



ENERGY FIJI LIMITED

**Preferred Supplier for Supply of 12kv and
36kv Portable Earthing Device Completed
With Accessories**

MR 115/2025

Revision History & Document Control

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Next Scheduled Revision

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1. INTRODUCTION AND SCOPE OF WORK

Energy Fiji Limited [EFL] is responsible for generation, transmission and distribution of electricity in Viti Levu, Vanua Levu, Ovalau and Taveuni in Fiji. By the end of 2024, EFL had 223,539 customers. This includes residential, commercial and institutional customers.

EFL is requesting proposal for the Preferred Supplier to supply item listed below for EFL's operations to carryout repair, construction and maintenance of Power line Network in Fiji.

The preferred Supplier arrangement will be for a period of three (3) years from the date of signing of the contract. The award of this Tender may be split and awarded to more than one successful bidder.

This document outlines the technical requirements for 11kV and 33kV portable earths complete with accessories for use in EFL's high voltage distribution and sub-transmission networks.

The items covered by this specification are listed below:

No.	Stock Code	Item Description
1	I03526	11kV Earth Stick c/w Accessories
2	I03528	33kV Earth Stick c/w Accessories

Table 1.1: Items Covered Under this Specification

This Specification covers the general requirements of design, manufacture, testing, supply and delivery of 11kV and 33kV portable earths complete with accessories to be used in EFLs high voltage distribution and sub-transmission networks.

1 INSTRUCTIONS TO BIDDERS

1.1 Eligible Bidders

This invitation is open to all Bidders who have sound Financial Background, and have previous experience in design, manufacture, testing and supply of Supply Of 12kv And 36kv Portable Earthing Device Completed With Accessories.

Bidders shall provide such evidence of their continued eligibility satisfactory to EFL as EFL shall reasonably request. Bidders who are not manufacturers of such equipment shall provide evidence of agency.

Bidders shall not be under a declaration of ineligibility for corrupt or fraudulent practice.

1.2 Eligible Materials, Equipment and Services

The materials, equipment, and services to be supplied under the Contract shall have their origin from reputable companies (as specified by EFL where relevant) and from various countries and all expenditures made under the Contract will be limited to such materials, equipment, and services. Upon request, bidders may be required to provide evidence of the origin of materials, equipment, and services.

For purposes of this Contract, "services" means the works and all related services including design services.

For purposes of this Contract, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing or substantial or major assembling of components, a commercial recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

The materials, equipment and services to be supplied under the Contract shall not infringe or violate any industrial property or intellectual property rights or claim of any third party.

1.3 One Bid per Bidder

Each bidder shall submit only one bid. A bidder who submits or participates in more than one bid will cause all those bids to be rejected.

1.4 Cost of Bidding

The bidder shall bear all costs associated with the preparation and submission of its bid and EFL will in no case be responsible or liable for those costs.

1.5 Site Visits

Bidders can visit existing EFL networks by making arrangements to visit existing EFL installations. Bidders are required to familiarize themselves with the existing EFL installations so the solutions they offer does not require modification to existing poles and support infrastructure.

1.6 Contents of Bidding Documents

The bidder is expected to examine carefully the contents of this Bidding document. Failure to comply with the requirements of bid submission will be at the bidder's own risk. Bids which are not substantially responsive to the requirements of the bidding documents will be rejected.

1.7 Clarification of Bidding Documents

A prospective bidder requiring any clarification of the bidding documents may notify EFL in writing by email, addressed to:

Jitendra Reddy
Manager Procurement, Inventory & Supply Chain
2 Marlow Street,
Suva, Fiji
Phone: +679 331 3333 Ext 2320 or
Mobile: +679 999 2400
Email: JReddy@efl.com.fj

EFL will respond to any request for clarification which it receives earlier than 10 days prior to the deadline for submission of bids.

1.8 Amendment of Bidding Document

At any time prior to the deadline for submission of bids, EFL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by issuing addenda.

1.9 Language of Bid

The bid, and all correspondence and documents related to the bid, exchanged between the bidder and the EFL shall be written in the English language.

1.10 Bid Prices

Unless specified otherwise, Bidders shall quote for the entire facilities on a "single responsibility" basis such that the total bid price covers all the Supplier's obligations mentioned in or to be reasonably inferred from the bidding documents in respect of the design, manufacture, including procurement and subcontracting (if any), testing and delivery.

Bidders shall give a breakdown of the prices in the manner and detail called for in this bidding document, or any issued addenda.

Bids shall be given on CIF basis. The point of delivery shall be EFL's Navutu Depot in Lautoka. The term CIF shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce, Paris.

EFL has a marine insurance cover for items it is required for purchase for its project and operational works. Bidders are required to comment if the marine insurance component is covered in their bids.

