



**ENERGY FIJI LIMITED**

**TENDER DOCUMENT**

**MR15/2019**

**Supply of ACSR/GZ CONDUCTOR**

# Table of Contents

Section 1: Instructions to Bidders .....	3
1.0 Scope.....	3
1.1 Product Information.....	3
1.2 Delivery – EFL Navutu and Kinoya Depot.....	3
1.3 Bid Prices .....	3
1.4 Bid Currency.....	3
1.5 Period of Validity of Goods .....	3
1.6 Period of Validity of Goods .....	4
1.7 Other Value Added Services .....	4
1.8 Stock Availability .....	4
1.9 Technical Support .....	4
1.10 Tender Evaluation .....	4
1.11 Product Warranty Period .....	4
1.12 Product Description and Quantity .....	5
1.13 Packing and Drum Detail for Conductors.....	5
Section 2: Tender Specifications .....	6
2.0 Service Conditions.....	6
2.1 SYSTEM DETAILS.....	6
2.2 ACSR CONDUCTORS .....	6
<b>2.2.1 Scope</b> .....	6
<b>2.2.2 Reference Standards</b> .....	6
<b>2.2.3 Construction and Technical Details for Aluminium Conductor Steel Reinforced (ACSR) Conductors</b> ...	1

# Section 1: Instructions to Bidders

## 1.0 Scope

The Energy Fiji Limited (EFL) invites sealed tender, for the supply of ACSR/GZ Conductor for Overhead 132kV Transmission Line from suitable suppliers and manufacturers.

## 1.1 Product Information

The supplier should be a manufacturer, authorized distributor or reseller of the products.

The vendor shall submit names / contacts of utilities or projects where they have previously supplied ACSR/GZ Conductors.

All relevant type test reports and routine test reports, product compliance certificates and product specification / drawings are required to be supplied in the bid as a part of their proposal.

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

1. Manufacturer's / Vendor's warranty on the conductors.
2. Relevant Test Reports
3. Lead time including transit time
4. Standard compliance certificate
5. Weight of the conductor
6. Previous EFL experience with the Bidder and supplier Delivery in Full on Time in Specification

## 1.2 Delivery – EFL Navutu and Kinoya Depot

## 1.3 Bid Prices

- The Bidder shall indicate on the appropriate Price Schedule, the Unit Prices and total Bid Price of the offered goods.
- The Bidder's separation of price components will be solely for the purpose of facilitating the comparison of Bids by EFL and shall in no way limit the EFL's right to contract on any terms offered.
- All non – exempt duties, taxes and other levies payable by the contractor under the Contract / Purchase Order, or for any other cause shall be included in the rates, prices and total Bid price submitted by the Bidder.
- The prices shall be submitted for **Sea Freight on CIF Basis** as per 2010 incoterms defined in the 8<sup>th</sup> version published in 2011.
- The port of delivery for the goods shall be the Suva or Lautoka Port in Fiji.

## 1.4 Bid Currency

- The Unit rates and Prices shall be quoted by the Bidder in any reputable currency such as: **FJD, NZD, AUD, USD, EUR, GBP, etc.**

## 1.5 Period of Validity of Goods

- Unless otherwise specified in Section II, bids shall remain valid for a period of 90 days after the deadline for the submission of Bids. A Bid valid for a shorter period shall be rejected by EFL as non-compliant.
- In exceptional circumstances, EFL shall solicit the Bidders' consent to an extension of the period of validity. The request and the responses thereto shall be made in writing.

## 1.6 Period of Validity of Goods

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

<b>General</b>
<b>The registered name of the Bidder:</b>
<b>Business address for correspondence:</b> <i>(Location, Street , Locality City, TIN, Country, Telephone, Facsimile, Email Other)</i>
<b>Contact name of the Authorized Person:</b>
<b>Contact's position:</b> <i>Contact addresses if different from above</i> <i>Locality City, TIN, Location, Street, Country, Telephone, Facsimile, Email, Web address</i>
<b>Business structure:</b>
<b>Include the organization's years of experience in this field and reputation in the market place.</b>
<b>Company Profile:</b>

## 1.7 Other Value Added Services

The bidder is open to include any other information that may add value to services.

## 1.8 Stock Availability

Bidders shall specify the size of stock holding and ability to meet the required quantity.

## 1.9 Technical Support

Bidders may provide any detail or information of what technical support is available to EFL to make better use of the supplier's product.

## 1.10 Tender Evaluation

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

**The successful bidder will enter into a 1 year contract with EFL for the supply of ACSR Conductors.**

**All terms and conditions, and pricing details shall be stipulated in the contract documents.**

## 1.11 Product Warranty Period

The bidder shall provide warranty period of at least 3 years.

