# **ENERGY FIJI LIMITED**

EFL Headquarters 2 Marlow St Suva

# **TENDER NO: MR 55/2021**

SUPPLY OF MULTICORE 110V DC CONTROL CABLES AND AC CABLES FOR 33kV/11kV TRANSFORMER INSTALLATION WORKS AT SUVA SUBSTATION AND WAILEKUTU SUBSTATION

Revision: 1

# INVITATION TO TENDER

The Energy Fiji Limited ("The Employer") invites sealed bids from suitable companies for the supply, packing and transporting (CIF to Suva Depot) of "Multicore 110V DC Control Cables and AC Cables for 33kV/11kV transformer installation works at Suva Substation and Wailekutu Substation.

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

The tender submissions close on Wednesday, 24<sup>th</sup> March, 2021 at 1600hrs (local) Fiji Time.

Further information for this tender may be acquired from:

Mr. Jitendra Reddy,
Unit Leader Strategic Procurement,
Inventories and Properties
Supply Chain Office,
2 Marlow Street,
Private Mail Bag, Suva

or email: JReddy@efl.com.fj

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# 1 INSTRUCTIONS TO TENDER

#### 1.1 GENERAL

The Energy Fiji Limited is a statutory body vested with the responsibility for the provision of electricity supply throughout Fiji. EFL is currently implementing its upgrade works for the 33kV/11kV transformers at Wailekutu and Suva Substations. The scope for this tender is for the supply of multicore 110V DC control cables and AC cables for Wailekutu and Suva 33kV Substations

## 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 ADDENDUM TO TENDER

Where EFL finds it necessary to make amendments to or clarify the requirements of the tender documents during the period of tendering, an Addendum will be uploaded to the EFL website/tender link.

## 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. Suppliers with delivery of 4 weeks after the signing of the contract and issuance of the PO.

#### 1.7 CURRENCY

The tender shall be in the currency of the Tenderer's home country. All local companies registered in Fiji shall bid in VIP and Duty inclusive. For overseas currencies, bid are to be in DDU to EFL Kinoya Deport and all duties, VAT and customs clearance chargers shall be paid by EFL.

#### 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 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 EFL 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 90 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, EFL 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.

#### 1.14 MANDATORY LODGEMENT OF TENDER

The tender bids can be submitted via hard copies and a soft copy uploaded on tender link.

Hard copy submissions, the tenderer shall prepare hard copies with one original and one copy of the tender proposal, clearly marking each one as: "ORIGINAL - TENDER PROPOSAL", "COPY NO. 1 – TENDER PROPOSAL", etc. as appropriate. In the event of discrepancy between the original and any copy, the original shall prevail.

The original and all copies of the bid shall be typed and signed by a person or persons duly authorized to sign on behalf of the bidder, as the case may be.

All bids shall be typed. Hand written tender bids will be disqualified.

The bid shall contain no alterations, omissions or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialled by the person or persons signing the bid.

The bidder shall seal the original bids and each copy of the bids in an inner and an outer envelope, duly marking the envelopes as "ORIGINAL" and "COPY".

a) be addressed to the Employer at the following address:

The Secretary Tender Committee 2 Marlow Street,

Suva, FIJI.

Email: JReddy@efl.com.fj

bear the following identification:

Bid for: Supply of <u>Multicore 110V DC Control Cables and AC Cables for 33kV/11kV transformer</u> installation works at Suva Substation and Wailekutu Substation

Bid Tender Number: MR 55/2021

DO NOT OPEN BEFORE 1600hrs Wednesday, 24th March, 2021

It is mandatory for the Bidders to include the following at the reverse of the envelope:

Company name

Address

Unmarked envelopes without bidders name and address on the reverse shall be returned to the bidder.

#### 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, 24<sup>th</sup> March, 2021

The Employer may, at its discretion, extend the deadline for submission of bids by issuing an addendum in accordance with Clause 1.12, 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 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 EFL's requirements.

#### 1.18 ADJUSTMENT OF ERRORS

EFL 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

EFL shall not be bound to accept the lowest bid or 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. 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 e-mailed.

#### 1.20 LANGUAGE OF TENDER

All Tenders together with any documents submitted by the Tenderer as part of any Tender shall be typed in the English language. **Hand written tender submissions will be disqualified.** 

#### 1.21 PAYMENT SCHEDULE

The contract shall be on a lump sum fixed price basis. 100% of the payment will be made upon receipt of goods by EFL in Fiji.

## 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:

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

# 2 SCOPE

The scope of this tender is to supply, pack and ship (DDU to EFL Kinoya Deport) the following cables:

# 2.1 SUPPLY OF UNARMORED DC CONTROL CABLE (WAILEKUTU AND SUVA SUBSTATIONS)

The contractor shall supply the following quantity of unarmored DC cables with the following sizes.

