
Tender Name:

VEGETATION MANAGEMENT FOR 132kV TRANSMISSION LINES

MR 53/2017

Tender No: MR 53/2017

Tender Name: Vegetation Management for 132kV Transmission Lines

Bidder's Name:

Bidder's Address:

Bidder's Telephone Numbers:

Bidder's Email Address (Optional):

Fiji Electricity Authority is seeking proposals from FEA Trained and Certified contractors to undertake Vegetation Management on its 132,000 Volts Transmission lines, namely:

1. Wailoa – Cunningham 132kV Transmission Line – Approximate Length: 40.92km
2. Wailoa – Nadarivatu – Vuda 132kV Transmission Line – Approximate Length: 78.3km
3. Nadarivatu Power House – Nadarivatu Switchyard Tie Line – Approximate Length: 5km
4. Wailoa Power House – Wailoa Switchyard Tie Line 1 & Tie Line 2 – Approximate Length: 0.5km each

Bidders are to submit a breakdown of prices and expected date of completion of each location specified as per the tables included in this tender document.

By providing this information the FEA does not take liability of the actual conditions in field. The bidders / contractors shall verify the actual conditions and the geographic terrain during the site visits. The bidders shall self-evaluate the realities in the field and submit firm prices. **No variations shall be entertained.**

1. Health and Safety Requirements

It is mandatory for the bidders to complete and submit a copy of the attached HSE Forms: HSE41C01; HSE41C02; HSE41C03; HSE41C04; HSE41C11; HSE41C12. Failure to submit a completed attached HSE document shall disqualify the bid. An additional electronic copy (word document format) shall be made available upon the bidder's request and can be provided by email. For guidance on filling the HSE forms please contact the following:

Western Division: Mr Manasa Saraqia

- Phone 3313333 Extension 6466
- Mobile 9992466
- Email: ManasaS@fea.com.fj

Central / Northern Division: Mr Mohammed Siraz Hassan

- Phone 3313333 Extension 6466
- Mobile 9992463
- Email: MohammedSH@fea.com.fj

2. Site Visit Requirements

The site visit requirements for this tender are **compulsory** and attendance shall be recorded. Interested bidders shall provide their own 4x4 Transport and shall not ride in FEA vehicles.

SITE INSPECTION DATES:

- a) Site Visits For 132kV Transmission Lines in **Western Region** shall be held **from 8am till 5pm on the 21st of March, 2017**. Interested Bidders are to report to Technical Officer Transmission in FEA's Navutu Depot, Lautoka. Name: Mr Eroni Tamani | Cell Phone: 9999299
- b) Site Visits for 132kV Transmission Lines in **Central Region** shall be held **from 8am till 5pm on the 22nd of March, 2017**. Interested Bidders are to report to Technical Officer Transmission in FEA's Kinoya Depot. Name: Mr Isaia Kumiselei | Cell Phone: 9992072

3. Lodgement of Tenders in sealed envelopes marked

It is mandatory for Bidder's to submit **two (2) hard copies** of the tender bids in sealed envelope shall be deposited in the tender box located at the Supply Chain Office at the FEA Head Office, 2 Marlow Street, Suva, Fiji.

Courier charges for delivery of Tender Documents must be paid by the bidders.

This tender closes at 4:00pm, on Wednesday 5th of April, 2017

Each tender shall be sealed in an envelope with:

The envelope bearing only the following marking:

