

## **Information Sheet for supply of transformers and transformer accessories**

### **Section A**

#### **a) Bid Information**

#	Description	Quantity
1	TRANSFORMER 500KVA (PACKAGE SUBSTATION)	7 Nos
2	TRANSFORMER 4500KVA (STEP UP)	2 Nos
3	TRANSFORMER 800KVA (PACKAGE SUBATATION)	1 Nos
	<b>Total</b>	<b>10Nos</b>

Quotation shall indicate the following;

#### **a) Price**

- The bidder shall quote for door step delivery value to Male' port
- All items shall be quoted in the bid, please refer section (b) specifications
- Bidder shall quote for 02 person travelling and accommodation chargers in the bid for factory testing
- Quotation shall indicate the unit price, total price for each item and total price of the quotation. The quotation shall separately indicate additional charges such as freight charges, insurance, taxes, etc.
- Bidders should mention the currency the of the price in the quotation otherwise the bid will be rejected.

#### **b) Delivery Period**

- The delivery period shall be stated in 'calendar days'.
- If the delivery period indicates 'ex-stock', or if the duration is not specified, it shall be taken same as the party offering the longest delivery period.

#### **c) Payment Terms**

- The payment terms shall be stated in 'days or months', and the payments will be released in equal monthly instalments.



- No points will be given for payment terms if the bidder requests for Letter of Credit (LC).
- A maximum of 15% of the entire project can be provided as an advance if requested in the bid, however, it cannot be tied to the project starting date.
- For 15% advance bid awarded party has to submit bank guarantee letter along with performer invoice.

**d) Technical Specifications**

- All the relevant information including the brand shall be given to enable technical evaluation of the items quoted.
- Technical compliance letter will be required to enable technical evaluation
- Transformers and Transformers accessories should comply our requirements, if not the bid will be rejected

**e) Factory Testing:**

- The Transformer and accessories should be fully tested at the manufacturer workshop in the presence of client's appointees to check the ratings, overload, functional tests on a dummy load prior to dispatch. The testing shall be conducted to internationally accept testing standards. The bidder shall arrange airfare, transportation, accommodation and lodging for two of client's technicians for the testing (minimum of two day for testing)
- 02 engineers from Fenaka Corporation shall carry out necessary inspection and testing of equipment prior to shipment in supplier's warehouse in order to ensure that the equipment has been manufactured in accordance with the contract document.

**f) Quotation validity** should be a minimum of 60 days from the date of quotation opening.

**g) Bid Security validity** is valid for Twenty (20) days beyond the validity of the bid

**Note:** It is in FENAKA Corporation Limited's discretion to reject/cancel any quotation which does not fulfil or comply the above terms.

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**Section B**

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# Specifications

a) Specification of 500KVA Transformers

<b>500kVA Transformers (Quantity: 07)</b>
<b>General information</b>
<p><b><u>Climatic Conditions</u></b> Materials supplied shall be suitable for operating under the following climatic conditions</p> <p>Climate : Typical tropical coast line.          Atmosphere : Saliferous, corrosive and dusty.          Altitude : 2 meter above mean sea water level.          Temperature : 32 °C (mean maximum) 25 °C (mean minimum).          Barometric air pressure: 1010 millibars.          Relative humidity : 90%.          Average rainfall : 145 days/year.          Average sunshine : 24 days/month.          Mean wind speed : 10.8 knots.          Maximum wind speed : 15.1 knots.</p> <p>Equipment must withstand worst tropical conditions, including lightning, cyclonic rains, and high humidity.</p>
<b>A) Step-Down Transformer 11kV/415V, 500kVA</b>
<p>3 phase 50Hz 500kVA Dyn11, core type double wound with copper conductor, mineral oil immersed ONAN cooled distribution transformer with corrugated tank &amp; 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 of HV winding. Changing of taps shall be carried out by means of OFF Load Tap Changer.</p>
<p>Temperature rise shall be 50/60 °C in oil/winding respectively over a maximum ambient of 40°C. The transformer shall be manufactured as per latest IEC.</p>
HV Insulation Level 12kV
Power frequency 28kV. r.m.s.
Basic Impulse Level 75kV. Peak.
HV/LV Connection Delta/ Star N. pt
Dial type thermometer with contacts and control box for relays.
level indicator and pressure relief valve and oil drain valve.
Hermetically sealed without gas cushion.
Relevant testing standards : IEC / BS standards.

<b>B) Separate LV Panel for Transformer</b>
Free standing LV Panel with 1200A, PVC sleeved Cu busbar, complete With measuring, indication and protection(ELR).
<b>Incoming</b>
1 Nos x 800A ACB motorized - main circuit breaker
<b>Outgoing</b>
1 Nos x Outgoing feeder with 630A MCCB
2 Nos x Outgoing feeder with 400A MCCB
5 Nos x Outgoing feeder with 200A MCCB
Bottom entry Cable Termination arrangement.
<b>C) 1Nos x 3 Way Non Extensible Unit with 2 Nos. Isolators as Incomers and 1 No. Circuit Breaker as Outgoing to 500kVA Transformer ( (TYPE Ringmaster : Merlin Gerin RM6 NE-IIDI or equivalent )</b>
3 Way, 11kV, indoor extensible free standing metal clad SF6 insulated ring main unit compromising of three numbers 630A fault making/ load breaking switches and one number 200A tee-off circuit breakers complete with all necessary measurement and protection devices.

