

TENDER SPECIFICATION

BHEL: PSSR: SCT: 2276

FOR

Design, Supply, Installation, Testing & Commissioning of Construction water supply system including all associated civil, electrical and mechanical work along with Operation and Maintenance (O&M) for a period of one (01) year for Main Plant Package of 3x800 MW Telangana St-II STPP

VOLUME –II PRICE BID



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

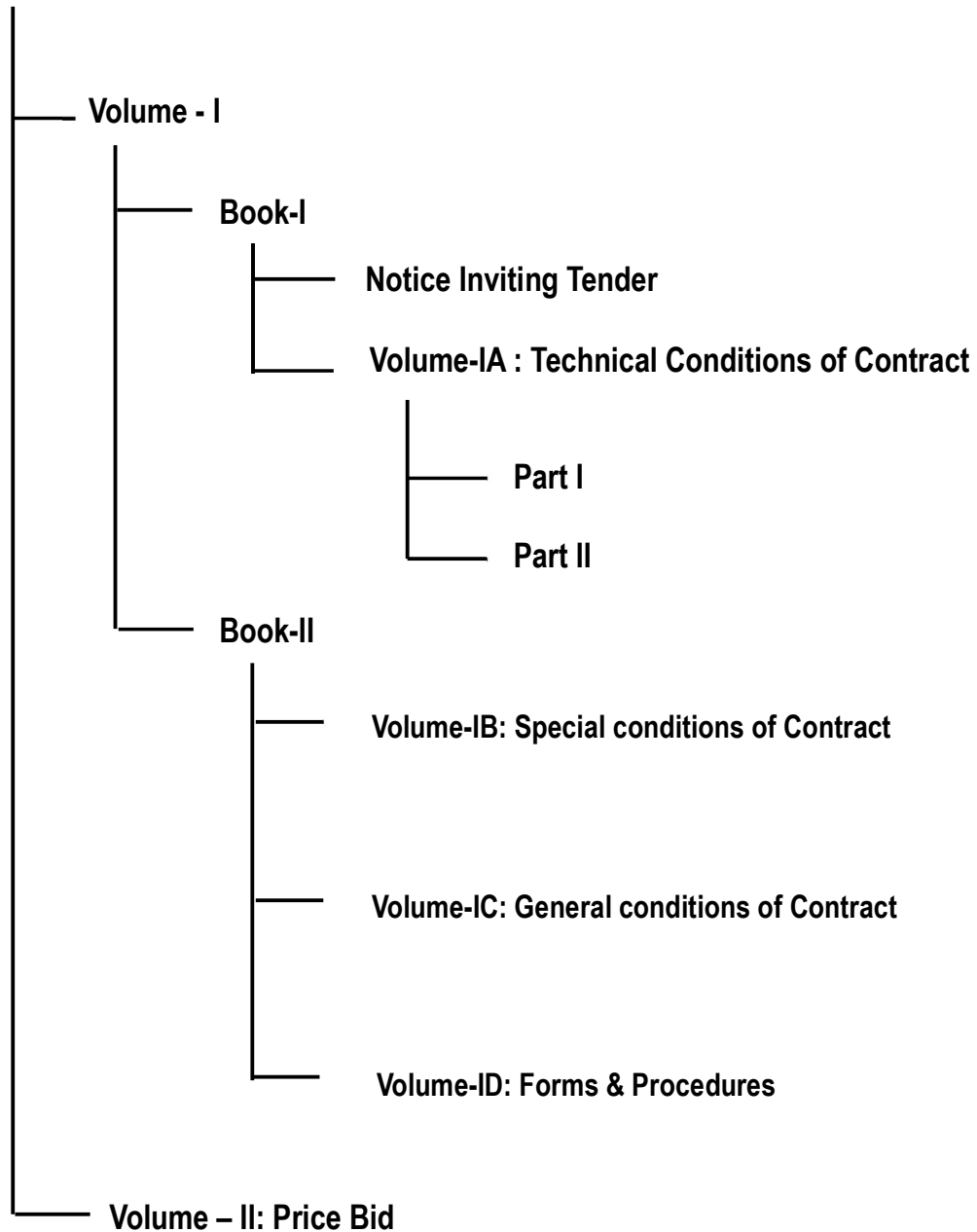
Power Sector – Southern Region

BHEL Integrated Office Complex, TNEB Road

Pallikaranai, Chennai - 600100

TENDER SPECIFICATION CONSISTS OF

Tender Specification



NOTICE INVITING TENDER

CONTENTS	
Description	No. of pages
Part A: Instructions to the Bidders	01
Part B : Format for total amount (Enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender)	(Separate Excel File)
Part C: Bill of quantities with weightage for amount of each items with respect to the total quoted price	03

NOTICE INVITING TENDER

PART A

Instruction to Bidders:

