

**MR 168/2017 – TENDER FOR  
SCADA AUTOMATION  
PROJECT AT TAVEUNI  
HYDRO STATION**

**TENDER FOR SCADA AUTOMATION PROJECT AT TAVEUNI HYDRO  
STATION**

**TENDER NO: MR168/2017**

**Tender Advertising Date: 08/07/2017**

**Tender Closing Date: 02/08/2017**

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**SECTION- I**

**FIJI ELECTRICITY AUTHORITY.  
2 MARLOW STREET  
SUVA  
FIJI**

**NOTICE INVITING TENDER**

Sealed Tenders are invited by FEA from reputable companies for the Engineering service to carry out Nadarivatu Hydro Station full automation at NCC.

**Schedule to the invitation of tender:**

	Item	Details
1	Tender No.	MR 168/2017
2	Time and last date of depositing tender/Bid	4pm on 02/08/2017
3	Minimum validity of Bid offer	180 days
4	Details of works/service to be undertaken	Refer to Tender Scope
5	Web site address	<a href="http://www.evalua.com.fj/fea">www.evalua.com.fj/fea</a>
6	Email Address	<a href="mailto:TDelairewa@fea.com.fj">TDelairewa@fea.com.fj</a>

Intending eligible bidders may obtain Bid document from Supply Chain Department or request it through email to [Abduln@fea.com.fj](mailto:Abduln@fea.com.fj)

**SECTION II  
INSTRUCTIONS TO BIDDERS**

**1. DEFINITIONS**

- a) "The Purchaser" or "Buyer" means the Fiji Electricity Authority. Herein referred to as FEA.
- b) "The Bidder or tenderer" means the individual or firm who participates in this Tender and submits its bid.
- c) "The Contractor/Supplier" means the individual or firm supplying the goods under the contract.
- d) "The Service" means all the service which the bidder is required to offer to the Purchaser to carry out the scope of works under the contract.
- e) "The Purchase Order" /"Work order" means the order placed by the Purchaser on the supplier signed by the Purchaser including all attachments and appendices thereto and all documents incorporated by reference therein. The purchase order shall be deemed as "Contract" appearing in the document.
- f) "The Contract Price" means the price payable to the Supplier under the purchase order for the full and proper performance of its contractual obligations.

**2. ELIGIBLE BIDDERS:**

- 2.1. The eligible bidder(s) should be a registered Company with valid business licence operating in that particular country.
- 2.2. The bidder must have extensive experience in similar works.

**3. BID DOCUMENT:**

- 3.1. Tender documents should be submitted in the enclosed form. All the pages of Tender document should be signed by the Tenderer.
- 3.2. Sealed original tender document may be deposited in the tender box provided for the purpose in the office up to anytime from 8am to 4:30pm Monday to Thursday and 8am to 4:30pm Friday Fiji time

**4. CLARIFICATION OF BID DOCUMENTS**

- 4.1. A prospective bidder, requiring any clarification of the Bid Documents shall notify Purchaser in writing via email at the Purchaser's mailing address indicated in the invitation for Bids. The Purchaser shall respond in via email to any request for clarification of the Bid Documents, which it receives not later than 5 days prior to the date for the submission of bids. Copies of the query (without identifying the source) and clarifications by the Purchaser shall be sent to all the prospective bidders who have received the bid documents. A request for clarification, which is considered by the Purchaser as either frivolous or is already sufficiently explained in the bid documents or is, in any way not considered pertinent shall be replied to accordingly by the Purchaser.
- 4.2. Any clarification issued by FEA in response to query raised by prospective bidder shall form an integral part of the tender document and it would amount to an amendment of relevant clauses of the tender document.

**5. AMENDMENT OF BID DOCUMENTS:**

- 5.1. At any time, prior to the date for submission of bids, the Purchaser may, for any reasons, whether at his own initiative or in response to a clarification requested by a prospective Bidder, modify the bid documents by amendments.
- 5.2. The amendments shall be notified in writing or by email to all prospective bidders on the address intimated at the time of uploading of bid document from the Purchaser and these amendments will be binding on them. The bidder shall also indicate their contact information which includes email address, Fax Nos/Telephone No. on the bid form submitted by them.
- 5.3. In order to afford prospective bidders reasonable time to take the amendments into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids suitably. However the prospective bidders shall not claim this facility as a right on any account.
- 5.4. The bidders will be notified via email with reference to any amendment to the tender document or to clarification to the queries raised by the bidders till a day prior to the opening of the tender. FEA reserves the right to reject the bids if the bids are submitted without taking into account these amendments/clarifications. Further bidder will be fully responsible for downloading of the tender document and amendments for their completeness.

