## **NOTICE INVITING BUDGETORY OFFERS**

Name of Work	"Non-Comprehensive Maintenance Contract for VCB of Siemens make.			
Date of submission of budgetary quotation	On or Before 10/12/2024.			
Budgetary Quotation No	CME/XEN (E-HR)/ 24/H6/B7			
Address for communication:	Executive Engineer (E-HR), 2nd floor, Mechanical Engineering Department, Mormugao Port Authority, Admin. Building, Headland sada Vasco-de-Gama Goa - 403804 Phone: (0832) 2594207, 2594577			
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EXECUTIVE ENGINEER (E-HR)
MORMUGAO PORT AUTHORITY

#### 1. GENERAL

Mormugao Port Authority intends to carry out maintenance of Siemens make VCBs in Port area through a Non-Comprehensive Maintenance Contract (NCMC) for a period of 5 years.

### 2. SCOPE OF WORK

The detail Scope of Work for servicing and testing of 11 KV Siemens make VCB is given below:-

### 2.1 General Check up of VCB

Sr	Description			
a.	Visual inspection of breaker			
b.	Cleaning of the breaker			
C.	Lubrication of all moving parts of mechanism			
d.	Checking of closing & tripping coil			
e.	Checking of gear box operation			
f.	Checking of test / service Aux. switch operation			
g.	Checking of tripping mechanism operation			
h.	Breaker auxiliary switch operation			
i.	Spring charging limit switch operation			
j.	Checking of front drive key operation in test position			
k.	Checking of front drive key operation in service position			
I.	Breaker timing test			
m.	Checking of stroke length			
n.	Checking of damper setting			
0.	Checking power connection			
p.	Checking of all circlips & lock washers of VCB			
q.	Checking breaker ON/OFF operation manual, electrical & remote			
r.	Checking of Pressure Relief Flaps			
S.	Carry out Control Circuit/Logic checks including circuit checking of CT, PT, annunciation, indication, etc			

### 2.2 Checking of breaker chamber

a.	Visual inspection of breaker chamber
b.	Cleaning of the breaker chamber

C.	Lubrication of shutter mechanism
d.	Checking of front drive fixing plates
e.	Cleaning of Upper & Lower bushing
f.	Cleaning of Upper & Lower jaw contacts
g.	Lubrication of Upper & Lower jaw contacts
h.	Checking of shutter movement
i.	Checking of thermostat wiring and its fixing
j.	Checking of vermin proofing of the breaker chamber
k.	Checking of breaker rack IN/OUT inside the panel

## 2.3 Checking of Bus Bar chamber

a.	Visual inspection of bus bar chamber
b.	Cleaning of bus bar chamber
C.	Checking of bus bar joining bolts tightness
d.	Checking of tightness of bus bar support insulator
e.	Checking of vermin proofing of bus bar chamber
f.	Measurement of IR value

## 2.4 Checking of CT / cable Chamber

a.	Visual inspection of cable chamber
b.	Cleaning of cable chamber
C.	Tightness checking of all power connection
d.	Tightness checking of CT primary terminals
e.	Tightness checking of CT secondary terminals
f.	Checking of vermin proofing of cable chamber
g.	Testing of CT for IR, Ratio and polarity.
h.	Checking & tightening of earthing bus of panel andcable

## 2.5 Checking of PT

a.	Visual inspection of PT
b.	Cleaning of PT
C.	Tightness checking of all power connection
d.	Tightness checking of PT secondary terminals
e.	Testing of PT for IR, Ratio and polarity.
f.	Checking & tightening of earthing bus of panel



#### 2.6 Checking of Interlocks

a.	Close door operation only
b.	Tripping
C.	Closing
d.	Racking In – Out
e.	CB can't be inserted into service position when it is in ON position
f.	CB can't be racked out from service position when it is in ON position
g.	CB can be closed in Service / Test position only

#### 2.7 Checking of Relay and circuit

a.	Checking of relay connection tightness
b.	Checking of measurements
C.	Checking of protection function and tripping
d.	Checking tripping of breaker by relay
e.	Final setting check

