

Tender for Supply of Smart On-line Industrial Utility SCADA Based 10kVA and 40kVA UPS



MR 208/2017

**Supply of One 40kVA and six 10kVA (Smart On-Line)
Industrial Utility SCADA Based UPS for FEA's NCC and Six
Other Designated FEA Stations/Sites.**

1.0 The Company - FEA

Fiji Electricity Authority (FEA) is a 100% Government owned company solely responsible for supplying power throughout the main commercial islands of Fiji. Power is supplied through Hydro, Diesel and Wind Generators located in different parts of Fiji.

The operations of the company are organized into three geographically defined divisions, which correspond to the national administrative divisions. These divisions are:

- Central Eastern Division based in the capital Suva
 - Suva, Lami, Navua, Tailevu, Levuka and part of the Coral Coast
- Western/Northern Division based in Lautoka
 - Sigatoka/Coral Coast Area, Nadi/Lautoka Area, Ba/Tavua/Rakiraki Area, Nadarivatu/Monasavu/Wailoa Area, and the Northern Division (Labasa/Savusavu/ and Taveuni Area)

FEA provides electricity services to most parts of the country especially in the main islands – Viti Levu and Vanua Levu, and also the Islands of Ovalau and Taveuni.

FEA's official website is www.fea.com.fj.

2.0 The Purpose and Description of the Tender

The Fiji Electricity Authority (FEA) is requesting for bids from reputable Companies, locally and overseas, for the supply, installation, and commissioning of **“smart and robust On-line Industrial Utility SCADA based UPS systems with ratings of 10kVA and 40kVA, together with its required back-up battery banks to the FEA required uptime. The UPS must be able to withstand tough and robust environment that is associated with Power Utilities like 132kV/33kV Substations and Power Stations.**

FEA is planning to upgrade and/or improve its current UPS systems installed at some of its designated “Critical and Remote” Stations or Sites in the Western and Central Division. The desired UPS System should be able to provide uninterrupted 240V AC power supply to FEA's Telecommunication & SCADA Systems and Networks, and other **“FEA's Essential Loads”** within these designated Substations, Power Stations, and the FEA's National Control Centre (NCC) at Vuda and its Scada RDC Server at its Navutu Depot at Lautoka.

Bidders must also provide guaranteed protection of their proposed UPS System from robust and aggressive power surges or spikes that is associated with Substation and Power Station harsh environment, especially during power system instabilities and blackouts.

3.0 Designated FEA Stations or Sites

The list of the designated Station or Sites are as follows:

1. FEA National Control Centre (NCC) – Vuda, Lautoka.
2. FEA Scada RDC – Navutu, Lautoka.
3. Wailoa (Hydro) Power Station – Wailoa.
4. Wainikasou (Hydro) Power Station – Monasavu.
5. Vuda (Diesel) Power Station – Vuda, Lautoka.
6. Waqadra Substation - Nadi
7. Cunningham Substation – Suva.

Summary of the required UPS Rating for each designated Station/Site are as follows:

No.	Station/Site	Current Load	UPS Rating Requested	Battery Backup Uptime	Remarks
1	NCC	10kVA	40kVA	96 hours	Vuda, Lautoka
2	Scada DRC	3kVA	10kVA	96 hours	Navutu, Lautoka
3	Wailoa PS	3kVA	10kVA	96 hours	Wailoa
4	Wainikasou PS	3kVA	10kVA	96 hours	Monasavu
5	Vuda PS	3kVA	10kVA	96 hours	Vuda, Lautoka
6	Waqadra SS	3kVA	10kVA	96 hours	Nadi
7	Cunningham SS	3kVA	10kVA	96 hours	Suva

3.0 Eligibility / Selection Criteria of the Bidder

The supplier should be a Manufacturer, Supplier, Authorized Distributor or Reseller of the proposed Products, Spares, and be able to also provide quality after-sale service and technical training for FEA Staff – if required.