Cable Description	Cable Size	No. of Cores	Voltage rating	Operational Voltage	Cable length for Wailekutu SS (meters)	Cable length for Suva SS (meters)
	2.5 mm <sup>2</sup>	4	0.6/1kV	110V DC	2000	2000
Unarmoure	2.5 mm <sup>2</sup>	8	0.6/1kV	110V DC	2000	2000
d DC Cable	2.5 mm <sup>2</sup>	12	0.6/1kV	110V DC	2000	2000
	2.5 mm <sup>2</sup>	20	0.6/1kV	110V DC	1000	1000

# 2.2 SUPPLY OF UNARMORED AC POWER CABLE (WAILEKUTU AND SUVA SUBSTATIONS)

The contractor shall supply the following quantity of unarmored AC cables with the following sizes. Please note, for "2 + E", there shall be two cores of copper wire plus a core of earth wire separately. Same for "3 + E", there shall be three cores of copper wire plus a core of earth wire separately. Similarly for "4 + E", there shall be four cores of copper wire plus a core of earth wire separately.

Cable Description	Cable Size	No. of Cores	Voltage rating	Operational Voltage	Cable length for Wailekutu SS (m)	Cable length for Suva SS(m)
Unarmoured	2.5 mm <sup>2</sup>	4 + E	450/750V	240/415V	1000	1000
AC Cable	4.0 mm <sup>2</sup>	4 + E	450/750V	240/415V	1000	1000

## Please note:

The supply of all cables to come in 1000 meters reel in steel drums.

# 3 SPECIFICATIONS

# 3.1 CLIMATIC CONDITIONS

The Service Conditions applicable in Fiji Islands, at the location of substation site are given below:

Height above sea level	Not exceeding 1000m		
Atmosphere	Saliferous, corrosive and dusty		
Ambient temperature	Peak: 40°C		
	24 hour average : 35°C		
	Annual average: 30°C		
	Minimum: 10°C		
Relativity Humidity (Average)	85%		
Rainfall	Annual Average: 1900mm		
Wind speed	Sustained: 55m/s		
	Gusts : 70 – 110m/s		
Isokeraunic level	60 thunder days per year		
Seismic	To a maximum of 7 on the open-ended Richter Scale		

**Note:** Fiji is situated in a region where cyclones are experienced frequently. All plant and equipment shall be designed and constructed to withstand these extreme conditions. Cables will be installed in cable trances and conduits and be exposed to weathering conditions as stated above.

All plant and equipment shall be rust proof, vermin proof and weather proof and designed to be suitable for a damp, tropical climate, which may be experienced simultaneously.

# 3.2 DC CABLES

The bidder shall comply with the following specifications of the DC Cables. This is for unarmored cables.

		2.5	2.5	2.5	2.5	
	C	Cable Size	mm²	mm²	mm <sup>2</sup>	mm²
	No	4	8	12	20	
Unarmored DC		Core Coloring	Yes	-	-	1
Cable		Core Numbering	Yes	Yes	mm² 12 - Yes PVC	Yes
Cable	Construction	Outer Sheath	PVC	PVC		PVC
	Characteristics	Insulation	V-90	V-90		V-90
		Number of Earth	1	1	1	1
		Cores				1

All the DC cables shall comply with AS/NZS 1125 and AS/NZS 5000.1 standard. All the standard applicable to the above items shall be clearly showed in the bidding document.

All DC cables, Unarmored, shall have one core of earth wire with yellow and green color code.

For the above table, bidders shall clearly show if all the required specifications are complied

For the below table, bidders shall fill in the data for each required specifications for each size of the cables.

		Cable Size	2.5 mm²			
		No. of Cores	4	8	12	20
		Core Numbering				
		Outer Sheath				mm² mm²
		Insulation				
		Number of Earth Cores				
Unarmored	Dimensional	Nominal Overall Diameter			mm² mm²	
DC Cable	Characteristics	Approximate weight				
		Inductive reactance at 50Hz			mm² mm²	
	et a dad	Max. DC resistance of the conductor at 20 degrees				
	Electrical Characteristics	Conductor AC resistance at 50Hz				
		Insulation resistance at 20 degrees				
		Rated Voltage (Um)				

# 3.3 AC Cables

The bidder shall comply with the following specifications of the AC Cables. This is for unarmored cables.

	C	Cable Size	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>			
	No	o. of Cores	4	<b>4</b> Aluminum			
Unarmara		Conductor Material	Aluminum	um Aluminum Yes			
Unarmore d AC Cable	Construction	With Red, White, Blue,	Yes				
u AC Cable	Construction Characteristics	Black core	res	163			
	Characteristics	Outer Sheath	PVC	PVC			
		Number of Earth Cores	1	1			

All the AC cables shall comply with AS/NZS 1125 with PVC sheathed to AS/NZS 5000.1 standard. All the standard applicable to the above items shall be clearly showed in the bidding document.

All AC cables, Unarmored, shall have one core of earth wire with yellow and green color code.

For the above table, bidders shall clearly show if all the required specifications are compiled or not.