**6. Preparation of Bid:**

- 6.1. The bid should be properly binded and information containing technical requirements and specifications shall be clearly stated.
- 6.2. The full name and address of the tenderer should be written on the bottom left hand Corner of the sealed outer cover.
- 6.3. Technical information shall contain documents establishing bidder's eligibility. This is to evaluate the competence of the

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bidder in carrying out the work as per the sample supplied.

Technical information must contain the following details.

1. Valid Certificate of Commercial Registration (CR).
2. Experience of the bidder in carrying out similar works
3. Contact details of companies where bidder had carried out similar works.

6.4. Financial bid: The bidder should quote for all items mentioned in the price schedule of the Financial Bid. NO ENCLOSURES ARE ALLOWED WITH THE FINANCIAL BID.

**7. SUBMISSION OF BIDS .**

**7.1. Local Bidders**

7.1.1. Two (2) hard copies of the tender bids in sealed shall be deposited in the tender box located at the Supply Chain Office at the FEA Head Office, 2 Marlow Street, Suva, Fiji.

7.1.2. Each Tender shall be sealed in an envelope with:

a) The envelop bearing only the following marking:

**Tender – MR 168/2017 – TENDER FOR SCADA AUTOMATION  
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The Secretary, Tender Committee  
Fiji Electricity Authority  
Supply Chain Office  
Private Mail Bag  
Suva

b) It must also indicate the name and address of the tenderer on the reverse of the envelop

7.1.3. Tenders received after **4:00pm** on the closing date of **Wednesday 2<sup>nd</sup> of August, 2017** will not be considered.

7.1.4. Lowest bid will not necessarily be accepted as successful bid.

**7.2. Overseas Bids**

7.2.1. Electronic copies of the tender bid must be uploaded in the **EVALUA** Electronic Tender Box no later than **4:00pm, on Wednesday 26<sup>th</sup> of July, 2017.**

7.2.2. To register your interest and tender a response, view 'Current Tenders' at: <http://www.fea.com.fj/contractors-suppliers/tenders/current-tenders/>

7.2.3. Lowest bid will not necessarily be accepted as successful bid.

7.2.4. For further information contact The Secretary Tender Committee, by e-mail [TDelairewa@fea.com.fj](mailto:TDelairewa@fea.com.fj).

**7.2.5. All late tenders, unmarked Envelopes and envelopes without bidder's name and address on the reverse will be returned to the Tenderers.**

7.3. Tender in person drop in the 'Tender Box' placed at the abovementioned address during working hours between 8am to 4:30pm from Monday to Thursday and from 8am to 4pm Friday.

7.4. It is the bidders' responsibility to ensure that the tenders are delivered in time at the above address.

7.5. The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the Bid Documents in accordance with Clause 5 of Section-II in which case all rights and obligations of the Purchaser and bidders subject to the previous deadline will thereafter be subjected to the deadline as extended.

7.6. Any bidder can submit only one bid. If more than one bid are submitted by a bidder, all the bids of the said bidder shall be disqualified.

- 7.7. Bidder has to sign all the pages of the tender document which implies that he has understood and accepted the terms & conditions of the tender,
- 7.8. Venue of Tender Opening :Tender will be opened in the FEA main office located at 2 Marlow Street, Suva, FIJI.

**8. LATE BIDS**

Any bid received by the Purchaser after the deadline for submission of bids shall be rejected.

**9. MODIFICATION AND WITHDRAWAL OF BIDS**

- 9.1. The bidder may modify or withdraw his bid after submission provided that the written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bid/s.
- 9.2. The bidder's modification or withdrawal notice shall be communicated via email to the email address provided, i.e. [TDelairewa@fea.com.fj](mailto:TDelairewa@fea.com.fj)
- 9.3. As per Tender document, no bid shall be modified subsequent to the deadline for submission of bids.

**10. CLARIFICATION OF BIDS**

To assist in the examination, evaluation and comparison of bids, the Purchaser may, at its discretion ask the bidder for the clarification of its bid. The request for clarification and the response shall be via email. However, no post bid clarification at the initiative of the bidder; shall be entertained.

