

Energy Fiji Limited



Tender Document

Tender No. : MR 410/2023

**SUPPLY OF HV CIRCUIT BREAKERS FOR NEW
VUDA POWER STATION**

Table of Content

1.0	INSTRUCTIONS TO BIDDERS	4
1.1	GENERAL	4
1.1.1	SCOPE OF BID	4
1.1.2	ELIGIBLE BIDDERS	4
1.1.3	QUALIFICATION OF THE BIDDER	4
1.1.4	COST OF BIDDING	4
1.1.5	SITE VISIT	5
1.1.6	TENDER SUBMISSION	5
1.2	BID DOCUMENT	6
1.2.1	CLARIFICATION OF BIDDING DOCUMENT	6
1.3	PREPARATION OF BIDS	6
1.3.1	DOCUMENTS COMPRISING THE BID	6
1.3.2	BID PRICE	6
1.3.3	BID CURRENCIES	7
1.3.4	BID VALIDITY	7
1.4	SUBMISSION OF BIDS	7
1.4.1	BID SUBMISSION	7
1.4.2	DEADLINE FOR SUBMISSION OF BIDS	7
1.4.3	LATE BIDS	7
2.0	GENERAL CONDITIONS OF CONTRACT	8
2.1	STANDARDS	8
2.2	PERFORMANCE BOND	8
2.3	PROGRAMME TO BE FURNISHED	8
2.4	INSPECTION AND TESTS	8
2.5	INSURANCE	9
2.6	PAYMENT	9
2.7	TERMINATION FOR DEFAULT	9
2.8	FORCE MAJEURE	9
2.9	EXPLANATIONS	9
2.10	ARBITRATION	10
2.11	WARRANTY	10
2.12	GENERAL CONDITIONS'	10
3.0	GENERAL SPECIFICATIONS	11
3.1	INFORMATION TO TENDERS	11
3.1.1	SCOPE OF SUPPLY	11
3.1.2	INFORMATION WITH TENDER	11
3.1.3	DRAWING AND INFORMATION TO BE SUPPLIED BY BIDDER	12
3.1.4	DESIGN AND STANDARDISATION	12
3.1.5	TOOLS AND INSTRUMENTS	12

3.1.6	PROVISION FOR HANDLING THE PLANT	12
3.1.7	PACKING	13
3.1.8	INSURANCE & DELIVERY	13
3.2	SPECIFICATION TECHNICAL	13
3.2.1	SCOPE OF WORK	13
3.2.2	DESIGN REQUIRMENTS DATA	13
3.2.3	TEMPERATURE RISES:	15
3.2.4	REFERENCE CONDITIONS	15
3.3	CIRCUIT BREAKER DATA TO BE SUPPLIED BY BIDDERS	15
3.4	DELIVERABLES	17
3.4.1	SCHEDULE 1 – BIDDERS PARTICULARS	17
3.4.2	SCHEDULE 2 – PRICE	17
<u>4.0</u>	<u>TENDER FORM 1 – LETTER OF TENDER</u>	<u>18</u>
<u>5.0</u>	<u>TENDER FORM – PAYMENT SCHEDULE</u>	<u>20</u>
<u>6.0</u>	<u>TENDER FORM 4 – STATEMENT OF CONFORMANCE</u>	<u>21</u>
<u>7.0</u>	<u>TENDER SUBMISSION CHECK LIST</u>	<u>22</u>
<u>8.0</u>	<u>REFERENCES</u>	<u>24</u>

1.0 INSTRUCTIONS TO BIDDERS

1.1 GENERAL

1.1.1 SCOPE OF BID

The Energy Fiji Ltd (EFL) is a statutory body vested with the responsibility for the provision of electricity supply throughout Fiji. EFL wishes to receive bids for the below scope of works:

Scope A – Supply of 1 x ABB Generator Circuit Breaker 1250 Amps rating – HD4/P 12.12.40

Scope B – Supply of 1 x ABB Auxiliary Transformer Circuit Breaker 1250 Amps rating – HD4/P 12.12.40

Scope C - Supply of 1 x ABB Outgoing Transformer Circuit Breaker 2000 Amps rating – HD4/P 12.20.40

1.1.2 ELIGIBLE BIDDERS

1.1.2.1 This Invitation to Bid is open only to bidders who are the Manufacturer or official registered agent of the equipment and have previous experience in supplying such equipment.

1.1.2.2 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer as the Employer shall reasonably request.

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

1.1.3 QUALIFICATION OF THE BIDDER

1.1.3.1 To be qualified for award of Contract, bidders shall:

1.1.3.2 Submit a written power of attorney authorizing the signatory of the bid to commit the bidder; and

1.1.3.3 Submit proposals regarding work methods, scheduling and resourcing which shall be, provided in sufficient detail to confirm the bidders' capability to complete the works in accordance with the specifications and the time for completion.