### 1.12 Product Description and Quantity

Item	Quantity Required (km)	Price	Lead Time
<b>GRAPE CONDUCTOR – 30/2.5mm All Aluminium plus 7/2.5mm Galvanized Steel Core (ACSR/GZ), greased</b>  <b>Manufactured to AS-3607 Standard</b>	<b>21 km total comprising of</b> <ul style="list-style-type: none"> <li>• 3 x 3 km drums</li> <li>• 6 x 2 km drum</li> </ul>		
<b>LIME CONDUCTOR 30/3.5mm All Aluminium plus 7/3.5mm Galvanized Steel Conductor (ACSR/GZ), greased</b>  <b>Manufactured to AS-3607 Standard</b>	<b>10 km total comprising of</b> <ul style="list-style-type: none"> <li>• 4 x 2.5 km drums</li> </ul>		

### 1.13 Quantity, Packing and Drum Detail for Conductors

The required marking shall be printed with weather-proof material on the outsides of drum according to EFL needs as per details.

Bidders to provide details required below. Based on these details, EFL shall notify the bidder about the size and type of the cable drum required

Conductor Type	Length in Drum (m)	Gross weight (kg) (to be provided)	Drum Type
<b>ACSR/GZ – Grape Conductor</b>	2,000		<b>STEEL DRUMS. Bidder to provide details of Drum Construction in Bid.</b>
	3,000		
<b>ACSR/GZ – Lime Conductor</b>	2,500		

## Section 2: Technical Specifications

### 2.0 Service Conditions

The conductors shall be exposed to the following environmental conditions:

<b>Ambient Temperature Range</b>	10 – 40 Degrees Centigrade
<b>Solar Radiation Level</b>	1100 watts per square meter with high ultraviolet content
<b>Precipitation</b>	An annual rainfall in excess of 500mm. Heavy rainfall experienced during Tropical summer storms with gust winds speeds above 140km/hr
<b>Humidity</b>	Extended periods of relative humidity in excess of 90% R.H.
<b>Atmospheric Conditions</b>	Heavy – Areas of coastal salt spray and industrial pollution with equivalent salt deposit densities in the range of 2.0 – 3.0 g/m <sup>2</sup>

### 2.1 SYSTEM DETAILS

PARAMETERS	SPECIFIED VALUES
Rated Voltage (kV)	76/132
Highest System Voltage (kV)	145
Rated Frequency (Hz)	50
Rated Lightning Impulse (kV)	650

### 2.2 ACSR CONDUCTORS

#### 2.2.1 Scope

This part of the document covers the general requirements for the design, manufacture, testing and supply of **Aluminium Conductor Steel Reinforced (ACSR) Conductors** (based on AS 3607) to EFL for stock keep for its overhead transmission and sub transmission power-lines.

Conductor Name	Aluminum Strand no. / diameter of stand (no./mm)	Steel Strand no. / diameter of stand (no./mm)
Grape	30/2.5	7/2.5
Lime	30/3.5	7/3.5

#### 2.2.2 Reference Standards

The following standards documents are to be referred:

Standard	Description
AS/NZS 3607	Bare Overhead – Aluminium and Aluminium Alloy – Steel Reinforced Conductors
ISO 9001	Quality Management Systems
Any other relevant applicable International Standards.	

### 2.2.3 Construction and Technical Details for Aluminium Conductor Steel Reinforced (ACSR) Conductors

Parameter	Grape Conductor	Lime Conductor	Comments on Bidder's Product
Aluminum: Strand no. / diameter of stand (no./mm)	30/2.50	30/3.50	
Steel: Strand no. / diameter of stand (no./mm)	7/2.50	7/3.50	
Nominal Overall diameter (mm)	17.5	24.5	
Cross sectional area (mm <sup>2</sup> )	182	356	
Mass (g/m)	677	1320	
Minimum Breaking Load (kN)	74.4	143	
Modulus of Elasticity (GPa)	80	80	
Coefficient of linear expansion (/ °C x10 <sup>-6</sup> )	19.4	19.4	
DC Resistance at 20°C (Ω/km)	0.203	0.104	
AC Resistance at 50Hz 75°C	0.249	0.128	
Inductive Reactance to 0.3m at 50Hz (Ω/km)	0.235	0.214	

**Note:**

- All routine tests shall be carried out and certified copies of all test results shall be submitted by an independent quality based accredited Test Authority with its company details.
- Bidders to also provide comments in the table given above.

## 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 \_\_\_\_\_

1. Full Company 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)**

9. Company Registration Number: \_\_\_\_\_

**(Attach copy of the Business License)**

10. FNPF Employer Registration Number: \_\_\_\_\_

**(For Local Bidders only)**

11. Contact Person: \_\_\_\_\_

I declare that all the above information is

correct. Name: \_\_\_\_\_

Position: \_\_\_\_\_

Sign: \_\_\_\_\_ 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 **1600hrs, Wednesday, 30<sup>th</sup> January, 2019.**

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

For further information contact The Secretary Tender Committee, by e-mail  
[TDelairewa@efl.com.fj](mailto:TDelairewa@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 new time and date to be inserted - Addressed as

**Tender - MR 15/2019 - Supply of ACSR/GZ Conductor**

**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 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 30<sup>th</sup> January, 2019.**

- 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.**