



**Mormugao Port Trust, GOA**

*Serving The Nation Since 1885*

AN ISO 9001:2000, ISPS COMPLIANT PORT

**MORMUGAO PORT TRUST  
MECHANICAL ENGINEERING DEPARTMENT**

**CME/XEN(E-P)/CONTRACT/03/2017**

**INVITATION**

**OF**

**EXPRESSION OF INTEREST [EOI] FOR PROVIDING CONSULTANCY SERVICES FOR  
UP-GRADATION OF ELECTRICAL POWER SUPPLY SYSTEM**

**AT**

**MORMUGAO PORT TRUST**

Submission on or before 11-04-2017

Suptdg. Engineer (E-P),  
Mechanical Engineering Department,  
Mormugao Port Trust,  
Electrical Section, 2<sup>nd</sup> Floor,  
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## **NOTICE INVITING EXPRESSION OF INTEREST**

Name of work: **Providing Consultancy Services for Up-Gradation of Electrical Power Supply System at Mormugao Port Trust**

Expression of Interest (EOI) is invited from reputed Consultancy firms / registered service providers and having proven professional capabilities in the conducting primary survey and data aggregation/Analysis, designing of SCADA, Electrical System. Interested parties may forward the application in the prescribed format along with required / supporting documents. The EOI can be submitted to The Suptdg. Engineer (E-P), Mechanical Engineering Department, 2<sup>nd</sup> Floor, Administrative Building, Headland, Sada, Goa-403804. The Expression of Interest (EOI) documents containing the details of technical specification and Terms & Conditions can be down loaded from the Mormugao Port Trust website [www.mptgoa.com](http://www.mptgoa.com).

The completed EOI (Expression of Interest) shall be submitted with supporting documents on or before 11/04/2017 upto 3:00 P.M.

Important dates & data:

Start Date of Issuing Documents	27/03/2017
Pre - Bid Meeting	06/04/2017
Venue of Pre-Bid meeting	CME's Conference Room, 2 <sup>nd</sup> Floor, Admin. Bldg.
Last date of Submission	11/04/2017 upto 3:00 pm
Date of Opening	11/04/2017 at 3:30 pm

**CHIEF MECHANICAL ENGINEER**

**SCOPE OF CONSULTANCY SERVICES****1. Introduction:**

- 1.1. Mormugao Port is a major Port on the West Coast of India, with annual through put capacity of 12 MPTA, with plan for future development.
- 1.2. Port has 11 berths for handling coal, iron ore, container, general cargo, etc.,
- 1.3. MPT intend to engage consultant for improvement of power distribution in Port and up-gradation to meet future demand. The tentative diagram of existing installations is shown for reference.
- 1.4. Port receiving power from Electricity Department, Government of Goa for various utilities, which is distributed through Port's substation.

<b>Sl. No.</b>	<b>Location</b>	<b>Existing Contract Demand (KVA)</b>
1.	Substation 'A'	1667
2.	Headland Substation	100
3.	Hospital Substation	250

**2. Scope of Consultancy:**

The Scope of work for Electrical works proposed are mentioned below:

- 2.1. Redesigning/Up-gradation of the existing 33kV substation-A with 33/11 KV Distribution system with 1667 KVA capacity and Power back up plan for the same.
- 2.2. Redesigning/Up-gradation of existing Headland Substation with 11/0.433 KV substation and distribution system with 950 KVA capacity and power back up plan for the same.
- 2.3. Redesigning/Up-gradation of existing Admin Bldg Substation with 11/0.433 KV substation and distribution system with 600 KVA capacity and power back up plan for the same.
- 2.4. Redesigning/Up-gradation of existing Jetty Substation with 11/0.433 KV substation and distribution system with 500 KVA capacity and power back up plan for the same.
- 2.5. Redesigning/Up gradation of existing Berth No. 10 Substation with 11/0.433 KV substation and distribution system with 800 KVA capacity and power back up plan for the same.

