

NOTICE INVITING BUDGETORY OFFERS

Name of Work	SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ELECTRICAL POLES ON JETTIES
Budgetary Quotation no:	CME/XEN (E-HR)/ 24/H1/B3
Date of submission of budgetary quotation	On or Before 27/09/2024 at 15:00 Hrs-
Address for communication:	Executive Engineer (E-HR), 2nd floor, Mechanical Engineering Department, Mormugao Port Authority, Admin. Building, Headland sada Vasco-de-Gama Goa - 403804
Contact Details	Phone : (0832) 2594207, 2594577 Email : mohamed.shaik@mptgoa.gov.in
Website	www.mptgoa.gov.in

**EXECUTIVE ENGINEER (E-HR)
MORMUGAO PORT AUTHORITY**

TECHNICAL SPECIFICATION

1 GENERAL

Mormugao Port Authority invite the quotation for the work of **“SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ELECTRICAL POLES ON JETTIES”**. The entire work shall be carried out as directed by Engineer-In-charge.

2 SCOPE OF WORK:

2.1 The contractor shall supply five (5) poles, each 9 meters in length. The poles must be octagonal, sleek, aesthetically pleasing, and feature a single longitudinal weld. They should not contain any internal junction boxes or electrical accessories. Cable entry should be facilitated via a pole plate for the junction box. The poles must be hot-dip galvanized internally and externally to a thickness in compliance with BS EN ISO 1461, IS 2629, IS 2633, and IS 4759 standards, with an average coating thickness of not less than 65 microns. The galvanizing must be achieved through a single dipping process. Each pole shall be equipped with cross arms to mount four (6) 250W LED floodlight fittings.

2.2 The contractor shall provide weatherproof terminal boxes of IP66 rating, constructed from cast aluminum, and install them on each pole using GI clamps and hardware. Additionally, the contractor shall supply and install copper cables of appropriate size to connect the terminal boxes to the lighting fittings. Supply and providing necessary glands and lugs for these connection is in the scope of contractor.

2.3 The Contractor must design a suitable foundation for securing the pole on the jetty towards water front area to withstand wind speeds of up to 180 km/h. This foundation design must be approved by MPA. Once approved, the Contractor shall execute the foundation work and erect the poles. All materials required for both the foundation and pole erection are Contractor's responsibility. **The contractor shall inspect the site and get acquainted with the nature and type of foundation that is required for erecting the poles on the jetty before offering their quotation.**

Note: Drilling can be done only at the pilling point on the finger jetty/breakwater berth, to accommodate four M16 bolts per pole, each measuring between 350 and 400 mm in length.

2.4 The contractor shall supply and install four (6) 250-watt LED floodlight fittings on each pole. All the material required for wiring shall be supplied by the contractor.

2.5 The contractor shall supply 4-core x 25 sq mm, 1.1KV grade XLPE aluminum armored

cable, with test report. Cable shall be delivered to the site without any damage.

2.6 The contractor shall clean the mud saturated on the existing trench along the jetties. The trench must be meticulously cleaned to ensure the removal of debris such as garbage, slurry. Only after cleaning of trenches the work of laying new cables shall commence. Upon completion of cable laying, the cable trench must be backfilled with soil.

2.7 The contractor shall excavate a trench to a depth of 1 meter and a width of 0.5 meters as needed. Additionally, a groove shall be cut into the concrete road to accommodate the placement of a 2-inch dia., HDPE pipe for cable laying, ensuring proper cushioning for the HDPE pipe. After the cable is laid, the trench must be backfilled and the concrete road repaired. **The HDPE pipe will be supplied by MPA.**

2.8 The contractor shall lay the cable from the nearest High-Mast panel to the poles as directed by the Engineer-in-Charge. A single continuous length of cable, without any joints, shall be provided from existing junction box to pole terminal junction box.

2.9 The contractor shall terminate the cables by providing suitable size gland and lugs.

3 TECHNICAL SPECIFICATIONS:-

3.1 STREETLIGHT POLE

The poles must be octagonal, sleek, aesthetically pleasing, and feature a single longitudinal weld. They should not contain any internal junction boxes or electrical accessories. Cable entry should be facilitated via a pole plate for the junction box. The poles must be hot-dip galvanized internally and externally to a thickness in compliance with BS EN ISO 1461, IS 2629, IS 2633, and IS 4759 standards, with an average coating thickness of no less than 65 microns. The galvanizing must be achieved through a single dipping process.