1.1.3.4 Bidders shall also submit proposals of work methods and schedule in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the Employer's Requirements and the completion time of the scope of works referred to in Sub-Clause 1.1.1 above.

1.1.4 COST OF BIDDING

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

1.1.5 SITE VISIT

1.1.5.1 Site visit is NOT required

1.1.6 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 3rd of January, 2023.

For further information or clarification please contact our Supply Chain Office on phone (+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, fax or hardcopy will not be accepted.

1.2 BID DOCUMENT

1.2.1 CLARIFICATION OF BIDDING DOCUMENT

A prospective bidder requiring any clarification of the bidding documents may notify the Employer in email at the Employer's email address indicated in the Invitation for Bids. The Employer will respond to any request for clarification, which it receives earlier than 5 days prior to the deadline for submission of bids.

1.3 PREPARATION OF BIDS

1.3.1 DOCUMENTS COMPRISING THE BID

1.3.1.1 The bid submitted by the bidder shall comprise two submissions simultaneously, one containing only the technical proposal and the other the price proposal.

1.3.1.2 The technical proposal shall contain the following:

- I. Bid Form for Technical Proposal and Appendix to Technical Proposal
- II. Form of bid security;
- III. Power of Attorney;
- IV. Information on Qualification;
- V. Confirmation of Eligibility;
- VI. Schedule of Major items of Equipment
- VII. Schedule of Technical Particulars & Guarantees
- VIII. Schedule of Times for Delivery & Completion and Contract completion times
- IX. Schedule of Subcontractors Statement of Experience
- X. Schedule of Contractors Health & Safety Plan
- XI. Schedule of Other Documents and Drawings to be submitted with the bid
- XII. Any other materials required to be completed and submitted by bidders in accordance with these instructions to bidders

1.3.1.3 The Financial proposal shall contain the following:

- I. Bid Form for Price Proposal and Appendix to Price Proposal;
- II. Schedules of Prices:
 - i. Design, Drawings and Documentation
 - ii. Grand Summary, and
 - iii. Recommended Spare parts
 - iv. Any other materials required to be completed and submitted by bidders in accordance with these instructions to Bidders

1.3.2 BID PRICE

1.3.2.1 Unless specified otherwise in Employer's Requirements, Bidders shall quote for the entire facilities on a "single responsibility" basis such that the total bid price covers all the Contractor'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) and delivery of facilities. This includes all requirements under the Contractor's responsibilities for testing the facilities and, where so required by the bidding documents, the acquisition of all permits, approvals and licenses, etc.

1.3.2.2 Bidders shall give a breakdown of the prices in the manner and detail called for in the Schedules of Prices.

- 1.3.2.3 Prices quoted by the bidder shall be on a fixed lump sum basis and shall not be adjusted for changes in the cost of material or other matters

1.3.3 BID CURRENCIES

- 1.3.3.1 All prices shall be quoted in Australian, New Zealand, US or Fijian currency

1.3.4 BID VALIDITY

- 1.3.4.1 Bids shall remain valid for a period of 120 days after the date of opening of technical proposals.

1.4 SUBMISSION OF BIDS

1.4.1 BID SUBMISSION

- 1.4.1.1 Tender can be submitted via electronic

1.4.2 DEADLINE FOR SUBMISSION OF BIDS

- 1.4.2.1 Bids must be received by Employer at the address specified in the advertisement

1.4.3 LATE BIDS

- 1.4.3.1 Any bid received by the Employer after the deadline for submission of bids prescribed in Clause 1.1.6 will be rejected.

2.0 GENERAL CONDITIONS OF CONTRACT

2.1 STANDARDS

The Goods supplied under this Contract shall conform to international ISO/DIN standards for mechanical and IEC/ISO and HD standards for electrical work.

2.2 PERFORMANCE BOND

- 2.2.1** Within 21 days after the Contractor's receipt of notification of award of the contract or upon contract signing and down payment, the Contractor shall furnish a performance bond to the Employer in the amount of 10% of the tendered price.
- 2.2.2** The performance bond shall be denominated in the currency of the Contract or in another freely convertible currency acceptable to the Employer, and shall be in one of the following forms:
- 2.2.3** A performance bond issued by a surety acceptable to the Employer and in the form provided in the Tender Documents.
- 2.2.4** A Bank Guarantee issued by a bank located in the Employer's country or abroad acceptable to the Employer, and in the form provided in the Tender Documents.
- 2.2.5** A cashier's cheque, certified cheque, irrevocable letter of Credit or Cash.
- 2.2.6** The Performance Bond will be discharged by the Employer not later than 90 days following the date of completion of the Contractor's performance obligations, including any warranty obligations under the Contract.