**11. BID PRICES**

- 11.1. The rates quoted should remain current for a maximum period of 150 days from the date of acceptance of the tender.
- 11.2. "DISCOUNT, if any offered by the bidders shall not be considered unless they are specifically indicated in the price schedule. Bidders desiring to offer discount shall therefore modify their offers suitably

while quoting and shall quote clearly net price taking all such factors like Discount, free Installation, etc into account".

- 11.3. **The bidder shall clearly indicate the quoted price whether its VIP or VEP. Bidders are also required to provide itemise costing for all cost proposed.**
- 11.4. **ALL Local Tax and charges will be the bidders responsibility**

**12. Tender Evaluation:**

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

The evaluation of the tender submissions will be weighted as such:

<b>No.</b>	<b>Components</b>	<b>Weighting (%)</b>
1	Financial Components	50 %
2	Technical capability - Proven background in working on Schneider PLC, Wonderware HMI, RTU’s and Power System Controls or have worked on similar project	35 %
3	Delivery timeframe –Ability to meet the project deadline (June, 2018)	10 %
5	Backup support	5%

**13. Award of Contract**

- 13.1. FEA, 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 assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds of purchaser’s action or any violation of the Integrity Pact which has to be signed by all bidders.
- 13.2. FEA, reserves the right to award the tender to more than one firm at his discretion.

13.3. Submission of tender in response to this tender call will be taken to mean that all terms and conditions mentioned in this tender are acceptable to the tenderer and he is agreeable to abide by them

**14. POWER OF ATTORNEY:**

14.1. The Power of Attorney for signing the tender document in case the authority signing the document is not the owner of the Company/firm should be submitted.

14.2. The Power of Attorney be executed by a person who has been authorized by the Board of Directors of the bidder in this regard, on behalf of the Company/Institution/Body Corporate.

**15. DOCUMENTS ESTABLISHING BIDDERS ELIGIBILITY AND  
QUALIFICATINS:**

The following documents should be attached to the original Tender document as part of technical bid.

- 1) Valid Certificate of Commercial Registration (CR).
- 2) Qualification of the Engineer proposed to carry out the work.
- 3) Work Experience of the Bidder/Company in carrying out similar work.

**SECTION III**  
**GENERAL (COMMERCIAL) Conditions of Contract**

**1. APPLICATION**

The General Conditions shall apply in contracts made by the Purchaser for the procurement of services

**2. STANDARDS**

The services offered under this contract shall satisfy the Technical Specifications and requirements.

**3. PATENT RIGHTS**

The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the goods or any part thereof in Telecom Network.

**4. PERFORMANCE SECURITY**

NIL

**5. DELIVERY OF SERVICES:**

Service are to be undertaken on site, at both the National Control Centre in Vuda and also at Taveuni where the Somosomo Hydro Power and Waiyevo Diesel power stations are located. Bidders are required to submit their timeframe on when they will commit to the work after being issued with the Purchase Order.

**6. PAYMENT:**

- 6.1. Payment terms: 30 days payment against successfully completing work as per scope.

**7. TERMINATION FOR DEFAULT**

- 7.1. The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the supplier, terminate this contract in whole or in part
- 7.2. If the supplier fails to deliver any or all of the goods within the time period(s) specified in the contract.

- 7.3. If the supplier fails to perform any other obligation(s) under the Contract;  
and
- 7.4. If the supplier, in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as the purchaser may authorize in writing) after receipt of the default notice from the purchaser.

**8. TERMINATION FOR INSOLVENCY**

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, without compensation to the supplier. If the supplier becomes bankrupt or otherwise insolvent as declared by the competent court provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

**SECTION-IV**

**1. SPECIAL CONDITIONS OF CONTRACT**

- 1.1. The special conditions of the contract shall supplement the General Conditions of the Contract and wherever there is a conflict, the provision herein shall prevail over those in section I & II & III.
- 1.2. FEA reserves the right to disqualify such bidders who have a record of not meeting contractual obligations against earlier contracts entered into with the FEA.
- 1.3. Any clarification issued by FEA, in response to query raised by prospective bidders shall form an integral part of bid documents and it may amount to amendment of relevant clause(s) of the bid documents.
- 1.4. FEA reserves the right to counter offers price(s) against price(s) quoted by any bidder.
- 1.5. FEA reserves the right to reject a bid as non-responsive if the prices for all items are not quoted by the bidder in the price schedule.
- 1.6. The tender shall be evaluated on the basis of the competency and the experience of the bidder in carrying out similar works and the financial offer mentioned in the price schedule of Section VI (FINANCIAL BID)
- 1.7. FEA reserves the right to negotiate with the bidder for the rates quoted under the Price Schedule of the financial bid.