b) Specification of 4500KVA Transformer

<b><u>Specification for Step-Up Transformer</u></b>
<b><u>4500 kVA Power Transformer (Quantity : 02 Nos)</u></b>
3 Phase 50 Hz 4500 kVA Ynd1, core type double wound with copper conductor mineral oil immersed ONAN cooled power transformer with the corrugated tank and conservator arrangement having a no load voltage ratio of 0.415/11 KV. Tappings +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.
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.

c) Specification of 800KVA Transformers

<b>800kVA Transformer (Quantity: 01)</b>
<b>General information</b>
<p><b><u>Climatic Conditions</u></b> Materials supplied shall be suitable for operating under the following climatic conditions</p> <p>Climate : Typical tropical coast line. Atmosphere : Saliferous, corrosive and dusty. Altitude : 2 meter above mean sea water level. Temperature : 32 °C (mean maximum) 25 °C (mean minimum). Barometric air pressure: 1010 millibars. Relative humidity : 90%. Average rainfall : 145 days/year. Average sunshine : 24 days/month. Mean wind speed : 10.8 knots. Maximum wind speed : 15.1 knots.</p> <p>Equipment must withstand worst tropical conditions, including lightning, cyclonic rains, and high humidity.</p>
<b>A) Step-Down Transformer 11kV/415V, 800kVA</b>
<p>3 phase 50Hz 800kVA Dyn11, core type double wound with copper conductor, mineral oil immersed ONAN cooled distribution transformer with corrugated tank &amp; 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.</p>
<p>Temperature rise shall be 50/60 °C in oil/winding respectively over a maximum ambient of 40°C. The transformer shall be manufactured as per latest IEC.</p>
HV Insulation Level 12kV
Power frequency 28kV. r.m.s.
Basic Impulse Level 75kV. Peak.
HV/LV Connection Delta/ Star N. pt
Dial type thermometer with contacts and control box for relays.
level indicator and pressure relief valve and oil drain valve.
Hermetically sealed without gas cushion.
Relevant testing standards : IEC / BS standards.

<b>B) Separate LV Panel for Transformer</b>
Free standing LV Panel with 1200A, PVC sleeved Cu busbar, complete With measuring, indication and protection(ELR).
<b>Incoming</b>
1 Nos x 800A ACB motorized - main circuit breaker
<b>Outgoing</b>
1 Nos x Outgoing feeder with 630A MCCB
2 Nos x Outgoing feeder with 400A MCCB
5 Nos x Outgoing feeder with 200A MCCB
Bottom entry Cable Termination arrangement.
<b>C) 1Nos x 3 Way Non Extensible Unit with 2 Nos. Isolators as Incomers and 1 No. Circuit Breaker as Outgoing to 800kVA Transformer ( (TYPE Ringmaster : Merlin Gerin RM6 NE-IIDI or equivalent )</b>
3 Way, 11kV, indoor extensible free standing metal clad SF6 insulated ring main unit compromising of three numbers 630A fault making/ load breaking switches and one number 200A tee-off circuit breakers complete with all necessary measurement and protection devices.







### Required Documents

- Quotation (inclusive of the delivery period and the payment terms)
- 3 set of the bid (One Original and 2 copy set) separately packed and sealed with company stamp. All the pages in bid documents should be stamped.
- Specification of the offered product
- Bid Security (As per Announcement), Original
- Related Experience Letter of past 5 years.
- Details of the company
  - Company profile (This should include the list of board of Directors of company and background of the company with the products they supply)
  - Company registration certificate
  - GST registration certificate (For local suppliers only)
  - Contact details (Name, Designation, Mobile number and Email)

### **Important Note:**

- Bids lacking the documents above are subjected to be rejected during bid opening. Also it is in FENAKA's discretion to cancel this invitation to bid at any time.
- Bidders can submit maximum of 2 options.

### Evaluation Criteria

- **Proposal Cost:** 40 points
  - $(\text{Lowest proposed price} / \text{proposed price}) \times 40$  points
- **Delivery:** 30 Point
  - $(\text{Shortest Delivery Period}) / (\text{Quoted Delivery Period}) \times 30$
- **Payment Terms:** 20 points for the maximum days given for payment
  - $(\text{Proposed credit period} / \text{longest credit period}) \times 20$
- **Experience** 10 points (Point will be given by analyzing Related Experience letters of past 5 years depending on the value of the project)

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Please submit your bids by 26<sup>th</sup> March 2019, Tuesday 11:00am. (Maldivian time), addressed to;

Tender Ref No: FNK-I/IUL/2019/057

Managing Director

Fenaka Corporation Ltd

Port Complex Building, 7<sup>th</sup> Floor

Hilaalee Magu, Maafannu

K. Male'

The proposal and the envelope must bear the reference number of the tender. All envelopes must be duly sealed and stamped. Fenaka Corporation will not be liable for the misplacement or premature opening of unlabelled sealed proposals. The bids will be opened on 26<sup>th</sup> March 2019, Tuesday 11:00am. (Maldivian time), in the presence of the bidders. The bids received after the stated time, and the bids received via email will not be accepted.

For more information and clarifications, please email us at [tender@fenaka.com.mv](mailto:tender@fenaka.com.mv)

10<sup>th</sup> March 2019