



ENERGY FIJI LIMITED

BIDDING DOCUMENT

MR 233/2018

**SUPPLY OF UNDERGROUND CABLE
POWER FAULT LOCATOR**

Section 1. Instructions to Bidders

- 1. Scope of Bid** Energy Fiji Limited (hereinafter referred to as "the Employer"), wishes to receive bids for supply of Underground Cable Power Fault Locator as specified in this bidding documents (hereinafter referred to as "PFL").
- 2. Eligible Bidders** This Invitation to Bid is open to bidders who have sound financial and technical background and have expertise in supplying such equipment with arrangement for servicing/repairing or facilitating for such.
- 3. Qualification of the Bidder** To be qualified for award of Contract, bidders shall submit all relevant documents, brochures, details and filled evaluation criteria document which shall be providing sufficient detail to confirm the bidder's capability to fulfil the contract.
- 4. Cost of Bidding** The bidder shall bear all costs associated with the preparation and submission of its bid and the Employer will in no case be responsible or liable for those costs.
- 5. Deadline for Submission of Bids** Bids must be received by the Employer at the address specified above no later than 1600 hours (Fiji Time) (27th June, 2018).

The Employer may, at its discretion, extend the deadline for submission of bids by issuing an addendum, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will thereafter be subject to the deadlines extended.
- 6. Late Bids** Any bid received by the Employer after the deadline for submission of bids prescribed will be rejected.
- 7. Modification and Withdrawal of Bids** The bidder may modify or withdraw its bid after bid submission, provided that written notice of the modification or withdrawal is received by the Employer prior to the deadline for submission of bids.
- 8. Employer's Right to Accept any Bid and to Reject any or all Bids** The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the Employer's action.

Table of Contents

1. General Description	2
2. Specifications and Evaluation Criteria	2
3. Warranty	4
4. User Operation Manual	4
5. Training	4
6. Operating Conditions	4
7. Delivery	5
8. Period of validity of Goods.....	5
9. Bid Currency.....	5
10. Optional Accessories	5
11. Company Information	5

1. General Description

This tender is to purchase a new portable cable fault locating equipment for underground cable circuits up to 33kV. The device is to be durable and reliable designed for Electrical Utilities able to deliver the following:

- TDR (Time Domain Reflectometer)
- ARC Reflection
- Proof/Burn
- Surge/Thump mode all in one package
- Sheath fault finding
- Operational on battery and normal power supply
- Above functions to be available in a single portable unit

The circuit parameters for Energy Fiji Limited (EFL) include but not limited to the following as mentioned below which the PFL will be connected to are:

- Circuit system voltage ranging till 33kV
- Insulation of cable being Paper-Lead (PILC) or XLPE
- Conductor size ranging from 35mm² to 300mm² 3core cables or 300mm² to 630mm² single core cable
- Typical circuit length ranging from minimum of 100meters till approximately 5000meters

The supplier is to supply One Unit as per the specification below and shall include sufficient information and supporting documentation in order to determine compliance with this specification without further necessary inquiries. A hands on training on the Power Fault Locator (PFL) must also be provided at EFL's depot in Kinoya.

2. Specifications and Evaluation Criteria

Note to bidders: Please submit a copy the table below with your products details (in the BIDDERS PRODUCT DETAILS column) in comparison to what is required by EFL. Failure to submit the mandatory technical specifications in the table below will automatically result in the disqualification of the tender bid.

GENERAL CRITERIA

CRITERIA	EFL REQUIREMENTS	BIDDERS PRODUCT DETAILS
Model Number		
Brand		
Semi-Automatic	Unit automatically sets thump voltage to minimize stress applied to cable	
Safety	User protection from incorrect or faulty ground connection (F-Ohm)	
Portability	Heavy duty wheel mounted	
Power Options	240V AC at 50Hz	

CRITERIA	EFL REQUIREMENTS	BIDDERS PRODUCT DETAILS
	12V deep cycle internal battery with internal DC charger/inverter	
Energy Output	1500J minimum at 8/16kV	
Voltage Output Range	Dual Range – 8kV and 16kV	
Housing Enclosure	IP54 minimum, built for rugged environment, rain tight powder coated	
Weight	Not to exceed 140kg	
Operating Temperature	10° to 50° C	
Storage Temperature	10° to 65° C	
Dimension	W x H x D to be provided by bidder	
Delivery Lead Time	6 weeks maximum after issue of LPO	
Warranty	12months	
Training	Hands on training at EFL Kinoya Depot	

