

FIJI ELECTRICITY AUTHORITY

FEA Headquarters
2 Marlow St
Suva

TENDER NO: MR 116/2017

SUPPLY OF 11kV POWER CABLE and ACCESSORIES for
WAILOA Mid-Life Refurbishment



Revision:

INVITATION TO TENDER

The Fiji Electricity Authority (“The Employer”) invites sealed bids from suitable companies for the supply, packing and transporting (CIF to FEA Lautoka Depot) of the following:

1. Single core, 630 mm² Copper Conductor, XLPE insulation (with semi-conductive screens), Copper wire screen, PVC or HDPE oversheath, 6350/11000 V.
2. Indoor termination kits and lugs for single phase 630mm² Cu Cables

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 contract based on firm prices.

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

The tender submissions close on Wednesday 21st June 2017 at 1600hrs (local) Fiji Time.

Further information for this tender may be acquired from:

Tuvitu Delairewa
General Manager Corporate Services
Fiji Electricity Authority
2 Marlow Street, Suva, Fij.
Phone: 679 3224 185
Email: TDelairewa@fea.com.fj

1 INSTRUCTIONS TO TENDER

1.1 GENERAL

The Fiji Electricity Authority (hereinafter called the Authority) is a statutory body vested with the responsibility for the provision of electricity supply throughout Fiji. The Authority is currently implementing an upgrade of the Wailoa hydroelectric generating facility. The scope for this tender is for the supply of single core 11kV cable and accessories as per specification attached.

1.2 TYPE OF TENDER

The Tenderer shall submit a fixed price tender. This requirement shall apply equally to the conforming tender as well as any alternative tender.

1.3 COMPLIANCE WITH INSTRUCTIONS

The Tender shall be submitted in accordance with these Instructions and the letter of invitation to tender. All the necessary forms and schedules need to be completed and submitted with the tender.

1.4 ADDENDA TO TENDER

Where the Authority finds it necessary to make amendments to or clarify the requirements of the tender documents during the period of tendering three copies of each Addendum will be forwarded. In the Appendix to Tender shall state the reference number and description of each of the aforesaid Addenda which has been considered during preparation of the Tender.

1.5 COMPLIANCE WITH SPECIFICATION

The tender shall be based on the equipment and work specified and shall be in accordance with the Technical Specification. It should be noted that unless departures from specifications are detailed in Schedule I of the Technical Specification, the tender would be taken as conforming to the Specification in its entirety. The Tenderer shall tender for the whole of the Works included in the Specification.

1.6 DELIVERY PERIODS

The Tenderer shall submit his tender on the basis which will permit the Works to be completed under normal circumstances by the completion dates stated in Schedule 3 of the Technical Specification.

1.7 CURRENCY AND CURRENCY EQUIVALENT

The tenders shall be in the currency of the Tenderer's home country. Preference will be given to Australian and New Zealand dollar currency. For Tender comparison purposes the currency or currencies in which the tender is offered will be valued in terms of Fijian dollars at the exchange rate quoted for the sale of the foreign currency for Fijian dollars quoted by the Reserve Bank of Fiji on the day the tenders are opened. All local companies registered in Fiji shall bid in VIP and Duty inclusive.

1.8 SIGNATURE OF TENDERER

A tender submitted by a Partnership shall be signed by one of the members of the Partnership and shall be accompanied by a certified authorization of all the partners authorizing the individual partner to sign on behalf of the Partnership. A tender submitted by a Corporation to the Contract and shall be accompanied by a certified resolution of the Board of Directors authorizing the individual to sign on behalf of the Corporation.

1.9 INFORMATION FORMING PART OF THE TENDER

The Tenderer shall supply with each set of the tender copies of the technical, price and information schedules of the Tender Documents duly completed with all missing information and shall also supply any requisite drawings. A copy of the Tenderer's covering letter (if any) shall be submitted with each tender and each tender shall be accompanied by a full set of supporting matter which the Tenderer wishes to have considered by the Authority as supporting information for his tender. It is a mandatory requirement to submit the following documents as part of the tender proposal:

1. Tender Covering Letter with signature/seal of authorised signatory
2. Price & Payment Schedule
3. List of Experience
4. Confirmation of Insurance Policies

1.10 CONFORMING AND ALTERNATIVE TENDERS

No alternative bids shall be accepted.