2.3 PROGRAMME TO BE FURNISHED

Within 20 days of the acceptance of this tender the Contractor shall submit to the Employer, for approval, a programme showing the order in which he proposes to carry out the works, including design, manufacture and delivery.

2.4 INSPECTION AND TESTS

The Employer's Engineer or his representative shall have the right to inspect and/or to witness test the Goods at the factory or place of manufacture, for their conformity to the Contract Specifications. The Employer shall notify the Contractor in writing of the identity of its Engineer(s) or representative(s) retained for these purposes. The contractor shall provide the Employer with a detailed program for the inspections and/or witness tests and notice of at least 7 days of notice when the materials, equipment, system is ready for inspection & testing. Nothing in this clause shall in any way release the Contractor from any warranty or other obligations under this Contract in delivering a fully functional plant as specified elsewhere in this document or the contractors' design and specifications.

2.5 INSURANCE

The contractor shall provide for 100% insurance cover for the equipment supply and transport, including third-party liabilities and Contractors All Risk (CAR) insurance for the equipment scope and consequential damage insurance to existing facilities due to contractor activity/negligence.

2.6 PAYMENT

Payment shall be on a percentage of completion basis up to 90% of contract sum till initial commissioning date and final 10% retention after warranty period expires.

The Contractor's request for payment shall be made to the Employer in writing, accompanied by invoice(s) describing as appropriate, the Goods delivered and services performed together with shipping and other documents as may be required by the Employer. Payments shall be made promptly within ten (10) days, but no later than thirty (30) days of submission of an invoice/claim made by the Contractor, upon approval of the invoice.

2.7 TERMINATION FOR DEFAULT

2.7.1 The Employer may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Contractor, terminate this Contract on the following grounds:

2.7.1.1 If the Contractor fails to deliver any or all of the Goods within the time period(s) specified in the Contract, or any extension thereof granted by the Employer.

2.7.2 Fails to perform any other obligation(s) under the Contract.

2.8 FORCE MAJEURE

In this Clause Force Majeure means any event or circumstance (whether arising from natural causes, human agency or otherwise) beyond the control of the contractor including (in so far as beyond such control but without prejudice to the generality of the foregoing expression) strikes, lockouts or other labour disputes, riot, civil commotion, aircraft fire, flood, drought loss, delay at sea, breakdown or war.

2.9 EXPLANATIONS

If the Tender needs any clarifications, the inquiry should be made in writing by email to:

Mr. Jitendra Reddy
The Manager
Procurement, Inventory & Supply Chain
Energy Fiji Limited
Private Mail Bag,
Suva –FIJI

Telephone: (+679) 3224360 Fax: (+679) 3311882 E-mail: tenders@efl.com.fj
All explanations to the clarifications shall be answered in writing by email.

2.10 ARBITRATION

All questions or differences what so ever which may at any time hereafter arise between the parties hereto or their respective representatives attached to this agreement or the subject matter or construction hereof or the rights and duties of the parties hereunder, shall be referred to a single arbitrator if the parties agree or otherwise, to four arbitrators, one to be appointed by each party and in either case, in accordance with and subject to the provisions of the Arbitration Act Cap. 38 of the Laws of Fiji or of any statutory modification or re-enactment thereof for the time being in force. Such person to be an arbitrator will be nominated by the Fiji Institute of Engineers.

2.11 WARRANTY

- 2.11.1** The Contractor warrants that all Goods supplied under this Contract shall have no defect arising from material used workmanship or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 2.11.2** The Contractor shall clearly specify the Warranty period of the installed and commissioned Goods supplied under this contract and such period shall be referred to as the Warranty and shall not be any period less than 24 months or 2,000 machine operating hours, whichever comes first from the date of commissioning. The contractor shall ensure that the equipment supplied under this Contract shall operate within specified guaranteed performance levels during the warranty period.
- 2.11.3** The Employer shall promptly notify the Contractor in writing of any claims arising under this Warranty. Upon receipt of such notice, the Contractor shall, with all reasonable speed, repair or replace the defective Goods or parts thereof, including transport, duty, and local Fiji charges, without any cost to the Employer.

