



Mormugao Port Trust, GOA

Serving The Nation Since 1885

AN ISO 9001:2000, ISPS COMPLIANT PORT

MORMUGAO PORT TRUST
MECHANICAL ENGINEERING DEPARTMENT

CME/XEN(EP)/ 2016/01

EXPRESSION OF INTEREST [EOI] FOR SUPPLY OF 3.15 MVA
TRANSFORMERS FOR MORMUGAO PORT TRUST

Mormugao Port Trust intends to invite Expression of Interest from manufacturers who have supplied 3.15 MVA transformers. The Expression of Interest (EOI) documents containing the details of technical specification and Terms & Conditions can be downloaded from the Mormugao Port Trust website www.mptgoa.com.

The completed EOI (Expression of Interest) shall be submitted with supporting documents on or before **13.05.2016**.

CHIEF MECHANICAL ENGINEER
MORMUGAO PORT TRUST



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**EXPRESSION OF INTEREST [EOI] FOR SUPPLY OF 3.15 MVA TRANSFORMERS
FOR MORMUGAO PORT TRUST**

Submission on or before 13-05-2016

Superintending Engineer (E-P),
Mechanical Engineering Department,
Mormugao Port Trust,
2nd Floor, Admin. Building,
Headland Sada
Goa - 403804
Phone : (0832) 2594227
Fax : (0832) 2521175
Email : cme.mgpt@gmail.com

EXPRESSION OF INTEREST [EOI] FOR SUPPLY OF 3.15 MVA TRANSFORMERS FOR MORMUGAO PORT TRUST

1.0 INTRODUCTION

Mormugao Port Trust is presently upgrading its existing power system network from 33/3.3KV to 33/11KV, which requires providing of 33/11KV, 3.15 MVA Power Transformers and associated switchgears.

2.0 SCOPE OF WORK INCLUDES:

The scope of work includes Supply, installation, testing and commissioning of 33/11 KV, 3.15 MVA Power Transformers – 02 nos. as detailed in the technical specifications.

3. 0 TECHNICAL SPECIFICATIONS:

- The transformer shall be oil cooled copper winding only and of latest design.
- The transformer shall be suitable for operation at full rated power on all tapings without exceeding the applicable temperature rise.

<i>Sr. No.</i>	<i>Particulars</i>	<i>33/11 KV Power Transformer</i>	
1.	Rating	3.15 MVA	
2.	Number of phases	Three	
3.	Vector group	Dyn-11	
4.	Type of installation	Indoor	
5.	Frequency	50HZ(+/-) 3%	
6.	Cooling medium	Insulating oil	
7.	Type of cooling	ONAN	
8.	Highest continuous system voltage		
	High voltage	:36kV	
	Low voltage	:12kV	
9.	Winding connection		
10.	Winding material	Electrolytic copper	
11.	High voltage winding	DELTA	
12.	Low voltage winding	STAR	
13.	Method of System Earthing	Solidly grounded on LV side	
14.	Core material	CRGO (M-4/higher grade)	
15.	Type of tap changer	ON Load	
16.	Range of tapping	±5% in steps of 2.5% on HV side	
17.	Maximum current density	3 amp/sqmm	
18.	Maximum flux density	1.6 Tesla	
19.	Type of insulation and insulation level	<u>33kV</u>	<u>11kV</u>
20.	a) Type of insulation	Class F	Class F

	b) One minute power frequency withstand voltage(kV rms)	70kV	28kV
	c) Lighting impulse withstand voltage	170kVp	75kVp
20.	Terminal details		
	A 33kV termination	33 KV heat shrinkable end termination.	
	B 11 KV termination	3C x 50 sq. mm Al armoured screened XLPE cable	
21.	Maximum temperature rise over ambient of 50°C		
	a) Temperature rise of top oil	50°C (measured by thermometer)	
	b) Temperature rise of winding	55°C (measured by resistance)	
	c) Maximum winding temperature in degree C	105°C	
	d) Maximum permissible value of average temperature of winding after 3 sec max. permissible short circuit:	250°C	
22.	Impedance at rated MVA at 75°C without (-) ve tolerance	6.25%	
23.	No load loss (at rated voltage and rated current)		
24.	Full load loss		

4.0 BUDGETARY OFFER

The manufacturers/suppliers shall submit their budgetary offer, as per the price schedule at Annexure-I, along with all technical details, dimensional details, delivery period, taxes, duties and other applicable levies, if any.

5.0 PERIOD OF VALIDITY

The budgetary offers of the EOI firms shall remain valid for a period of **THREE MONTHS** from the date of opening of the EOI.

6.0. EOI DOCUMENT

The EOI firms are expected to examine the terms and conditions and technical specifications in the EOI documents.

7.0 GENERAL TERMS AND CONDITIONS:

1) On award of work, the time period for completion of the work is approx. 4 months. The work shall be contracted out through open tender under two cover system within 2 weeks of receipt of the budgetary offers.

2) The price quoted by the manufacturers shall be kept fixed for the entire contract period.

8.0 EOI SUBMISSION

i) The EOI shall be submitted on or before **13.05.2016 at 3.00 p.m** containing the budgetary offer along with technical details with terms and conditions either by hand or post or by e-mail.

ii) The EOI shall be addressed to the following address:

Superintending Engineer (E-P),
Mechanical Engineering Department,
Mormugao Port Trust,
2nd Floor, Admin. Building,
Headland Sada
Goa - 403804
Phone : (0832) 2594227
Fax : (0832) 2521175
Email : cme.mgpt@gmail.com

PRICE SCHEDULE

Sr. No.	Description	Unit	Qty	Unit Rate (Rs.)	Amount (Rs.)
1.	Supply of 33/11 KV, 3.15 MVA, DYN1 Oil cooled copper winding Transformers as per Technical Specifications. Make: VOLTAMP/ BHEL/ SIEMENS/ SCNEIDER	Nos.	2		
2.	Installation, Testing and Commissioning of above Transformers.	Nos.	2		
				TOTAL	

(Rupees _____
_____)