



# **FIJI ELECTRICITY AUTHORITY**

## **TENDER DOCUMENT**

**TENDER NUMBER: MR170/2017**

**TENDER NAME: Engineering and Technical Services to Transmission Unit**

## Section 1: Instructions for Bidding

1.	<b>Scope of Bid</b>	The Fiji Electricity Authority (hereinafter referred to as "the Employer"), wishes to receive bids for Engineering and Technical Services to facilitate the necessary expertise to the Transmission Unit for the replacement of Four (4) 132kV Transmission Line Lattice Steel Towers. The Scope, Purpose, Programme and Completion Date for the Services are detailed in Section 2 of this document.
2.	<b>Eligible Bidders</b>	<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 transmission line engineering and proven technical expertise 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 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 Employer as the Employer may reasonably request.</p> <p>Bidders shall not be under a declaration of ineligibility for corrupt or fraudulent practices.</p>
3.	<b>Qualification of the Bidder</b>	<p>To be qualified for award of Contract, bidders shall submit detailed proposals outlining their capability and experience to demonstrate their competence in executing the scope of work.</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</p>
4.	<b>Cost of Bidding</b>	The bidder shall bear all costs associated with the preparation and submission of its bid and the Employer will in no case be responsible or liable for those costs.
5.	<b>Sealing, Marking and Submission of Bids</b>	<p><b>Bidders are required to submit only Electronic copies of the Bid in the electronic tender box.</b></p> <p><b><u>Tender Submission - Instruction to bidders: Electronic Submission of Bids</u></b></p> <p>It is mandatory for Bidders to upload an electronic submission their bid in the <b>TENDER LINK</b> 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:  <a href="https://www.tenderlink.com/fea">https://www.tenderlink.com/fea</a></p> <p>For further information contact The Secretary Tender Committee, by e-mail  <a href="mailto:TDelairewa@fea.com.fj">TDelairewa@fea.com.fj</a></p> <p>Tenders received after the closing date shall not be considered.</p> <p>Lowest bid will not necessarily be accepted as successful bid.</p>
6.	<b>Site Visit</b>	<p>Bidder's are encouraged to participate in a site visit if they deem necessary for a better understanding of the project works. The optional site visit shall be conducted at the Bidder's request on Friday 21<sup>st</sup> July, 2017. Bidders who opt to participate in the optional site visit shall notify the Secretary Tender Committee via email:  <a href="mailto:TDelairewa@fea.com.fj">TDelairewa@fea.com.fj</a></p>

7.	<b>Deadline for Submission of Bids</b>	<p>Bids must be received by the Employer before <b>4:00pm Fiji Time (UTC +12), on Wednesday 26<sup>th</sup> of July, 2017.</b></p> <p>The Employer 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 Employer and the bidders previously subject to the original deadline will thereafter be subject to the deadlines extended.</p>
8.	<b>Late Bids</b>	Any bid received by the Employer after the deadline shall not be accepted.
9.	<b>Modification and Withdrawal of Bids</b>	The bidder may modify or withdraw its bid after bid submission, provided that written notice of the modification or withdrawal is received by the Employer 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.	<b>Employer's Right to Accept any Bid and to Reject any or all Bids</b>	The Employer 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 Employer's action.
11.	<b>Notification of Award</b>	<p>Prior to expiration of the period of bid validity prescribed by the Employer, the Employer 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 Employer 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 Employer will promptly notify the other bidders that their bids have been unsuccessful.</p>
12.	<b>Corrupt or Fraudulent Practices</b>	<p>The Employer requires that the Bidder observe the highest standard of ethics during the procurement and execution of such contracts. In Pursuance of this policy, the Employer:</p> <p>(a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <p>(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</p> <p>(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 Employer, 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 Employer of the benefits of free and open competition;</p> <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>

## Section 2: The Purpose, Scope, Programme and Completion Date for the Services.

### 2.1 Purpose

The Fiji Electricity Authority (FEA) is a statutory entity solely responsible for generating, transmitting and retailing electricity in the Republic of Fiji Islands.