2.12 GENERAL CONDITIONS'

General conditions of this contract shall be governed by the Built & Turnkey of the Federation Internationale Des Ingenieurs Conseil (FIDIC) first edition 1995. (Copies can be obtained from FIDIC PO Box 86 CH 1000 Lausanne, 12 Switzerland. Fax 41-21-653 5432)

3.0 GENERAL SPECIFICATIONS

3.1 INFORMATION TO TENDERS

3.1.1 SCOPE OF SUPPLY

Supply Scope A – Original Circuit Breaker Data – ABB

Supply of 1 x Generator Circuit Breaker 1250A – Normal Current

Type: HD4/P 12.12.40 IEC 62271-100

CLASSIFICATION: E2, M2, C2

S/N: 1VC1BL00056307 PR.YEAR 2018

Supply Scope B – Original Circuit Breaker Data - ABB

Supply of 1 x Auxiliary Transformer Circuit Breaker 1250A – Normal Current

Type: HD4/P 12.12.40 IEC 62271-100

CLASSIFICATION: E2, M2, C2

S/N: 1VC1BL00056305 PR.YEAR 2018

Supply Scope C – Original Circuit Breaker Data - ABB

Supply of 1 x Outgoing Transformer Circuit Breaker 2000A – Normal Current

Type: HD4/P 12.20.40 IEC 62271-100

CLASSIFICATION: E2, M2, C2

S/N: 1VC1BL00056306 PR.YEAR 2018

Note; Actual Detail Dimensions will need to be clarified with the Supplier after Contract awarded.

The supply contract also includes:

- i. Three Hard copies and one soft copy of operating, servicing and maintenance instructions and spare parts manuals.
- ii. Any necessary erection materials including a complete set of special tools and equipment necessary to erect, operate, service and maintain the transformers.
- iii. A list and price of spare parts for operating and maintaining the plant to include but not limited to the following:
 - Spare parts
 - General and special tools
 - Installation and service manuals
- iv. Detailed design calculations, specifications and drawings used in the contract.

3.1.2 INFORMATION WITH TENDER

Tenders must fill in all Schedules and give all particulars pertaining to the Circuit Breaker offered.

In particular, they shall supply the following in their tender:

- a) Drawings showing all dimensions of the complete circuit breaker
- b) Drawings or schedules showing the shipping dimensions and weights
- c) One copy in the English language of the design codes to which the tenderer elects with the design of the circuit breakers

- d) A list of recommended spares

3.1.3 DRAWING AND INFORMATION TO BE SUPPLIED BY BIDDER

3.1.3.1 The following must be submitted with the tender;

General arrangements for the plant, giving dimensions, weights and basic specifications of the Circuit Breaker.

Illustrations and printed matter showing constructional details and details of instrumentation, protection and accessories

3.1.3.2 The following drawings are to be submitted with the contract, in printed and electronic/ AutoCAD formats:

- Certified general arrangement drawings showing all fittings and accessories provided and including dimensions and weights and the specifications for the circuit breakers and accessories.
- Combined Instrumentation with operational parameters
- Certification of all the final design calculations, drawings and evidence of compliance to such design parameters.

3.1.3.3 Submission of Drawing

All drawings submitted pursuant to this clause, shall form part of the contract, after approval by the Engineer. The sequence of submission of all drawings shall be such that all information is available for checking each drawing when it is received. Notation on drawings shall be in the English language.

3.1.4 DESIGN AND STANDARDISATION

The equipment specification shall covers the design, manufacturing, testing, supply, delivery and performance requirements of the three phase outdoor type transformers. The equipment shall comply with the latest international standards listed below as a minimum.

Standards: IEC 62271-100

CE 17-1

ISO 14000 STANDARDS (Guidelines for the Environmental Management)

IEC 60271 – 200 Standards for Normal Operating Conditions

IEC 60721 -2-1 UniGear Switchgear panels comply with the standards and specifications for factory – assembled, metal- enclosed and type tested high voltage switchgear to IEC publications 62271-200 (r.2011) and 62271-1(r.2007)

IEC 60529, the switchgear panels have the following degrees of protection: IP 4X for the enclosure and IP 2X for the partitions.

3.1.5 TOOLS AND INSTRUMENTS

The Contractor shall supply all special tools and instruments, which may be necessary to carry out the installation, commissioning and operation maintenance, Exceptions and items required but not supplied must be highlighted along with the current market rate for each of such items. Unless the Employer has granted any relief or exemption, the contractor is expected to include all such tools and instruments in the bid price. List of such tools and instruments should be provided with the Tender with their unit prices.

3.1.6 PROVISION FOR HANDLING THE PLANT

All heavy parts of the plant supplied under the contract shall have provisions for lifting, slinging and handling during delivery, erection, maintenance and overhauls. A legible name plate indicating the safe limits shall be prominently displayed where possible.

3.1.7 PACKING

All material and equipment are to be packed to be transported to the site so that they are protected against climatic conditions and handling to which they may be subjected to in transit and storage at the site.

Spare parts or components supplied shall be individually and suitably preserved, packed and sealed to withstand tropical weather conditions. The packing shall be sufficient to withstand, rough precipitation during transit and open or prolonged storage.