TECHNICAL CRITERIA

CRITERIA	EFL REQUIREMENTS	BIDDERS PRODUCT DETAILS
Operating Modes	TDR	
	ARC Reflection Method (ARM) Voltage Output Level: 0-8kV and 0-16kV	
	DC Proof test with resistance readout in Ohms (Ω) Voltage Output Level: 0-8kV and 0-16kV	
	Burning/Fault Conditioning Voltage Output Level: 0-8kV and 0-16kV	
	Direct Surge/Thump Voltage Output Level: 0-8kV and 0-16kV	
	Sheath fault test & pinpointing Voltage Output Level: 0-5kV and 10kV	
	TDR	TDR mode and all prelocation functions to be applicable on 5000meters of cable length
Energy Output	Dual Stage: 1500J at 8kV and 16kV	
	Proof test: 0 to 16kV continuous	
	Burn Current: 60mA	
Impulse Generator Key Features	Single shot thump in ARM	
	Built-in inductive type ARM filter	
	8 second thump cycle at max output	
	Automatic cable and system discharging	
Display	Transflective TFT color display	
	Sunlight Proof	
	Minimum 5.7inches	
	Minimum 640 x 470 pixel resolution	
SMART Features	Automatic test sequence – tells user to press buttons and guides through each	

CRITERIA	EFL REQUIREMENTS	BIDDERS PRODUCT DETAILS
	step to proof test, prelocate and pinpoint fault	
	Automatic interpretation regarding fault type – open, burnt or short circuit	
	Automatic Adjustment of thump voltage with ability for user intervention for manual control	
	Automatic alphanumeric display of cable and fault distance	
USB Features	Host interface 2.0 version minimum	
	TDR trace export and system upgrade	
PFL HV Output Test Lead Cable	15meters minimum	

3. Warranty

12-month warranty on the PFL unit is to be provided. The warranty shall start from the point the item has been received by EFL and confirmed operational and defect free after a hands on training.

4. User Operation Manual

A user manual is to be provided for each function, usage detail and onscreen options is to be provided with the PFL unit.

5. Training

Bidders are to include cost of training for an approximate of 15participants in Fiji at EFL’s Kinoya Depot. Training shall need to be provided within 4weeks after receiving the PFL by EFL. The details of the hands on training must be provided in the tender bid which may include:

- Classroom exercise – turning on equipment, features, maintenance, etc.
- Field exercise – actual setup, cable fault finding, cable testing, etc.

The bidder must account for a supply of One (1) Laptop as part of training which shall be handed over to the EFL Engineer. Laptop spec must be submitted with bid which shall comprise of the following minimum specifications:

- i7 Processor
- minimum 13” FHD LED Touchscreen Display (1920 x 1080)
- 256GB Solid State Drive (SSD) Storage
- 8GB Ram
- Windows 10

6. Operating Conditions

The Remote Receiver will be used at tropical (fairly humid, rainy and hot) conditions with temperatures ranging from 10 to 50 Degrees Celsius. The nominal frequency of electrical reticulation in Fiji is 50Hz. The equipment shall be water resistant, dust resistant as specified in the criteria tables above.

7. Delivery

All items shall be delivered to Suva Port (Fiji) on CIF basis. The bidder must take into account all logistics and costs involved to have the item shipped to Fiji.

8. Period of validity of Goods

8.1 Bids shall remain valid for a period of 90days after the deadline for the receipt of Bids. A bid valid for a shorter period shall be rejected by FEA as non-responsive.

8.2 In exceptional circumstances, FEA may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing.

9. Bid Currency

Unless otherwise specified, the unit rates and prices shall be quoted by the bidder's country of origin.

The following table must be filled and then returned with the bid. The prices must be valid for a minimum period of 90days.

Description	Quantity	Total Price (CIF) to Suva Port
Underground Cable Power Fault Locator 12month warranty	1	

Description	Quantity	Training Package Price
Training cost inclusive of all training material/equipment/software at EFL Kinoya Depot	15 Participants	

The above table is to be filled and submitted with the bid. Failure to submit price as per CIF terms may result in the bid being rejected for evaluation and award. PLEASE STATE CURRENCY.

10. Optional Accessories

All optional accessories are to be stated in the bid with delivery prices per unit item. It shall be EFL discretion to either purchase or forego the optional accessories stated. Picture references must be provided for clarity in choosing the accessory.

Prices are to be submitted in a table similar to below format.

Accessory Description	Quantity	Total Price (CIF) to Suva Port
1. Example – HD battery clamp with 100mm male MC color red	1	
2.	1	

11. Company Information

1.	Name of Bidding Company	
2.	Contact Person Name	
3.	Telephone	

4.	Fax	
5.	Email	
6.	Mobile	
7.	Name of Company CEO/Director	
8.	Sales Tax/ Commercial Tax/ CST Nos.	
9.	Service Tax No.	
10.	Income Tax No.	

1.	Name of Authorized Person for bidding	
2.	Signature of Authorized Person	
3.	Company Stamp	

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 **1600hrs, Wednesday, 27th June, 2018.**

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 **1600hrs, Wednesday, 27th June, 2018** - Addressed as:

Tender – MR 233/2018 – SUPPLY OF UNDERGROUND CABLE POWER FAULT LOCATOR

**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 **closing time 1600hrs, Wednesday, 27th June, 2018**

- 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.