## **SECTION V**

### **1. GENERAL**

#### **1.1. INTRODUCTION**

The Fiji Electricity Authority is a wholly Government of Fiji owned statutory body that was established under the Electricity Act of 1966. FEA is responsible for the Generation, Transmission and Retail of electricity on the larger islands, Viti Levu, Vanua Levu and Ovalau, which account for some 90% of the country's population.

FEA has a generation capacity of approximately 237MW of which, 80MW is supplied by Monasavu Hydro Scheme and 40MW supplied by Nadarivatu Hydro Scheme.

It has a 132kV transmission line of around 145km (connecting Wailoa & Nadarivatu Hydro Power Stations to the East and West Coasts) and about 350km of 33kV transmission line. Power distribution is by means of more than 8,000km of 11kV and 415/240V lines.

#### **1.2. EXISTING SYSTEM CONFIGURATION**

The Taveuni Hydro Power was commissioned in 2017 with two generators each having a generation capacity of 500kW. The station was commissioned with all controls (start/stop) indication and metering which are required to be available at the National Control Centre in Vuda including:

- 1) Voltage raise/lower and frequency raise/lower control signal.
- 2) Taveuni Hydro Dam Weir Level indication (metering)

The existing Taveuni SCADA layout is shown in the figure below.

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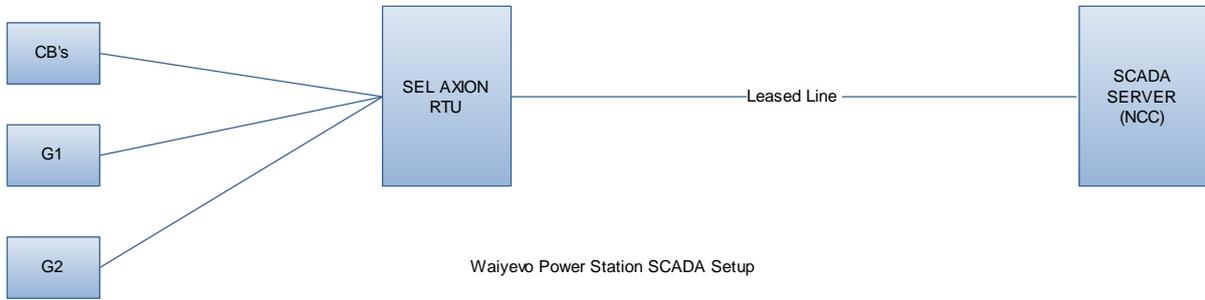
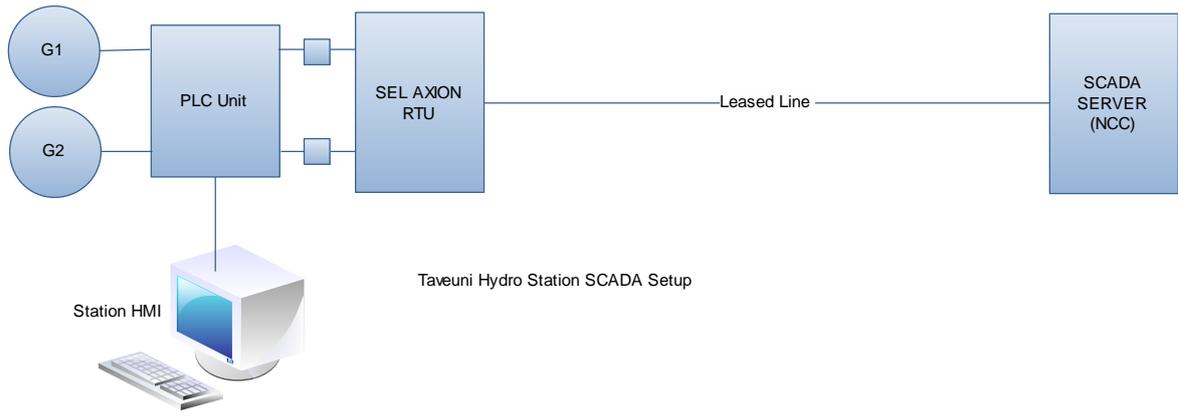


Figure 1 – SCADA Layout

## **2. SCOPE OF WORKS**

### **2.1. TAVEUNI HYDRO**

Following are scope of works that are required to be undertaken for this project.

