



Energy Fiji Limited

TENDER DOCUMENT AND SPECIFICATION

TENDER NUMBER: MR 57/2021

**TENDER NAME: Specialist Consultancy Services for ongoing 132kV
Transmission Lines Maintenance and Refurbishment Works**

TENDER CLOSING DATE: Wednesday 24th March 2021
TENDER CLOSING TIME: 4:00pm (16:00hrs) Fiji Time (UTC +12:00hrs)

1 Instructions to Bidders

1.	Scope of Bid	The Energy Fiji Limited (hereinafter referred to as "the Client"), wishes to receive bids for <i>Specialist Consultancy Services for ongoing 132kV Transmission Lines Maintenance and Refurbishment Works</i> , as specified in these bidding documents.
2.	Eligible Bidders	<p>This Invitation to Bid is open to bidders who have sound technical and financial background and have relevant past experience. Consulting firms with relevant proven experience in transmission line engineering, maintenance and refurbishment are encouraged to bid.</p> <p>Bidders with relevant technical expertise and demonstrated experience in the Power Transmission Industry with a firm understanding of technical compliance requirements of relevant AS/NZS, IEC, IEEE, and ANSI standards as and where applicable to Transmission Lines at the 132kV or higher system voltage level shall be preferred.</p> <p>Bidders shall provide such evidence of their eligibility satisfactory to the Client as the Client may reasonably request.</p> <p>Bidders shall not be under a declaration of ineligibility for corrupt or fraudulent practices.</p>
3.	Qualification of the Bidder	<p>To be qualified for award of Contract, bidders shall submit proposals in sufficient detail to confirm the bidder's in-house capability and competence to execute the works and fulfil the contract.</p> <p>Bidders shall submit a detailed project plan, outlining the key activities and the critical path for the completion of the project.</p> <p>Bidders shall submit Curriculum Vitae or Résumés of all key personnel to be engaged in the execution of the scope of works and ISO certification.</p>
4.	Cost of Bidding	The bidder shall bear all costs associated with the preparation and submission of its bid and the Client will in no case be responsible or liable for those costs.
5.	Submission of Bids	<p>Bidders are required to submit only Electronic copies of the Bid in the electronic tender box.</p> <p><u>Tender Submission - Instruction to bidders: Electronic Submission of Bids</u></p> <p>It is mandatory for Bidders to upload an electronic submission their bid in the TENDER LINK Electronic Tender Box no later than the Deadline for the Submission of Bids</p> <p>To register your interest and tender a response, view 'Current Tenders' at: https://www.tenderlink.com/efl</p> <p>For further information contact The Secretary Tender Committee, by e-mail JReddy@efl.com.fj</p> <p>Tenders received after the closing date shall not be considered.</p>

		Lowest bid will not necessarily be accepted as successful bid.
6.	Withholding Tax	<p>For Companies Registered in Fiji</p> <ul style="list-style-type: none"> · Companies must comply with the Fiji Income Tax and the Value added tax regulation. · Provision of valid Tax Compliance Certificate. · Provision of valid FNPF Compliance Certificate. · Provision of insurance policies – Public Liability · EFL will deduct 5% from supplier payment and remit to FRCS as provisional Tax under new tax administration decree. <p>For Companies Registered Offshore</p> <ul style="list-style-type: none"> · A Withholding Tax (“WHT”) of 15% will be deducted by the employer on the service component before making the payment to the contractor. The employer (EFL) will provide to the Contractor a WHT deduction certificate for any WHT deducted by the Employer, where applicable.
7.	Deadline For Submission of Bids	<p>Bids must be received by the Client before 4:00pm Fiji Time (UTC +12), on Wednesday 24th March 2021.</p> <p>The Client may, at its sole discretion, extend the deadline for submission of bids by issuing an addendum, in which case all rights and obligations of the Client and the bidders previously subject to the original deadline will thereafter be subject to the deadlines extended.</p>
8.	Late Bids	Any bid received by the Client after the deadline shall not be accepted.
9.	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 Client prior to the deadline for submission of bids. A withdrawal notice may also be sent by fax but must be followed by a signed confirmation copy. No bid may be modified by the bidder after the deadline for submission of bids.
10.	Client's Right to Accept any Bid and to Reject any or all Bids	The Client 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 Client's action.
11.	Notification of Award	<p>Prior to expiration of the period of bid validity prescribed by the Client, the Client will notify the successful bidder by fax/email, confirmed by registered letter, that its bid has been accepted. This letter (hereinafter and in the Conditions of Contract called the "Letter of Award") shall name the sum which the Client will pay the Bidder in consideration of the execution, completion and maintenance of the Works by the Bidder as prescribed by the Contract (hereinafter and in the Conditions of Contract called "the Contract Price"). The notification of award will constitute the formation of the Contract.</p> <p>The Client will promptly notify the other bidders that their bids have been unsuccessful.</p>
12.	Corrupt or	The Client requires that the Bidder observe the highest standard of ethics during the

