



नव मंगलूर पत्तन प्राधिकरण
NEW MANGALORE PORT AUTHORITY
यांत्रिक अभियंता विभाग
Mechanical Engineering Department
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No.8/3/2024/Ele. Dvn/EQ/10/01

Date: 22.10.2024

To,

Sir,

Sub:- NMPA-EE (E) - "Third Party Inspection Services for 11KV Metering Cubicle" - Quotation invited - Reg.

NMPA intends to engage third party for the inspection of 11KV Metering Cubicle.

Quotation in sealed cover superscribed as "Third Party Inspection Services for 11KV Metering Cubicle" invited in accordance with the instructions to the Tender Terms & Conditions as detailed below, may please be submitted addressed to "**The Executive Engineer (Elec.), Electrical Division, Administration Building, New Mangalore Port Authority, Panambur, Mangalore- 575010**" not later than **3.00 PM on or before 29.10.2024**. Quotation 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	Rate (Rs.)	Rate in words	Amount (Rs.)
1	Third Party Inspection of 11KV Metering Cubicle its accessories as per the Technical Specifications at manufacturer's work of site at M/s. Royal Powersystems Pvt. Ltd. No.35, Behind Siddartha School, Gangondanahalli, Main Road, Doddabidirakallu, Bangalore - 560073.	1 Job			
	Total				
	Applicable GST				
	Grand Total				

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 11KV Metering Cubicle at respective Manufacturer's work site.
- 3) Applicable GST will be paid extra as per actual. GST Registration Certificate shall be submitted along with the offer.
- 4) Payment will be made at the quoted rate for the proposed work after the completion of Inspection and on receipt of detailed report, photos, test reports etc.
- 5) Scope of Inspection shall be as per Technical Specification (Annexure - I), relevant standards, drawings, QAP, Type Test report, etc. During inspection observation if any for compliance shall be communicated to NMPA. **After attending observations the 11KV Metering Cubicle shall be inspected again by the Third Party Inspection Agency till the observations are complied**, then dispatch clearance shall be given subject to 11KV Metering Cubicle manufactured as per Technical Specification of Tender.
- 6) The offered rate shall be inclusive of travel expenses, lodging and boarding and other incidental charges etc.
- 7) All necessary facilities for inspection of 11KV Metering Cubicle and its equipment's, accessories (instruments, test instruments, drawings etc) shall be arranged by the contractor /manufacturer.
- 8) After inspection, the TPI Agency shall submit the detailed inspection report, test certificates, photo, test reports etc. to NMPA. TPI agency has to give the dispatch clearance to the manufacturer/Contractor to deliver the inspected 11KV Metering Cubicle to site at NMPA, Mangalore.
- 9) Inspection call to your office will be given in advance, two days prior to the date of inspection.
- 10) Income tax /Statutory taxes as applicable will be deducted at source while releasing the payment.
- 11) 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 detailed report.

Encl: Technical Specifications


Executive Engineer (E)
Electrical Division, NMPA

Seal and sign of Tenderer

Technical Specifications

Scope of Work: Third Party Inspection of 11KV Metering Cubicle and its accessories

i. SCOPE:

This specification covers the requirements of design, manufacture, testing, supply, packing & forwarding, transportation and supervision of erection and commissioning of outdoor type 11KV Metering Cubicle as per BOQ item.

Sl.No	Description	Quantity	
01	11KV Pilfer Resistance Indoor/Outdoor Metering Cubicle free standing vermin & dust proof, IP 65 and above suitable for HT, 3 phase 4 wire CT Operated, Uni-Directional DLMS Complaint Base ETV Meter -1/63.5V, 0.2S Class Outdoor installation comprising of 3 number of Single Phase epoxy resin cast CT's & 3 no. Single Phase epoxy resin cast PT having specification:	01 No's	
	CT's		PT's
	Accuracy Class: 0.2S Ratio: 60/1 A Burden: 5 VA Phase: 1-Ph		Accuracy Class: 0.2 Ratio: 11KV/ $\sqrt{3}$ /110V/ $\sqrt{3}$ Burden: 15 VA 1-Ph
	C.T's in conformity with IS: 2705 (Part-I & II)/1992, Second Revision & P.T's in conformity with IS: 3156 (Part-I & II)/1992, Second Revision. M.S Sheet used in Cubicle will be of min 2mm. Thickness.		

