

MORMUGAO PORT TRUST
ENGINEERING MECHANICAL DEPARTMENT

Quotation no. CME/XEN/E-HR/H1/02



An ISO 9001 : 2008 Port
ISPS CODE Compliant

LIMITED QUOTATION
FOR "Illumination of Mooring Dolphins using Solar power"

Due at 3.30 P.M on 05.04.2017

Website:www.mptgoa.com

MORMUGAO PORT TRUST
ENGINEERING MECHANICAL DEPARTMENT

Quotations are invited in single cover system duly super scribed as **QUOTATION FOR**
“Illumination of Mooring Dolphins using Solar power”.

Details about Quotation:

Quotation invited by	CHIEF MECHANICAL ENGINEER, MORMUGAO PORT TRUST
Quotation No.	CME/XEN/E-HR/H1/02
Name of Work	Illumination of Mooring Dolphins using Solar power” .
Document Cost	Rs.500/- in the form of DD from Nationalized/Scheduled Banks in favour of the Financial Advisor & Chief Accounts Officer, MPT, payable at Vasco, Goa to be submitted along with the quotation, otherwise the offer <i>shall not be considered</i> . (Quotation Document Fee is not refundable)
Security Deposit	10 % of the contract value.
Completion Period	The work should be completed within 4 weeks from the date of 7 th day of receipt of LOA.
Liquidated Damages	For delay in supply/work Liquidated Damages, equivalent to 1% of the total contract value/per week or part thereof subject to maximum 10% are liable to be deducted from any moneys due or become due to the Contractor
Payment terms	100% payment shall be made within 30 days after satisfactory completion of work on producing invoice complete in all respect. The contractor shall furnish their bank account number PAN card, MICR number Name of the Branch along with Bill for arranging payment made through E.C.S. by the Trust.
Bid Validity	120 Days from the date of opening of the quotation.
Guarantee Period	12 months from the date of taking over of the work.
Minimum Eligibility Criteria(MEC)	The party should have executed at least one Solar project such as Supply, installation, testing and commissioning of Solar panels/lighting during the last 7 years , the proof of which is to be submitted
Date of Pre-bid meeting	22/03/2017
Date of submission of bids	05/04//2017 till 15:00 Hrs.
Date of Opening of bids	05/04/2017 at 15:30 Hrs
Address for communication and submission of bid:	SE(E-HL) Engineering Mechanical Dept., Mormugao Port Trust, Main Administrative Building, Headland- Sada. Mormugao, Goa – 403804.

Contact Details	Phone :0832-2594515/ 2594579 Email : cme.mgpt@gmail.com , melchior_teles@yahoo.co.in, soaresfreddy@gmail.com
Website	<u>www.mptgoa.com</u>

CHIEF MECHANICAL ENGINEER

TECHNICAL SPECIFICATIONS

1.0. GENERAL

Mormugao Port Trust invites limited Quotations for the work of **“Illumination of Mooring Dolphins using solar power”**.

There are 6 Nos Mooring Dolphins installed by the Port in mid waters for carrying out mid stream loading/unloading operations of cargoes. Each Mooring Dolphin has square floor dimensions of 14mx 14m admeasuring 196 m² .There is a central concrete pedestal of height 2.2.mts and having a navigational light on top of it with the cross sectional dimension of the pedestal as 40 cm x 40 cm. There are 3 Nos Bollards of 250 T capacity on two sides of the dolphin totaling to 6 Nos. bollards to fasten the ropes of the ships. Besides these Bollards, there are additional 10T capacity 3 Nos. bollards towards the approach side of the dolphin, to facilitate berthing of smaller crafts. The Dolphin is around 500 meters away from Port craft jetty near oil Berth.

Presently there is no illumination facility available on the Mooring Dolphins to provide illumination during berthing and unberthing programs during which the ropes from the vessels have to be manually secured to the Bollards installed on the Mooring Dolphins .This is manually being carried out by gang men of the Marine department .During the operations at night it becomes very difficult and risky to human life to carry out the operation due to poor visibility on the Mooring Dolphin. Accordingly, as a permanent solution, it is proposed to provide solar based lighting on Pilot model on one of the Mooring Dolphins. If the same is successful, the project will be extended to cover the lighting on all the balance 5 Nos Mooring Dolphins.

2.0 SCOPE OF WORKS:

1. The work involves:-
 - a. Design, supply, installation and testing of solar power plant of around 2 KW on 1 no. Mooring dolphin on trial basis within 4mx 4m (area admeasuring 16m²). The total area of the Mooring Dolphins is 14m x14m (196 m²).Sketch for the same is attached. The solar Power plant is to be installed at the base of the pedestal at the centre.
 - b. Fabrication and fixing of mounting base structure for the solar power plant and light fixtures using anodised aluminium material with necessary SS nut bolting system. The entire structure with suitable solar panels should be able to withstand the max. Wind speed of 200 kph. Also the nuts and bolts including carriage arms/ securing clamps used for fastening the solar panels modules should be of SS to prevent rusting due to high salinity.
 - c. 4 Nos x 40 Watts LED Light fixtures of makes Surya/ Philips of IP 65 rating of the generated power supply. The light fixtures should be fixed on the concrete pedestal below the height of installed navigational light in four different directions as indicated in the drawing.
 - d. The switching of LED luminaries should be automatic to provide continuous illumination from 18.30 hrs to 6.30 hrs and LED lights should remain switched off from 6.30 hrs to 18.30 hrs or as per variations in seasonal day light conditions.
 - e. Design, Supply, installation, testing and commissioning of IP65 weather proof battery bank box with suitable tubular VRLA solar batteries with 75% depth of discharge.
 - f. Supply, installation, testing and commissioning of IP65 rated panel for battery charging circuit and supply distribution to LED light fittings. The designed charging circuit should be with suitable charge controller to prevent battery overcharging, solar reverse charging protection, solar reverse-connection protection, battery over discharge protection and battery reverse-connection protection.
 - g. Necessary cabling work for the entire setup as per IS standards and by complying with all statutory regulations in force.
 - h. Providing suitable marine earthing to the entire setup if required as per the design requirement.
 - i. The back-up provided should be irrespective of cloudy/ rainy conditions. The back-up should be of around 36 hours for a load of around 160 watts.