	Fraudulent Practices	<p>procurement and execution of such contracts. In Pursuance of this policy, the Client:</p> <p>(a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <ul style="list-style-type: none">(i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and(ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Client, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Client of the benefits of free and open competition; <p>(b) will reject a proposal for tender award if it is determined that the bidder has engaged in corrupt or fraudulent practices in competing for the contract in question.</p>
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2 Scope of Services

2.1 Purpose

The Energy Fiji Limited (EFL) is a limited liability company, which is solely responsible for generating, transmitting, distributing and retailing electricity in the Republic of Fiji Islands.

The EFL has undertaken major refurbishment works on its aged Transmission Lines which include the following:

- Rust Treatment and refurbishment of 132kV Transmission Lines' Lattice Steel Towers which includes:
 - Re-torquing of all existing bolts, and replacement of degraded bolts as and where required
 - Steel member replacement (both major and minor structural members)
 - Wet abrasive blasting
 - Application of protective coatings
 - Replacement of tower signage
 - Replacement of anti-climb devices
 - Remediation works on rusted foundations
 - Review and remediation works for tower earthing
 - Review and remediation works for lightning protection
- Replacement of insulators and line hardware on 132kV and 33kV Transmission Lines
- Replacement of earth wire with OPGW on 33kV Transmission Lines
- Replacement of wooden poles and cross-arms on 33kV Transmission Lines
- Identification and mitigation of landslide risks on 132kV and 33kV Transmission Lines
- Upgrade of access roads to 132kV Transmission Towers and 33kV Poles
- Helicopter patrolling of 132kV Transmission Lines to carry out
 - Corona Scanning
 - Thermal Imaging
 - Visual Recording
- Any other remedial works and repairs or maintenance required to ensure security and reliability of power supply

2.2 Scope of Services

The EFL intends to appoint a suitable and experienced consultant to deliver the following specialist services for a duration of 3 years. The scope of work includes but is not limited to the services listed below. The appointed Consultant will be required to provide the necessary resources, such as test equipment, expertise, and manpower from within their organisation to be able to fulfil the following functions:

2.2.1 Engineer to Contract, Project Management and Quality Assurance for Ongoing Rust treatment and refurbishment works

The EFL has recently called tender, namely, *MR 57/2021 - Refurbishment of 132kV Transmission Line Towers*.

It is anticipated that the refurbishment works within the scope of *MR57/2021* shall commence once the COVID-19 travel restriction is uplifted between Fiji and New Zealand. The EFL requires a suitable consultant to perform the following services:

- Provide a suitably competent and qualified engineer to fulfil the role of **Engineer to Contract**
 - Approval of Project Plan and Procedures
 - Approval of Contract Programme
 - Verification and approval of necessary procedures proposed by the successful contractor
 - Peer Review / Verification and approval of major steel member replacement procedures and calculations proposed contractor's engineer
 - Conducting monthly meetings with contractor and client
 - Preparation and Submission of Weekly and Monthly and reports documenting Project Progress
 - Verification of Contractor's progressive claims and preparing and submitting payment certificates to EFL
 - Any / All other project management and professional duties assigned by the EFL to the consultant engineer to contract.
- Provide suitably competent coating inspectors (minimum NACE Level I qualified) to carry out necessary hold point and witness point inspections to ensure compliance of project works with specifications so that the quality and durability of the refurbishment works is ensured. The coating inspectors would be required to perform inspections on a daily and an ongoing basis, to ensure quality control in the following areas (on all of the towers):
 - Confirmation / Identification of replacement criteria bolts to be replaced
 - Confirmation / Identification of replacement criteria steel members to be replaced
 - Verification of purity of water being used for high pressure water blasting
 - Verification of Surface preparation to specifications including:
 - Primary Preparation through High Pressure Water Blasting and Cleaning of Tower Steel to specification (full blasting)
 - Secondary Preparation through High Pressure Wet Abrasive Blasting and Sweep blasting of Tower Steel to specification
 - Wash-down prior to application of painted protective coatings
 - Verification of selective priming of Secondary Preparation areas
 - Verification of undercoat painting of entire tower
 - Verification of finish coat painting of entire tower
 - Final inspections to ensure satisfactory practical completion of works on each tower

