

# यांत्रिक अभियंता विभाग Mechanical Engineering Department

इलेक्ट्रिकल इंजिनियरिंग डिविजन / Electrical Engineering Division

पणंबर मंगल्र / Panambur, Mangaluru – 575 010 Phone: 0824 – 2887746/2887739

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GST - 29AAALN0057A2ZG

No.15/MtrCalibration/EE(E)II/2023

Dt:19.12.2023

To

Website

Sir,

**Sub:** NMPA-EE(E)II-ON & OFF SITE Calibration of Relays, Energy Meters etc. – Quotation Requested - Reg.

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It is proposed to carry out "ON & OFF SITE Calibration of Relays, various measuring instruments & Energy Meters at 33KV MUSS, 11KV Sub Stations and other areas at NMPA premises Panambur, Mangaluru" as detailed in the annexure-I enclosed herewith and in accordance with the Terms and Conditions as detailed below. Please be good enough to send your lowest offer for the Proposed items.

The offers may be sent by Post/Courier duly addressed to Executive Engineer Electrical division, Admin Building, NMPA Panambur, Mangaluru – 575010 not later than **3.00PM on 02.01.2024.** Quotations will be opened on the same day at 3.30 PM in the presence of the Tenderers who wish to be present.

#### Terms & Conditions:

1. The Agency shall have a valid License issued by the Chief Electrical Inspector to Govt. of Karnataka or any Authorities to carry out the Calibration work. Copy of the same shall be enclosed along with the offer. Without valid license, the offer is liable for rejection. The valid GST Registration Certificate also to be enclosed.

- 2. The Calibration of all the Meters shall be carried out ON & OFF SITE at NMPA Panambur, Mangaluru.
- 3. The completion period for entire work shall be **45 days** from the date of issue of work Order.
- 4. Three Phase Kit should be used for testing the three Phase Energy Meters with 1/10<sup>th</sup> of full load, 25%, 50%, 75% & 100% load.
- 5. The rates quoted shall be FIRM and inclusive of Transportation of Testing Equipments, Labour, Incidentals, Testing Tools, Food, Accommodation and Transport to the Officials etc. complete.
- 6. Applicable Taxes, duties shall be mentioned separately. The statutory Taxes will be paid on production of documentary evidences.
- 7. Please note that NMPA is not issuing 'C' or 'D' concessional Forms.
- 8. No advance payment will be made. Full payment will be made within 15 days from the date of completion of the work to the entire satisfaction of the Engineer-in-charge through E-Payment.
- 9. No Men, Materials, Testing Equipments, Food & Accommodation, Transport will be provided throughout the work Departmentally.
- 10. Please note that Income Tax and other Taxes if applicable will be deducted at source and Certificate to this effect will be issued.
- 11. Necessary Power shutdown will be made if required, during the work.
- 12. Available Single Line Diagram/As-Built Drawings will be made available for reference during the work.
- 13. Necessary Port Entry passes will be arranged for the working officials, vehicles, equipments, tools etc. by the Department as per rule on chargeable basis.
- 14. Any damages to the Departmental Property if found during the work shall be to the Contractor's account only.
- 15. The Tenderer shall be responsible for taking precautionary measures for the safety of the workmen working under him and the responsibility arising due to any mishap during the execution of work, payment of any compensation etc., lies entirely on the part of the Contractor. Safety Items required while working are to be provided by the Contractor.

- 16. The Tenderer has to submit an undertaking before the commencement of work as follows:
  - i) We shall ensure that our workforce will be provided with and use all the necessary safety gears and equipments required for the job.
  - ii) We shall follow all the required safety procedure while executing the job.
  - iii) We indemnify the Port for any accidents / incidents while carrying out the contract.
  - iv) We have read and fully understood the enclosed Standard Operating Procedures (SOP) and shall strictly follow the same while executing the job.
- 17. After completion of the Testing/Calibration of all the Meters, a detailed Report in duplicate shall be submitted along with the comments/suggestions/inference.
- 18. It is advised to visit the Site and get acquaint yourself regarding the nature of the work involved at site conditions before quoting, if required.
- 19. List of Organizations/Companies where similar Calibration & Testing of Relays/Measuring Instruments/Energy Meters have been carried out shall be enclosed along with the offer.
- 20. The time for completion of work should be adhered strictly and in any event of failure to complete the work in time or by expiry of any period of extension granted, the Tenderer shall pay as compensation by way of penalty @ 0.5% per week on the tendered value of the work which remains unfinished subject to a maximum of 10% of the total contract value irrespective of any kind of reason put forth by the Tenderer, except on account of delay at the instance of the Port Authority or due to natural calamities.
- 21. The acceptance of the Tender rests with the competent authority of NMPA who does not bind himself to accept the lowest Tender and reserves to himself the authority to reject any or all the Tenders received without assigning any reason.

Yours, faithfully,

Seal and sign of contractor

Executive Engineer (Ele)II NMPA, Panambur

#### SCHEDULE OF WORK

Name of work: ON & OFF SITE Calibration of Relays, various measuring instruments & Energy Meters at 33KV MUSS and 11KV Sub Stations and other areas at NMPA premises.