1.11 NON CONFORMING TENDERS

A tender which does not comply with the Conditions of Tendering or in which the technical price information schedules requiring information to be inserted by the Tenderer have not been completed in all respects may be considered informal will be rejected for these reasons.

1.12 VALIDITY PERIOD OF TENDERS

Tenders shall remain valid for acceptance within **60 days** from the date of opening of tenders and a Tenderer shall not withdraw or amend his tender prior to the expiration of the Validity Period. In exceptional circumstances prior to expiry of the original tender validity period, the Authority may request the Tenderer for an extension in the period of validity. The request and the response thereto shall be in writing. A tenderer agreeing to the request will not be permitted to amend his tender price.

1.13 EXTENSION OF CLOSING TIME FOR TENDERS

The right is reserved to amend the date set for the opening of tenders to any late date. If it is decided to extend the time for submission of tenders all prospective Tenderers to whom tender documents have been issued will be promptly notified.

1.15 DEADLINE FOR SUBMISSION OF BIDS

Hard copy of the tender Bids must be received by the Employer at the address specified above no later than 1600 hours (Fiji Time) Wednesday 21st June, 2017.

The Employer may, at its discretion, extend the deadline for submission of bids by issuing an addendum in accordance with Clause 1.4, 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.

1.16 ACKNOWLEDGEMENT OF TENDERS

All tenders received will be acknowledged by post/email within 7 days after the date set for receipt of tenders.

1.17 TENDER EVALUATION

After a preliminary analysis to ascertain whether or not the tender is in accordance with the requirements of the tender documents each tender will be considered with particular reference to its eligibility as being a manufacturer, offer testing facilities in its workshop, price, completion date, design capability, evidence of past performance on contracts of a similar nature, supply of reliable quality equipment and all other matters affecting the Tenderers ability to complete the Contract in accordance with the Authority's requirements.

1.18 ADJUSTMENT OF ERRORS

The Authority reserves the right to adjust arithmetical or other errors in the Tender. Any adjustments made by the Authority to a Tender will be stated to the Tenderer prior to acceptance of the Tender. In the event of discrepancies appearing between words and figures in the Tender, the words shall prevail.

1.19 ACCEPTANCE OF TENDERS

The Authority shall not be bound to accept the lowest or any tender not to assign any reason for the rejection of a tender and reserves the right to waive any informality in a tender. No tender shall be deemed to have been accepted unless such acceptance is notified to the Tenderer by notice in writing either by handing such notice to the representative of the successful Tenderer or by sending such notice by e-mail, facsimile or airmail post. Such notice shall include any essential identifying details of the tender. The date of acceptance of Tender shall be the date on which the above mentioned notice is given or posted or e-mailed.

1.20 LANGUAGE OF TENDER

All Tenders together with any documents submitted by the Tenderer as part of any Tender shall be written in the English language.

1.21 PAYMENT SCHEDULE

The contract shall be on a lump sum fixed price basis. The payment schedule will be broken down as follows:

- a) 95% upon receipt of goods by FEA.
- b) 5% upon expiry of the warranty period (24 months from receipt of the goods)

1.22 CONDITIONS OF CONTRACT

The Conditions of Contract shall be the AS/NZS 4911:2003 - General Conditions of Contract for the Supply of Equipment Without Installation.

1.23 INSURANCE

The Contractor is to confirm that they have in effect the insurance policies below:

1. Public and Products Liability Insurance
2. Industrial Special Risk Insurance
3. Insurance for Workmen's Compensation

2 GENERAL SPECIFICATIONS

2.1 SCOPE OF SUPPLY

The scope of works for contract is for the Supply, packing and shipping (CIF to FEA Lautoka Deport) of the following:

- 400m of single core, 630 mm² Copper Conductor, EPR insulation (with semi-conductive screens), Copper wire screen, Chlorinated Rubber oversheath, 6350/11000 V.
- 90 Indoor termination kits and lugs for single phase 630mm² Cu Cables.

2.2 SPECIFICATION

Cables

Cables shall comply with DIN VDE 0250 part 813 and IEC60228. Stranding shall be class 5 to IEC 60228.

