



नवमंगलूरपत्तनप्राधिकरण  
**NEW MANGALORE PORT AUTHORITY**  
यांत्रिक अभियंता विभाग  
**Mechanical Engineering Department**  
इलेक्ट्रिकल इंजिनियरिंग डिविजन, पणंबूर, मंगलूर  
**Electrical Engineering Division**  
**Panambur, Mangalore - 575010**

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No.8/3/2023/Ele. Dvn/EQ/08/01

Date: 14.08.2024

To,

Sir,

Sub: -NMPA-EE (E) - "Third Party Inspection Service for Octagonal Poles, brackets, LED Street lights, LED Flood lights, Feeder Pillars and LT UG cables" - Quotation invited - Reg.

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NMPA intends to engage third party inspection agency for Octagonal poles, brackets, LED Street lights, LED Flood lights, Feeder Pillars and LT UG cables at manufacturer's work site/NMPA.

Quotation in sealed cover superscribed as "Third Party Inspection Service for Octagonal poles, brackets, LED Street lights, LED Flood lights, Feeder Pillars and LT UG cables" addressed to **The Executive Engineer (Elec.), Electrical Division, Administration Building, New Mangalore Port Authority, Panambur, Mangalore-575010** are invited for the following items in accordance with the instructions to the Tenderer, Terms & Conditions as detailed below, which may please be submitted not later than **3.00 PM on or before 23.08.2024**. Quotations will be opened on the same day at 3.30 PM in the presence of the tenderers who wish to be present.

Sl.No.	Description of Work	Qty.	Amount (Rs.)
1	Inspection of 8 mtr long hot dip Galvanized Octagonal poles (As per approved Technical Specifications)	58 Nos.	
2	Inspection of hot dip Galvanized MS brackets a) Single Arm bracket with 1500 mm standard 40mm dia. b) Double Arm bracket with 1500 mm standard 40mm dia. c) Circular bracket of ID 750mm, fabricated with 40mm dia pipe, head frame & supports. (As per approved Technical Specifications)	5 Nos. 48 Nos. 5 Nos.	

3	Inspection of 90W LED street light fittings (As per approved Technical Specifications)	101 Nos.	
4	Inspection of 100W LED Flood light. (As per approved Technical Specifications)	20 Nos.	
5	Inspection of Feeder pillars (As per approved Technical Specifications)	3 Nos.	
6	Inspection of 1.1KV, 4C x 16 sq.mm XLPE insulated, PVC extruded inner sheath armoured UG LT cable. (As per approved Technical Specifications)	2100 Mtrs	
7	Inspection of 1.1KV, 3.5C x 95 sq.mm XLPE insulated, PVC extruded inner sheath armoured UG LT cable (As per approved Technical Specifications)	1600 Mtrs	
	Total		
	Applicable GST		
	Grand Total		

**The location for inspection above mentioned items are as under:**


Sl. No.	Item	Company Name & Address
1	Octagonal Poles & Brackets	M/s. Ritajya Industry Pvt. Ltd. N.H.6, Joy Nagar, Sandhipur Howrah, West Bengal - 711302
2	Feeder Pillars	M/s. Ashirwad Engineers 146-A, Sector-31, HSIIDC, Faridabad, Haryana - 121003
3	LT Cables	M/s. Pymen Cables A-24, DSIDC, Narela Industrial Area, Delhi - 110040
4	LED Street Lights & Flood Lights	New Mangalore Port Authority, Panambur, Mangalore, Dakshina Kannada, Karnataka - 575010

**TERMS & CONDITIONS:**

- 1) The firm shall have a valid Authorization certificate for carrying out the inspection. i.e, NABCB or equivalent. Copy of the certificate shall be enclosed along with the offer, failing which the offer shall be liable for rejection.
- 2) TPI shall carryout the inspection of materials at Manufacturer's works & Mangalore as mentioned in above locations.
- 3) Applicable GST will be paid extra as per actual. GST Registration Certificate shall be submitted along with the offer.
- 4) Scope of Inspection shall be as per Technical Specification (Annexure-I), relevant standards, drawings, QAP, Type Test report, etc.