The bidder shall submit the Names/Contacts of Utilities or Projects where they have previously supplied, and/or installed, and provide after-sale support of their supplied UPS System.

All relevant Test Reports, Product Standard Certificates, and Product Specification must be well presented together drawings are required to be supplied in the Tender Documentation as part of their Bid.

Other information to be provided by the Bidder as part of the proposal:

1. Manufacturer's / Vendor's years of warranty on the product.
2. Method of repair, replacement or reimbursement of faulty/defective or damaged goods
3. Lead time including manufacturing time and shipping duration.
4. The bidder must provide the weight or CBM of the products
5. Previous FEA experience with the Bidder and Supplier DIFOTIS (Delivery in Full on Time in Spec)

6. It is mandatory for the Bidders to provide full specification of the UPS during submission of the Bid.

4.0 Delivery

All required equipment, spares, & accessories shall be delivered to the Fiji Ports - Nadi, Lautoka, and Suva. The procurement section of FEA will arrange for the freight with its preferred courier agent for overseas bidders.

5.0 Bidder Details

The Bidder shall provide all the necessary information specified in the tables below:

General
The Registered Name of the Bidder:
Business address for correspondence: <i>(Location, Street , Locality City, Pin Code, Country, Telephone, Facsimile, Email Other)</i>
Contact Name of the Authorised Person:
Contact's Position: Contact addresses if different from above <i>Locality City, Pin Code</i> <i>Location, Street, Country, Telephone, Facsimile, Email, Web address</i>
Business Structure:
Include the organisation's years of experience in this field and reputation record in the market place.

6.0 Other Value Added Services

The Bidder is open to include any other supporting information and/or documentation that may add value to their proposed product and after sales services.

7.0 Technical Support

1. Bidder should provide details of what technical support is available to FEA to make better use of supplier's product.
2. Bidder shall include relevant manuals, instructions, software, etc for proper care handling, installation, and operation and maintenance of their proposed UPS equipment, systems, and accessories.

8.0 Product Information

Bidders must include the following document together with their Bid:

- Full Product Specification
- Relevant Test Certificates
- Standard Compliance Certificate.

9.0 Package Size

The successful bidder will be required to pack and dispatch the item as per FEA's requirement. The package size and quantity will be determined by FEA unless the product is a standard factory package. All packages must be clearly marked with the quantity content in the crate or pallet. The bidder must ensure proper, suitable, and safe packing of the item before dispatch to avoid any minor or major damages to the goods during transit.

10.0 Design Life of 15 years and Warranty 5 years

Bidder to provide Design Life of minimum 15 years and a Warranty of at least 5 years

11.0 Defects Warranty Period

All goods shall be supplied with a Warranty Period of not less than 12 months from the date of the receipt of the goods by FEA. During the Warranty Period, defective supplied parts shall be returned to the supplier for replacement on a pick-up exchange and return-delivery basis.

12.0 Price Validity

The quoted price shall remain valid for acceptance within 30 working days from the date of opening of bids and bidders shall not withdraw or amend their proposal prior to the expiration of the validity period.

In exceptional circumstances prior to expiry of the original validity period, the Authority may request the supplier for an extension in the period of validity. The request and the response thereto shall be in writing. A supplier agreeing to the request will not be permitted to amend its tender price.

13.0 Payment Terms

FEA shall pay the invoice amount of received material/goods in foreign currency (for overseas successful bidder) and local Fiji currency (for successful local bidder) to their desired bank account nominated by the successful supplier within 30 days of receipt of the invoice subject to the materials/goods is being received in good order and desired operational condition and expected performance.