The cable shall be suitable for use under the following conditions:

Nominal system voltage	11 kV
Highest system voltage	12 kV
System earthing	Solidly Earthed
Maximum Three Phase Symmetrical fault current	25 kA
Test Voltage (AC)	≤17 kV
Test Voltage (DC)	≤40 kV

Insulation shall be EPR to VDE 207 compound 3GI3.

Outer sheath shall be chlorinated rubber to VDE 207 compound 5GM3 and:-

Resistance to fire shall be in accordance with IEC 60332-1-2.

Resistance to oil shall be in accordance with IEC 60811-404.

Shall be abrasion resistant.

The cable shall be capable of operating without significant loss of service life under the following conditions:-

A maximum sustained conductor temperature of 90°C.

A maximum conductor short circuit temperature of 250°C of 3 seconds maximum duration.

A maximum copper wire screen temperature of 200°C of 3 seconds maximum duration.

The following information is provided to allow the supplier to determine the optimal cable lengths for supply.

The 6.3/11 kV cables will be used to connect the following 11 kV equipment. Single core cables will be laid in trefoil formation. Cables will be mounted on indoor cable ladders.

Cable Run	Conductors per phase	Approx Length per run	Total number of runs
Generator Phase/Neutral Cubicle to 11kV Generator Circuit Breaker	2	7.5	24
11kV Generator Circuit Breaker to Excitation Transformer	1	14	12
11kV Aux Transformer CB to Auxiliary Transformer	1	5	6

Lugs

Lugs shall be compatible with the 11kV cable supplied under this Contract.

Lugs shall be designed to prevent electrolytic action between the copper conductor and the lug material. Bimetallic lugs are preferred.

Lugs shall comply with AS/NZS 4325.1.

Lugs shall preferably be of type using a shear bolt connection and shall be supplied with all bolts and conductive grease.

Lug palms shall be of the fully sealed type and shall have a pre-drilled hole suitable for bolts up to 16mm diameter.

Lugs for the cable screens shall be provided.

Termination Insulation Kits

Termination kits shall be compatible with the 11kV cable supplied under this contract.

Terminations shall be of the heat shrink, polymeric type design, manufactured and tested in accordance with AU/NZS 4805 Pt 1 & 2.

Termination shall meet the following test conditions:-

15min dry AC withstand test at $2.5 \times U_0$

5min dry AC withstand test at $4.5 \times U_0$

15min dry DC withstand test at $4 \times U_0$

Impulse withstand level of 95kV

Termination kits shall have a shelf life, from the time of delivery, of not less than 5 years.

2.3 QUALITY OF MATERIALS AND WORKMANSHIP

All cables supplied by the company under this contract shall be new and of the high quality and class most suitable for working under the conditions specified and shall withstand the variations of temperature, atmospheric conditions arising under working conditions without distortion or deterioration or the setting up of undue stresses in any part and also without affecting the strength and suitability of the various parts of the work which they have to

perform.

2.4 STANDARDS

IEC, IEEE and AS/NZS Standards are to be adopted in general. Any other national or international standard may be used if such standards are not less exacting than corresponding IEC Standard. In such an instance a copy of the relevant standard should be forwarded. The works shall be in accordance with the following standards:

DIN VDE 0250-813 (1985-05) Cables, Wires And Flexible Cords For Power Installation; Trailing Cable.

IEC 60228 Conductors of Insulated Cables.

IEC 60332-1-2 Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable.

IEC 60811-404 Electric and optical fibre cables - Test methods for non-metallic materials - Part 404: Miscellaneous tests - Mineral oil immersion tests for sheaths.

AS/NZS 4325.1 Compression and mechanical connectors for power cables with copper or aluminium conductors.

AS/NZS4805 Accessories for Electric Cables – Test Requirements.

2.5 PACKING

Cables and accessories shall be carefully packed for transport and shipment in such a manner that it is protected from all dust and climatic conditions during loading, transport, unloading and subsequent storage in the open.

2.6 WARRANTY

The Contractor shall provide warranty for cables supplied for a Period of twenty four [24] months after delivery of the equipment.