Tender- MR 53/2017 – Vegetation Management for 132kV Transmission Lines

The Secretary, Tender Committee

Fiji Electricity Authority

Supply Chain Office

Private Mail Bag, Suva

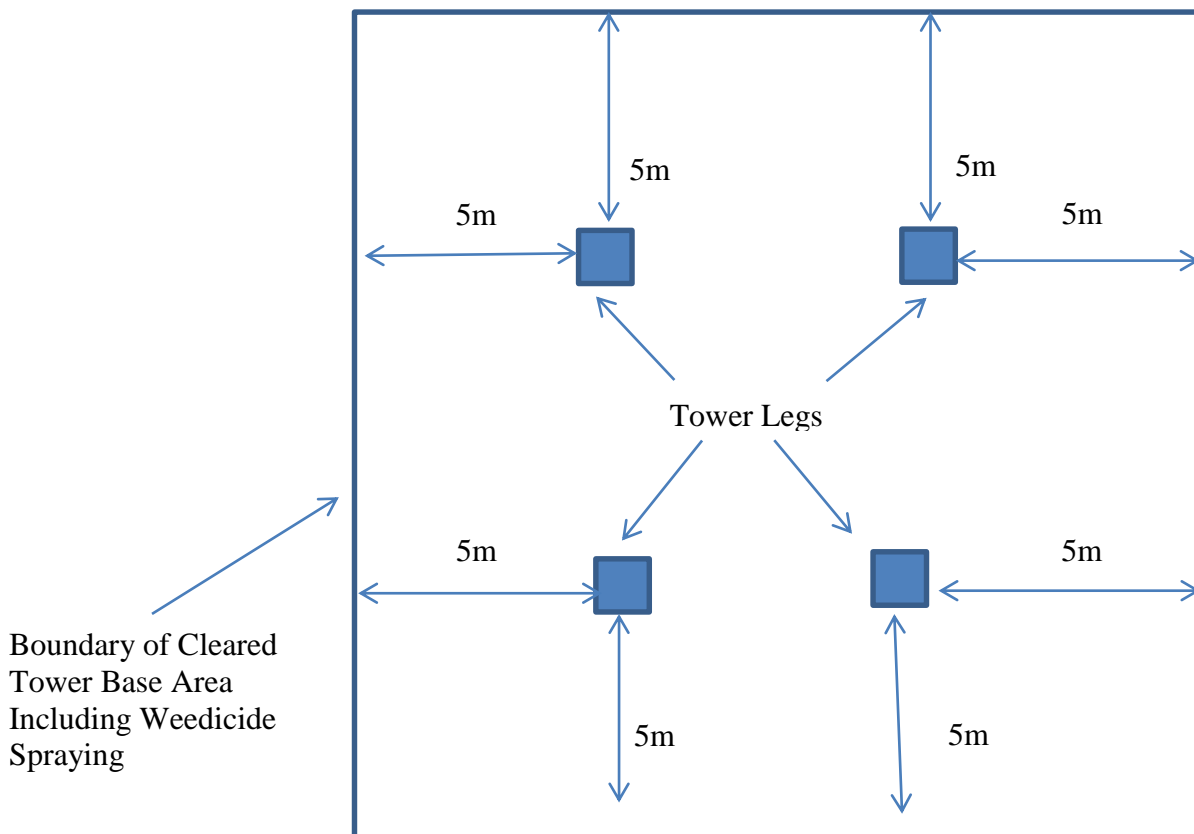
It must also indicate the name and address of the tenderer on the reverse of the envelope.

All late tenders, unmarked Envelopes and envelopes without bidder's name and address on the reverse of the envelope will not be accepted.