1.11 Bid Currencies

Prices shall be quoted in a single currency only.

1.12 Bid Validity

Bids shall remain valid for a period of **90 days** from the date of Deadline for Submission of Bids specified in Sub-Clause 21.1.

1.13 Format and Signing of Bids

The bidder shall provide one electronic copy of the Technical and Financial proposals on EFL's electronic tender hosting website; <https://www.tenderlink.com/efl>

The bid shall contain no alterations, omissions or additions, except those to comply with instructions issued by EFL, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

1.14 Sealing and Marking of Bids

Due to the Covid19 restrictions on movements, bidders are encouraged to bid via Tender link Portal.

1.15 Deadline for Submission of Bids

Bids must be received by EFL at the address specified above no later than **1600 hours (Fiji Time) 26th March 2025**.

EFL may, at its discretion, extend the deadline for submission of bids by issuing an addendum, in which case all rights and obligations of EFL and the bidders previously subject to the original deadline will thereafter be subject to the deadlines extended.

1.16 Late Bids

Any bid received by EFL after the deadline for submission of bids prescribed above will be rejected.

1.17 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 EFL prior to the deadline for submission of bids.

No bid may be modified by the bidder after the deadline for submission of bids.

1.18 Rejection of One or All Bids

EFL 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 rejection.

1.19 Process to be Confidential

- 1.19.1 Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process.
- 1.19.2 Any effort by a bidder to influence EFL's processing of bids or award decisions may result in the rejection of the bidder's bid.
- 1.19.3 Lowest bid will not necessarily be accepted as successful bid.

1.20 Clarification of Bids

To assist in the examination, evaluation and comparison of bids, EFL may, at its discretion, ask any bidder for clarification of its bid. The request for clarification and the response shall be in writing, but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by EFL in the evaluation of the bids.

1.21 Compliance with Specifications

The tender shall be based on the equipment and work specified and shall be in accordance with the Technical Specification. It should be noted that unless departures from specifications are detailed in Schedules of the Technical Specification, the tender would be taken as conforming to the Specification in its entirety. The Bidder shall tender for the whole of the Works included in the Specification.

2. REFERENCES

2.1. Applicable Standard

The item shall be designed, manufactured and tested in accordance with the latest edition of the Standards specified below and all amendments issued prior to the date of closing of tenders except where varied by this specification.

IEC 61230	Live working - Portable equipment for earthing or earthing and short-circuiting
IEC 61138	Cables for portable earthing and short circuiting equipment
IEC 61318	Live working - Conformity assessment applicable to tools, devices and equipment
IEC 61477	Live working – Minimum requirements for the utilization of tools, devices and equipment
IEC 60811 - 1	Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application.
IEC 60811 - 3	Common test methods for insulating and sheathing materials of electric cables – Part 3: Methods specific to PVC compounds.
IEC 60060 – 1	High voltage test techniques – Part 1: General definitions and test requirements.
IEC 60068	Environment testing.
AS 1154.1	Insulator and conductor fittings for overhead power lines – Part 1: Performance, material, general requirements and dimensions
AS ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
AS/NZS ISO:9001	Quality Management Systems – model for quality assurance in design, development, production, installation and servicing

Should inconsistencies be identified between standards and/or this specification, the tenderer shall immediately refer such inconsistencies to the EFL for resolution.

3. SERVICE CONDITIONS

3.1. Environmental Conditions

The 11kV and 33kV portable earths complete with accessories shall be suitable for installation outdoors and shall be designed to withstand the following service conditions.

Description		Conditions
Atmosphere Pollution Level	:	Very heavy (IEC 60815)
Ambient Temperature	:	Peak: 40°C 24 Hour Average: 30°C Annual Average: 22°C Minimum: 10°C
Relative Humidity (Average)	:	85%
Rainfall	:	Annual Average: 2663mm
Isokeraunic (Thunder day) level	:	60 thunder days per year
Seismic	:	To a maximum of 7 on the open-ended Richter Scale

Note: Fiji is situated in a region where cyclones are experienced frequently. All plant and equipment shall be designed and constructed to withstand these extreme conditions.

3.2. System Conditions

Nominal Voltage	11kV	33kV
System Highest Voltage	12kV	36kV
System Frequency	50Hz	50Hz
Number of Phases	3	3
System Earthing	Effectively Earthed	Effectively Earthed
Impulse Withstand Voltage (peak)	95kV	200kV
Power Frequency Withstand Voltage	38kV (rms)	95kV

4. DESIGN AND CONSTRUCTION

4.1. General

This Specification comprises general, technical and performance requirements for overhead line portable earths.