- 5) The offer rate shall be inclusive of travel expenses, lodging and boarding and other incidental charges etc.
- 6) All necessary facilities for inspection (instruments, test instruments, drawings etc) shall be arranged by the contractor /manufacturer.
- 7) After inspection, the TPI Agency shall submit the inspection report to NMPA, TPI agency shall give the dispatch clearance to the manufacturer/Contractor to deliver the inspected items to the site at NMPA.
- 8) Inspection call to your office will be given in advance, two days prior to the date of inspection.
- 9) Income tax /Statutory taxes as applicable will be deducted at source while releasing the payment.
- 10) Payment terms
  - (a) TPI shall submit the invoice along with the complete inspection report.
  - (b) 100% payment will be made within 15 days from the date of receipt of invoice along with the report

Encl: Technical Specifications

  
14/8/24  
Executive Engineer (E)  
Electrical Division, NMPA

Seal and sign of Tenderer



**TECHNICAL SPECIFICATIONS**

**1. TECHNICAL SPECIFICATIONS of OCTAGONAL POLE:**

8 Mtrs long height hot dip Galvanized Octagonal pole made up of 3mm thick HT steel of grade S 355 JO confirm to BSEN 10025 of size 135 mm dia at bottom tapered gradually to 70mm at top suitable for withstanding maximum speed of 47 m/s having suitable base plate (250X250X16mm) with 4 Nos. of Ø24x750mm long galvanized "J" type foundation bolts along with templates, nuts required for holding down the pole. The entire fabricated pole shall be single section and single joint welded as per IS 9595/IS10178 AWS and hot dipped galvanized in single dipping to not less than 65 microns externally & internally as per ASTM-A123 and 153 etc./BS EN ISO 1461. The pole shall have cable entry and exit with a provision for mounting cable connector fitted with suitable capacity MCB (One No. 6A DP MCB) including 5 Nos. Elmex KBT M6 connector on hylum sheet complete at a height of 0.75mtr inside pole with hinged front door. (There should not be "circumferential weld joint" to the pole)

**2. BRACKET OF OCTAGONAL POLE:**

a) Hot dip galvanized **Single arm & Double arm bracket** 1500mm long, 40mm dia made up of MS along with suitable bolts, nuts etc. complete to 8 mtr Octagonal pole. All the hardware shall be GI/stainless steel only.

b) Hot dip Galvanized MS **circular bracket** of ID 750mm, fabricated with 40mm dia pipe, head frame & supports, mounting plates suitable for mounting 4 Nos. outdoor LED flood light luminaires on 8 mtr Octagonal pole using necessary bolts, nuts etc. complete. All the hardware shall be GI/stainless steel only.

**3. TECHNICAL SPECIFICATIONS of LED STREET LIGHT FITTINGS:-**

LED streetlight fitting **90W** system efficiency 120+ lum/W (LM79 & LM80 report to be submitted). The Luminaire must have housing made of pressure die cast aluminum housing and have color temperature of cool white (CCT >5500K) and CRI>70. Constant Current driver, operating voltage range 120V to 270V. Frequency - 50Hz. The Luminaire must have an in-built surge protection of 4kV along with Over Voltage, Overload, Short Circuit/miss-wiring protection and power factor >0.95, IP66 & IK08 protection and a life class of 50,000hrs (L70). Suitable for bracket of outer dia 40mm to 50mm.

**4. TECHNICAL SPECIFICATIONS of LED FLOOD LIGHT FITTINGS:-**

LED Floodlight fitting **100W** luminaire efficacy 120 lum/W (LM79 & LM80 report to be submitted). The Luminaire must have housing made of pressure die cast aluminum housing and have color temperature of cool white (CCT >5500K) and CRI>70. Constant Current driver, operating voltage range 140V to 280V, Frequency - 50Hz. The Luminaire must have an in-built surge protection of 5kV along with Over Voltage, Overload, Short Circuit/miss-wiring protection and power factor >0.95, IP66 & IK08 protection and a life class of 50,000hrs (L70). Suitable for bracket of outer dia 40mm to 50mm.



## 5. Technical Specifications of Feeder Pillar:

**Stainless steel** outdoor type feeder pillar shall be suitable for 125A capacity, 440volts 50Hz, three phase neutral having copper bus bars with proper insulation sleeves. Feeder pillar shall be made of **SS 304 grade enclosure** with rain canopy, double door at front and rear sides, having locking arrangements, door sealing gaskets, gland plates, with holes suitable for cables up to 3.5Cx95 sq.mm as i/c & 4Cx16 sq.mm as o/g, mounting plate, provision for 2 nos. earthing connections, A continuous earth bus shall be provided for the entire length of the feeder pillar, cable entry from bottom etc. complete.