- a) Supply and install three (weir, intake screen upstream & downstream) weir level monitoring probe including power supply at the Somosomo Weir situated around 5km from Somosomo Hydro.
  - i. Weir level Transducer:
    - Type: Pressure Transmitter
    - Range: 0 – 10m
    - Accuracy: 0.2%
    - Power: 24VDC
    - Output: 4 – 20mA
  - ii. Together with Analogue Device/Unit for calibration, Communication unit, Power supply.
- b) Supply, install and commission power supply (diesel & solar) for the weir instrumentation, lightings and power tools:
  - i. Battery bank that can supply equipment on its own for 7 days
  - ii. Battery charger to suit the battery bank
  - iii. Supply, install and commission weir lightings
  - iv. AC power supply to suit battery charger and weir lightings
- c) Test and commission the Taveuni Weir level monitoring system with Somosomo Hydro station HMI and also to NCC.
- d) Supply the iFIX HMI hardware and software that will be installed at the Somosomo Hydro station to manage the Waiyevo Power Station. Connectivity will be via fibre optic cable.
- e) Configure HMI with Somosomo Hydro I/O and Waiyevo Power Station I/O points together with its necessary GUI to allow the operation team to manage the Taveuni Power system from Somosomo Hydro Office.
- f) Provide the necessary Weir level interface at Somosomo Hydro so FEA could extend the points to the National Control Centre in Vuda.
- g) Supply ready-made radio hut with the following specifications and install it at site. Radio hut can be sourced from **Bluescope Lysaght**

#### **Specification:**

- i. Size (Length, Width & height) - 3.0m (L) x 2.4m (W) x 2.4m (H)
- ii. Make –Steel and Color Bond Roofing iron (Prefab)
  - a. Cyclone Screws with washers

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- b. *Security door – solid with deadlock hardware*
  - c. *Double wall (inside)*
  - d. *Electrical wirings with meter box (all internal wiring and meter box to be completed).*
  - iii. *Building – to be Cyclone certified (wind speed to be > 250km/hour)*
  - iv. *Other Provisions: -*
    - a. *Guttering to collect water connected to a 5000 litre water tank with a tap (supply and install).*
    - b. *Solar power to power radio equipment (2kw) with a minimum of 7 days battery autonomy*
    - c. *Antenna feeder cable entry*
    - d. *Air condition unit – split type (optional)*
  - v. ***There must be provision for lifting using a crane and also securing during transportation.***
  - vi. *Warranty – to be provided by the bidder with terms & conditions*
    - a. *Drawing of the building with description of materials that will be used in the construction of the building.*
    - b. *Drawing of the basement for mounting the building.*
    - c. *Installation guide manual*
- h) Supply and install fencing around the radio hut unit (6m x 4m x 3m)
- i) Test and commission.
- j) Provide detail commissioning report which should include:
- i. HMI Configuration and user manual
  - ii. HMI administration manual
  - iii. Detail drawings of the setup undertaken, i.e. Weir installation and setup.

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**SECTION-VI**

**PRICE SCHEDULE**

1. Tender No. : **MR 168/2017**
  2. Name of the tenderer with address :
  3. Signature with designation & seal of the Tender form issuing authority
- 

**DECLARATION:**

I/We have read and understood the terms and conditions in this form supplied to me/us and hereby declare that I/We accept the terms and conditions mentioned there in. I/We hereby quote our rates for consideration of the scope of works provided.

	<b>Description</b>		<b>No of Days</b>	<b>Unit Price (\$)</b>	<b>Total Price</b>
1	iFIX HMI hardware				
2	iFIX HMI Software				
3	Transportation cost				
4	Airfares and Accommodation				
5	Radio Hut, Water System and fencing				
6	Radio hut, Water System and fencing installation				
7	Dam level instrumentation				
8	Power Supply				
7	Engineers Cost/rate (configuration, test and commissioning)				
	Total				

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**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 2<sup>nd</sup> 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](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 2<sup>nd</sup> August, 2017**- Addressed as

**Tender – MR 168/2017 SCADA Automation Project at FEA’s Taveuni Hydro Station**

**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 2<sup>nd</sup> 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.**