Portable Earths shall be used as protective devices to protect linemen if the high voltage overhead line they are working on is mistakenly re-energized through lightening and customers' back feeding to the network through their generator. In the event that a conductor is energized inadvertently, the aim of a portable earth shall be to:

1. Provide a controlled path for the short-circuit current away from an exposed linemen to allow short-circuit detection equipment to operate and disconnect supply quickly, and
2. To minimize the voltage rise and reduce the chance of electric shock occurring.

The equipment shall belong to the normal climatic class (N) according to paragraph 5.1 of IEC 61230. Therefore, it shall be suitable for working conditions with temperature values from -25°C to 55°C .

The total mass of one set of portable earthing device complete with accessories and bag shall not exceed the international recommended minimum lifting weight.

All the components of the equipment shall be strong enough to resist heavy conditions of outdoor use in adverse weather conditions, rust and corrosion. The materials used for the manufacture of the screwed parts of the pole or clamps shall provide excellent strength to strains during handling and tightening/untightening operations.

The electrical connections of the earthing cable with both line and earth clamps shall be in accordance with IEC 61230 paragraph 5.4 requirements. Therefore soldered connections shall not be allowed. If the primary attachment is made to intermediate parts such as cable lugs, the next connection shall be protected against unintentional loosening. Single screws or nuts, if used, shall always be combined with a device, for instance lock washers, which positively prevent slippage or rotation.

4.2. 11kV Portable Earth Set

The 11kV portable earth set shall be suitable to be used with environmental and systems conditions as per Clause 3 of this specification and shall be manufactured as per IEC 61230 and other relevant standards as specified in Clause 2.1.

4.2.1 Line Clamp & Handle Assembly

The line clamp shall be made of high strength Aluminum or Bronze alloy, to be fitted on overhead conductors. The clamp shall be screwable to bare overhead power lines with maximum diameter of 35mm.

The clamp shall be mounted with a PVC/fiberglass handle of 1.2 meters in length. The 1.2 meter handle is intended to provide more than adequate minimum approach distance for use on distribution power lines voltages up to 22kV. **The handle shall be insulated for the rated voltage of 12kV.**

The clamp and stick handle shall be strong enough to resist without any permanent deformation to the action of tightening force applied by the operator during their installation on the conductors above specified.

The clamp shall be of screwed type suitable to be quickly and firmly secured on the line conductors as well as to be easily removed afterwards, without producing damages on them. It shall be provided with a

trapezoidal threaded screw. An elastic system such as spring shall be interposed in the clamping system to improve efficiency and to insure a higher withstand in case of electrodynamic shock.

The line clamp and handle assembly shall be supplied in a set of 3.

4.2.2 Earth Cable (From Line Clamp to Junction Block)

The earth cable from the each line clamp assembly to the junction block shall be made of extra flexible multi-strand copper conductor of 35mm with transparent insulation tested to 10kA for 1 second as per IEC 61138 and IEC 61230. The earth cable ends shall be permanently connected to the line clamp and junction block.

The length of the each earth cable shall be **3 meters**.

4.2.3 Junction Block

The junction box shall be suitable for a 6 way operation with 25/35mm cable capacity.

A support carabiner shall also be provided in the junction block for operator handling and safety.

4.2.4 Earth Cable – A (From Junction Block to Earth Clamp)

The earth cable shall be picked from the junction block and connected to the earth clamp assembly. The earth cable shall be made from extra flexible multi-strand copper conductor of 35mm with transparent insulation tested to 10kA for 1 second as per IEC 61138 and IEC 61230.

The length of the earth cable shall be **9 meters**.

4.2.5 Earth Clamp Assembly – A

The earth clamp assembly shall be made of high strength Al or Bronze alloy, screwable type providing effective connection when connected to the earth spike.

The clamp shall be strong enough to resist without any permanent deformation to the action of tightening force applied by the operator during its installation on the earth spike.

4.2.6 Earth Cable – B (From Junction Block to Earth Clamp)

The earth cable shall be picked from the junction block and connected to the earth (neutral) clamp assembly. The earth cable shall be made from extra flexible multi-strand copper conductor of 35mm with transparent insulation tested to 10kA for 1 second as per IEC 61138 and IEC 61230.

The length of the earth cable shall be **1 meter**.

4.2.7 Earth Clamp Assembly – B

The earth (neutral) clamp assembly shall be made of high strength Al or Bronze alloy, screwable type providing effective connection when connected to the earth spike.

The clamp shall be strong enough to resist without any permanent deformation to the action of tightening force applied by the operator during its installation on the earth spike.

4.2.8 Earth Spike

The earth spike provided, shall be treated for effective earthing. It shall have a **length of 760mm** with a **diameter of 20mm**.