- Verification of all Non-conformances
 - Verification of Contractor's care of insulators and non-contamination by the applied protective coatings
 - Verification of Contractors, care of insulators, line hardware and fittings and non-damage by over-blast
 - Inspections upon project completion to establish defect liability remedial works within the defect notification period
 - Inspections upon completion of defect liability remedial works
 - Any / All other professional duties to be performed as required by the specifications of the rust treatment and refurbishment contract or any relevant duties assigned by the EFL.
- Other duties to be carried out by the coating inspector or a suitably competent technician includes:
 - Verification of the contractor's site activities and ensuring compliance to specifications and approved procedures
 - Verification of the contractor's records of environmental conditions, such as Relative Humidity, Dew Point, Wind, Rain, Temperature, Surface Temperature of Steel, etc to ensure compliance to the specifications
 - Verification of the contractor's paint storage, handling and thinning processes.
 - Verification of the contractor's testing for Soluble Salts on steel surfaces immediately prior to the application of any coatings
 - Verification of the contractor's records of water (conductivity) test results
 - Any / All other professional duties to be performed as required by the specifications of the rust treatment and refurbishment contract or any relevant duties assigned by the EFL.

2.2.2 Condition Assessment of 132kV Transmission Lines and Structures

The EFL requires the Consultant to carry out **Detailed Condition Assessment** of 132kV Transmission Lines and associated Transmission Tower Structures, namely:

1. **132kV Wailoa - Cunningham Transmission Line** which links the Wailoa Switchyard and the Cunningham Road Switchyard and covers a distance of approximately 61.82 km, which is traversed through 164 Transmission Towers of the Lattice Steel Tower type. Out of 164, condition assessment of 51 towers is complete.
2. **132kV Wailoa - Nadarivatu -Transmission Line** which links the Wailoa Switchyard and the Vuda Switchyard and covers a distance of approximately 78.24 km, which is traversed through 199 Transmission Towers of the Lattice Steel Tower type.
3. **132kV Wailoa Power Station - Wailoa Switchyard Tie Line 1** which links the Wailoa Power Station Switchyard and the Wailoa Switchyard and covers a distance of approximately 0.510 km, which is traversed through 2 Transmission Towers of the Lattice Steel Tower type.
4. **132kV Wailoa Power Station – Wailoa Switchyard Tie Line 2** which links the Wailoa Power Station Switchyard and the Wailoa Switchyard and covers a distance of approximately 0.504 km, which is traversed through 2 Transmission Towers of the Lattice Steel Tower type.
5. **132kV Nadarivatu Power Station – Nadarivatu Switchyard Double Circuit Tie Line** which links the Nadarivatu Power Station and the Nadarivatu Switchyard and covers a distance of approximately 4.87 km which is traversed through 16 Transmission Towers of the Lattice Steel Tower type.

The consultant is required to engage competent personnel to carry out necessary inspections, tests and condition assessment and establish any/all workscope which is required to be executed to remedy any/all defects identified.

The condition assessment shall include but not be limited to:

1. Assessment of any towers site remediation works required, which may be practically envisaged through visual inspections. The consultant shall report on any works required to ensure site stability from emerging threats due to foundation movement, soil erosion, drainage deficiencies, etc.
2. Visual assessment of landslide risks associated with all towers being inspected.
3. Corrosion assessment of all grillage foundations to an excavated depth of upto 900mm below the ground level, as and where required.
4. Condition assessment of tower earthing and measurement of electrical resistance from the tower steel to earth using a suitable method such as the remote earth method, as and where required.
5. Condition assessment of connection of the OPGW to the Transmission Tower and any defects present on the OPGW Line hardware and relevant attachment points on the tower's earth peak. Measurement and reporting of the bonding resistance of the OPGW to the tower's earth peak is required.
6. Condition assessment Earthing Resistance of the Tower Steel to ground. Measurement and reporting of the earthing resistance of the tower steel to earth is required using suitable method.

