

# **ENERGY FIJI LIMITED**

# **BIDDING DOCUMENT**

# SUPPLY OF LIVE LINE ROPE AND ASSOCIATED ROPE TESTING EQUIPMENT

**TENDER NO.: MR 66/2025** 

#### INVITATION TO TENDER

The Energy Fiji Limited ("The Employer") invites sealed bids from suitable companies for the supply, packing and transporting (CIF to Suva OR Lautoka Port) of "Live Line Rope and Associated Rope Testing Equipment".

All tenders for the contract shall be submitted on the appropriate forms provided and shall include the completed price schedule, technical schedule etc. The bid shall be on the basis of a lump sum contractbased on firm prices.

During evaluation of tenders the company will invite a tenderer or tenderers for discussions, presentations and any necessary clarification before awarding of the contract.

The tender submissions close on Wednesday 19th February, 2025 at 1600hrs (local) Fiji

Time. Further information for this tender may be acquired from:

Mr. Jitendra Reddy, Manager Procurement, Inventory & Supply Chain Supply Chain Office, 2 Marlow Street, Private Mail Bag, Suva

Or email: tenders@efl.com.fj

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#### 1 Introduction

Energy Fiji Limited [EFL] is a sole utility business unit in Fiji responsible for the power production, transmission, distribution and retailing to its valued customers around the nation.

The guidelines of this document, in alignment with the relevant referenced standards, shall be the basis for the manufacturers to submit tender bids to supply Live-line ropes and live line rope tester that meet industry standards. Training for the proper use of the live line rope tester is also included in the scope of this tender.

# 2 Scope

This Specification covers the general requirements of design, manufacture, testing, supply and deliveryof live line rope and tester to Energy Fiji Limited.

# 3 System Parameter

NOMINAL VOLTAGE	240/415V	11kV	33kV	132kV
SYSTEM HIGHEST VOLTAGE	260/440V	12kV	36kV	145kV
SYSTEM FREQUENCY	50Hz	50Hz	50Hz	50Hz
EARTHING	Solidly earthed	Solidly earthed	Solidly earthed	Solidly earthed

**Table 1.0 System Specifications** 

#### 4 Service Conditions

The Live line rope shall be capable of satisfactory operation outdoors in a tropical environment, which has high solar radiation and varies from hot dry and dusty to hot and humid and subject to cyclonic wind. The following conditions apply:

- 1. Air Temperature
  - Extreme maximum 45°C
  - Average maximum 35 °C
  - Average minimum 18 °C
  - Extreme minimum -5 °C
- 2. Relative Humidity

Maximum 93%

3. Solar Radiation

Maximum 1.1kW/m2

4. Wind Loading Wind loading shall be assessed in accordance with AS 1170.2—2011, for Region C (Tropical Cyclone).

# 5 Technical Requirements

Equipment offered that is found on inspection not to conform to this specification shall be replaced by the vendor at no cost to Energy Fiji Limited.

#### 5.1 Live Line Insulated Rope

The live line rope needs to be manufactured to AS 4142.2 or IEC 62192 or an equivalent standard. This insulating rope should comply with ASTM F1701 which shall guarantee for full phase to phase insulation.

The supplied live line rope should have maximum leakage current of 250 micro amp tested at 145kV-AC (under wet condition). The preferred size of live line rope is **20mm**.

#### 5.2 Live Line Rope Testers

Rope testers will be utilized to measure the leakage current (in micro amps) through the insulation. The monitors should be current indicative and alarming if the di-electric strength of the rope is weak. Alarming should occur at when a preset level of leakage current is exceeded.

A digital rope tester that measures and monitors leakage currents up to 800micro amps is preferred. Thistester should include an instruction manual and a carry or storage case for easier transportation and safe storage purposes.

## 5.3 Technical Specifications

The successful bidder shall supply live line ropes, live line rope testers, and associated training services with the following specifications:

	Description	EFL Requirement	Bidders Response
1	Live Line Rope	Name of Manufacturer / Brand	
		Compliance to AS 4142.2 or IEC 62192 or ASTM F1701	
		Specify Size (20mm preferred)	
		Maximum Leakage 250µamp tested at 145kV-AC (Wet)	
2	Live Line RopeTesters	Name of Manufacturer / Brand	
		Digital or Analog	
		Max leakage current measured (in micro amps)	
		Alarm at preset leakage current	
		Portable / Easy to Operate	
		Instruction Manual Included	
		Carry / Storage Case included	

3	Training	Training session to be provided by
		supplier on the proper use, calibration, and maintenance of the
		live line rope tester

#### 6 Manufacturer's Qualification/ Certification

#### 6.1 Certification

Every bidder shall include in his bid the live line equipment manufacturer's supply experience list, year of supply, type and quantity of supplied live line rope, and full name of user.

Manufacturer shall have sufficient supply and manufacturing experience with ISO certification of live line equipment for at least ten (10) years for the required system voltage and above.

Certificates from customers with satisfactory usage shall be provided with the supply record. Live line equipment shall be considered, for which a minimum 5 years manufacturing and successful service experience is available, without change of basic design and material.

