

Bharat Heavy Electricals Limited
Ramachandrapuram : : Hyderabad – 502032

M&S - DIVISION

SCOPE OF WORK (ANNEXURE – I)

TENDER No.: M&S/P&C/2022/05, DT.: 06.05.2022

NAME OF WORK: Operation of 11KV main receiving station at 15/83 building and its associated substations in the factory area for a period of two years.

S.No.	Description of Work	Vendor's Acceptance
1	Operation of 11 KV Main Receiving Station at 15/83 Bldg. and its associated Substations at BHEL, R.C. Puram, Hyderabad on round the clock Shifts continuously for 24 months period including Sundays, holidays. The list of items to be operated and monitored which are located at various Substations (65 Nos.) are furnished hereunder :	
a)	Recording of Energy data pertaining to Energy meters of Various Blocks on hourly basis	
b)	Switching ON and OFF of HT Breakers: During the faults MRS & Substation Breakers are to be switched ON &OFF to feed the supply to concerned blocks.	
c)	Switching ON and OFF of LT Breakers: During the faults Substation LT Breakers are to be switched ON &OFF to feed the supply to concerned feeders.	
d)	Switching ON & OFF of capacitor banks at MRS to maintain the P.F at 0.99. Every hour we have to monitor and operate the equipment to suit the requirements. No. of Capacitor banks Existing = 4 Sets No. of operations per day = 4 nos	
e)	Switching ON & OFF of capacitor banks at Substations to maintain the P.F at 0.95 No. of LT Capacitor banks existing = 40 Nos. No. of operations per week = 1 No.	
f)	Checking the Tripping units: Condition of the tripping units are to be checked once in every shift for effective operation of tripping relays. Total No. of Tripping units = 50 Nos. No. of operations per day = 3	
g)	Checking of S/S relays: Substations are to be visited on weekly basis and each and every relay to be checked for tripping. Total No. of relays = 554 Nos.	
h)	Switching ON & OFF Transformers: Transformers are to be switched ON and OFF to feed the supply to concerned Blocks whenever breakdown/maintenance problems occurs. Total No. of Transformers =75 Nos.	
i)	HT meter readings at blocks: HT meter readings are to be taken once in a shift at various blocks viz. 01, 02,04,06,51, and service plants etc. No. of HT panels = 100 Nos. No. of operations per day =3 HT meter reading at MRS for every one hour. No of panels =25 Nos.	

S.No.	Working Instructions to the Contractor	Vendor's Acceptance
	The work shall consist of operation of 11 KV Main Receiving Station (15/83 Bldg.) and Distribution Substations of 11 KV/415 Volts in BHEL factory area at R.C.Puram Hyderabad.	
1	The contractor shall be required to operate with minimum two electrical operators round the clock including sundays & public holidays in the following shifts/timings:	
a)	A3 Shift -- 06:00 AM to 02:00 PM	
b)	B3 Shift -- 02:00 PM to 10:00 PM	
c)	C2 Shift -- 10:00 PM to 06:00 AM	
2	One Day in a Week will be as W-off for duty operators.	
3	All the activities in the above shift operations are being supervised and coordinated by one qualified supervisor of BHEL in all the three shifts who in turn report to Engineer-incharge.	
4	The above shift operators are required to be present in their respective shift till the next shift operator reports for duty or continue, if the operator does not turn up with an intimation to shift in charge Supervisor/Engineer.	
5	The operator deployed in the shifts are required with a minimum qualification of ITI (Elect) or Diploma (Elect) with a competency certificate issued by Chief Electrical Inspector of Govt. of A.P./Telangana and should have a minimum experience of two years for ITI holders & one year for Diploma holders.	
6	If the contractor wishes to change any staff during the contract period, the same should be intimated in writing to the department and obtain prior permission from the concern officials.	
7	The shift staff shall co-ordinate and co-operate in all respects with staff of BHEL and other working groups.	
8	Though the shift staff is working under the control of contractor, they shall also obey the instructions of the BHEL officials for smooth performance of the above mentioned operations.	
9	The shift staff shall be polite and obedient during their shift duties and the contractor shall be responsible for their conduct and behavior.	
10	In the event of any loss cause to the equipment/men of the BHEL on account of contractor's men, the contractor shall make good the loss either replacement or payment of adjustable compensation.	
11	The MRS at 15/83 Bldg. shall never be left unattended at any time during the year.	
12	Month wise shift duty charts are to be prepared and displayed by the contractor after approval of Engineer in-charge.	
13	Contractor shall provide all tools & tackles like minimum 2 Nos. of calibrated Multi-meters, 7 Nos. of Line testers, 1 No. of Clamp meter, 1 set of DE spanners, 1 set of ring spanners, one set of box spanners with handle, 2 cutting pliers and 2 screw drivers and 415volts Meggar.	
14	Electrical Rubber gloves and first aid box shall be provided by BHEL.	
15	The shift operators should have uniforms, protective shoe and rain coat which shall be provided by the contractor and the same has to be approved by Engineer-in-charge.	
16	The shift operators are required to be recorded and maintained the following details at MRS:	
a)	Log book has to be maintained and record handing over and taking over details of each shift and same should be counter signed by shift Supervisor of BHEL.	

