

## **SECTION - 1**

### **SCOPE, SPECIFIC TECHNICAL REQUIREMENTS & QUANTITIES**

#### **1.1.0 SCOPE**

1.1.1 The scope of work under this specification is Civil Works for 400/220kV Substation at ARASUR in TAMIL NADU, being executed by BHEL on turnkey basis. The Customer is Powergrid Corporation of India Limited (PGCIL).

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

- (i) Tower & Equipment foundations.
- (ii) Transformer foundations including soakpit, sump, jacking pad, rail-cum-road, etc.
- (iii) Cable trenches including precast covers & cable trench crossings.
- (iv) Roads & drainage.
- (v) Fencing & gates.
- (vi) Antiweed treatment, PCC & stone spreading.
- (vii) Control Room Building, Firefighting/Pump house building, Water Tank, etc.
- (viii) Any other civil work required for completion of the 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 and cable trenches with covers, road crossing of trenches, disposal of surplus soil, concreting including reinforcement and formwork, providing necessary steel embedments and other inserts, roadwork, drainage work, fencing, stone spreading (including antiweed treatment), concreting, 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 REQUIREMENT**

**1.2.1** The specific technical requirements for the execution of civil works shall be as per PGCIL Technical Specification (Refer SECTION 3, Annexure 1). and latest CPWD/IS Specifications. **In case of any difference between PGCIL Technical Specification & latest CPWD/IS Specifications, the provisions of PGCIL Specification shall be considered.**

## **1.3.0 BILL OF QUANTITIES**

**1.3.1** The Bill of Quantity-cum-Price Schedule shall be as per page 1.3 to page 1. 19.

**1.3.2** The quantities indicated in the 'Bill of Quantity-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 Quantity-cum-Price Schedule, 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 metres. The lateral dimensions to be considered for working out excavation quantity shall be the footing dimensions (not PCC) 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.

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