Annexure-A

Scope of work

Scope of work for " Job contract for Manning, operation & Maintenance of 33 kV main receiving station and its associated 6.6kV sub-stations on 24x7 basis for a period of 02 years in the BHEL R&D lab complex.

SL.	Description
1	Manning, operation and Maintenance of 33 KV Main Receiving Station and its associated 6.6kV substations at BHEL R&D lab complex, Hyderabad, continuously for 730 days on 24 hrs. x 7days basis.
2	The basic objectives of the contract is to maintain and monitor the 33 KV Main Receiving Station 24 hrs. x 7days basis.
3	Following are the list of items installed at 33kV Main Receiving Station at BHEL R&D lab complex-
	• 33KV 2 pole outdoor structure with equipment – 02 Nos. • Lighting Arrestor – 6 Nos. • AB switches (3 pole) – 4 Nos. • 33KV CTs & PTs • 6.6KV CTs and PTs • 33kV outdoor VCBs – 4 Nos. • Isolator with Earth / grounding switch • 5MVA, 33kV/6.6KV Power Transformer – 02 Nos. • 6.6kV Incomer VCBs – 02 Nos. • 6.6KV Indoor Switchboard Panel consisting of 11 Nos. VCBs • 33KV HT XLPE cables between 33KV panel board and transformers. • 6.6KV HT XLPE cables between transformer and 6.6KV panel • Control Relay Panel consisting of different protection relays. • 110V Battery Bank and float cum boost charger panel. • 414V PDBs
4	**Operations**
4.1	Condition monitoring of substation equipments mentioned in sl. No. 3 and recording data in log book of BHEL.
4.2	Switching ON and OFF of HT Breakers:- During the faults, Substation Breakers are to be switched ON & OFF to feed the supply to concerned departments.
4.3	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 departments.
4.4	Switching ON & OFF of capacitor banks to maintain the maximum P.F. Monitor and operate the equipment to suit the requirements.
4.5	Checking the Tripping units: Condition of the tripping units are to be checked once in every shift for effective operation of tripping relays and S/S relays.
4.6	Switching ON & OFF Transformers: Transformers are to be switched ON and OFF to feed the supply to concerned departments whenever breakdown/maintenance problems occur.
5	**General Instructions**
5.1	It is the responsibility of the successful tenderer to hand over the entire system to the BHEL on completion of the contract period subject to normal wear and tear.

5.2	The contractor shall be required to operate with minimum two electrical duty operators in each shift, for all the three shifts where each shift consists of 08 hours, including Sundays & public holidays in the following shifts/timings:
	A Shift -- 06:00 AM to 02:00 PM
	B Shift -- 02:00 PM to 10:00 PM
	C Shift -- 10:00 PM to 06:00 AM
5.3	One Day in a Week will be weekly off for duty operators.
5.4	All the activities in the above shift operations will be supervised and coordinated by BHEL staff.
5.5	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.
5.6	BHEL reserves the right to change any operator during the contract period.
5.7	Though the operator is working under the control of contractor, they shall also obey the instructions of the BHEL officials for smooth operations.
5.8	The operator shall be polite and obedient during their shift duties and the contractor shall be responsible for their conduct and behavior.
5.9	In the event of any loss cause to the equipment/men of the BHEL on account of operator, the contractor shall make good the loss either replacement or payment of adjustable compensation.
5.10	Month wise shift duty charts are to be prepared and displayed by the contractor after approval of Engineer in-charge.
5.11	Shift operators are responsible to co-operate with all inspections of the BHEL, CEA and TSTRANSCO/TSSPDCL officials.
5.12	The operators shall strictly follow the conduct rules & discipline of BHEL, Safety precautions, Environmental policies and IE rules etc., during their shift operations.
5.13	In case of failure of TSTRANSCO Power, Diesel Power has to be restored and distribute the power to all important loads in the lab complex as directed by supervisor/Engineer.
5.14	The Contractor has to provide suitable protective gears for internal movement of the operators and protection from rain during round the clock shifts.
5.15	The contractor is wholly responsible for any loss of life or partial disability of any of their Employee while on duty.
5.16	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.
5.17	The contractor shall compulsorily obtain adequate Personal/Group insurance for their employees and submit the proof of same to BHEL.
5.18	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.
5.19	The contractor shall maintain the statutory registers for manpower employed.

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