Preservation chemicals/agents may be employed to ensure that goods delivered are received in good shape and that they can be stored for long durations without fear of corrosion or contamination.

All markings within the inside and on the outside of casings or packaging are to be either of a water proof ink, material or protected by Shellac or varnish to protect obliteration in transit, handling and storage.

3.1.8 INSURANCE & DELIVERY

The tenderer shall deliver the complete equipment supply. CFR to Suva or Lautoka Port, Fiji.

3.2 SPECIFICATION TECHNICAL

3.2.1 SCOPE OF WORK

Supply Scope A – Original Circuit Breaker Data – ABB

Supply of 1 x Generator Circuit Breaker 1250A – Normal Current

Type: HD4/P 12.12.40 IEC 62271-100

CLASSIFICATION: E2, M2, C2

S/N: 1VC1BL00056307 PR.YEAR 2018

Supply Scope B – Original Circuit Breaker Data - ABB

Supply of 1 x Auxiliary Transformer Circuit Breaker 1250A – Normal Current

Type: HD4/P 12.12.40 IEC 62271-100

CLASSIFICATION: E2, M2, C2

S/N: 1VC1BL00056305 PR.YEAR 2018

Supply Scope C – Original Circuit Breaker Data - ABB

Supply of 1 x Outgoing Transformer Circuit Breaker 2000A – Normal Current

Type: HD4/P 12.20.40 IEC 62271-100

CLASSIFICATION: E2, M2, C2

S/N: 1VC1BL00056306 PR.YEAR 2018

Note: Actual Detail Dimensions will need to be clarified with the Supplier after Contract awarded.

3.2.2 DESIGN REQUIRMENTS DATA

Scope A - Supply of 1 x Generator Circuit Breaker 1250A – Normal Current

Serial No.	1VC1BL00056307	
M Mass	177	kg
U _r Voltage	12	kV
U _p Lightning Impulse withstand voltage	75	kV

U _d	Power Frequency withstand voltage	28	kV
f _r	Frequency	50/60	Hz
I _r	Normal current	1250	A
I _k	Short Time Withstand Current	40	kA
t _k	Duration of Short Circuit	3	s
I _{sc}	Short Circuit Breaking Current	40	kA
	Making Capacity (Peak Value)	100	kA
	At The Voltage Of	12	kV
	D.C Component	< = 35	%
I _c	Cable-Charging Breaking Current	25	A
P _{rm}	SF6 Filling Pressure at 20°C	0,380	MPa
m	SF6 Mass For Circuit Breaker	0,527	kg
	Operating Sequence	O-0,3S-CO-15S-CO	

Scope B - Supply of 1 x Auxiliary Transformer Circuit Breaker 1250A – Normal Current

Serial No.	1VC1BL00056305
M Mass	177 kg
U _r Voltage	12 kV
U _p Lightning Impulse withstand voltage	75 kV
U _d Power Frequency withstand voltage	28 kV
f _r Frequency	50/60 Hz
I _r Normal current	1250 A
I _k Short Time Withstand Current	40 kA
t _k Duration of Short Circuit	3 s
I _{sc} Short Circuit Breaking Current	40 kA
Making Capacity (Peak Value)	100 kA
At The Voltage Of	12 kV
D.C Component	< = 35 %
I _c Cable-Charging Breaking Current	25 A
P _{rm} SF6 Filling Pressure at 20°C	0,380 MPa
m SF6 Mass For Circuit Breaker	0,527 kg
Operating Sequence	O-0,3S-CO-15S-CO

Scope C - Supply of 1 x Outgoing Transformer Circuit Breaker 2000A – Normal Current

Serial No.	1VC1BL00056306		
M Mass	220	kg	
U _r Voltage	12	kV	
U _p Lightning Impulse withstand voltage	75	kV	
U _d Power Frequency withstand voltage	28	kV	
f _r Frequency	50/60	Hz	
I _r Normal current	2000	A	
I _k Short Time Withstand Current	40	kA	
t _k Duration of Short Circuit	3	s	
I _{sc} Short Circuit Breaking Current	40	kA	
Making Capacity (Peak Value)	100	kA	

At The Voltage Of	12	kV
D.C Component	< = 35	%
I _c Cable-Charging Breaking Current	25	A
P _{rm} SF6 Filling Pressure at 20°C	0,380	MPa
m SF6 Mass For Circuit Breaker	0,527	kg
Operating Sequence	O-0,3S-CO-15S-CO	

NOTE: ALL BIDDERS MUST PROVIDE THE DATASHEET FOR BOTH CIRCUIT BREAKERS IN THERE BID DOCUMENTS

3.2.3 TEMPERATURE RISES:

To CLASS H insulation standard

3.2.4 REFERENCE CONDITIONS

The following environmental conditions are applicable to this site.

