

FJI ELECTRICITY AUTHORITY

INVITATION TO TENDER - MR 185/2017

**CONTRACT SERVICE FOR CORONA SCANNING and THERMAL IMAGE FOR
132KV/33KV/11KV ZONE SUBSTATION INSPECTION**

Corona and Thermal arcing activity may occur at numerous points in overhead substation power systems. This activity may result in audio noise or radio interference complaints or indicate a defective component that may be close to failure by joints and hotspots. If the offending component can be located, it can be replaced.

In order to maintain a high degree of reliability of service while being responsive to public concerns regarding the sitting of high voltage (HV) Substation facilities, Fiji Electricity Authority seeks reputable service provider to carry out corona and Thermal Image inspection 132kV/33kV/11kV ZONE substation using UV video imager that is suitable for corona and partial discharges imaging in full daylight, and Thermal Image scanner suitable to day views:

Central region	Western Region	Northern Region
1. 33kV Wailekutu Substation	1. 33kV Sigatoka Substation	1. 33kV Dreketi Substation
2. 33kV Deuba	2. 33kV Nacocolevu Substation	2. 33kV Seaqaqa Substation
3. 132kV Cunningham Road Substation	3. 33kV Maro Substation	3. 33kV Dreketi Substation
4. 33kV Sawani Substation	4. 33kV Qeleloa Substation	
5. 33kV Korolevu Substation	5. 33kV Waqadra Substation	
6. 132kV Wailoa Switching Station	6. 33kV Vuda Substation RCC	
7. 132kV Wailoa Transformer yard	7. 132kV Vuda Substation	
	8. 33kV Pineapple Corner Substation	
	9. 33kV Rarawai Substation	
	10. 33kV Tavua Substation	
	11. 33kV Volivoli Substation	
	12. 132kV Nadarivatu Substation	
	13. 132kV Nadarivatu Transformer Yard	

1. Work scope for Corona scanning/Thermal Imaging and reporting as per below

- A complete condition report as per SLD 132kV Substation Switchyard, tower/pole structures and its line hardware's.
- A complete condition report on all 132kV/33kV/11kV zone substation zone as listed above including
 1. All insulators
 2. Isolators and Disconnectors
 3. 132kV and 33kV circuit breakers,
 4. 132kV and 33kV Voltage Transformers
 5. 132kV and 33kV Current Transformers
 6. 132kV, 33kV and 11kV Cable joints, palm terminals and jumpers

7. 132/33/11kV Power Transformers and cables
8. 132kV and 33kV Bus bar

- Captures full line hardware enabling fault location, GPS position, images, video footage, overlay onto electronic mapping software. Bidder to note that FEA needs all data captured (good or Bad) and not just only for the defective Items.
- This will allow Fiji Electricity Authority to click a location & the structure can be identified & images, videos can be observed. Bidder to provide all software and GIS Map Inform version 12.
- A report is generated real time on hardware condition with voice overlay/print out.
- Condition shall be based on observation, recommendation and replacement criterions of conductor and Insulator hardware, insulators, conductors and ground wires, structures, and others.
- Determine the exact position, type, and magnitude of corona and thermal activity is determined, thus enabling the identification of the offending component and the possibility of failure.
- Condition survey and reports to be submitted by end of November 2017.
- A full condition report on hardware condition will be supplied with images based on findings, prioritization of defects will all information captured & entered real time into software. This will go along with each tower form.
- 3 copies images to DVD burned after scanning and also on USB.
- 5 coloured copies of the report in bind format
- Report to include material/defect listing and approximate cost of rectifying the defects. All information from the reporting software to be categorized, itemize & quantify defects making the budgeting & maintenance schedule very.
- Cost to include airfares, meals and accommodation complete inclusive of With Holding Tax.

2. Program Details

- Number of Days for the scanning and reporting
- Proposed Date of start
- Proposed Date of finish
- Proposed date of submission of Draft report
- Comments by fea
- Proposed date of submission of Final report
- Proposed date of Presentation to fea management

3. OTHER DETAILS Required

1. Service Availability – Program details
2. Corona Camera Type shall be OFIL Luminar HD image
1. Thermal Image Camera Type FLIR T640
2. HD Video capture camera
3. Other images to be used
4. Inverter for power supply to be included
5. Sub-contractor
6. safety plan
7. Safe working procedure
8. Staffs details
9. Estimated time for the exercise
10. Company profile
11. Customer listing

12. A hardcopy and video images of latest inspection carried out
13. Reference

4. Fea provides and supplies

- a) Fea to submit Substation schedules and drawings and locations
- b) Fea to submit substation schedules and drawings and locations
- c) Geographical locations substations

All tenders are to submitted to

Fiji Electricity Authority
The Secretary Tender committee

Tender number - CONTRACT SERVICE FOR CORONA SCANNING and THERMAL IMAGE FOR
132KV/33KV/11KV ZONE SUBSTATION INSPECTION

Private Mailbag
Suva
Fiji.

Or can be e-mailed to Supply Chain Manager, Mr. Tuvitu Delairewa on e-mail address
Tuvitud@fea.com.fj

The deadline for submission of tenders shall be 1600hrs on **Wednesday, 9th August, 2017.**

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

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 9th August, 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 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 9th August, 2017**- Addressed as

Tender – MR 185/2017 Contract Service for Corona Scanning and Thermal Image for 132kV/33kV/11kV Zone Substation Inspection
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 9th August, 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.**