The earth spike shall be strong enough to resist without any permanent deformation to the action of hammering force applied by the operator during its installation.

4.2.9 Earth Bag

The 11kV portable earthing assembly shall be provided suitably packed in a bag for storage and easy handling. The earth bag shall have a maximum **length of 1.60 meters** and shall be weather proof.

4.3. 33kV Portable Earth Set

The 33kV portable earth set shall be suitable to be used with environmental and systems conditions as per Clause 3 of this specification and shall be manufactured as per IEC 61230 and other relevant standards as specified in Clause 2.1.

4.3.1 Line Clamp & Handle Assembly

The line clamp shall be made of high strength Aluminum or Bronze alloy, to be fitted on overhead conductors. The clamp shall be screwable to bare overhead power lines with maximum diameter of 45mm.

The clamp shall be mounted with a PVC/fiberglass handle of 2.4 meters in length. The 2.4 meter handle is intended to provide more than adequate minimum approach distance for use on distribution power lines voltages up to 36kV. **The handle shall be insulated for the rated voltage of 36kV.**

The clamp and stick handle shall be strong enough to resist without any permanent deformation to the action of tightening force applied by the operator during their installation on the conductors above specified.

The clamp shall be of screwed type suitable to be quickly and firmly secured on the line conductors as well as to be easily removed afterwards, without producing damages on them. It shall be provided with a trapezoidal threaded screw. An elastic system such as spring shall be interposed in the clamping system to improve efficiency and to insure a higher withstand in case of electrodynamic shock.

The line clamp and handle assembly shall be supplied in a set of 3.

4.3.2 Earth Cable (From Line Clamp to Junction Block)

The earth cable from the each line clamp assembly to the junction block shall be made of extra flexible multi-strand copper conductor of 35mm with transparent insulation tested to 10kA for 1 second as per IEC 61138 and IEC 61230. The earth cable ends shall be permanently connected to the line clamp and junction block.

The length of the each earth cable shall be **6 meters**.

4.3.3 Junction Block

The junction box shall be suitable for a 6 way operation with 25/35mm cable capacity.

A support carabiner shall also be provided in the junction block for operator handling and safety.

4.3.4 Earth Cable (From Junction Block to Earth Clamp)

The earth cable shall be picked from the junction block and connected to the earth clamp assembly. The earth cable shall be made from extra flexible multi-strand copper conductor of 35mm with transparent insulation tested to 10kA for 1 second as per IEC 61138 and IEC 61230.

The length of the earth cable shall be **12 meters**.

4.3.5 Earth Clamp Assembly

The earth clamp assembly shall be made of high strength Al or Bronze alloy, screwable type providing effective connection when connected to the earth spike.

The clamp shall be strong enough to resist without any permanent deformation to the action of tightening force applied by the operator during its installation on the earth spike.

4.3.6 Earth Spike

The earth spike provided shall be treated for effecting earthing. The earth spike shall have a **length of 760mm** with a **diameter of 20mm**.

The earth spike shall be strong enough to resist without any permanent deformation to the action of hammering force applied by the operator during its installation in earth.

4.3.7 Earth Bag

The 33kV portable earthing assembly shall be provided suitably packed in a bag for storage and easy handling. The earth bag shall have a maximum length of 2.90 meters and shall be weather proof.

5. PERFORMANCE AND TESTING

5.1. Type Testing

Type tests shall be done in accordance with the requirements of IEC 61230, IEC 61138 and this specification. It shall be the responsibility of the supplier to perform or to have performed all the tests specified.

Copies of Type Test Certificates & Type Test Reports issued by a third party testing laboratory that is accredited to AS ISO/IEC 17025 shall be submitted with the tender for the purpose of technical evaluation. A copy of the accreditation certificate to AS ISO/IEC 17025 for the testing laboratory shall also be submitted (all in English language).

Copies of type test reports to be submitted with the tender (by bidder) for evaluation shall be as per the table below:

Test Required	Testing Standard
Fatigue tests on cable with end-fittings	IEC 61230 paragraph 6.2
Humidity penetration test on devices with copper cables	IEC 61230 paragraph 6.3
Pull test on cable with clamps	IEC 61230 paragraph 6.4
Test on clamps and connections within devices with respect to ability to withstand connecting forces	IEC 61230 paragraph 6.5
Short-circuit current test	IEC 61230 paragraph 6.6
Testing durability of marking	IEC 61230 paragraph 6.6
Test on earthing cable	IEC 61138

The bidders are to take note that the above table does not limit the tests that may be conducted on the portable earth sets.