- I. Environment Type – Tropic Climate
- II. Elevation above mean sea level (100 meters)
- III. Ambient air temperature
 - Design Temperature 45°C
 - Minimum 15°C
- IV. Relative Humidity
 - Maximum relative humidity 95%
 - Minimum relative humidity 70%
- V. Seismic Condition
 - All equipment shall be capable of withstanding an acceleration of 3.3m/sec² in any direction without sustaining any damage.

3.3 CIRCUIT BREAKER DATA TO BE SUPPLIED BY BIDDERS

Scope A - Supply of 1 x Generator Circuit Breaker 1250A – Normal Current

Design Description	Design Data	Suppliers Design Data
Serial No.	1VC1BL00056307	
M Mass	177 kg	
U _r Voltage	12 kV	
U _p Lightning Impulse withstand voltage	75 kV	
U _d Power Frequency withstand voltage	28 kV	
f _r Frequency	50/60 Hz	
I _r Normal current	1250 A	
I _k Short Time Withstand Current	40 kA	
t _k Duration of Short Circuit	3 s	
I _{sc} Short Circuit Breaking Current	40 kA	
Making Capacity (Peak Value)	100 kA	
At The Voltage Of	12 kV	
D.C Component	< = 35 %	
I _c Cable-Charging Breaking Current	25 A	
P _{rm} SF6 Filling Pressure at 20°C	0,380 Mpa	
m SF6 Mass For Circuit Breaker	0,527 kg	

Operating Sequence	O-0,3S-CO-15S-CO	

Scope B - Supply of 1 x Auxiliary Transformer Circuit Breaker 1250A – Normal Current

Design Description	Design Data	Suppliers Design Data
Serial No.	1VC1BL00056305	
M Mass	177 kg	
U _r Voltage	12 kV	
U _p Lightning Impulse withstand voltage	75 kV	
U _d Power Frequency withstand voltage	28 kV	
f _r Frequency	50/60 Hz	
I _r Normal current	1250 A	
I _k Short Time Withstand Current	40 kA	
t _k Duration of Short Circuit	3 s	
I _{sc} Short Circuit Breaking Current	40 kA	
Making Capacity (Peak Value)	100 kA	
At The Voltage Of	12 kV	
D.C Component	< = 35 %	
I _c Cable-Charging Breaking Current	25 A	
P _{rm} SF6 Filling Pressure at 20°C	0,380 Mpa	
m SF6 Mass For Circuit Breaker	0,527 kg	
Operating Sequence	O-0,3S-CO-15S-CO	

Scope C - Supply of 1 x Outgoing Transformer Circuit Breaker 2000A – Normal Current

Design Description	Design Data	Suppliers Design Data
Serial No.	1VC1BL00056306	
M Mass	220 kg	
U _r Voltage	12 kV	
U _p Lightning Impulse withstand voltage	75 kV	
U _d Power Frequency withstand voltage	28 kV	
f _r Frequency	50/60 Hz	
I _r Normal current	2000 A	
I _k Short Time Withstand Current	40 kA	
t _k Duration of Short Circuit	3 s	
I _{sc} Short Circuit Breaking Current	40 kA	
Making Capacity (Peak Value)	100 kA	
At The Voltage Of	12 kV	
D.C Component	< = 35 %	
I _c Cable-Charging Breaking Current	25 A	
P _{rm} SF6 Filling Pressure at 20°C	0,380 MPa	
m SF6 Mass For Circuit Breaker	0,527 kg	
Operating Sequence	O-0,3S-CO-15S-CO	

3.4 DELIVERABLES

(To be completed and returned with tender document)

3.4.1 SCHEDULE 1 – BIDDERS PARTICULARS

1. Full Company Name: _____
- i. Director/Owner(s): _____
- ii. Postal Address: _____
- iii. Phone Contact: _____
- iv. Email address: _____
- v. Office location: _____
- vi. TIN Number: _____

(Attach a copy of the VAT Registration Certificate – Local Bidders Only)

3.4.2 SCHEDULE 2 – PRICE

Description		Amount (\$) *Currency: _____
1	Scope A – 1 x Generator Circuit Breaker	
2	Scope B – 1 x Auxiliary Transformer Circuit Breaker	
3	Scope C – 1 x Outgoing Transformer Circuit Breaker	
4	Freight, Transportation cost	
	INCOTERM – CFR Lautoka or Suva Port, Fiji	
	TOTAL	
	Warranty Duration	

Notes

* Please specify currency (FJD, USD, AUD, NZD)

4.0 TENDER FORM 1 – LETTER OF TENDER

Name of Contract: SUPPLY OF HV CIRCUIT BREAKERS FOR VUDA POWER STATION

Contract No. MR 410/2023

Tender To: Energy Fiji Limited
2 Marlow St
Private Mail Bag
Suva
Republic of the Fiji Islands

1. This tender is made by _____
[Insert full name and registered address of tenderer].

2. Capitalized terms used in this letter have the meaning given to them in the Instructions to tenderers dated *[insert date]* (“**Instructions**”) unless otherwise defined.