3.2 250W LED FLOOD LIGHT FITTINGS suitable for 9 m height poles. **Necessary warranty certificate of manufacturer for 250 W LED Flood light fittings has to be submitted for acceptance**

- i. Rated voltage: 240 V AC, 50 HZ. Operating voltage: 120-270 V AC
- ii. System wattage: 250 w
- iii. P.F: ≥ 0.95
- iv. Lumen efficiency: $>120\text{L/W}$
- v. CCT & CRI :- 5500K & >70
- vi. Driver efficiency: $>85\%$
- vii. Protection: O.C, SC, Surge protection of min 10 KV , SPD

- viii. Mounting: bracket
- ix. Main housing/ heat shrinks material: Aluminum extruded/ Aluminum PDC
- x. Housing end caps & CG box: aluminum PDC
- xi. Front cover: clear toughened glass
- xii. Control gear: isolated, electronic, CC drive
- xiii. Hardware: SS
- xiv. IP:66
- xv. Impact resistance: 1K07
- xvi. Name of the make: shall be engraved/embossed/printed on light fitting
- xvii. Fitting shall have NABL certification.

4 MINIMUM ELIGIBILITY CRITERIA

- i. Only Electrical contractors possessing a valid Electrical license to work on minimum 1.1KV lines issued by the licensing board shall be eligible to quote for the enquiry.
- ii. The Bidder shall have successfully completed one Similar Work during last 7 (Seven) years ending last day of month previous to the one in which quotations are invited.

Note: Similar works means " Supply, installation and commissioning of electrical poles of minimum 9 meters height at Central Govt. / State Govt. / Port Sector / PSU or any reputed organization".

5 INSTALLATION AND COMMISSIONING

- 5.1.1 The Contractor shall commence and complete the work as per the BOQ and utmost care must be taken while carrying out the works on charged electrical installation. The work is to be carried out as per the site conditions and relevant IS standards
- 5.1.2 The Contractor shall complete the work to the satisfaction of the Chief Mechanical Engineer or his representative.
- 5.1.3 The work should be carried out with utmost safety precaution with minimum possible disruption of power supply.

6 Completion Period:

The work should be completed within **90 days** from the date of receipt of

the work order/LOA.

7 Guarantee Period:

The turn-key project in total shall be guaranteed for a period of 5 (five) years for all the materials including fittings and works carried out by the contractor from the date of commissioning and satisfactory handing over. The Contractor shall be solely responsible for any defects that may develop under the guarantee period and shall at his own cost rectify such defects when called upon to do so by the Engineer. However, the Security Deposit shall be converted to Performance Guarantee during the guarantee period.

8 Other terms and conditions

- i) All tools and tackles shall be arranged by the Contractor at their own cost.
- ii) MPA may give instructions and directions as may appear (necessary and proper) for the guidance of the Contractor and good and efficient execution of the Works under this contract without altering major conditions and scope of work of the Contract.
- iii) The Contractor shall receive, obey and be bound by the same according to the true intent and meaning thereof.
- iv) The power supply shall be provided by the Port free of cost for execution of the work; however, the Contractor shall take power supply from the nearest source by making suitable arrangements at their own cost and risk.
- v) Contractor shall avail the Port equipment's / Mobile Crane on chargeable basis as per prevailing Scale of Rates subject to availability or The contractor shall make his own arrangement for the crane if required

SCHEDULE OF PRICES AND QUANTITIES

Sr. No.	Description	Unit	Qty	Unit Rate (Rs.)	GST %	Total amount (Rs)
A	B	C	D	E	F	G=EXD
1.	Supply of 9mtr electrical pole with cross arms for fixing 6 nos 250watt fitting on each pole along with cable , terminal box, etc. complete in all respect as per the technical specifications	no	5			
2.	Design and casting of suitable pedestal foundation for the pole and erection of the pole. The pedestal height shall be 500mm above the existing nearby ground level. All material required for foundation including bolts is in the scope of contractor	no	5			
3.	Excavation of trench in soft soil of size 1.0 meter deep and 0.5 meter width and Back filling of trench.	mtr	300			
4.	Supply of 1.1 KV, 4 core x 25 sq.mm XLPE Aluminum armoured cable	mtr	950			
5.	Laying of 4 core x 25 sq.mm of XLPE Aluminium armoured cable through excavated trench	mtr	150			
6.	Laying of 4 core x 25 sq.mm of XLPE aluminum armoured cable through HDPE pipes	mtr	100			

7.	Laying of 4 core x 25 sq.mm of XLPE aluminum armoured cable through exiting RCC trench by removing mud and backfilling thereafter	mtr	550			
8.	Laying of Heavy duty HDPE pipe of diameter 2 inch by groove cutting on concrete road and repairing concrete after laying cable. HDPE pipe will be supplied by MPA	mtr	100			
9.	Supply and fixing of 250 watt LED flood light fittings complete in all respect as per specifications	no	30			
10	Installation, testing and commissioning of electrical pole complete in all respects	no	5			
Total Amount						

1. The bidder shall quote the price exclusive of GST. Applicable GST shall be paid on the quoted price. The bidder shall indicate the applicable GST rate on the goods/services in the price bid.
2. The quantity specified in BOQ is indicative, however, payment will be made as per actuals.