The qualified manufacturer shall have designed, manufactured, tested and supplied at least 100,000 units of similar hardware for the same system voltage and above. Supplied live line equipment must have same or higher electro-mechanical strength required in this tender document. Then less than 1/100,000 of annual failure rate shall be guaranteed.

The bidder shall include with its bid the Certificate of less than 1/100,000pcs of Annual failure rate issued from at least three different foreign utilities outside of manufacturer's country. Also, at least two certificates out of above three certificates that show the supplied Hardware's shall be under successful commercial operation for at least five years shall be submitted.

# 7 Type Tests

The following type tests are required:

- Visual examination
- Verification of dimensions
- Visible discharge tests
- Temperature cycle test
- Mainly active load breaking capacity test
- Mechanical strength tests
- Operational and mechanical endurance test
- Measurement of the resistance of all Line Hardware accessories.
- Operation test

Prior to delivery, the units shall have completed the type, routine and accuracy tests and inspections from a NATA Certified Lab as required by the relevant international and Australian standards. The passing of such tests shall not prejudice the right of EFL to reject the equipment if it does not comply with the specification when received or installed.

All testing shall be undertaken by an AS ISO/IEC 17025 accredited test house. The bidder shall submit evidence showing IEC 17025 compliance. A formal report covering the outcome of the different tests shall be made available to EFL.

#### 8 Factory Acceptance Tests

The EFL reserves the right to witness sample and routine tests at the manufacturing. The bidders shall factor in the entire costs (Visa, air fare, Local Transportation, Hotel, Meals, etc.) for facilitating one factory visit by two (2) EFL engineers at the manufacturing facility to witness sample and routine tests, as part of the factory acceptance testing of the Line Hardware's, prior to shipment.

#### 8.1 Witnessing of Tests

The EFL reserves the right to witness all testing. The Supplier shall provide EFL reasonable notice of when testing will be carried out and Two (2) EFL engineers to be invited to witness the testing in the factory.

### 9 Quality and Environment Assurance

The quality assurance system of design, manufacture, and inspection shall conform to ISO 9001. Quality assurance certificate according to ISO 9001 issued by an authorized inspection agency shall be submitted with the bid.

The environment management system of manufacture shall confirm to ISO 14001.

Environment assurance certificate according to ISO 14001 issued by an authorized inspection agency shall be submitted with the bid

Bids will not be considered if the manufacturer's experience or quality assurance system does not meet the above requirements.

#### 9.1 Compliance

The Supplier shall state in writing that their offer complies with the relevant Standards and this specification. If the Supplier is offering equipment manufactured to an equivalent standard, full details of that standard must be given including a copy written in English.

# 10 Samples

#### 10.1 Production Samples

Samples of items may be required during the tender assessment period. Samples would normally only be required from tenderers who have previously not supplied the items to the Purchaser.

#### 10.2 Sample Delivery

When samples are required, production samples shall be delivered freight free, suitably packaged and labelled including reference to the Contract Number.

EFL may at its discretion either purchase the samples at the tendered price or return the samples

to the respective tenderer after the contract has been awarded. Samples shall be supplied within 7 days of official request.

# 11 Training

The supplier shall provide training on the proper use, calibration, and maintenance of the live line rope tester.

The training shall include:

- Overview of the tester's functionality and features.
- Step-by-step instructions on conducting tests.
- Safety precautions and best practices.
- Hands-on training sessions.

# 12 Product Warranty Period

The bidder is required to provide the warranty period as part of the proposal. A minimum warranty period of 3 (three) years from receipt time of item(s) at EFL shall be provided.

# 13 Compliance

The Supplier shall state in writing that their offer complies with the relevant Standards and this specification. If the Supplier is offering equipment manufactured to an equivalent standard, full details of that standard must be given including a copy written in English.

# 14 Delivery

The bidder is to state the estimated time of delivery from issue of purchase order (preferably 4 weeks from the issue of purchase order). Maximum allowable delivery time to be 6 weeks from issue of Purchase Order. The items to be delivered to CIF Suva or Lautoka Port.

# 15 Payment Terms

The payment will be done within thirty (30) days after the goods and services have been delivered/received in satisfactory condition and upon submission of invoice with other required and related documents. There will be no advance payments done on the items being provided.

# 16 Price Schedule and Validity

#### 16.1 Price Schedule

All bidders are strictly provide the currency and incoterm (CIF preferred) for the items supplied.

Item No.	Description	Quantity Required	Brand	Unit Price	Currency (Specify Currency)	Total Cost (CIF to Suva or Lautoka Port)
1.	Live Line Rope (20mm)	500m				
2.	Live Line Rope Testers	2				
3.	FAT for 2 x EFL Engineers	2				

#### i. Incoterms

All pricing shall be done on Cost, Insurance and Freight (CIF) basis, delivered to Suva or Lautoka port, Fiji.

# ii. Currency

All pricing shall be in USD, AUD, NZD or FJD.

#### iii. Taxation

The pricing shall be EXCLUSIVE of any type of taxation that needs to be paid in Fiji.