The FEA requires the replacement of four (4) transmission line structures of the bolted lattice steel type on its existing 132,000 Volt Transmission Lines. FEA has completed the line design and the foundation design for the replacement structures through LineTech Consulting, New Zealand. One (1) structure requires the construction of new foundation and three (3) structures shall be replaced on existing foundations.

FEA had called a tender in October, 2016 for the works. This Tender (MR110/2016 - Replacement of 132kV Transmission Line Lattice Steel Towers) can be downloaded from the following URL: <http://www.fea.com.fj/local-tender/mr-1102016-replacement-of-132kv-transmission-line-lattice-steel-towers/> Further details can be obtained from the above URL.

Upon evaluation of the proposals received, FEA has decided to execute the project in-house under the guidance of competent a consultant with the relevant expertise and experience.

### 2.2 Scope

FEA would like to engage a consultant engineer to provide the relevant expertise and deliver the following services:

1. Optionally, peer review the Line Design completed by FEA through LineTech Consulting, New Zealand.
2. Prepare an exhaustive Bill of Quantities (BOQ) and establish the material procurement requirements.
3. Provide technical expertise to FEA for the procurement of quality Tower Steel from reputable manufacturers:
  - a. **Prepare Tender Document and Specifications** for the supply of Tower Steel in compliance with the following standards: AS/NZS 4711; AS/NZS 1554; AS 1544.2; AS/NZS 1559; AS/NZS 3678; AS/NZS 3679; AS/NZS 4680; NZS 3404; ASTM 143. FEA shall advertise and manage the tender process through its electronic tender box via [www.tenderlink.com](http://www.tenderlink.com)
  - b. Carry out Technical Evaluation of Bids and establish technical compliance.
    - i. Carry out structural analysis of the load trees submitted by tower fabricators, including the verification of PLSCADD models for the structures.
    - ii. Establish the manufacturing experience and reputation of Bidders (Tower Fabricators / Suppliers)
    - iii. Determine the capability of fabricators and the ability of bidders to ensure quality compliance through the necessary manufacturing processes.
    - iv. Prepare tender evaluation report and recommendations for award.
  - c. Draft contract for the supply of tower steel.
  - d. Carry out factory acceptance testing.
4. Provide technical expertise to FEA for the procurement of conductor and line hardware from reputable manufacturers:
  - a. **Prepare Tender Document and Specifications** for the supply of ACSR Grape Conductor, and line hardware items such as Compression Dead-ends, Bow-Shackles, Link Plate, Sag Link, Arcing Horn, Insulators, etc. FEA shall advertise and manage the tender process through its electronic tender box via [www.tenderlink.com](http://www.tenderlink.com).
  - b. Carry out Technical Evaluation of Bids and establish technical compliance.
    - i. Establish the manufacturing experience and reputation of Bidders.
    - ii. Establish compliance of products with relevant standards.
    - iii. Prepare tender evaluation report and recommendations for award.
  - c. Draft contract for the supply of materials.
  - d. Carry out factory acceptance testing (if required).