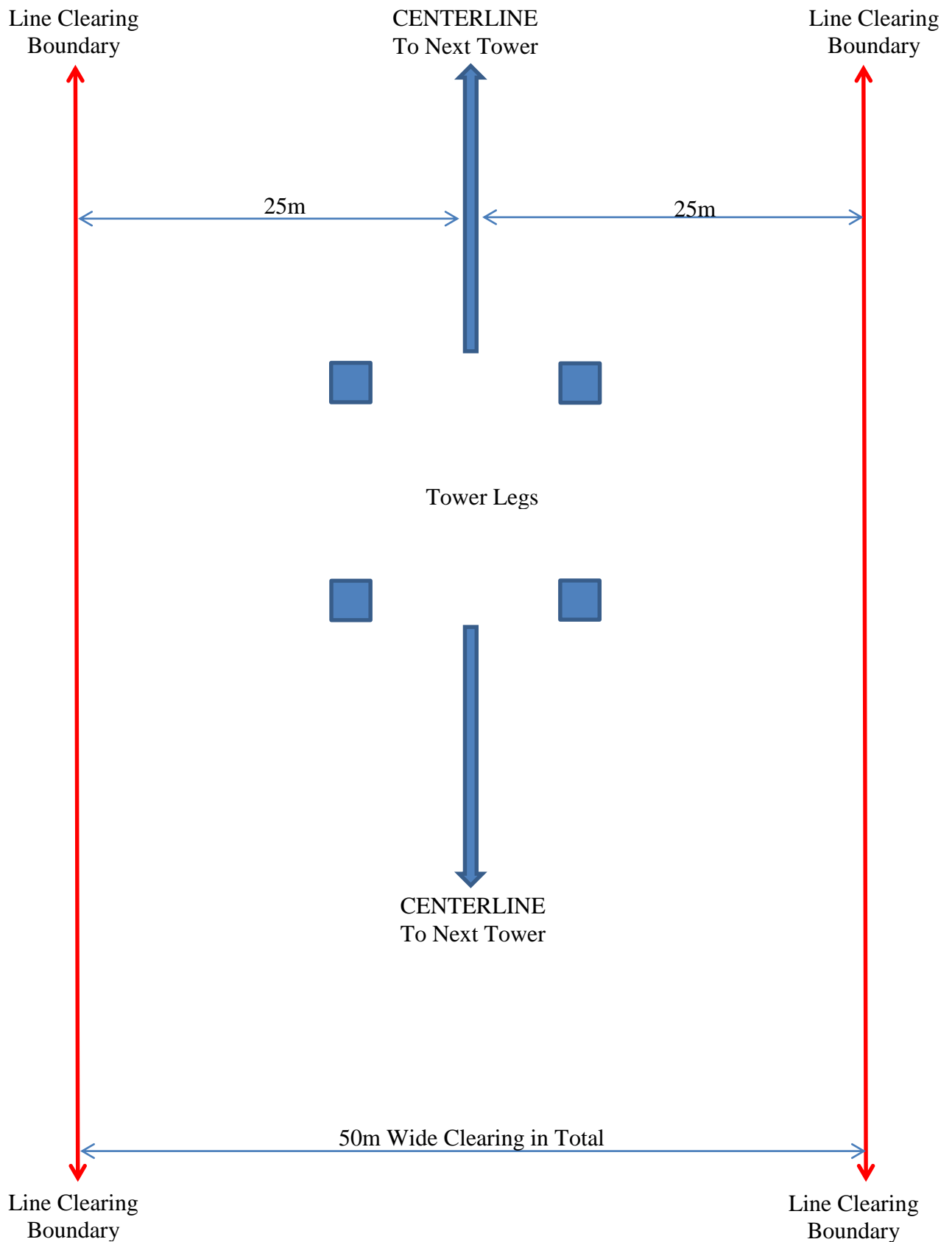
For further information or clarification please contact our Supply Chain Office on phone **(+679) 3224360 or (+679) 9991587**.

