m)	
Nominal AC Phase to Phase Voltage	600 Volts	
Nominal AC Phase to Neutral Voltage	600 Volts	
Nominal AC Phase to Ground (earth)	600 Volts	

Accessories	Bidders Remarks
<b>Supplier should also provide:</b>	
1. Mounting plate and nylon safety strap	
2. Data and power supply cable	
3. 2 channel voltage lead - measures Phase A and Ground (earth) with respect to Neutral. Power cable for GPO connection. Suitable for CAT II 300V environments.	
4. 4 channel voltage lead - measures A, B, C & Ground (earth) with respect to Neutral using 5 fused voltage clamps. Safety rating CAT IV 600 V	

5. 4 channel voltage lead - measures A, B, C, & Ground (earth) with respect to Neutral using 5 fused banana plugs. Safety rating CAT IV 600 V	
6. Instruction Manual	
7. Software CD	
8. Carry bag	

Other requirements	Bidders Remarks
<b>Supplier should also provide:</b>	
9. Calibration Certificate of instrument along with the traceability	
10. Standard International Guarantee /Warranty certificate	
11. Service center information.	
12. Quoted price should have a validity of 3 months	
13. Instruction Manual	
14. Bidder to provide following information along with technical data in their technical bid <ul style="list-style-type: none"> <li>• Physical dimensions of the instrument.</li> <li>• Weight of the instrument.</li> <li>• Weight of the instrument with accessories</li> <li>• List of the customers to whom they have supplied the quoted model.</li> </ul>	
15. Bidder must be able to provide back-up service/ repair and recalibration	
16. Bidder shall provide for hands-on training on the use of the equipment to FEA Technicians and Engineers on site	

**1. Total Bid**

Equipment	Quantity	Unit Price VIP FJD	Total Price VIP (\$) FJD
Power Quality Analyzer complete with Accessories	4		
<b>Total</b>			

NOTE: All Prices Should be in FJD (VIP).

## 2. General Information

1	Name and Address of the Bidder:	
2	Contacts:	
3	Telephones:	
4	Fax:	
5	E-Mail:	
6	Mobile No:	
7	Name of Chief Executive Office and Telephone No:	
8	Sales Tax/Commercial Tax/CST nos.	
9	Service Tax No.	
10	Income Tax No.	

Note: Separate sheets may be attached wherever necessary.

Signature of the Bidder

With stamp and date

## **Tender Submission - Instruction to bidders**

It is mandatory for Bidders to upload a copy of their bid in the **TENDER LINK** Electronic Tender Box no later than **4:00pm, on Wednesday 07<sup>th</sup> December, 2016.**

To register your interest and tender a response, view 'Current Tenders' at:

<https://www.tenderlink.com/fea>

For further information contact The Secretary Tender Committee, by e-mail

[TDelairewa@fea.com.fj](mailto:TDelairewa@fea.com.fj)

In additional, hard copies of the tender, one original and one copy must be deposited in the tender box located at the FEA Head Office, 2 Marlow Street, Suva, Fiji no later than **4:00pm, on Wednesday, 07<sup>th</sup> December, 2016-** Addressed as

**Tender – MR 144/2016 – Supply of Equipment – Power Quality Analyzer Complete with Accessories**

**The Secretary Tender Committee**

**Fiji Electricity Authority**

**Head Office**

**Suva**

**Fiji**

- **Hard copies of the Tender bid will also be accepted after the closing date and time provided a soft copy is uploaded in the e-Tender Box and it is dispatched before the closing date and time.**

Tenders received after **4:00pm** on the closing date of **Wednesday, 07<sup>th</sup> December, 2016.**

- will not be considered.
- Lowest bid will not necessarily be accepted as successful bid.
- **It is the responsibility of the bidder to pay courier chargers and all other cost associated with the delivery of the hard copy of the Tender submission.**