5. Identify tools and equipment requirements to ensure that the Construction and Cutover Works are done in a professional and efficient manner by in-house FEA staff.
  - a. Establish tools and equipment requirements for the execution of the project such as: Winches; Puller-Tensioner Units; Conductor Rollers; Conductor Drum Stands; Working Platforms / Gondola; Standing Derrick - Gin Pole; Guy Boom Derrick; Hydraulic Compression Press, etc.
  - b. **Prepare Tender Document and Specifications** for the supply necessary tools and equipment. FEA shall advertise and manage the tender process through its electronic tender box via [www.tenderlink.com](http://www.tenderlink.com).
  - c. Carry out Technical Evaluation of Bids and establish technical compliance.
    - i. Establish the manufacturing experience and reputation of Bidders.
    - ii. Establish compliance of products with relevant standards.
    - iii. Prepare tender evaluation report and recommendations for award.
  - d. Draft contract for the supply of tools and equipment.
  - e. Carry out factory acceptance testing if required.
6. **Provide technical expertise and supervision for construction and cutover works by FEA Staff**
  - a. Identify various activities and develop work procedures and Safe Work Method Statements (SWMS)
  - b. Provide necessary training and supervision to FEA staff for the key activities, including but not limited to:
    - i. Tower 82 in the Balevuto Area:
      1. Provide training, supervision and QA for Surveying and pegging tower foundations as per line design and tower drawings
      2. Provide training, supervision and QA for Soil/Civil Works
      3. Provide training, supervision and QA for installation of steel reinforcement bars for concrete foundation
      4. Provide training, supervision and QA for Placement and alignment of steel stubs
      5. Provide training, supervision and QA for Concrete works for foundation
      6. Provide training, supervision and QA for Installation of steel members to construct tower using Standing Derrick - Gin Pole or Guy Boom Derrick.
      7. Provide training, supervision and QA for Conductor Stringing and Termination to new tower
    - ii. Towers 1, 12, 14 in the Nadarivatu Area:
      1. Provide training, supervision and QA for the dismantling of existing damaged tower # 14 using Standing Derrick - Gin Pole or Guy Boom Derrick or heavy lifting long boom crane.
      2. Provide training, supervision and QA for drilling and anchoring base-plate to existing concrete foundations.
      3. Provide training, supervision and QA for Installation of steel members to construct tower using Standing Derrick - Gin Pole or Guy Boom Derrick.
      4. Provide training, supervision and QA for Conductor Stringing and Termination to new towers
7. **Provide weekly, fortnightly, and monthly progress updates and reports**

## 2.3 Programme and Completion Date

Bidders are required to submit a detailed program for the facilitation of services. FEA anticipates that the following timeline is achievable for the execution of the project.

Key Activity	Start Date	Finish Date
Tender MR170/2017 (This Tender) Advertised	15/07/2017	15/07/2017
Optional Site Visit for interested bidders	21/07/2017	21/07/2017
Tender Closes	26/07/2017	26/07/2017
Tender Evaluation, Award Letter, Signing of Contract, Purchase Order	27/07/2017	04/08/2017
Kick-off Meeting between employer and consultant to finalise detailed project program	09/08/2017	09/08/2017
Finalise BOQ and prepare technical specifications for materials, tools and equipment. Submit Tender documents	10/08/2017	31/08/2017
Advertise Tenders	02/09/2017	21/09/2017
Tender Evaluation	22/09/2017	29/09/2017
Award Letter, Signing of Contract, Purchase Order	02/10/2017	06/10/2017
Balevuto Tower 82:	{Bidder to propose}	{Bidder to propose}
Surveying and pegging tower foundations	{Bidder to propose}	{Bidder to propose}
Soil/Civil Works	{Bidder to propose}	{Bidder to propose}
Installation of steel reinforcement bars for concrete foundation	{Bidder to propose}	{Bidder to propose}
Placement and alignment of steel stubs (air-freighted)	{Bidder to propose}	{Bidder to propose}
Installation of steel members to construct tower	{Bidder to propose}	{Bidder to propose}
Conductor stringing and Termination / Cutover to new tower	{Bidder to propose}	{Bidder to propose}
Nadarivatu Towers T1, T12 and T14:	{Bidder to propose}	{Bidder to propose}
Dismantling of existing damaged tower # 14	{Bidder to propose}	{Bidder to propose}
Drilling and anchoring base-plate to existing concrete foundations.	{Bidder to propose}	{Bidder to propose}
Installation of steel members to construct tower	{Bidder to propose}	{Bidder to propose}
Conductor stringing and Termination / Cutover to new tower	{Bidder to propose}	{Bidder to propose}
{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
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{Bidder to propose}	{Bidder to propose}	{Bidder to propose}
Note: preference will be given to bidders with optimum timelines for the project. FEA preference is for the towers to be erected in 2017 with remaining works to be completed within Q1 of 2018.		

