



INFORMATION SHEET FOR PROCUREMENT OF TRANSFORMERS

Reference No: FNK-I/IUL/2019/032

Issued on: 29th January 2019

Issued by:

Fenaka Corporation Limited

Male', Republic of Maldives

Section I: Instruction to Bidders

A. General	
1. Scope of Bid	1.1 Fenaka Corporation Limited requests quotations for transformers in accordance to <i>Section III, Technical Specifications</i>
B. Preparation of the Bid	
2. Bid Prices	<p>2.1 The unit price of each item and the total price shall be clearly indicated in the quotation</p> <p>2.2 All items shall be quoted in the bid (please refer to <i>Section III, Technical Specifications</i> for the details of required items)</p> <p>2.3 Quotation shall separately indicate the additional charges such as freight charges, insurance, etc.</p> <p>2.4 The bidder shall submit quotation on CIF basis to Male' port</p>
3. Currency	3.1 The bidder shall quote entirely in Maldivian Rufiyaa or US Dollars
4. Alternative Bids	4.1 Bidders can submit a maximum of two (2) options
5. Validity of Bids	5.1 Quotation shall remain valid for minimum sixty (60) days from the date of bid opening
6. Bid Security	<p>6.1 All bids should be accompanied with a bid security of USD 15,000 (Fifteen Thousand US Dollars) or its equivalent in Maldivian Rufiyaa</p> <p>6.2 The bid security should be:</p> <ul style="list-style-type: none"> - Original bank guarantee letter (or) - Bank guaranteed and stamped check (or) - An insurance policy from Maldives Monetary Authority (MMA) registered insurance company

	<p>6.3 Any bid not accompanied by a Bid Security shall be rejected during bid opening</p> <p>6.4 The bid security must be valid for a minimum of twenty (20) additional days beyond the validity of quotation</p>
7. Technical Compliance	<p>7.1 All relevant information including the brand shall be stated in the bid document</p> <p>7.2 Technical compliance letter will be required to enable technical evaluation</p> <p>7.3 If the goods do not comply with the requirements mentioned in <i>Section III, Technical Specifications</i>, the bid will be rejected during evaluation</p>
8. Documents Comprising the Bid	<p>8.1 Quotation (inclusive of the delivery period and payment terms)</p> <p>8.2 Specifications of the offered product</p> <p>8.3 Details of the company</p> <ul style="list-style-type: none"> - Company profile/background - Company registration certificate - GST registration certificate (for local bidders only) - TAX clearance report (6 months validity) - Contact details (name, designation, mobile number and e-mail address) <p>8.4 Experience letters, if available</p> <ul style="list-style-type: none"> - Letters within past five (5) years - Relevant experience letters - Letters with project name and value <p>8.5 One (1) compact disc with original bid document scanned and written</p> <p>8.6 Single-line diagram</p>

Section III: Technical Specifications

500 kVA, STEP DOWN TRANSFORMER, WITH RMU AND LV PENAL INFORMATION

RMU, Transformer and LV Panel. Designed for extreme weather condition, salty, hot and humid environment.

a) 1Nos x 3 Way Non Extensible Unit with 2 Nos. Isolators as Incomers and 1 No. Circuit Breaker as Outgoing to 500kVA Transformer (equivalent to TYPE Ringmaster:

MerlinGerin RM6 NE-IIDI) motorized with UVT.

3 Way, 11kV, indoor non extensible free standing metal clad SF6 insulated ring main unit comprising of two numbers 630A fault making/ load breaking switches and one number 200A tee-off circuit breakers complete with all accessories as listed below:

- IDMT RELAY for Circuit Breakers – Self Powered, Merlin Gerin type VIP35 OR Equivalent
- The Ring Switches and Tee –Off Circuit Breaker are provided with Integrated Earthing Switches with Making Capacity
- Neon cable indicator for ring switches
- Integral earthing facility for ring switches
- Shunt trip coil rated for 230V AC
- Trip push button for T-off circuit breaker
- SF6 Gas pressure indicator
- Padlocking facility

b) 1 No x Transformer 11kV/415V, 500kVA

- 3 phase 50Hz 500 kVA Dyn11, core type double wound with copper conductor oil immersed ONAN cooled, hermetically sealed distribution transformer with corrugated tank & conservator arrangement having a no load voltage ratio of 11/0.433 KV. Tappings +5% to -5% in steps of 2.5% shall be provided at line end f HV winding. Changing of taps shall be carried out by means of OFF Load Tap Changer.
- Temperature rise shall be 45/50 °C in oil/winding respectively over a maximum ambient of 50°C. The transformer shall be manufactured as per latest IEC.
- HV Insulation Level 12kV
- Power frequency 28kV. r.m.s.
- Basic Impulse Level 75kV. Peak.
- Impedance - % at 75°C 4.75%
- HV/LV Connection Delta/ Star N. pt
- With level indicator and pressure relief valve
- Insulating Liquid Type Oil to B.S. 148: 1998. Hermetically sealed.



c) **LV Panel, 1 set of 415V, 1200A PVC sleeved Cu bus bars.**

- With measuring, indication and protection.