4. SCOPE OF WORK– Vegetation Management

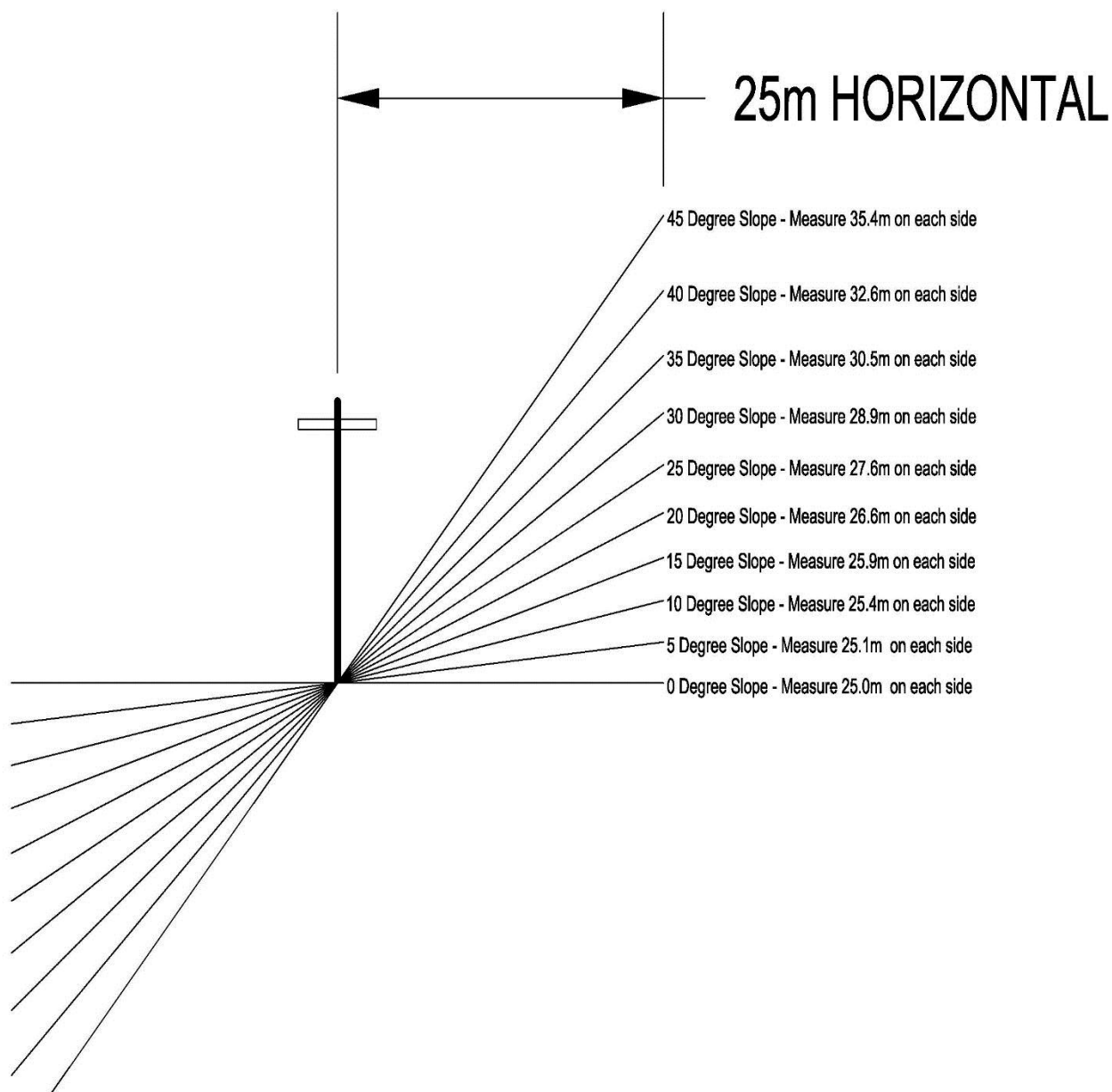
- 4.1. Tower base clearing of all creepers, grass from each Tower base 5m length on each side of tower and underneath the tower. Tower base clearing shall include the weedicide spraying of the Tower base area (Area enclosed by 5m outside from each Tower Face), using an FEA approved weedicide such as Gramoxone / Paraquat or Round-Up / Glyphosate
- 4.2. Vegetation to be cleared as per 132kV FEA standard of 25m either side of the centre of the 132kV Tower Structure **measured horizontally**. (50m horizontal clearing in total). See attached drawing for guidelines for measuring on inclined terrain. All exceptionally long trees which are outside this 25m horizontal distance from the lines centre, but within falling distance of the line, shall also be cleared, as and where requested by FEA.
- 4.3. Clear ALL vegetation growth by the root/ground.
- 4.4. All works shall be supervised and inspected by FEA. Contractor' Invoices and Payments shall be processed only after satisfactory inspection by the FEA.
- 4.5. Report on any landslide area for slope stability.
- 4.6. Guidelines for execution of works – FEA Vegetation Management Policy
 - **Bidders to include photocopies of FEA issued ID cards for workers/personnel** who have attended the FEA VM Training Policy and Refresher Courses.
 - **All Chainsaw operated under the project shall be trained and licensed by the Ministry of Forestry.**
- 4.7. Digging of drain where required to divert water away from Tower Base and legs
- 4.8. Digging and exposing concrete foundation around the legs of each tower as and where applicable.
- 4.9. Schematic Drawing for Tower Base Clearing



4.10. Schematic Drawing for Line Clearing



4.11 Requirements for Measuring on Inclined Terrain



5. Work Program

The Contractor shall agree to a work programme as per **sample** provided below with FEA's Representative, before execution of the works by both parties.