# iv. Pricing breakdown

The prices quoted will be fixed and NOT variable.

# v. Validity

The pricing shall be valid for 120 days.

#### Note:

- Prices must be rounded to two decimal places.
- Hand Written bids will not be accepted. All bids must be typed.
- All prices shall state the currency of bid. For Fijian dollars (FJD) bids should be

VAT inclusive i.e. FJD VIP. Where a bidder bids in FJD VEP, then VAT exemption certificate must be supplied with bid.

- The above table must be submitted with bidding document
- Bidder to state the VAT applicable to product i.e. 15% VAT (circle one) if the bid is in FJD
- The negotiated price during tender award process will be fixed for a duration of 2 years. NO VARIATION SHALL BE ENTERTAINED.

# 17 Packaging/Marking

The packaging of items by the bidder must ensure that they are capable of being delivered undamaged giving due consideration to the quantity, distance of transportation and the preferred method of handling at each location.

Each packaged lot shall be marked with the following information:

- Company Name
- Purchase Order Number
- Contact No.
- Item Description

#### 17.1 Storage

The equipment shall be capable of being stored without deterioration within the temperature range of 10°C to 40°C for no less than 24 months.

# 18 Reliability

#### 18.1 Service Life

Suppliers are required to comment on the reliability of the equipment and the performance of the live line rope and testing equipment is offered for a service life of 10 years under the specified system and environmental conditions.

Such comments shall include evidence in support of the reliability and performance claimed including information on failure mode and effect analysis.

# 19 Appendix

#### 19.1 Technical Schedule

This schedule shall be completed and submitted with the offer. (Refer to Technical Specifications). Failure to fill in the technical specifications with the compliance evidences, the bid will be disqualified.

#### 19.2 Submission Requirement

All tenderers are required to complete and submit a copy of the submission requirements with their bidsubmissions.

#### Mandatory Compliance

- i. Company Registration Certificate
- ii. Price in CIF incoterm for overseas bidders or FJD VIP for local bidders
- iii. Price Validity (preferred 120 days)
- iv. Evidence of other utility using product offered
- v. Minimum warranty period from time of acceptance of items (3 years)
- vi. Evidence of confirmation for international standards
- vii. FNPF Compliance Certificate (local bidders)
- viii. FRCS Compliance (local bidders)
- ix. FNU Compliance (local bidders)

Requirements	Weighting	Response from Bidders
Completed Technical Specification Table with Bidder's Response (Yes/No)	30	
Validity of bid (120 days required) (Yes/No)	5	
Payment conditions (30 days account)	10	
Delivery Term (CIF to Suva Port mandatory)	10	
Detailed reference list of customers already using the item offered during the last 3 years with particular emphasis on the items forming part of this bid	5	
Quality management system used in the production of the Supply of Live Line Rope. (attach certificate)	5	
Minimum warranty period from time of acceptance of item(s). (36 months)	10	
Testing methodology for confirmation of conformance to international specification & standard.	10	
Evidence of confirmation for international standards (provide certificate)	15	

#### **TENDER SUBMISSION CHECK LIST**

The Bidders must ensure that the details and documentation mention below must be submitted as part of their tender Bid

Ter	nder Number
Ter	nder Name
1.	Full Company / Business Name:
	(Attach copy of Registration Certificate)
2.	Director/Owner(s):
3.	Postal Address:
4.	Phone Contact:
5.	Fax Number:
6.	Email address:
7.	Office Location:
8.	TIN Number: (Attach copy of the VAT/TIN Registration Certificate - Local Bidders Only (Mandatory)
9.	FNPF Employer Registration Number:(For Local Bidders only) (Mandatory)
10.	Provide a copy of Valid FNPF Compliance Certificate (Mandatory- Local Bidders only)
11.	Provide a copy of Valid FRCS (Tax) Compliance Certificate (Mandatory Local Bidders only)
12.	Provide a copy of Valid FNU Compliance Certificate (Mandatory Local Bidders only)
13.	Detailed company profile
14.	Contact Person:
	I declare that all the above information is correct.
	Name:
	Position:
	Sign:
	Date:

# **Tender submission**

Bidders are requested to upload electronic copies via Tender Link by registering their interest at: <a href="https://www.tenderlink.com/efl">https://www.tenderlink.com/efl</a>

EFL will not accept any hard copy submission to be dropped in the tender box at EFL Head Office in Suva.

This tender closes at 4.00pm (1600hrs) on Wednesday 19<sup>th</sup> February, 2025.

For further information or clarification please contact our Supply Chain Office on phone (+679) 3224360 or (+679) 9992400 or email us on tenders@efl.com.fj

The bidders must ensure that their bid is inclusive of all Taxes payable under Fiji Income Tax Act. Bidders are to clearly state the percentage of VAT that is applicable to the bid prices.

The lowest bid will not necessarily be accepted as the successful bid.

The Tender Bids particularly the "Price" must be typed and not hand written.

Any request for the extension of the closing date must be addressed to EFL in writing three (3) working days prior to the tender closing date.

Tender Submission via email or fax will not be accepted.