Incoming

- 1000A ACB main circuit breaker

Outgoing

- 2Nos x Outgoing feeder with 250A MCCB
- 2Nos x Outgoing feeder with 400A MCCB
- 2Nos x Outgoing feeder with 600A MCCB

(Rated current shall be adjustable from 50 to 100%); with ELR, Amp meter & selector switch.

- Bottom entry Cable Termination arrangement.

- Complete with nuts and bolts to connect LV cables.



800 kVA, STEP DOWN TRANSFORMER, WITH RMU AND LV PENAL INFORMATION

RMU, Transformer and LV Panel. Designed for extreme weather condition, salty, hot and humid environment.

a) 1Nos x 3 Way Non Extensible Unit with 2 Nos. Isolators as Incomers and 1 No. Circuit Breaker as Outgoing to 800kVA Transformer (equivalent to TYPE Ringmaster: MerlinGerin RM6 NE-IIDI) motorized with UVT.

3 Way, 11kV, indoor non extensible free standing metal clad SF6 insulated ring main unit comprising of two numbers 630A fault making/ load breaking switches and one number 200A tee-off circuit breakers complete with all accessories as listed below:

- IDMT RELAY for Circuit Breakers – Self Powered, Merlin Gerin type VIP35 OR Equivalent
- The Ring Switches and Tee –Off Circuit Breaker are provided with Integrated Earthing Switches with Making Capacity
- Neon cable indicator for ring switches
- Integral earthing facility for ring switches
- Shunt trip coil rated for 230V AC
- Trip push button for T-off circuit breaker
- SF6 Gas pressure indicator
- Padlocking facility

b) 1 No x Transformer 11kV/415V, 800kVA

- 3 phase 50Hz 800 kVA Dyn11, core type double wound with copper conductor oil immersed ONAN cooled, hermetically sealed distribution transformer with corrugated tank & conservator arrangement having a no load voltage ratio of 11/0.433 KV. Tappings +5% to -5% in steps of 2.5% shall be provided at line end f HV winding. Changing of taps shall be carried out by means of OFF Load Tap Changer.
- Temperature rise shall be 45/50 °C in oil/winding respectively over a maximum ambient of 50°C. The transformer shall be manufactured as per latest IEC.
- HV Insulation Level 12kV
- Power frequency 28kV. r.m.s.
- Basic Impulse Level 75kV. Peak.
- Impedance - % at 75°C 4.75%
- HV/LV Connection Delta/ Star N. pt
- With level indicator and pressure relief valve
- Insulating Liquid Type Oil to B.S. 148: 1998. Hermetically sealed.





c) **LV Panel, 1 set of 415V, 1200A PVC sleeved Cu bus bars.**

- With measuring, indication and protection.

Incoming

- 1000A ACB main circuit breaker

Outgoing

- 2Nos x Outgoing feeder with 250A MCCB
- 2Nos x Outgoing feeder with 400A MCCB
- 2Nos x Outgoing feeder with 600A MCCB

(Rated current shall be adjustable from 50 to 100%); with ELR, Amp meter & selector switch.

- Bottom entry Cable Termination arrangement.
- Complete with nuts and bolts to connect LV cables.

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2000 kVA Power Transformer (Step-up)

3 Phase 50 Hz 2000 kVA Ynd1, core type double wound with copper conductor oil immersed ONAN cooled power transformer with the corrugated tank and conservator arrangement having a no load voltage ratio of 0.415/11 KV. Tapings +5% to -5% in steps of 2.5% shall be provided at line end of HV winding. Changing of taps shall be carried out by means of OFF load Tap Changer. Temperature rise shall be 50/60 °C in oil / winding respectively over a maximum ambient of 40°C.

Transformer shall have metal cover for termination area with lifting eye.

The transformer shall be manufactured as per latest IEC, conforming to following parameters:

- HV Insulation level 12 Kv.
- Power Frequency 28 Kv r.m.s
- Basic impulse level 75 Kv – Peak.
- Hermetically sealed, without gas cushion.
- Insulating Liquid Type Oil to B.S. 148: 1998. Hermetically sealed

Dial Type thermometer with contacts and control box for relays.

Oil level indicator and pressure relief valve and oil drain valve.

Paint class: for extreme weather conditions, salty, hot and humid environment.

Relevant testing standards: IEC / BS Standards.

Terminal Box cover LV n HV connection

All the terminal should be mark in color code

25/11/19

