

SCOPE & SPECIFIC TECHNICAL REQUIREMENTS

1.1.0 SCOPE

1.1.1 The scope of work under this specification is Civil Works of following substations (all in Maharashtra), being executed by BHEL on turnkey basis. The Customer is Maharashtra State Electricity Transmission Corporation Limited (MSETCL).

A. 400/220kV Substation at Koradi.

- *(New greenfield station involving **major civil works**)*

B. 400/220kV Substation Extns at Akola (2nos. 400KV bays), Wardha (4nos. of 400KV bays), Khaperkheda (2nos. of 220KV bays), Ambazhari (2nos. of 220KV bays) & Buti Bori (2nos. of 220KV bays)
– *(Existing substations involving some civil works of tower foundations, eqpt foundations & cable trenches, etc)*

1.1.2 The Civil Works shall generally include, *but not limited to*, construction of following:

- (i) Foundations for 400KV & 220KV gantries.
- (ii) Foundations for 400 & 220kV equipment supports.
- (iii) Transformer Foundations. LM, Rail Track diamond crossing, Fire protection wall, Teritary foundations and oil sump.
- (iv) Cable trenches & associated works.
- (v) Other miscellaneous works as required for project.

1.1.3 The works to be performed in the above constructions include preparation of bar bending schedules, based on the drawings released for construction and getting the same approved by the Engineer-in-charge plus the execution of the work including providing of all labour, supervision, materials, scaffolding, power, fuel, construction equipments, tools and plants, supplies, transportation, all incidental items necessary for successful completion of the work including contractor's supervision and in strict accordance with the drawings and specifications and with inspection and testing standards. The nature of work shall generally involve excavation in all type of soil including dewatering, shoring, strutting, and filling under and around structures, backfilling with available excavated earth around completed structures disposal of surplus soil, concreting including reinforcement and formwork, providing necessary steel embedments and other inserts, etc., all complete as per detailed specification, drawings and directions of Engineer-in-charge.

1.2.0 SPECIFIC TECHNICAL REQUIREMENT

1.2.1 The specific technical requirements for the execution of civil works shall be as per Customer's Detailed Technical Specifications enclosed with the tender.

- 1.2.2** All source of sand and metal shall be got approved by Customer.
- 1.2.3** The steel shall be as per relevant IS & grade 415. The steel shall be procured from the approved manufacturer only after sample testing of the steel from the factory for chemical composition as well as mechanical properties.
- 1.2.4** Cement shall be ISI mark with requisite properties & make and grade shall be approved by Customer.
- 1.2.5** Exhaustive specifications for the work are given, however as per general principle all PWD specifications shall be applicable for all works. Where no such specifications are available, description of the item shall prevail.

1.3.0 BILL OF QUANTITY

- 1.3.1** The quantities indicated in the BOQ are indicative and can vary to any extent. Contractor shall not be entitled for any claim for any such variation in the quantities.
- 1.3.2** The provision of BOQ, specifications and drawings shall be read in conjunction with each other and in case of conflict amongst them, the clarification shall be obtained from the Engineer-in-charge whose decision shall be final and binding.
- 1.3.3** There may be repetition of items in various parts of BOQ. It is expected that all such rates shall be same for all parts and if required, an item from one part can be executed at the same rates for another part.