Mandatory Requirements to Bidders:

1. Each portable earth shall be certified that it has been tested and in working condition. Preferable if some kind of "TESTED PASS" or "TESTED OK" mark or certificate to be supplied with each earthing set.
2. Each earth stick handle shall be insulated for the rated voltages of 12kV and 36kV respectively.
3. Bidders shall provide a testing instruction manual for testing the portable earth sets in EFL. This will help EFL to identify if the portable earth sets are in working condition. The manual shall also contain details about how frequent the tests shall be conducted.

5.2. Routine Tests

A sample shall be taken in random from each lot ready for delivery and shall be subjected to the tests in accordance with the paragraph 6.1.2 of IEC 61230.

5.3. Acceptance Tests

The EFL may carry out acceptance test on equipment to prove it conforms to the requirements of this Specification. Any equipment showing evidence of failure to comply with the requirements of this specification will be liable to rejection.

5.4. Witnessing of Tests

The EFL reserves the right to witness all testing. The Supplier shall give EFL reasonable notice of when testing will be carried out and two (2) EFL engineers to be invited to witness the testing. The return-air travel, accommodation, meals and other expense related to test witnessing shall be borne by the Bidder as a value adding service.

Note the Factory Acceptance Testing (FAT) is a mandatory requirement by EFL.

5.5. Compliance

The Supplier shall state in writing that their offer complies with the relevant Standards and this specification. If the Supplier is offering equipment manufactured to an equivalent standard, full details of that standard must be given including a copy written in English.

6. RELIABILITY

6.1. Service Life

Bidders are required to comment on the reliability of the equipment and the performance of the materials offered for a service life of 35 years under the specified system and environmental conditions in clause 3.

6.2. Evidence in Support of Reliability

Where the specified guaranteed service life is less than 35 years Suppliers are required to provide comment and submit evidence in support of the reliability and performance claimed including detailed information on Failure Mode and Effect Analysis.

7. ENVIRONMENTAL CONSIDERATIONS

Suppliers are required to comment on the environmental soundness of the design and the materials used in the manufacture of the items offered. In particular, comments should address such issues as recyclability and disposal at end of service life and also disposal of packaging material.

8. PACKAGING AND MARKING

8.1 Packaging

The packaging of items by the bidder must ensure that they are capable of being delivered undamaged giving due consideration to the quantity, distance of transportation and the preferred method of handling at each location.

Each packaged lot shall be marked with the following information:

- Manufactures Name
- Purchase Order Number
- Contact No.
- EFL Stock Code
- Item Description
- Applicable standards
- Pack Size
- Pack Weight

8.2 Marking

The following information shall be marked indelibly and legibly on a nameplate permanently attached to the 11kV and 33kV portable earth sets in English language:

- Continuous operating voltage
- Rated voltage
- Rated frequency
- Rated short-circuit withstand current in kA
- The manufacturer's name or trade mark
- The year of manufacture
- The letter "PROPERTY OF EFL"

9. QUALITY REQUIREMENTS

Tenderers are required to submit evidence that the design and manufacture of the 11kV and 33kV portable earth sets are in accordance with AS/NZS ISO 9001 and shall include the Capability Statement associated with the Quality System Certification.

If the Tenderer is a non-manufacturing supplier, the documentary evidence shall include the quality system certifications of both the supplier and the manufacturer.

10. STOCK AVAILABILITY

The bidder is required to show the size of his/her stock holding and the ability to meet the required estimate quantity per annum. The movement of the 11kV and 33kV portable earth sets will depend on the EFL's project works and for operation and maintenance purposes. An estimate movement of the item are outlined in the table below but it will not be purchase as a lump sum quantity at once. Hence, the successful bidder will be required to carry a consignment / safety stock at times to meet EFL's demand within the three year contract period.

No.	Stock Code	Item Description	Approximate 3 Year Stock Movement
1	I03526	11kV Earth Stick c/w Accessories	31
2	I03528	33kV Earth Stick c/w Accessories	4

11. PRODUCT WARRANTY PERIOD

The bidders are required to provide the warranty period as part of the proposal. A minimum warranty period of twenty-four (24) months from time of dispatch from factory shall be provided.

12. INFORMATION TO BE SUPPLIED BY THE BIDDER

12.1. Documentation to be supplied with the tender

To enable the EFL to fully evaluate the 11kV and 33kV portable earth sets offered, (in addition to the completed Specification Requirement and Guaranteed Performance schedule) the bidder shall submit the following information with their tender: **(Note these are mandatory requirements)**

- List showing similar equipment supplied to or on order for other utilities in Australia or New Zealand or the Oceania region for the past 5 years
- Typical arrangement drawings and full details of the dimensions including drawings for the accessories offered

- Type test certificates as per Clause 5.1 and 5.2
- End of service life disposal methods
- Evidence of Quality Management Systems used in the manufacturing process
- Evidence of Health, Safety and Environmental plans
- Evidence of financial ability to provide the level of service and support
- Origin of materials used in manufacture of the 11kV and 33kV portable earth sets
- Names and resumes of key team members who will be assigned to work with EFL upon successful award of the three-year supply contract (if bidder is successful)

Bidders may be asked to provide additional information during tender assessment period or following award of contract.