- j. Contractor is required to make his own arrangements for necessary electrical supply on Mooring Dolphins as required for installation. However necessary Port Tug/craft launch will be provided without manpower to transport the materials as required from Port Craft jetty at MPT to Mooring Dolphin free of charges.
- k. The contractor should adhere to necessary safety guidelines/regulations including insurance of workmen if need be while working in marine conditions.

3.0 INSTALLATION AND COMMISSIONING

Installation and commissioning should be carried out to the satisfaction of the Engineer in charge.

4.0 GENERAL TERMS AND CONDITIONS

4.1. Validity:

The validity period for the offer shall be 120 days from the date of opening of the quotation.

4.2. Price:

The offered rates shall be inclusive of all taxes and duties. Service Tax shall be paid as applicable. If, any new tax will be imposed by State / Central Govt. and same will be reimbursed on producing documentary proof.

4.3. Security Deposit:

i) Security deposit:

The DD of 10% of the contract value rounded off to nearest 100 rupees shall be submitted within 10 days of issue of Letter of Acceptance.

ii) The contractor shall furnish the Security Deposit in the form DD from Nationalized / Scheduled Banks in favour of the Financial Advisor & Chief Accounts Officer, MPT, payable at Vasco, Goa within 10 days from the date of issue of Letter of Acceptance (LOA). This Security Deposit shall be converted to Performance Guarantee during the guarantee period and will be returned to the contractor at the end of guarantee period.

4.4. Completion Period:

The entire work shall be completed within **4 weeks** from the 7th day of receipt of LOA.

4.5. Guarantee Period:

The Contractor shall give the guarantee for a period of **12 months** from the date of taking over of the work. Any defect observed during the guarantee period, the same shall be replaced by the Contractor, free of cost. However, The Security Deposit shall be converted to Performance Guarantee during the guarantee period.

4.6. Payment Terms:

- i)** 100% payment shall be made on within **15 days** after satisfactory completion of work on producing invoice complete in all respect.
- ii)** The contractor shall furnish their bank account details for the payment through ECS by the Trust. A copy of the PAN card, Service Tax Registration no., EPF& ESI shall be furnished. MICR number Name of the Branch along with Bill for arranging payment made through E.C.S. by the Trust.

4.7. Liquidated Damages:

In the event of failure by the contractor to complete the execution of the work within the time stipulated in the contract or by the expiry of any period of extension granted by the Board's terms thereof, the contractor shall pay the Board as Liquidated Damages for delay to complete the work, a sum of 1% of contract price per week or part thereof subject to a maximum of 10% and the Board shall have the power to deduct this amount from the payment of the amounts due to the contractor or from his deposit.

4.8. Other terms and conditions

- i)** All tools and tackles involved in the work shall be arranged by the Contractor at their own cost.
- ii)** The Bidders can visit the site if they find necessary and get acquainted regarding the nature of the work involved at site conditions before quoting the rate.
- iii)** The scope of work and bill of quantities of prices and quantities "ANNEXURE-1" to be read in conjunction to ensure the actual supply and works involved.
- iv)** Necessary Entry passes shall be obtained by the Contractor at their own cost with the approval of Port Officials.

- v) The Trust will not be responsible for any loss or damage of the men/materials/tools/plants engaged by the firm during the work at site or transportation.
- vi) The Contractor shall take utmost care during the execution of the work, if any damage to Port property, the cost of the damage shall be deducted from the Contractor's bill.
- vii) Since the work site is at mid-stream arrangement for power to carry out the contract work is in the scope of contractor.
- viii) Address for communication and submission of bid: Superintending Engineer (E-H), Engineering Mechanical Department, Mormugao Port Trust. Administrative Office, Mormugao Goa 403802. Contact no: 0832-2594515, 0832-2594579.
- ix) Further amendments if any, visit our Website www.mptgoa.com

CHIEF MECHANICAL ENGINEER

Illumination of Mooring Dolphins using Solar power

BILL OF QUANTITIES

SR.NO	DESCRIPTION	QUANTITY	RATE (INR)	AMOUNT (INR)
1	Design, supply, installation, testing and commissioning of solar power plant of 2 KW on 1 no Mooring dolphin with 04 nos luminaries and allied accessories as detailed in the technical scope.	1		
		TOTAL		

(In words Rupees

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Note: The offered rates shall be inclusive of all taxes except Service Tax which will be paid/ extra as applicable. However, if any new tax imposed by State/Central Govt., same will be reimbursed on producing documentary proof.