2.7 CONTRACTORS REQUIREMENT

- 1. Completed Tender Form 1 – Letter of Tender**
- 2. Completed Tender Form 2 - Price and Delivery Schedule**
- 3. Completed Tender Form 3 - Technical Schedule**
- 4. Completed Tender Form 4 – Statement of Conformance**

Tender Form 1 – Letter of Tender

Name of Contract: Wailoa Mid-Life Refurbishment Project,
11kV Cable and Accessories Contract No. **MR 116/2017/2017**

Tender To: Fiji Electricity Authority
2 Marlow St
Private Mail Bag
Suva
Republic of the Fiji Islands

1. This tender is made by _____
[insert full name and registered address of tenderer].
2. Capitalised terms used in this letter have the meaning given to them in the Instructions to tenderers dated *[insert date]* ("**Instructions**") unless otherwise defined.
3. Having examined and understood the Tender Documents relating to the Works (including the Instructions and all documents attached thereto we, the undersigned, hereby offer to manufacture, test and deliver the equipment in conformity with the said documents for the sum of:
.....
....., (\$.....),
Exclusive of VAT, WHT or such other sum as may be ascertained in accordance with the Contract.
4. This offer is made on the terms and conditions set out in this Tender and the Instructions.
5. We attach the following documents which form part of this tender:
 - (a) Completed tender forms;
 - (b) Technical description of the plant offered;
 - (c) Proposed programme;
 - (d) Any supplementary information;
6. We agree to abide by this Tender for a period of 60 days after the Tender Closing Date and that this Tender it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.
7. We confirm that you may rely upon all statements made by us in response to the Instructions or in subsequent correspondence, discussions or negotiations with you.
8. We certify that:
 - (a) The entry into, and performance of the obligations under, the Contract by us will not violate any laws provided that you obtain all consents and authorisations you are required to obtain under the Contract;
 - (b) We have corporate power to enter into and perform our obligations under the Contract and we have taken all necessary corporate action to authorise the entry into, and execution of, this offer and (if required) entry into, and execution of, the Contract;
 - (c) The rates and prices in our offer have been arrived at independently, without consultation or agreement with any other tenderer; and
 - (d) No attempt has been made, nor will be made, by us to influence any other tenderer to submit or not submit a tender or to alter the proposed content of that tenderer's tender.
9. We acknowledge that this tender, and any contract arising upon its acceptance, shall be governed by and construed in accordance with the laws of The Fiji Islands.

10. Unless and until a formal agreement is prepared and executed, this Letter of Tender, together with your written acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____ 2017

Signature _____ in the capacity of _____

duly authorised to sign Tenders for and on behalf of: _____

Witness _____

Address _____

Occupation _____

Tender Form 2 – Tender Price and Price Breakdown

Item	Qty	Amount Fijian Dollars (FJD) excluding VAT	Amount Foreign Currency (Nominated by Tenderer)
630mm ² single core, Copper Conductor, EPR insulation (with semi-conductive screens), Copper wire screen, Chlorinated Rubber oversheath, 6350/11000 V	400m		
Termination Kits incl lugs	90		
CIF Delivery to FEA Lautoka Stores	lot		
TOTAL			

Guaranteed time from date of Purchase Order issuance to arrival in FEA Lautoka Stores
_____ (days).

Signature
 Name
 Position
 Company
 Address
 Date

Tender Form 3 – Technical Details

	Purchasers Requirements	Vendor's Response
11kV Cable		
Manufacturer		
Place of manufacture		
Manufacturers tradename/part number		
Manufacturing and Test Standards	DIN VDE 0250 part 813 IEC60228 IEC 60332-1-2	
Termination Kits and Lugs		
Manufacturer		
Place of manufacture		
Manufacturers tradename/part number		
Manufacturing and Test Standards	AS/NZS 4325.1 AS/NZS 4805	

Tenderers shall provide catalogue information on the proposed cable and termination kits.

Tender Form 4 – Statement of Conformance

We have read and understood the Tender documentation for the 11kV Cable Supply Contract, and confirm that:

Tick 1 Box as Applicable

Our Tender is in full compliance with the requirements and we have no exceptions to note.

Our Tender does not fully comply with the requirements. The following exceptions apply:

.....
.....
.....
.....
.....
.....
.....
.....

Signature

Name

Position

Company

Address

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 21st June 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 addition, 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 21st June, 2017** - Addressed as

Tender – MR 116/2017 – Supply of 11kV Cables and Accessories for Wailoa Mid-Life Refurbishment

**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 21st June 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 charges and all other cost associated with the delivery of the hard copy of the Tender submission.**