12.2. Samples

When requested, production samples of each item shall be submitted with the offer.

Each sample shall be delivered freight free (Delivery Duty Paid (DDP)), suitably packaged and labelled with the following information:

- Name of supplier and this contact number
- Tender number
- Any supporting data on features or characteristics

12.3. Training

Training material in the form of drawings, instructions and/or audio visuals (in CD format) are required to be provided for the items accepted under the tender. The Tenderers shall allow the cost of production and delivery of training material in the tendered prices.

The training materials should include but not be limited to the following topics:

- Handling
- Storage
- Application
- Installation
- Maintenance
- Environmental performance
- Electrical performance
- Mechanical performance
- Disposal

Offers of vendors who fail to furnish above particulars shall be rejected.

13. APPENDIX

13.1. Price Schedule

Bidders are required to complete the following price schedule and submit with the offer. EFL requires the bidding prices to be in CIF incoterms.

No.	Stock Code	Item Description	Unit Price (CIF)	Currency of bid
1	I03526	11kV Earth Stick c/w Accessories		
2	I03528	33kV Earth Stick c/w Accessories		
3		Factory Acceptance Testing (FAT) for 2 EFL Engineers		

Bidders are to clearly indicate the currency of bid.

13.2. Technical Details – Portable Earth Sets

This schedule shall be completed and submitted with the offer. A separate schedule shall be provided for each item offered: **(Note these are mandatory requirements)**

Particulars	Requirements	Bidders Response
Name of Manufacturer		
Origin of materials used for manufacturing of earth sets		
Country of manufacture		
Manufactures type test certificate number		
Name of testing authority		
General		
Ability to operate in environmental and system conditions as per Clause 3.0 of this specification		
Complete dimensional drawing provided for both 11kV and 33kV earth sets complete with accessories	Mandatory requirement	
Test certificate copies provided as per Clause 5.1 and 5.2 of this specification	Mandatory requirement	
Portable earth set testing manual for EFL	Mandatory requirement	
Delivery timeframe after issue of Purchase Order	4 weeks	
11kV Portable Earth Set		
Manufactured to IEC 61230 and IEC 61138	Yes/ No	
Line Clamp & Handle Assembly		
Line clamp material	High strength Aluminum or Bronze alloy	
Line clamp type	Screwable	
Maximum overhead conductor diameter capacity	35mm	
Earth stick handle material	PVC/fiberglass	

Earth stick handle insulation level	12kV	
Earth stick handle length	1.2m	
Earth stick handle diameter	38mm	
Earth Cable (From Line Clamp to Junction Block)		
Earth cable manufactured to IEC 61138	Yes/ No	
Earth cable material	Extra flexible multi-strand copper conductor	
Earth cable diameter	35mm	
Tested to 10kA for 1 second	Yes/ No	
Earth cable length	3m	
Junction Block		
Junction block material	To be stated by bidder	
Junction block operation	6 way	
Cable capacity	25/35mm	
Is a support carabiner provided	Yes/ No	
Earth Cable – A (From Junction Block to Earth Clamp)		
Earth cable manufactured to IEC 61138	Yes/ No	
Earth cable material	Extra flexible multi-strand copper conductor	
Earth cable diameter	35mm	
Tested to 10kA for 1 second	Yes/ No	
Earth cable length	9m	
Earth Clamp Assembly – A		
Earth clamp material	High strength Al or Bronze alloy	
Earth clamp type	Screwable	
Earth Cable – B (From Junction Block to Earth Clamp)		

Earth cable manufactured to IEC 61138	Yes/ No	
Earth cable material	Extra flexible multi-strand copper conductor	
Earth cable diameter	35mm	
Tested to 10kA for 1 second	Yes/ No	
Earth cable length	1m	
Earth Clamp Assembly – B		
Earth clamp material	High strength Al or Bronze alloy	
Earth clamp type	Screwable	
Earth Spike		
Earth spike material	To be stated by bidder	
Earth spike length	760mm	
Earth spike diameter	20mm	
Earth spike has tapered bottom	Mandatory requirement	
Earth Bag		
Earth bag material	To be stated by bidder	
Earth bag shall be weather proof	Mandatory requirement	
Earth bag length	Approximately 1.6m	
33kV Portable Earth Set		
Manufactured to IEC 61230 and IEC 61138	Yes/ No	
Line Clamp & Handle Assembly		
Line clamp material	High strength Aluminum or Bronze alloy	
Line clamp type	Screwable	
Maximum overhead conductor diameter capacity	45mm	
Earth stick handle material	PVC/fiberglass	