#### 3. Other terms and conditions

- i. Any complaints/ breakdowns regarding VCBs must be attended and resolved within 24 hours, at the cost of the contractor without any additional cost to Port. If replacement spare parts are needed, the contractor shall promptly arrange and supply them. The cost of the spares will be reimbursed to the contractor.
- ii. The contractor must submit a list of required spare parts along with their price list as part of the maintenance contract offer. Any spare parts needed for replacing defective items in the breakers will be paid based on the price list provided by the contractor during the submission of the maintenance contract proposal.
- iii. The contractor shall arrange all necessary tools and cleaning materials (e.g., petrol, CRC, Collin, cloths, etc.) at their own expense.



- iv. The contractor shall submit a valid calibration certificate for instruments used for measurement during the maintenance.
- v. The maintenance of VCBs, as outlined above, must be conducted on an annual basis and reports submitted accordingly.
- vi. During breaker maintenance, the contractor must perform the work on-site without disrupting the operations or utilities of the premises. The contractor must ensure that the normal functioning of the breakers is not affected. Prior approval from the Port authorities is required before commencing maintenance work.
- vii. In case of any damage to existing equipment during maintenance, it shall be the contractor's responsibility to rectify/ replace the equipment at their own risk and cost and contractor will not be compensated by Port.
- viii. The Port reserves the right to add or remove breakers from the servicing/overhauling schedule. Payment for such work will be made on an item-wise, prorated basis.
- 4. Details of the breakers under NCMC are as follows:

Sr. No.	Voltage Level	Rated current of the Breaker	Type of Breaker	Make	Model No.	Location	Qty.
1	12 kV	1250A	VCB	Siemens	3AH0104-2Z	Harbour Substation	6
2	12 kV	630A	RMU (1+1)	Siemens	8DJH ST RL	Compact Substation	2
1	12 kV	800A	VCB	Siemens	3AH01041Z	Headland S/s	3
2	12 kV	1250A	VCB	Siemens	3AH01042Z	Headland S/s	2
1	12 kV	1250A	VCB	Siemens	3AH0104-2Z	AO building	6

5. <u>Period of Contract:</u> NCMC is for a duration of 5 years. Maintenance of the breaker must be carried out **once every year.** During the contract term any number of breakdown calls will be attended and rectified by the contractor at his own risk and cost without any cost to Port.



#### 6. Payment Terms:

Payment towards AMC will be released once in a year after successful completion of Periodic maintenance within 15 days from the date of receipt of undisputed bills complete in all respect along with all supporting documents. GST number shall be invariably indicated on all the invoices. Applicable GST shall be paid to the concerned authority by the Contractor and documentary evidence of the same shall be produced to MPA.

#### 7. Damage charges for Non-Compliance

All the breakdowns of the VCB shall be rectified immediately, failing which a penalty of Rs.500/- per VCB per day will be deducted.

8. Contactor should have valid Authorized certificate for servicing of Siemens make Breakers from Siemens.

#### PRICE SCHEDULE (BILL OF QUANTITIES)

NAME OF WORK: Non-Comprehensive Maintenance Contract for VCB of Siemens make.

Sr.	Description	Unit	Qty.	Rate/Month /Unit(Rs.)		GST %	Amount
No.				In Fig	In Words		(Rs.)
Α	В	С	D	E	F	G	H=D x E
1	Non- CMC of 12kV,630- 1250A, VCB, Siemens - 17nos	No.	85				
4	Non- CMC of 12kV, 630A, RMU (1+1), Siemens - 2nos	No.	10				
	ı	TOTAL	<u> </u>		I	I	

(In words F	Rupees )

#### Note:

- 1. The rates quoted shall be inclusive of transportation, lodging and boarding, but excusive of GST. Applicable GST shall be paid extra as applicable.
- 2. The contractor shall provide a list of spare parts, along with their prices (as and when revised), that may be required for replacement in the event of a breakdown.