b)	Hourly wise readings are to be recorded in the log sheets provided by BHEL of all the Electrical instruments installed in the MRS and Sub-stations.	
17	Shift operators are responsible to co-operate with all inspections of the BHEL, CEA and TSTRANSCO/TSSPDCL officials.	
18	Shift operators are responsible for maintaining all the HT & LT ring operations in the factory and township during emergency breakdowns and other operational requirements in consultation with Engineer-in-charge.	
19	The contractor's staff shall strictly follow the conduct rules & discipline of BHEL, Safety precautions, Environmental policies and IE rules etc. during their shift operations.	
20	Shift Operators are responsible for maintaining wireless sets, emergency lights & other equipment's available in MRS.	
21	In case of failure of TSTRANSCO Power, Diesel Power has to be restored and distribute the power to all important loads in the factory as directed by shift supervisor/Engineer.	
22	During planned power shut downs either from TSTRANSCO or within the factory Blocks, proper LC/NBFC/Work permits are to be given and taken vice versa.	
23	The duty operators are required to move from 15/83 Bldg. to various Sub-stations during emergencies in the factory including Booster Transformer S/S for switching-ON and switching-OFF of various HT & LT switch gear/relay settings etc., and monitoring of tripping units.	
24	Street lights Timers/Switches are to be operated manually in case of failure of automatic system for factory Road lighting, Yard lighting & Security towers.	
25	The Contractor has to provide two brand new cycles and two rain-coats on non-returnable basis for internal movement of the above skilled operators and protection from rain during round the clock shifts.	
26	The Contractor has to provide mobile phone with minimum balance of Rs.100/- for contacting officials during emergencies on round the clock shifts.	

S.No.	Note	Vendor's Acceptance
i	Contractor has to follow the working instructions as mentioned above.	
ii	The contractor is wholly responsible for any loss of life or partial disability of any of their Employee while on duty.	
iii	In case of occurrence of any accident/injury of contractor's staff, BHEL will not pay any compensation while they are on duty and contractor has to take care of same under statutory obligation.	
iv	Under any circumstances, the contractor's staff engaged for the purpose of BHEL's work should not be claimed as part of the BHEL employees.	
v	The contractor shall arrange minimum two electrical operators on round the clock in all three shifts including Sundays and holidays.	
vi	The contractor shall pay minimum skilled wages to the staff as per the notifications issued by Government of Andhra Pradesh from time to time and the present rates are as per the annexure and the contractor has to pay PF, ESI as per the applicable rules & law.	
vii	Contractor shall arrange Group Insurance for all relevant risks for all the staff working at MRS.	
viii	Contractor shall provide electrical safety shoe, two pairs of uniform to each staff for all the staff working at MRS.	
ix	Any revision of daily wage as per our HR circular shall be paid to the skilled Diploma/ITI staff by Contractor.	