Earth stick handle insulation level	36kV	
Earth stick handle length	2.4m	
Earth stick handle diameter	38mm	
Earth Cable (From Line Clamp to Junction Block)		
Earth cable manufactured to IEC 61138	Yes/ No	
Earth cable material	Extra flexible multi-strand copper conductor	
Earth cable diameter	35mm	
Tested to 10kA for 1 second	Yes/ No	
Earth cable length	6m	
Junction Block		
Junction block material	To be stated by bidder	
Junction block operation	6 way	
Cable capacity	25/35mm	
Is a support carabiner provided	Yes/ No	
Earth Cable (From Junction Block to Earth Clamp)		
Earth cable manufactured to IEC 61138	Yes/ No	
Earth cable material	Extra flexible multi-strand copper conductor	
Earth cable diameter	35mm	
Tested to 10kA for 1 second	Yes/ No	
Earth cable length	12m	
Earth Clamp Assembly		
Earth clamp material	High strength Al or Bronze alloy	
Earth clamp type	Screwable	
Earth Spike		

Earth spike material		To be stated by bidder	
Earth spike length		760mm	
Earth spike diameter		20mm	
Earth spike has tapered bottom		Mandatory requirement	
Earth Bag			
Earth bag material		To be stated by bidder	
Earth bag shall be weather proof		Mandatory requirement	
Earth bag length		Approximately 2.9m	
Packaging Details			
Packaging type		Weather Proof Bag	
Units per bag		1 set for 3 phase earthing	
Weight of each unit		≤ 22kgs	

Name of Tenderer: _____

Signature of Tenderer: _____

Date: _____

EARTH SPIKE

EARTH CLAMP ASSEMBLY

EARTH CABLE
Material - Extra flexible multi-strand copper conductor
Length - 3m

EARTH STICK HANDLE
Material - PVC / Fiberglass
Length - 1.2m

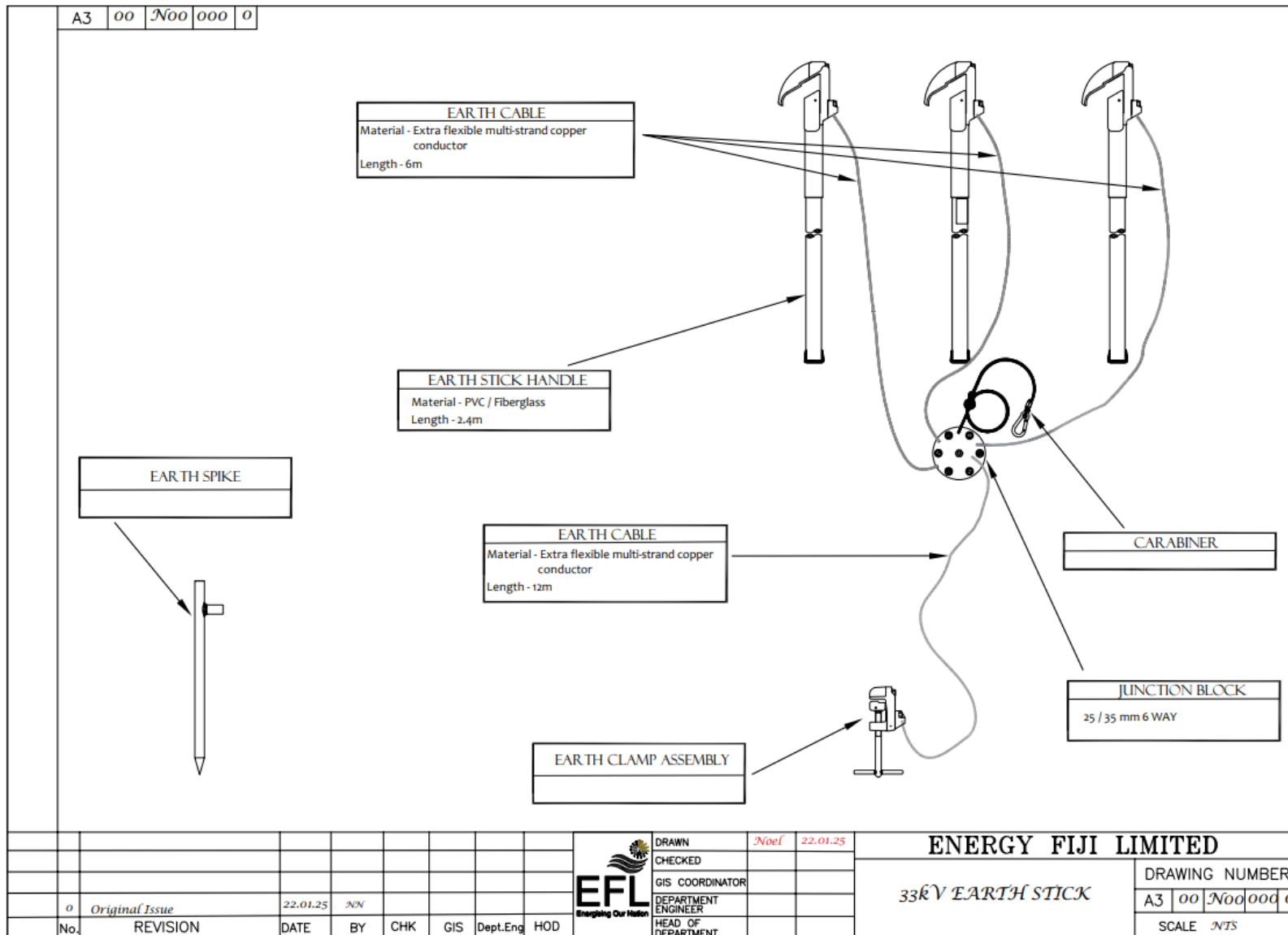
EARTH CABLE
Material - Extra flexible multi-strand copper conductor
Length - 9m

