

SECTION - 1

SCOPE, SPECIFIC TECHNICAL REQUIREMENTS & QUANTITIES

1.1.0 SCOPE

1.1.1 The scope of work under this specification covers Civil Works of 400KV Switchyard and Buildings for 765kV/400kV Agra UPPTCL (New) Substation, being executed by BHEL on turnkey basis. The Employer is POWERGRID Corporation of India Limited. The owner is Uttar Pradesh Power Transmission Corporation Limited.

1.1.2 The Civil works shall generally include, *but not limited to*, following:

- (i) Tower, LM and equipment foundations.
- (ii) Breaking of pile head for pile cap.
- (iii) Switchyard Roads, Township Roads, rail track, culverts and drains.
- (iv) Cable trenches, crossings and sump pit(s).
- (v) Chain link fencing and gates.
- (vi) Control Room building.
- (vii) Fire fighting pump house building, fire water tank.
- (viii) Foundation for DG Set, Auxiliary LT transformer.
- (ix) Switchyard panel room.
- (x) Car Parking shed.
- (xi) Rain water harvesting.
- (xii) Any other work felt necessary for completion of 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, backfilling with available excavated earth around completed structures, disposal of surplus soil, concreting including reinforcement and formwork, breaking of pile head for pile cap, providing necessary steel embedments and other inserts, chain link fencing, gates, roads, rail track, drains, fixing of foundation bolts, brickwork, flooring and finishing in buildings, etc., all complete as per detailed specification, drawings and directions of Engineer-in-charge.

1.2.0 SPECIFIC TECHNICAL REQUIREMENTS

- 1.2.1 All technical requirements for the execution of civil works shall be as per POWERGRID Technical Specification (Refer SECTION 3)/ CPWD Specification/IS. In case of any conflict between these, POWERGRID Technical Specification shall prevail.
- 1.2.2 The quality requirements shall be as per POWERGRID Field Quality Plan (Refer SECTION-3).

1.3.0 BILL OF QUANTITIES CUM PRICE SCHEDULE

- 1.3.1 The Bill of Quantities cum price schedule shall be as per pages 1.3 to 1.26
- 1.3.2 The quantities indicated in the 'Bill of Quantities cum price schedule' are indicative and can vary to any extent. Contractor shall not be entitled for any claim for any such variation in the quantities.
- 1.3.3 The provision of Bill of Quantities, 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.
- 1.3.4 Method of measurement:
- 1.3.4.1 Excavation shall be measured in cubic meters. The lateral dimensions to be considered for working out excavation quantity shall be the PCC dimension below the footing as per approved drawing. Nothing extra shall be paid for slope cutting, etc. Backfilling & disposal qtys shall be worked out based on the above dimensions only.
- 1.3.4.2 For other items, unless otherwise described the method of measurement as described in 'Method of Measurement of Building and Civil Engineering Works'-IS 1200(Part I to XXV) latest edition of BIS shall be followed.