The commencement and completion of each stage of work shall be filled by the contractor as per below Table

Particulars	Date of Commencement of Work	Date of Completion of Work	Contractor	FEA
Attend OHS Induction and Briefing of Work Program			*	
Obtain Landowners Consent			*	*
Permit to start work			*	*
Apply for planned outage where required			*	*
Carry out tower base and line clearing on Wailoa-Nadarivatu-Vuda Line			*	
Carry out tower base and line clearing on Wailoa-Cunningham Line			*	
Carry out tower base and line clearing on Nadarivatu Power House-Nadarivatu Switchyard Tie Line			*	
Carry out tower base and line clearing on Wailoa Power House-Wailoa Switchyard Tie Line 1& Tie Line 2			*	
Removal of debris and rubbish which could cause damage to farms, crops and property such as fences.			*	
Complete Completion Certificate			*	*
Allow for Compensation				*
Network Training			*	*
Inspection by FEA				*

6. Bidder's Price Schedule and Payment Schedule

It is mandatory for the bidder to fill out firm lump sum prices together with the date of commencement and date of completion of work for each location with its span details specified in the table below. This price breakdown shall also be the schedule of payments.

Wailoa – Cunningham 132kV Transmission Line						
Location		No. of Spans	Distance (m)	Price FJD \$ (VEP)	Start Date	Finish Date
1	Cunningham (T150-T141A)	9	2,133m			
2	Wailoku (T141A- T132)	10	3,168m			
3	Colo-i-Suva (T132-T128)	4	2,589m			
4	Waibau (T128-T121)	8	2,820m			
5	Batiki (T121-T113)	9	3,678m			
6	Wailotu (T113-T109)	4	1,604m			
7	Savu (T109-T106)	3	1,300m			
8	Naqali (T106-T98)	8	3,106m			
9	Nacagilevu (T98-T95)	3	1,078m			
10	Nacagilevu (T95-T94)	1	272m			
11	Waisasavu (T94-T92A)	3	894m			
12	Waidra (T92A-T89)	4	1,208m			
13	Navuakece (T89-T85)	4	1,785m			
14	Waisa / Naterumai (T85-T75)	10	4,163m			
15	Serea (T75-T62)	13	4,649m			
16	Taulevu (T62-T55)	7	2,324m			
17	Delaitoga (T55-T43)	12	3,874m			
18	Navuniyasi (T43-T41A)	3	1,995m			
19	Saumakia (T41A-T37A)	8	2,601m			
20	Nakorosule (T37A-T28)	13	5,198m			
21	Nasalia (T28-T10)	18	7,557m			
22	Wailoa (T10-T1)	10	4,244m			
TOTALS		164	62,240m	\$ (VEP)	Total Project Duration: (Months)	

Nadarivatu Power House – Nadarivatu Switchyard 132kV Tie Line						
Location		No. of Spans	Distance (m)	Price FJD \$ (VEP)	Start Date	Finish Date
1	Koro, Nadarivatu	16	5,000m	\$ (VEP)		

Wailoa-Nadarivatu-Vuda 132kV Transmission Line						
Location		No. of Spans	Distance (m)	Price FJD \$ (VEP)	Start Date	Finish Date
1	Vuda (T1A-T7)	7	2,459m			
2	Vaivai (T7-T13)	6	2,989m			
3	Wailoko (T13-T20)	9	3,029m			
4	Sabeto (T21-T35)	14	5,392m			
5	Naqele (T36-T53)	17	6,661m			
6	Nanuku (T54-T63A)	9	3,429m			
7	Vaturu (T63A-T72)	7	3,491m			
8	Babriban(T72-T77)	9	4,045m			
9	Balevuto (T77-T82)	4	1,773m			
10	Vaturuso (T82-T84)	3	1,239m			
11	Nadrugu (T84-T89)	5	2,350m			
12	Virara (T89-T94)	5	2,095m			
13	Navala (T94-T122)	31	12,396m			
14	Koro-O (T122-T131)	11	4,045m			
15	Nadrau (T131-T167)	37	13,237m			
16	Rewasau (T167-T178)	12	4,412m			
17	Naqelewai (T178-186)	7	2,832m			
18	Wailoa (T186-T192)	6	2,370m			
TOTAL		198	77,244m	\$ (VEP)		