## Section 3: Information in Bids

Bids shall include:

1. Company profile and background of bidder
2. Details of relevant past experience, references, etc.
3. A narrative of the proposed method of construction of the Works.
4. An indication of number and type of vehicles, tools, equipment, plant, etc which are required for the execution of work
5. A narrative of the procedures to minimize the time required for works during the de-energised period.
6. A narrative of the procedures prior to the de-energised period to mitigate the risks of unforeseen delays during the de-energised period.
7. List of quality control checks for materials, tools, equipment being purchased
8. List of quality control checks for Workscope execution
9. Competencies records and CV's for key engineering and technical staff to be involved with this project.
10. Details of training, as appropriate for FEA staff to be engaged for this project as well as competency approval procedures
11. Organizational Structure for personnel / experts to be engaged in this project and their key roles and functions.

## Section 4: Contractual Terms of Engagement

The consultant shall be engaged on the latest version of the ***Conditions of Contract for Consultancy Services***, as published by The Association of Consulting Engineers Inc (ACENZ) and The Institution of Professional Engineers New Zealand Inc (IPENZ).

## Section 5: Price / Schedule of Rates

Bids shall complete and submit the following pricing table.

Schedule Rates and Costs						
S.N.	Description	Number	Hourly Rate	Currency	Anticipated Total Hours	Sub-Total
1.	Engineer to the Contract	{???	{???	{???	{???	{???
2.	Civil / Structural Engineer	{???	{???	{???	{???	{???
3.	Electrical Engineer	{???	{???	{???	{???	{???
4.	Draftsman	{???	{???	{???	{???	{???
5.	Surveyor	{???	{???	{???	{???	{???
6.	Site Supervisor	{???	{???	{???	{???	{???
7.	Instructor	{???	{???	{???	{???	{???
8.	Accommodation (long stay)	{???	{???	{???	{???	{???
9.	Accommodation (short stay)	{???	{???	{???	{???	{???
10.	Air Fares	{???	{???	{???	{???	{???
11.	4x4 vehicles – Long Term (on weekly basis)	{???	{???	{???	{???	{???
12.	4x4 vehicles – Long Term (on weekly basis)					
13.	<b>{Bidder to propose}</b>	{???	{???	{???	{???	{???
14.	<b>{Bidder to propose}</b>	{???	{???	{???	{???	{???
15.	<b>{Bidder to propose}</b>	{???	{???	{???	{???	{???
16.	<b>{Bidder to propose}</b>	{???	{???	{???	{???	{???
17.	<b>{Bidder to propose}</b>	{???	{???	{???	{???	{???
18.	<b>{Bidder to propose}</b>	{???	{???	{???	{???	{???
<b>ANTICIPATED TOTAL:</b>						
Notes:	<p><b>Disbursements shall be paid upon furnishing proof of expenditure and an overhead percentage rate. Bidder to propose overhead % _____</b></p> <p><b>All transport within Fiji will be provided by the bidder / Consultant</b></p> <p><b>Bidders shall stipulate rates and costs exclusive of all local taxes applicable in Fiji such as GST/VAT, Non-Resident Withholding Tax, etc.</b></p> <p><b>Bidder / Consultant shall be assisted by FEA to complete the formalities of obtaining work visas in Fiji if required. Costs for visa shall be paid as disbursement by the FEA.</b></p> <p><b>Costs for Factory Acceptance Testing as and where required shall be borne by the FEA.</b></p>					



## **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 26<sup>th</sup> July, 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](mailto:TDelairewa@fea.com.fj)

In additional, 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 26<sup>th</sup> July, 2017** addressed as

### **Tender – MR 170/2017 Engineering and Technical Services to FEA's Transmission Unit**

**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 26<sup>th</sup> July, 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 chargers and all other cost associated with the delivery of the hard copy of the Tender submission including any Duties/Taxes. Hard copies of the Tender submission via Post Box will not be considered.**