14.0 Required UPS Technical Specification and Applicable Standards

1. BS 5634: Testing potassium hydroxide used in alkaline cells.
2. BS 381C: Specification for colours for identification coding and special purposes.
3. BS 4417: Specification for semiconductor rectifier equipments.
4. IEC 146: Semiconductor convertors.
5. BS 88: Cartridge fuses for voltages upto and including 1000V AC and 500V DC
6. IEEE 1189-1996: Guide for Selection of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications
7. IEE587

14.1 40kVA UPS Specification for the FEA's National Control Centre (NCC)

<u>Input</u>	
Nominal Input Voltage	415V
Number of Phase	3Ph + N + PE
Voltage Range (45% - 100% Load)	-64% to +25%
Nominal Frequency	50Hz
Frequency Range (Online Operation)	± 10%
Input Current THD	≤ 4%
Input Power Factor	0.99
<u>Output</u>	
Output Voltage (3Ph)	200V – 240V
Number of Phase	3Ph + N + PE
Power Factor	0.9
Frequency	50Hz
Free Running Frequency	± 0.01%
Efficiency	≥ 90%
Waveform Type	Sine wave
<u>Battery</u>	

Type	Deep-Cycle, Maintenance-Free, Lead Acid Battery
Battery Protection	Deep discharge protection with auto cutoff
Battery Runtime	96 hours (Based on load)
Battery Notification & Management	Disconnected battery; Faulty battery; Predictive failure; Intelligent battery management.
<u>Communication</u>	
Interface	RS232/RS422/RJ45 10/100 Base-T/RJ45 Serial/Smart-Slot, USB
Display	LED and/or LCD
Alarm	Audible and Visible Alarm; LED Status Indicators
<u>Surge Protection and Filtering</u>	
Surge Energy Rating	≥ 10k Joules
<u>Environment</u>	
Operation Temperature Range (°C)	0 - 60
Storage Temperature Range (°C)	0 - 60
Relative Humidity Range	0 - 95
Max Altitude (m)	≤ 700

14.2 10kVA UPS Specification for Other Six FEA Designated Stations/Sites

<u>Input</u>	
Nominal Input Voltage	240V
Number of Phase	Single Phase
Voltage Range (for mains operation)	180V – 270V
Nominal Frequency	50Hz
Frequency Range (Online Operation)	± 10%

Input Power Factor	0.99
<u>Output</u>	
Output Power Capacity	10kVA / 10kWatt
Number of Phase	Single Phase
Power Factor	0.9
Frequency	50Hz
Free Running Frequency	± 0.01%
Efficiency	≥ 90%
Waveform Type	Sine wave
<u>Battery</u>	
Type	Deep-Cycle, Maintenance-Free, Lead Acid Battery
Battery Protection	Deep discharge protection with auto cutoff
Battery Runtime	48 hours (Based on load)
Battery Notification & Management	Disconnected battery; Faulty battery; Predictive failure; Intelligent battery management.
<u>Communication</u>	
Interface	RS232/RS422/RJ45 10/100 Base-T/RJ45 Serial/Smart-Slot, USB
Display	LED and/or LCD
Alarm	Audible and Visible Alarm; LED Status Indicators
<u>Surge Protection and Filtering</u>	
Surge Energy Rating	≥ 10k Joules
<u>Environment</u>	
Operation Temperature Range (°C)	0 - 60

Storage Temperature Range (°C)	0 - 60
Relative Humidity Range	0 - 95

15.0 Tender Evaluation

After the bids are received, it will go through a normal tender evaluation process as per FEA's Tender Policy and Procedures. The successful and unsuccessful bidders will be advised of the outcome after completion of the Tender Evaluation Process.

The evaluation of the tender submissions will be weighted as such:

No.	Components	Weighting (%)
1	Financial Components	20 %
2	Technical capability	40 %
3	Delivery timeframe. Refer to section 4.	10 %
4	Proven background and records.	15 %
5	Backup service and spare parts. Refer to section 6.	15%

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 6th September, 2017**

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

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 6th September,, 2017**- Addressed as

Tender – MR 208/2017 Supply of Smart On-Line Industrial Utility SCADA Based 10kVA and 40kVA UPS

**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 6th September, 2017**

- 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 including any Duties/Taxes. Hard copies of the Tender submission via Post Box will not be considered.**