### Feeder pillar shall comprise of following components.

Class of protection IP: 54

Material enclosure and door : 2mm thick

Base plate: 2.5mm thick

Base Channel: 75x75x6mm thick

Bus bars: Copper

Main bus bars – Phase & Neutral - 25 x 6 mm

Earth bus bars - 25 x 3 mm

Wiring - 10 sq.mm Copper wire

Incoming

- a) 1 Nos., 125A, 4P, 415V MCCB with O/L, S/C release with Spreader & ROH

Outgoings

- a) 3 Nos., 63A, 4P, 25kA, MCCB  
b) 2 Nos., 40A, TPN, 10kA, C Type, MCB  
c) 1 No., 20A, DP, 10kA, C Type, MCB

1 No., 70A, 4 pole, Contactor

1 No., Time Switch

1 No., Auto-Manual Selector switch

20 Nos., 100A CBT Connectors

## 6. Technical Specifications of LT UG Cable:

Description	Remarks
Voltage Rating	1.1KV grade
Working Voltage	415V TPN system
Frequency	50Hz
Type of Earthing	Solidly Grounded
No. of Cores / Size Required	3.5C x 95 Sq.mm 4C x 16 Sq.mm
Core Colours	Red-Yellow-Blue for Phase and Black for Neutral
Conductor Material	Stranded Aluminum, IS 8130/1984 with latest amendments
Type of Insulation	XLPE

Laying of core	Right hand lay for outer most layer cables, successive layers in opposite layers
Inner sheath type	As per IS: 5831-1984 with latest amendments
Armouring	Galvanised steel wire / Taped
Outer sheath type	As per IS: 5831-1984 with latest amendments
Embossing of cable make, Size of cables, Running length in meters	Required as per relevant IS
Type Test Certificate	Required as per IS
Routine Test Certificate	Required as per IS
Acceptance Test	Required

**Note:** The cable to be embossed the length on every running meter and on each meter length on the outer sheath, year of Manufacture conforming to **IS:7098 part-I for XLPE cable.**

### **6.1 Manufacturer's Identification:**

The manufacturer shall be identified throughout the length of cable by manufacturers name or trade-mark and the voltage grade and year of manufacture indented, printed or embossed or by means of a tape bearing this information. The indentation, printing or embossing shall be done only on the outer sheath.

### **6.2 Cable Laying and Handling**

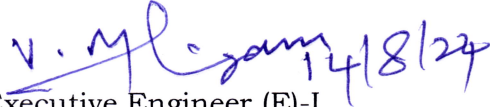
The cable shall be laid directly in ground on bedding free from large stones, pieces of rocks, etc. and drawn in Hume pipes or ducts wherever necessary. Cables shall be laid carefully to avoid any damage. It should be ensured that both ends of the cable are properly sealed to prevent absorption of moisture during transportation, storage, etc. Sufficient number of sealing caps shall be available at site to ensure sealing of cable ends in case of part use of drum. When cable drums have to be moved over short distances, they should be rolled in the direction of the arrow, marked on the drum. While removing cables the drums shall be properly mounted on jacks or on a cable wheel. The Tenderer should store the cable drums at site on hard packed surface, protect from the sun and rain, duly allowing free circulation of air. Where gradients and changes in depths are unavoidable, they shall be gradual. The bottom of the trench shall be level and free from stone, brick bats etc. Cable laying on existing trench, Drain, Duct, GI pipe, On wall, Hume pipe and Structure as required. If it is removed, pavor blocks and re fixing the blocks. Any minor civil work during laying of cables will be carried out by the contractor as required.

### **6.3 Packing and Markings:**

The cable shall be wound on a drum conforming to IS:10418-1982 and packed. The ends of the cable shall be sealed by means of non-hygroscopic sealing material.

The cable drum shall carry the following information stenciled on the drum:

- i) Manufacturer's Name and Trademark.
- ii) Type of Cable and Voltage Grade.
- iii) Number of Cores.
- iv) Nominal cross-sectional area of conductor.
- v) Cable code.
- vi) Length of Cable on drum.
- vii) No. of lengths on the drum if more than one
- viii) Direction of rotation of Drum
- ix) Gross weight
- x) Weight of Drum with Battens (if any)
- xi) Weight of cable
- xii) Reference of any Indian Standard, ISI Mark.
- xiii) Year of Manufacturing

  
Executive Engineer (E)-I  
NMPA, Panambur