7. Visually inspect the external Condition of OPGW Splicing Junction Boxes and the mounting of the junction boxes to the Transmission Tower. The inspection shall include measurement of electrical resistance across the loop in and loop out of the OPGW from the splicing junction box to establish any requirements for additional cross-bonding leads external to the junction box to ensure the required electrical continuity and conductance in the event of lightning strikes.
8. Condition of all strain plates, suspension plates, hanger brackets, through bolts, holding bolts, etc which secure the line to the tower.
9. Assessment and identification of structural bolts & nuts and step bolts to be replaced. All replacement criteria bolts, are to be physically marked by suitable means such as red paint which is durable in nature. The consultant shall provide reports with approximate numbers and sizes of the bolts requiring replacement.
10. Condition of all steel members present on the tower and any replacement criteria steel members, which are to be physically marked by suitable means such as red coloured adhesive tape or red paint (either of which are durable in nature). The consultant is required to highlight and indicate the locations of the replacement criteria members on the relevant tower drawings.
11. Condition Assessment of all insulators, corona rings, vibrational dampers, sag-links, turn-buckles, Shackles, link plates, arcing horns, armour rods, suspension baskets, dead-ends, jumpers, line hardware, and their associated fittings, fasteners, bolts, connectors and couplings. The consultant shall submit detailed reports with photos, life expectancy of various existing components and the live-line maintenance workscope required to replace insulators, line hardware, and fittings on each tower.
12. Condition of the anti-climb fence and tower signage, and report any remedial action required.
13. Condition assessment of any/all other items deemed necessary.

Thereafter the consultant is required to submit detailed inspection reports for each tower inspected within 5 working days.

The reports shall include necessary photographs of the inspections carried out. The consultant is required to submit electronic folders for each tower which shall contain the original photographs.

The consultant is required to separately report defect rectification workscope which can be issued as a job-card to EFL's Live-Line Teams to carry out R&M works.

Note: This will be an addition works apart from Engineer to Contract for ongoing Tower Refurbishment Works.

2.2.3 Other Services

The consultant is required to provide expertise and services on an ongoing basis for the asset management of Transmission Lines. The consultant would be required to carry out additional tasks and provide the necessary reports and deliverables: **Provide expertise for ongoing Rust Treatment and Refurbishment works**, entailing:

- a. Painting Assessment reports of towers for the next phases
- b. Develop tender documents and specifications for advertising tenders
- c. Technical Evaluation of Tenders and Tender Evaluation Reports
- d. Engineer to Contract Services
- e. Project Management Services
- f. Quality Assurance Inspections
- g. Payment Certificates
- h. Other services as deemed necessary

3 Schedule of Fees and Rates

The bidder is required to submit a detailed schedule of fees for various personnel, and rates for equipment, flights, accommodation, rentals, and other chargeable expenses which can be envisaged with delivering the Scope of Services.

TABLE 1 - FEES

Project Title (suggested)	Position Name (suggested)	Available hours (per year)	Hourly Rate [Currency]
Account Director	Principal Consultant		
Relationship Manager	Senior Consultant		
Design Engineer	Principal Consultant		
Lines Engineer	Principal Consultant		
Lines Engineer	Senior Consultant		
Corrosion Engineer	Principal Consultant		
Corrosion Engineer	Senior Consultant		
Lines CA specialist	Consultant		
Corrosion specialist	Consultant		
Other Titles	Other Positions		
Other Titles	Other Positions		
Other Titles	Other Positions		
Other Titles	Other Positions		
Other Titles	Other Positions		

Note: It is mandatory for bidders to follow the below guidelines.

For Companies Registered in Fiji

- Companies must comply with the Fiji Income Tax and the Value added tax regulation
- Provision of valid Tax Compliance Certificate.
- Provision of valid FNPF Compliance Certificate.
- Provision of insurance policies – Public Liability
- EFL will deduct 5% from supplier payment and remit to FRCS as provisional Tax under new tax administration decree.

For Companies Registered Offshore

- A Withholding Tax (“WHT”) of 15% will be deducted by the employer before making the payment to the contractor. The employer (EFL) will provide to the Contractor a WHT deduction certificate for any WHT deducted by the Employer, where applicable.

3.1 Payment Terms

The terms of payments are to be as listed below:

1. Payment shall be made in full within 30 days of receipt of invoice and upon successful completion of works. All reports shall be submitted prior to invoicing.
2. Bidders proposing alternative payment methods like advance payments will be required to submit a bank grantee of the same amount to EFL.

4 Schedule of Project Estimates

The bidder is required to submit a detailed schedule of Project Estimates for the scope of Services listed herein this document.

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 _____

□ 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 4.00pm (1600hrs Fiji Time) Wednesday 24th March, 2021.

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

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 Wednesday 1600hrs 24th March, 2021 - Addressed as

Tender - MR 57/2021 - Specialist Consultancy Services for ongoing 132kV Transmission Lines Maintenance and Refurbishment Works

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 4.00pm (1600hrs Fiji Time) Wednesday 24th 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)