This tender and subsequent contract with the successful Bidder(s) requires the completion of entire works within **6 months for both the Wailoa-Nadarivatu-Vuda 132kV Line and for Wailoa-Cunningham 132kV Line** after signing of contract and/or issuance of official FEA Purchase Order. **Bidders to note Liquidated Damages due to delays, in completion of works.**

Anticipated Start Date: May 1st, 2017

Required Completion Date: October 31st, 2017

Bidders shall submit a project program at the time of Bidding for entire works being bid for. The project program shall bear the company stamp and shall be signed by company Director / Owner.

7. **FEA Representative Duties**

- a. Shall obtain necessary consent from property owner and obtain such consent in writing, if required. Failure to obtain this consent, a three [3] day written notice shall be issued in accordance to section 37 of the Electricity Act.
- b. Conduct an inspection of the site in question where the Work will be carried under this Agreement and ensure to jointly identify all risks and draw a safe work program before the Contractor is allowed to cut trees. A Unit Leader Transmission from Network Division of FEA will issue a permit to the Contractor to start work.
- c. Organise power shutdown where the tree branches are directly above live high voltage lines and within falling distances from the live high Voltage power line. Branches touching live lines shall be treated as if they are “alive”.
- d. Communicate to the customers in areas affected by the shutdown.
- e. Organise and carryout contractor training
- f. Calculate any crop compensation payable to property owners.
- g. Carry out regular safety audits.
- h. Carry out progressive inspection of work completed.

8. **Shutdown Requests (If Required)**

Pertaining to requirements of work scope, FEA shall, at the request of the Contractor allow for an outage at a particular site in order for the contractor to carry out the work.

The request is to be given to FEA’s Representative in an approved form (Work Program shall be sufficient), no less than 10 working days before any Commencement of Work. The Contractor shall ensure that proper approval is in place and in absence of such approval the Contractor shall not commence any work.

FEA’s Representative shall then:

- (a) make arrangements for an outage in the area in conjunction with the National Control Centre;
- (b) make necessary arrangements to inform affected customers;
- (c) inform the Contractor of the date and time for the outage;
- (d) Organise authorised personnel to carry out switching on the set date.

9. **Contractor Responsibilities**

- (a) The Works as completed by the Contractor shall be wholly in accordance with the Contract and comply with the **FEA Vegetation Management Policy** as defined in this tender document and the Contract. The Works shall include any work which is necessary to satisfy FEA’s Requirements, Work Program and Schedules, or arises from any obligation of the Contractor, and all works not mentioned in the Contract but which may be inferred to be necessary for stability or completion or the safe, reliable and efficient operation of the Network.
- (b) The Contractor shall execute and complete the Works within the Time of Completion, and shall remedy any defects within the Contract period.
- (c) The Contractor shall provide all labour, materials, tools and equipment necessary for the execution, completion of works and remedying of defects. The contractor shall provide his employees all the necessary Personnel Protective Equipment (PPE) in order for the job to be executed. **Contractor’s failure to provide PPE, or the contractor’s employee’s failure to utilise**

the PPE shall be grounds for the cancellation of contract on the basis of non-performance. The contractor shall not borrow any tools, equipment or PPE from FEA teams carrying out the works supervision. The contractor and/or his employees shall not utilise FEA transportation.