- 2.6. Redesigning/Up gradation of existing Hospital Substation with 11/0.433 KV substation and distribution system with 250 KVA capacity and power back up plan for the same.
- 2.7. Feasibility study to provide Harbour substation with 11/0.433 KV substation and distribution with 2000 KVA capacity for providing shore power supply to ship with back up support as a stand by source.
- 2.8. Ring main system/Master control center design for electrical power back up of all five utility substations.
- 2.9. Integration of all utility substations for remote monitoring and controlling through SCADA systems. Implementation of power management system (PMS) that will monitor the electrical system parameters, Report generation & SMS alert in case of any abnormality in the system for timely action.
- 2.10. Planning for secure cable laying network through construction of RCC Cable trench at various locations.
- 2.11. Design of single line diagram (SLD) covering entire electrical system with all requisite protection.
- 2.12. Formulation of equipment layout & associated schematic diagram.
- 2.13. Upgradation Power supply system consisting of incomer supply, distribution and cabling systems including breakers, transformers, capacitor bank, Neutral grounding systems, bus bar, power control panel with connecting cables.
- 2.14. Planning & implementing energy saving illumination design by LED lights at high mast towers.
- 2.15. Providing Shore power supply to Indian and Foreign ships at berths.
- 2.16. The details with regard to present Electrical Installations/installed capacities to be upgraded are as follows:

Sr. No.	Description	Capacity	Quantity
<b>MOHP 33KV Substation - Contract Demand : 1667 KVA</b>			
<b>Maximum Demand : 1200 KVA</b>			
1	33KV/3.3KV, Transformer	5MVA	02 nos.
2	3.3KV/415V Transformer	630KVA	03 nos.
3	33KV/415V Power Factor Correction Transformer	2MVA	02 no.
4	415V Capacitor banks	30KVAR	16 nos.

<b>Berth no 10 Substation (Containers) (3.3KV)</b>			
1	3.3KV/415V Transformer	315KVA	02 nos.
2	3.3KV/415V Transformer	500KVA	01 nos.
3	Main incoming AI Cable of length 70 mtrs	3C X 120 mm <sup>2</sup>	02 runs.
4	DG Set	320KVA	01 nos.
5	DG Set	300KVA	01 nos.
6	DG Set	165KVA	01 nos.
<b>Jetty Substation(3.3KV)</b>			
1	3.3KV/415V Power Transformer	630KVA	01 no.
2	3.3KV/415V Power Transformer	500KVA	01 no.
3	Main incoming AI XLPE Cable of length 1800 mtrs	3C X 120 mm <sup>2</sup>	02 runs
<b>A.O. Building(3.3KV)</b>			
1	3.3KV/415V Power Transformer	630KVA	01 no.
2	3.3KV/415V Power Transformer	500KVA	01 no.
3	Main incoming AI PVC Cable of length 2600 mtrs	3C X 120 mm <sup>2</sup>	02 nos.
4	415V AVR	650KVA	01 no.
5	DG Set	500KVA	01 no.
6	DG Set	125KVA	01 no.
<b>Headland Substation(11KV) - Contract Demand: 100 KVA - Connected Load: 43 KVA</b>			
1	11KV/415V Power Transformer	500KVA	01 no.
2	Main incoming AI XLPE Cable of length 50 mtrs	3C X 35 mm <sup>2</sup>	02 runs
3	415V Capacitor bank	15KVAR	02 nos.
<b>Hospital Substation(11KV) - Contract Demand: 250 KVA - Connected Load: 239 KVA</b>			
1	11KV/415V Power Transformer	500KVA	01 no.
2	Main incoming AI PVC Cable of length 50 mtrs	3C X 35 mm <sup>2</sup>	02 runs
3	415V AVR	500KVA	01 no.
4	DG Set	320KVA	01 no.
5	415V Capacitor bank	30KVAR	05 nos.

**3. GENERAL TERMS AND CONDITIONS**

**3.1. BUDGETARY OFFER**

Interested parties may submit their budgetary offer to undertake consultancy along with the company profile, major works undertaken particularly of similar nature and any additional information concerning the job. For any clarifications, interested parties may contact:

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Mechanical Engineering Department,  
Mormugao Port Trust,  
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[cmemgpt@gmail.com](mailto:cmemgpt@gmail.com)

**3.2. EOI DOCUMENT**

The EOI firms are expected to examine the terms and conditions.

**3.3. EOI SUBMISSION**

The EOI shall be submitted on or before **11/04/2017 at 3.00 p.m.** containing the budgetary offer along with technical details with terms and conditions either by hand or post.

**3.4. OTHER TERMS AND CONDITIONS**

- 1) The Consultant or Lead Consultant shall have more than 7 years experience in the field of Consultancy of the SCADA, Electrical Substations works (upto 33KV), energy efficiency and control system.
- 2) The consultant must have completed at least 03 assignments in the area mentioned above.
- 3) Copies of registration/empanelling with other organization if any, may be attached with complete mailing address.