For the below table, bidders shall fill in the data for each required specifications for each size of the cables.

		Cable Size	2.5 mm <sup>2</sup>	4 mm <sup>2</sup>
		No. of Cores	4	4
		Conductor Material		
		Core Coloring		
	Construction Core Numbering			
	Characteristics	Outer Sheath		
		Insulation		
		Number of Earth Cores		
		Nominal insulation thickness		
		Nominal outer sheath		
Unarmored AC	Dimensional	thickness		
Cable	Cable Characteristics Earth conductor cross section Nominal Overall Diameter	Earth conductor cross section		
		Approximate weight		
		Inductive reactance at 50Hz		
		Max. DC resistance of the		
		conductor at 20 degrees		
	Electrical	Conductor AC resistance at		
	Characteristics	50Hz		
		Insulation resistance at 20		
		degrees		
		Rated Voltage (Um)		

# 4 Financial

The bidders shall fill the details in the below table for the financial information of the required scope of work. Items are to be delivered to EFL Kinoya Depot excluding devanning cost.

Cable Description	Locations	Cable Size	Number of Cores	Cable length (metres)	Price (VIP FJD for local company or DDU to Kinoya Depot for overseas company)
		2.5 mm²	4	2000	
	Wailekutu	2.5 mm <sup>2</sup>	8	2000	
	Substation	2.5 mm²	12	2000	
Unarmored		2.5 mm²	20	1000	
DC Cable		2.5 mm <sup>2</sup>	4	2000	
	Suva	2.5 mm <sup>2</sup>	8	2000	
	Substation	2.5 mm²	12	2000	
		2.5 mm <sup>2</sup>	20	1000	
	Wailekutu	2.5 mm <sup>2</sup>	4 + E	1000	
Unarmored	Substation	4 mm <sup>2</sup>	4 + E	1000	
AC Cable	Suva	2.5 mm <sup>2</sup>	4 + E	1000	
	Substation	4 mm <sup>2</sup>	4 + E	1000	
	Tot	tal Cable C	ost		

# Please note:

The supply of all cables to come in 1000 meters reel in steel drums.

# **General Information**

1	Name and Address of the	Bidder:		
2	Contacts:			
3	Telephones:			
4	E-Mail:			
5	Mobile No:			
6	Name of Chief Executive	Office		
7	Sales Tax/Commercial Tax	x/CST nos.		
8	Service Tax No.			
9	Income Tax No.			
	of Authorized Person nature of the Bidder			
,	Company Stamp			
	Date			

Please note, all the required tables shall be filled in order for thorough evaluation purpose. Failure to do so may result in disqualification of the bid.

# 5 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.

# 6 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 following standards (or the current revision of it) shall apply to this tender, but not limited to:

AS/NZS 1125:2001	Conductors in insulated electric cables and flexible cords
AS/NZS 5000.1	Polymeric insulated For working voltages up to and including 0.6/1 (1.2) kV
ISO 9001 Certification	Certification of manufacture and that of raw material supplier

This standard must be specified in the submission.

## 7 PACKING

Cables 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. The supply of all cables to come in 1000 meters reel in steel drums.

# 8 WARRANTY

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

## 9 EVALUATION CRITERION

The evaluation shall be based on all the data bidders provide in the above given tables and the data given regarding the product itself.

# **TENDER SUBMISSION CHECK LIST**

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

Tender Number	
Tender Name	
<ol> <li>Full Company Name:</li></ol>	ertificate)
<ol> <li>Postal Address:</li></ol>	egistration Certificate - Local Bidders Only
<ol><li>Company Registration Number</li><li>(Attach copy of the Busines)</li></ol>	er: s License)
10. FNPF Employer Registration N (For Local Bidders only)	Number:
11. Contact Person: I declare that all the above inform	
correct.	
Name:	
Position:	
Sign:	Date:

# 10 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 (1600hrs Fiji Time) Wednesday 24<sup>th</sup> March, 2021.

To register your interest and tender a response, view 'Current Tenders' at: <a href="https://www.tenderlink.com/efl">https://www.tenderlink.com/efl</a>

For further information please contact Jitendra Reddy by e-mail JReddy@efl.com.fj

In additional, hard copies of the tender, one original and one copy must be deposited in the tender box located at the EFL Head Office, 2 Marlow Street, Suva, Fiji no later than 1600hrs Wednesday 24<sup>th</sup> March, 2021 - Addressed as

Tender - MR 55/2021 - <u>Supply of Multicore 110V DC Control Cables and AC Cables for Wailekutu Substation & Suva Substation 33kV/11kV Transformer Upgrade Project</u>

The Secretary Tender Committee

**Energy Fiji Limited** 

**Head Office** 

Suva

Fiji

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

Tenders received after closing time 4.00pm (1600hrs Fiji Time) Wednesday 24<sup>th</sup> March, 2021.

- 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.

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

(Tender Submission via email or fax will not be accepted)