

Brief scope of work

PROJECT : NABINAGAR STPP STAGE-II (3X800 MW)

PACKAGE NAME : Balance of Plant (BOP) PACKAGE

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"Salient Technical Features of the equipment/systems/services covered in the Bidding Document No. CS-0371-001C-2 are mentioned below. These Salient Technical Features are mentioned only to facilitate the prospective bidders to prima-facie understand the requirements under the tender and shall not in any way limit or alter the scope of work and technical features/specification of equipment/ systems/ services covered in the Bidding Documents. Detailed provisions in regard of scope of work and technical features/ specification of equipment/ systems/ services, contained in the Bidding Documents shall be final and binding."

A BRIEF SCOPE OF WORK

The Brief scope of work for the subject Balance of Plant (BOP) Package for Nabinagar STPP Stage-II (3X800 MW) is as follows:

- Design, Engineering, Manufacture, Supply, Construction, Erection, Testing & Commissioning works for the BOP Package for Nabinagar STPP Stage-II (3 X 800 MW) on the basis of single point responsibility, completely covering the following activities and services in respect of CST, ACW ,SACW system including equipment, Aux. CT associated civil works, Make-up water system , Raw Water system, Water treatment plant (including Pre-Treatment plant, DM Plant, chlorination (ClO₂) plant, Misc. Pumps Coal slurry settling pond, Zero Liquid Discharge System, ACW Chemical Treatment Systems) & LETP (including Wastewater RO system) and associated civil works including Effluent quality Monitoring System(EQMS), Coal and Biomass Handling Plant, Fuel oil (LDO) unloading , storage system & pressurizing system, Fire Detection & Protection System within plant boundary (including BTG switchyard & AHP areas) , Air Conditioning & Ventilation Systems, Station Piping and APRDS Interconnection, Generator Busduct (IPBD) and associated equipment & MV Busduct (including BTG area), Auxiliary Transformer Indoor and outdoor (oil filled upto 16MVA) (including BTG area), MV Switchgear including BTG area & relay networking of entire plant, LT Switch gear , LT busduct (including BTG area), HT Power Cables (including BTG area) , LT Power and Control Cables (including balance BTG area) , DG Set of Main Plant, Cabling, earthing and lightning protection (including Balance BTG area, Illumination (including BTG area), Battery and battery charger, Construction power, Solar PV plant on roof tops of buildings (including BTG area), Fireproof cable penetration sealing system (including BTG area), Pipe / Cable Trestles & racks, all Control & Instrumentation(C&I) with DDCMIS including HMIPIS, Civil, Structural & Architectural works of earthing mat/grounding, Miscellaneous Buildings and other civil works including Plant Roads & Drains, underground facilities like drainage, sewerage, dewatering, trenches, Packaged sewerage treatment plant, Rain Water Harvesting, etc. covered under the specifications.

Further brief scope of work also includes:

- a. Basic Engineering of the plant including preparation of Plant Definition Manuals;
- b. Detailed design of all the equipment and equipment system(s) including civil, structure steel & Architectural works included in bidder's scope.
- c. Providing engineering drawings, equipment sizing & performance data, instruction manuals, as built drawings and other information;
- d. Compliance with statutory requirements and obtaining clearances from statutory authorities, wherever required;
- e. Complete manufacturing including shop testing/type testing;
- f. The complete Civil, structural and architectural works
- g. Packing and transportation from the manufacturer's works to the site including logistic studies, insurance, customs clearance & port clearance, port charges, if any.
- h. Receipt, storage, preservation, handling and conservation of equipment at the site;
- i. Fabrication, pre-assembly, if any, erection, insurance, testing, commissioning and completion of facilities including putting into satisfactory operation all the equipment including successful completion of initial operation;
- j. Performance and guarantee tests along with initial operation;
- k. Supply of spares on FOR site basis;
- l. Reconciliation with Customs Authorities;
- m. Satisfactory conclusion of the Contract;
- n. Insurance and other requirements
- o. The plant shall be ZLD compliant

Note: Detailed scope of work has been specified in the bidding documents.

B SALIENT TECHNICAL FEATURES

- Water Treatment Plant including,
 - DM plant and ACW chemical treatment.
 - Pre-treatment and liquid effluent treatment plant
 - Chlorine di-oxide plant
- Aux Water System, Raw Water pumps & Make-up Water System
- Cooling Water System including,
 - ACW & SACW system including Aux. CT
- Plant Utilities including,
 - Air conditioning and ventilation system
 - Fire detection and protection system
- Station LP piping including
 - Yard piping, balance of plant piping etc.
 - Boiler fill piping
 - Instrument air & plant air piping
- Material Handling System including,
 - Coal & Biomass Handling Plant
 - Fuel Oil unloading, storage & pressurizing system
 - Elevators, Cranes and Hoisting equipments
- Flue Gas Ducting
- Supply, installation and commissioning of Electrical Equipment's including
 - IPBD

- Auxiliary Transformers
 - Bus ducts.
 - Medium and low-voltage switchgear, motor control centres.
 - Motors & VFD
 - Cable and Cabling
 - Illumination, Earthing, Lightning protection, DG sets, Batteries, Battery Chargers, Overhead lines etc.
 - Electrical systems as required.
- Control and Instrumentation system along with accessories and Instrument Cables.
 - Solar PV Plants on Roof Tops
 - Complete Mechanical, Civil, Electrical & C&I works related to above mention Systems.