Guaranteed Technical Specifications of 11KV Pilfer Resistant Metering Cubicle


SL No.	Description	Parameters
1	Meter of Cubicle	11 KV
2	Thickness of M.S plate made for galvanization of cubicle (mm)	Min 2 mm
3	Overall dimension of Cubicle (mm)	
	a. Height (Approx)	1550 +75 mm (Mounting Channel)
	b. Depth (Approx)	700
	c. Length (Approx)	700
4	Is the Cubicle dust and vermin proof	Yes
5	Details of arrangement for Earthing of cubicle	2 nos. MS nuts of size 1/2" shall be welded on the inner side of the mounting channels
6	Size of window (mm)	
	a. Width (Approx)	300
	b. Height (Approx)	200
7	Size of wire mesh provided on window (mm)	25 mm
8	Make and CT/PT/Insulator	As per MESCOM Approved vendors
9	a. Size of connecting strip used between HV cables and CT	40 x 6 mm (Approx)
	b. Metal / Alloy used for connecting strip	Copper
10	Minimum clearance	
	a. Between HV live part and earth (mm)	120
	b. Between phase (mm)	120
11	a. Dimension of flexible link between bus bar and PT on HT side	34 mm X 0.4 mm strip or equipment and SWG round wire.
	b. Metal / Alloy used for flexible link	Copper
12	Size of LT wire used for secondary wiring	2.5 mm
13	Availability of sealing arrangement	
	a. Cubicle seal of LT compartment	Required
	b. Cubicle seal of HT compartment	Required
	c. Meter reading window	Required

For 11 KV Current Transformers

1	Name of manufacturer	As per MESCOM Approved vendors
2	CT Type	Dry Type , Epoxy resin cast Name embedded/labelled.
3	No. of CT's	3 No's
4	Rated Voltage	11 KV
5	Rated Primary current	60 A
6	Rated Secondary current	1 A
7	Rated Secondary Output	5/10 VA
8	Class of Accuracy	0.2S
9	Instruments security factor	<5
10	Short time rating (1 second)	3 KV per 0.5 second for CTR , 3/52 to 15/5 A , 7.88 A KA per 0.5 second for CTR , 20/5 to 40/5A 13.1 KA for 1.0 second for CTR , 50/5A and above.
11	Rated conductors Thermal current (Also indicate temperature rise over ambient temperature)	1.2 times of rated primary current (400° C)
12	Rated current dynamic (peak value)	2.5 times of rated sub-time current.
13	Power frequency with stand voltage on secondary	3 KV (RMS)
14	1.50 micro second impulse withstand test voltage	75 KV (peak)
15	Power frequency (Dry withstand test voltage on primary winding)	28 KV (RMS)

For 11 KV Potential Transformers

1	Name of manufacturer	As per MESCOM Approved vendors
2	PT Type	Dry type, Epoxy resin cast 3 phase air cooled P.T, Name embedded/labelled.
3	No. of PT's	3 No's
4	Name of resin employed in manufacturer of PT	Epoxy
5	Rated primary voltage	11000/ $\sqrt{3}$
6	Rated Secondary voltage	110/ $\sqrt{3}$
7	Rated Burden of Secondary	15 VA
8	Class of Accuracy	0.2
9	Temperature rise at 1.2 times rated voltage with rated burden	400 °C
10	Rated voltage factor and time	1.2 cont & 1.5 for 30 second
11	Temperature rise for (Sl no. 9 above)	500 °C
12	1 min. Power frequency with stand test (dry) voltage	28 KV (RMS)
13	1.50 micro second impulse wave withstand test voltage	75 KV (Peak)
14	1 min. Power frequency with stand test voltage	3 KV (RMS)
15	Mounting details	PT shall be mounted in the base of HT chamber.


Executive Engineer (E)-I
NMPA, Panambur