3. Having examined and understood the Tender Documents relating to the Works (including the Instructions and all documents attached thereto we, the undersigned, hereby offer to manufacture, test and deliver the equipment in conformity with the said documents for the sum of:

.....
....., (\$.....),

Exclusive of VAT, WHT or such other sum as may be ascertained in accordance with the Contract.

4. This offer is made on the terms and conditions set out in this Tender and the Instructions.

5. We attach the following documents which form part of this tender:

- (a) Completed tender forms;
- (b) Technical description of the plant offered;
- (c) Any supplementary information;

6. We agree to abide by this Tender for a period of 60 days after the Tender Closing Date and that this tender it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

7. We confirm that you may rely upon all statements made by us in response to the Instructions or in subsequent correspondence, discussions or negotiations with you.

8. We certify that:

- (a) The entry into, and performance of the obligations under, the Contract by us will not violate any laws provided that you obtain all consents and authorisations you are required to obtain under the Contract;
- (b) We have corporate power to enter into and perform our obligations under the Contract and we have taken all necessary corporate action to authorise the entry into, and execution of, this offer and (if required) entry into, and execution of, the Contract;
- (c) The rates and prices in our offer have been arrived at independently, without consultation or agreement with any other tenderer; and
- (d) No attempt has been made, nor will be made, by us to influence any other tenderer to submit or not submit a tender or to alter the proposed content of that

tenderer's tender.

9. We acknowledge that this tender, and any contract arising upon its acceptance, shall be governed by and construed in accordance with the laws of The Fiji Islands.
10. Unless and until a formal agreement is prepared and executed, this Letter of Tender, together with your written acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____ 2023

Signature _____ in the capacity of _____

duly authorized to sign Tenders for and on behalf of: _____

Witness _____

Address _____

Occupation _____

Guaranteed time from date of Purchase Order issuance to arrival in EFL Lautoka Stores
_____ (Days).

Signature

Name

Position

Company

Address

Date

5.0 TENDER FORM – PAYMENT SCHEDULE

No.	Description	Percentage Payment of the Bid Price	Bid Price Foreign Currency	Amount (if in FJD it must include VIP & All Duty Inclusive)
1	1 x Generator Circuit Breaker And 1 x Auxiliary Transformer Circuit Breaker And 1 x Outgoing Transformer Circuit Breaker	90%		
2	Retention/Warranty of 12 Months from the Date of receiving the Circuit Breakers in Good Condition	10%		
	TOTAL PRICE (VIP)	100%		
	LOCAL BIDDERS – TO BID VIP FJD PRICE INCLUSIVE OF ALL IMPORT DUTIES			

6.0 TENDER FORM 4 – STATEMENT OF CONFORMANCE

We have read and understood the Tender documentation for the Scope of Supply and Contract, and confirm that:

Tick 1 Box as Applicable

☐

Our Tender is in full compliance with the requirements and we have no exceptions to note.

☐

Our Tender does not fully comply with the requirements. The following exceptions apply:

.....

.....

.....

.....

.....

.....

.....

.....

Signature

Name

Position

Company

.....

Address

.....

Date

B) **Contractor's Tender Bid Documents dated**

(The original Contractor Documents will be physically inserted here)

7.0 TENDER SUBMISSION CHECK LIST

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 03rd January, 2024.

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.

8.0 REFERENCES

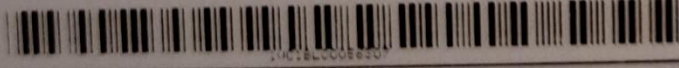
SCOPE A – Picture of Specifications listed on ABB Generator Breaker

ABB

CIRCUIT-BREAKER		IEC 62271-100	
HD4/P 12.12.40			
CLASSIFICATION	E2,M2,C2		
SN	1VC1BL00056307	PR.YEAR 2018	

M	MASS	177	kg
Ur	VOLTAGE	12	kV
Up	LIGHTNING IMPULSE WITHSTAND VOLTAGE	75	kV
Ud	POWER FREQUENCY WITHSTAND VOLTAGE	28	kV
fr	FREQUENCY	50/60	Hz
Ir	NORMAL CURRENT	1250	A
			A
Ik	SHORT TIME WITHSTAND CURRENT	40	kA
tk	DURATION OF SHORT CIRCUIT	3	s
Isc	SHORT CIRCUIT BREAKING CURRENT	40	kA
	MAKING CAPACITY (PEAK VALUE)	100	kA
	AT THE VOLTAGE OF	12	kV
	D.C. COMPONENT	< = 35	%
Ic	CABLE-CHARGING BREAKING CURRENT	25	A
P _{rm}	SF6 FILLING PRESSURE AT 20° C	0,380	MPa
m	SF6 MASS FOR CIRCUIT-BREAKER	0,527	Kg
	OPERATING SEQUENCE	O-0,3S-CO-15S-CO	