S1		Qty	Rate/Unit	Rate per Unit in	Amount
	Description of Work	Nos	in Figure	words	(Rs)
No			(Rs.)	(Rupees)	
1.	Calibration of Relays as per the annexure enclosed herewith	201			
2.	Calibration of Multi data Meters	46			
3.	Calibration of Trivector Meters.	6			
4.	Calibration of Three Phase Energy Meters.	24			
5.	Calibration, Testing of Voltmeter	48			
6.	Calibration, Testing of Ammeter	74			
7.	Calibration & Testing of	8			
	Wattmeter				
8.	Calibration & Testing of Mega Watt meters	2			
9.	Calibration & Testing of Frequency Meter.	2			
10.	Calibration & Testing of Power Factor Meter	6			
11.	Calibration, Testing of Auto range Multi meter (Digital).	1			
12.	Calibration, Testing of Clamp meter	2			
13.	Calibration of Megger 5KV	1			
14.	Calibration LUX Meter	1			
	Sub Total				
	Applicable GST (% & amount)				
	Grand Total.				

Executive Engineer (Ele)

Seal and signature of the contractor

Summary: 33KV MUSS / SD-II - CALIBRATION OF METERS & RELAYS

S1.	Description	Make	Qty No.
1	Calibration of Relays	EE/ER/ALSTHOM/JVS/	113
		Schneider	
	Calibration of Three Phase Multi	CONSERV/ENERCON/	41
2	Data Meters	Schneider/L&T	
3	Calibration of Three Phase Energy	IMP	14
	Meters		
4	Calibration of Voltmeters	AE/IMP/MECO	22
5	Calibration of Ammeters	AE/IMP/MECO	37
6	Calibration of Wattmeters	AE	08
7	Calibration of Frequency Meters	AE/IMP	02
8	Calibration of Power Factor Meters	AE/IMP	02
9	Calibration of Megger 5KV	MOTWANE	01
10	Calibration of Tri Vectormeter		02
	TOTAL.		242Nos

**ESD - I:** MDM - 05 Nos

### ESD-III: List of Meters for Calibration

in a mark	Description	L, ik slast	Location
Sl. No		Qty	<u> Secondario de la companya dela companya dela companya dela companya de la compa</u>
1	f Chica Fhase Wikit [	1 no	DG room
2		1 no	NMPA Hospital
3	Thus Phase Elergy	1 no	CISF PUMP HOUSE
4		1 no	CISF PUMP ROOM
5	3 Phase Energy Meter (10 No's)	1 no	10th Street Transformer centre
6	Trect me Meksy	1 no	Thimmappayya well Pump House.
7	Blank's Labtas Minus.	1 no	5th AVENUE
8	FMogaur 5.0V	2 no	Old UGR
9	In collocations	2 no	New UGR
10		1 no	DG Room
11		3 no's	Thimmappaya well Pump House
12	Ammeter (12 No's)	2 no's	RCHW pump house
13	(12 110 3)	4 no's	Old UGR
14	- a Charles for Collaborate	2 no's	CISF Pump House
15	The same who were an increase when a same in	1 no	LT conrol panel at DG room
16		1 no	Thimmappaya well Pump House.
17	Digital Volt meter	1 no	RCHW pump house
18	(6 No's)	1 no	CISF Pump House
19		2 no	OLD UGR
20	APFC Relay (1 No's)	1 no	DG room

## LIST OF RELAYS & METERS - ESD - IV

S.No.	Relays	Make	Qty
1	IDMT Relay TJM 11X 3 Case,3H,HR	Easun Reyrolle	13
2	TCSR B51,Case 3 N	Easun Reyrolle	8
3	Aux relay for protection 24 V DC, HR, B33X3	Easun Reyrolle	8
4	Aux relay for protection 24 V DC ,HR , B24	Easun Reyrolle	16
5	Aux relay for protection 24 V DC ,HR , B62	Easun Reyrolle	5
6	Aux relay for protection 24 V DC ,HR , B11X2	Easun Reyrolle	1
7	Motor protection relay MM 30	L&T	2
8	Under voltage relay	Easun Reyrolle	2

S.No.	Instrument and meter	<u>Make</u>	Qty
1	Tri vector meter	L&T	2
2	MW meter (3 ph,11kv/110v, 150-75/5-5A)	IMP	2
3	PF Meter, 5amps, 110volts	AE	2
4	PF Meter, 5amps, 415volts	AE	2
5	Voltmeter(0-500v, 0-4.5KV, 0-15KV)	AE/IMP	8
6	Ammeter(HT/LT)	AE/IMP	18
7	Digital multimeter	MECO	1
8	Lux meter		1

# ESD V

S.No.	Relays	<u>Make</u>	Qty
1	IDMT Relay JRC 053/066	JVS	07
2	Master trip relay, DC Model VAJH 132	GEC	4
3	Aux relay for protection 24 V DC	ABB	14
4	Aux relay for OT & WT protection 24 V DC	ABB	2
5	Motor protection relay SPAM 150 C	ABB	2
6	Combiflex relay	ABB	2
7	SPAJ140 C IDMT Relay	ABB	1

S.No.	Instrument and meter	<u>Make</u>	Qty
-1	Tri vector meter ER 300P	L&T	2
2	Voltmeter(0-500V ,0-4.5 KV, 0-15 KV)	AE/IMP/Enercon	12
3	Ammeter (HT/LT)	AE/IMP	7
4	Clamp meter		1
	the activities production by V.D.		

EE(E)II