- (d) Before commencing any Work, the Contractor shall satisfy himself regarding FEA's Requirements. The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operation and of all the Works. These shall include but not be limited to:
- i. Ensure not to take any risks where there is tree branches touching or above low or high voltage power line or where the tree is within falling distances from the low or high voltage power line. The Contractor shall immediately notify the FEA representative of findings of such trees and shall not cut that particular tree [s] in question.
 - ii. Ensure that when using chainsaws to be operated by a trained and competent person certified by the Ministry of Forestry, from a platform or on the ground.
 - iii. Authorise Contractor employee to attend the Network Contractor Training, OHS induction.
 - iv. The Contractor shall submit to FEA a list consisting of all those workers who will be deployed at the Work site. The precondition of deploying these workers is that driver shall have a current driver licence and the chainsaw operator needs to have current certification from Fiji Forestry Training Centre to certify that he is able to operate a chainsaw. The Contractor shall provide a list of all its workers whether employed or hired three working days before commencement of Work under the Contract. The Contractor and FEA representative will agree to a list of these.
 - v. Ensure adequate safety signage at the work and road side and to facilitate traffic management.
 - vi. Maintain and comply with the OHS Act.
 - vii. Clear out all debris at the Work site.
 - viii. Submit handover Completion Certificate.
 - ix. The contractor must ensure good relationship is maintained with the member of the public and the landowners.
 - x. **The contractor shall make good any damage to FEA assets, other public or private property, farm or crop during the execution of the Work.**
- (e) The Contractor shall send all communications to the FEA's Unit Leader Transmission and copy of the same to the FEA's Technical Officer Transmission.
- (f) The contractor is solely responsible for the quality of works, compliance with the tender's workscope and quality requirements. The FEA's presence on site does not indemnify the contractor from delivering quality works as per tender specification and the contract's requirement. The Unit Leader Transmission or thereby explicitly delegated representative, shall inspect the quality of works and signoff on completion certificates.

10. **Safety Measures at Work Site**

The contractor shall comply with all applicable safety regulations while carrying out the work on site. This includes but not limited to;

- a) Appropriate and adequate safety training provided to its labourers and machine operators to safely execute the work
- b) Appropriate use of personal protective equipment such as steel capped boots, helmets, safety harness, etc.

- c) Sufficient caution signs displayed on the road next to work area ensuring traffic flow and public access is controlled
- d) First aid facilities and a trained first aider to be available on site at all times

The contractor will solemnly be responsible for any incident or accident resulting from either negligence or omission of the above safety requirements

11. **Protection of Environment**

It is the contractors' responsibility to ensure all reasonable steps are taken to ensure protection of the environment and limit the damage and nuisance to property and people resulting from pollution, noise and other results from operation.

This also includes clearing and removing all branches, trees and debris from the site together with proper disposal upon completion of work.

Failure to adhere to the above will solemnly be the contractor's responsibility

12. **Landowners**

The contractor will be responsible for offering of "Sevusevu" to the landowner prior to actual commencement of work as a sign of respect. FEA shall accompany the contractor to the ceremony

13. **Commencement & Completion of Work**

The commencement and completion for each stage of work shall strictly be adhered as per work plan

14. **Extension of Time for Completion**

The Contractor may apply for an extension of the Time for Completion if it is or will be delayed either before or after the Time of Completion in any of the following events:

- a. a force majeure event (defined as an event beyond the control of FEA and the Contractor, which makes it impossible or illegal for a party to perform)
- b. physical conditions or circumstances on the Site, which are exceptionally adverse and were not (by the Base Date) foreseeable by an experienced contractor, or
- c. Any delay, impediment or prevention by FEA.
- d. Any extension of time granted shall be at the sole discretion of FEA.

If the Contractor intends to apply for an extension of the Time for Completion, the Contractor shall give written notice to the Unit Leader Transmission and copied to FEA's Technical Officer transmission, of such intention as soon as possible and in any event within 7 days of the start of the event giving rise to the delay, together with any notice required by the Contract and relevant to such cause

15. **Liquidated Damages for Delay**

If the Contractor fails to comply with the agreed Work Program or fails to meet deadlines, the **Contractor shall pay to FEA the relevant sum of liquidated damages as such stated as 10% of the contract amount charged at the rate of 1% for every days delay outside the Work Program** except in a Force Majeure situation and/or the delay is not the fault of the Contractor. The Liquidated

damages shall be applicable to the full or any part of the project, as broken down in the schedule of payments.

16. Inspection on Completion of Work

FEA shall carry out inspection in accordance with this clause and the **FEA Vegetation Management Policy**. The Contractor is to notify and arrange a site meeting with FEA's Representative after the completion of works.

If the Works, or a Section, fails to get an approval from FEA's Representative, the Contractor will not be allowed to progress further. FEA's Representative shall notify the Contractor to rectify the defects and re-schedule the site inspection.