JUNCTION BLOCK
25 / 35 mm 6 WAY

CARABINER

EARTH CABLE
Material - Extra flexible multi-strand copper conductor
Length - 1m

13.4 Drawing for 33kV Earth Stick



13.5 Submission Requirements

All tenderers are required to complete and submit a copy of the submission requirements with their bid submissions. **(Note these are mandatory requirements)**

Requirements	Response from Bidders
Validity of bid (90 days required) (Yes/No)	
Detailed reference list of customers already using equipment offered during the last 5 years with particular emphasis on units of similar design and rating.	
List of test reports/certificates provided. (As per Clause 5)	
Minimum warranty period from time of acceptance of item required is 24 months.	
Completed price and technical schedules (Clause 13.1 and 13.2) (Yes/No)	
Complete dimensional drawing provided.	
The bidding pricing to be in CIF incoterm.	
Currency of bid.	
Lead time of delivery after tender award.	
Price review period after award of tender. (months)	
Bidders company profile outlining financial, technical and production capabilities.	
Disposal method after service life.	
Witnessing included as part of bid (Clause 5.4). (Yes/No)	
Quality management system used in the production of 11kV and 33kV portable earth sets, attached certificate.	

Name of Tenderer: _____

Signature of Tenderer: _____

Date: _____

Complete the following schedule as part of the bid: (Note these are mandatory requirements)

Stock Codes	Items	Country of Manufacture	Manufacturer of product	Brand Offered	Manufactured to standards	ISO Certification of Manufacturer
I03526	11kV Earth Stick c/w Accessories					
I03528	33kV Earth Stick c/w Accessories					

Name of Tenderer: _____

Signature of Tenderer: _____

Date: _____

TENDER CHECKLIST

The Bidders must ensure that the details and documentation mention below must be submitted as part of their tender Bid

Tender Number _____

Tender Name _____

1. Full Company / Business 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 (Mandatory))

9. FNPF Employer Registration Number: _____ **(For Local Bidders only) (Mandatory)**

10. **Provide a copy of Valid FNPF Compliance Certificate (Mandatory- Local Bidders only)**

11. **Provide a copy of Valid FRCS (Tax) Compliance Certificate (Mandatory Local Bidders only)**

12. **Provide a copy of Valid FNU Compliance Certificate (Mandatory Local Bidders only)**

13. Contact Person: _____

I declare that all the above information is correct.

Name: _____

Position: _____

Sign: _____

Date: _____

Tender submission

Bidders are requested to upload electronic copies via Tender Link by registering their interest at: <https://www.tenderlink.com/efl>

EFL will not accept any hard copy submission to be dropped in the tender box at EFL Head Office in Suva.

This tender closes at 4.00pm (1600hrs) on Wednesday 26th March, 2025.

For further information or clarification please contact our Supply Chain Office on phone **(+679) 3224360 or (+679) 9992400** or email us on tenders@efl.com.fj

The bidders must ensure that their bid is inclusive of all Taxes payable under Fiji Income Tax Act. Bidders are to clearly state the percentage of VAT that is applicable to the bid prices.

The lowest bid, will not necessarily be accepted as the successful bid.

The Tender Bids particularly the “Price” must be typed and not hand written.

Any request for the extension of the closing date must be addressed to EFL in writing three (3) working days prior to the tender closing date.

Tender Submission via email or fax will not be accepted.