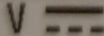
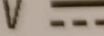
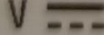
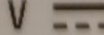
ELECTRICAL DIAGRAM 1VCD400197 (V6879)
 FIG.01 FIG.02 FIG.04 FIG.05 FIG.07
 FIG.11 FIG.22 FIG.32 FIG.51




ESH9		OPERATING MECHANISM	
-MBC 110	V ---	-RLE2 110	V ---
-MB01 110	V ---	-MBU 110	V ---
		-MAS 110	V ---

Made by ABB Italy

SCOPE B – Picture of Specifications listed on ABB Auxiliary Transformer Breaker

ABB	
CIRCUIT-BREAKER	IEC 62271-100
HD4/P 12.12.40	
CLASSIFICATION	E2,M2,C2
SN 1VC1BL00056305	PR.YEAR 2018
M MASS	177 kg
Ur VOLTAGE	12 kV
Up LIGHTNING IMPULSE WITHSTAND VOLTAGE	75 kV
Ud POWER FREQUENCY WITHSTAND VOLTAGE	28 kV
fr FREQUENCY	50/60 Hz
Ir NORMAL CURRENT	1250 A
Ik SHORT TIME WITHSTAND CURRENT	40 kA
tk DURATION OF SHORT CIRCUIT	3 s
Isc SHORT CIRCUIT BREAKING CURRENT	40 kA
MAKING CAPACITY (PEAK VALUE)	100 kA
AT THE VOLTAGE OF	12 kV
D.C. COMPONENT	< = 35 %
Ic CABLE-CHARGING BREAKING CURRENT	25 A
P _{rm} SF6 FILLING PRESSURE AT 20° C	0,380 MPa
m SF6 MASS FOR CIRCUIT-BREAKER	0,527 Kg
OPERATING SEQUENCE	O-0,3S-CO-15S-CO
ELECTRICAL DIAGRAM 1VCD400197 (V6879)	
FIG.01 FIG.02 FIG.04 FIG.07 FIG.11	
FIG.22 FIG.32 FIG.51	
	
ESH9	OPERATING MECHANISM
-MBC 110 V 	-MAS 110 V 
-MB01 110 V 	-RLE2 110 V 
Made by ABB. Italy	

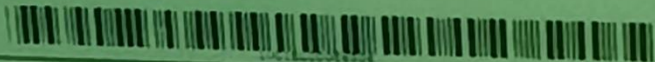
SCOPE C – Picture of Specifications listed on ABB Outgoing Transformer Breaker







CIRCUIT-BREAKER		IEC 62271-100	
HD4/P 12.20.40			
CLASSIFICATION	E2,M2,C2		
SN	1VC1BL00056306	PR.YEAR 2018	

M	MASS	220	kg
Ur	VOLTAGE	12	kV
Up	LIGHTNING IMPULSE WITHSTAND VOLTAGE	75	kV
Ud	POWER FREQUENCY WITHSTAND VOLTAGE	28	kV
fr	FREQUENCY	50/60	Hz
Ir	NORMAL CURRENT	2000	A
Ik	SHORT TIME WITHSTAND CURRENT	40	kA
tk	DURATION OF SHORT CIRCUIT	3	s
Isc	SHORT CIRCUIT BREAKING CURRENT	40	kA
	MAKING CAPACITY (PEAK VALUE)	100	kA
	AT THE VOLTAGE OF	12	kV
	D.C. COMPONENT	< = 35	%
Ic	CABLE-CHARGING BREAKING CURRENT	25	A
P _{rm}	SF6 FILLING PRESSURE AT 20° C	0,380	MPa
m	SF6 MASS FOR CIRCUIT-BREAKER	0,527	Kg
	OPERATING SEQUENCE	O-0,3S-CO-15S-CO	

ELECTRICAL DIAGRAM 1VCD400197 (V6879)
 FIG.01 FIG.02 FIG.04 FIG.07 FIG.11
 FIG.22 FIG.32 FIG.51



ESH9		OPERATING MECHANISM	
-MBC 110	V 	-RLE2 110	V 
-MBC1 110	V 		-MAS 110 V 

Made by ABB Italy