The Contract shall not be considered to be completed until the Completion Certificate has been signed by the Contractor and accepted by FEA's representative, stating the date on which the Contractor completed his obligations to FEA's satisfaction.

The Completion Certificate shall be given by the Contractor within five (5) working days after completion of each stage and the expiry of the Contract Period, or as soon after such date as the Contractor has completed all the Works, including remedying any defects.

Only the acceptance of the Completion Certificate by FEA shall deem to constitute approval of the Works.

17. Contract Price and Payment

18.1 Contract Price

Unless otherwise stated:

- a. payment for the Works shall be made as stated in the Schedule of Payment
- b. The Contract price shall not be adjusted for changes in the cost of labour, materials or other matters; and
- c. The Contractor shall pay all duties and taxes in consequence of his obligations under the Contract, and the Contract Price shall not be adjusted for such costs.

18.2 Payment

Unless otherwise stated,

- a. FEA shall pay the amount in accordance with the Schedule of Payment and Work Program;
- b. The Contractor shall furnish an invoice and submit the Completion Certificate for each stage of payment; and
- c. The payment to the Contractor shall be made by cheque.
- d. All payments to the Contractor will be made within 30 days from date of receipt of the invoice and supporting documents

18. Notice to Correct

If the Contractor fails to carry out any obligations, or if the Contractor is not executing the Works in accordance with the Contract, FEA's Representative may give notice to the Contractor requiring him to make good such failure and remedy the same within a specified reasonable time

19. Insurance for Works and Contractor's Equipment

During the Work, and through to the date of Completion of all Works while any employee of the Contractor are present at the Site, the Contractor shall provide and maintain, through purchase or its standard insurance program, including provisions for self-retention, the insurance coverage listed below or its equivalent:

20.1 Workers' Compensation

Workers compensation insurance in the amount of FJD\$100,000.00, that the Contractor shall self-insure against workers compensation perils and to comply with qualification, and requirements of all applicable workers compensation laws

20.2 Comprehensive General Liability Insurance

Comprehensive general liability insurance, covering Contractor, its employees and Third Party for all of Contractor's operations hereunder, including all activities at the Work Site, including, but not limited to, bodily injury, property damage, premises operations, elevators, products, completed operations and blanket contractual coverage with limits of not less than FJD\$100,000.00 combined single limit

Insurance Policies

Policy Type	Value	Date of issue	Expiry Date	Insurance Company
Workers Compensation	\$250,000.00			
Public Liability	\$500,000.00			
Contractors All Risk	\$500,000.00			

Contractor to submit proof of current insurance at the time of submission of Bid. All Bids without proof of insurance shall be disqualified.

List of Approved Workers who will be working at the Work Site

List of Contractor's employees and occupations enlisted for Vegetation Management

Occupations may possibly be: Supervisor; Assistant Supervisor; Driver; Chainsaw Operator; Labour; etc

No.	Name of Employee	FEA VM TRAINING ID CARD #	FNPF Number	Occupation
1.				
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20.				

Contractors are to fill and submit the attached FEA HSE Document Form number HSE41C01 together with the bid documents. Failure to do so may result in the disqualification of the bids.

Submission of Tender

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

Courier charges for delivery of Tender Document must be paid by the bidders.

This tender closes at 4:00 p.m. (16.00hrs Fiji time) on Wednesday 5th April, 2017.

Each tender shall be sealed in an envelope with:

The envelope bearing only the following marking:

TENDER No. MR 53/2017
Vegetation Management for 132kV Transmission Lines

The Secretary, Tender Committee
Fiji Electricity Authority
Supply Chain Office
Private Mail Bag, Suva

It must also indicate the name and address of the tenderer on the reverse of the envelope.

All late tenders, unmarked Envelopes and envelopes without bidder's name and address on the reverse on the envelope will be returned to the Tenderers unopened. (Bids via e-mail or fax will not be considered).

The bidders must ensure that their bid is inclusive of all Taxes payable under Fiji Income Tax Act and must have the most current Tax Compliance Certificate.

For further information or clarification please contact our Supply Chain Office on phone (+679) 3224360 or (+679) 9991587.