1. The quantity indicated in the BOQ / Price bid (Part C) is approximate only and is liable for variation. Payment will be as per actual quantity executed as certified by BHEL Engineer.
2. Tenderers are requested to affix their company seal and authorized signature in all pages.
3. Bidders shall quote 'Total Amount' in the format enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender and upload the same under 'Packet details - > Tender covers -> Finance '(Cover Type Description – Price Bid)" and same shall be taken into account for evaluation and awarding and hence, shall be complete in all respect for the full scope of work defined in specification and in accordance with terms & conditions of the tender. Any other entry elsewhere in the price bid shall be treated as Null and Void. Quoting of rates in any other form/ formats will not be entertained.
4. The above mentioned 'Total amount' is for the entire Bill of Quantity (BOQ) given in Part -C of the Price Bid. Total amount shall be excluding taxes.
5. BHEL has pre-fixed the weightages for the amount of individual items of Bill of Quantity with respect to the 'Total Amount' in Part-C.
6. Based on the pre-fixed weightages, the amount for the individual items of the Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
7. Based on the quantities of individual item and the amount arrived in SI No: 6 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
8. Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived at as per SI No.7 above.

Part C : Bill of Quantities

Tender Specification for Design, Supply, Installation, Testing & Commissioning of Construction water supply system including all associated civil, electrical and mechanical work along with Operation and Maintenance (O&M) for a period of one (01) year for Main Plant Package of 3x800 MW Telangana St-II STPP.

at Main Plant Package for Telangana STPP Stage-II (3X800 MW)

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
1.0	Carrying out detailed topographic survey, route alignment optimization, complete hydraulic design & preparation of drawing and vetting by Chartered Engineer/Govt Engineering College	LS	1	.0167336
2.0	Clearing jungle, wild growth, brushwood, and small trees (up to 300 mm girth) along the entire pipeline route to the specified required width and disposal of all cleared debris away from the site as per the instructions of the Engineer-in-Charge	LS	1	.0071715
3.0	Supply, installation, testing, and commissioning of ground-mounted, horizontal, self-priming centrifugal pump (working) of minimum discharge capacity of 100 Cum/Hr at the required Total Dynamic Head (TDH) complete with suitable IE3 electric motor, common rigid base frame, flexible coupling with coupling guard, anti-vibration pads, along with suction pipe, foot valve with strainer, discharge header, isolation valves at suction and discharge, pressure gauges, air release arrangement, foundation bolts and all standard accessories required for satisfactory operation.	No	1	.0549818
4.0	Supply, installation, testing, and commissioning of ground-mounted, horizontal, self-priming centrifugal pump (Standby) of minimum discharge capacity of 100 Cum/Hr at the specified Total Dynamic Head (TDH) complete with suitable IE3 electric motor, common rigid base frame, flexible coupling with coupling guard, anti-vibration pads, along with suction pipe, foot valve with strainer, discharge header, isolation valves at suction and discharge, pressure gauges, air release arrangement, foundation bolts and all standard accessories required for satisfactory operation.	No	1	.0549818
4a	Associated civil works for foundation and structural shed enclosure for the ground-mounted pump system including RCC foundation, pedestals, structural steel framing, and PPGI sheet cladding (roof and sides) including an access door, complete in all respects as per instructions of BHEL engineer in charge.	LS	1	.0169727

Part C : Bill of Quantities

Tender Specification for Design, Supply, Installation, Testing & Commissioning of Construction water supply system including all associated civil, electrical and mechanical work along with Operation and Maintenance (O&M) for a period of one (01) year for Main Plant Package of 3x800 MW Telangana St-II STPP.

at Main Plant Package for Telangana STPP Stage-II (3X800 MW)

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
5.0	Supply, installation, erection, testing, earthing and commissioning of a dedicated Pump Control Panel equipped with complete motor protection systems (short-circuit, overload, single-phasing,etc.), digital metering, and local isolation switches, etc. Supply and laying of required 1.1 kV armored LT power and control cables with supply and installation of necessary end termination kits, cable glands, covered steel enclosure etc.	Set	2	.0239051
6.0	Supply and installation of a 3-Phase, 4-Wire digital electronic multifunction energy meter as per DISCOM guidelines including matching accuracy-class Current Transformers, potential fuses, internal control wiring, and field testing/calibration,etc. required for the energy meter.	LS	1	.0035858
7.0	Supply and delivery of 200 DN PN10 PE100 SDR13.6 HDPE pipes conforming to IS:4984 including all specials, bends, tees, reducers, end caps, flanges, stub ends, backing rings, gaskets and jointing materials as required.	Mtr	4,400	.4628036
8.0	Underground Laying of 200 DN HDPE Pipe including excavation, sand bedding wherever required, laying, jointing, backfilling, compaction and restoration, Road/drain crossings with required RCC Valve Chamber, Warning tape and Route markers etc.	Mtr	3,080	.1325301
9.0	Overground Laying of 200 DN HDPE pipe including laying, jointing, civil work for support pedestals, thrust blocks, chambers and Road/drain crossings, Pipe clamps, Anchor supports, Structural steel supports along with painting etc.	Mtr	1,320	.0283993
10.0	Hydrostatic pressure testing of the laid pipeline at 1.5 times the designed pressure or as per IS 4984. Scope includes flushing, checking interlocks, testing all air and control valves, and executing the final commissioning of the entire pumping-main system to the satisfaction of the Engineer-in-Charge.	LS	1	.0071715
11.0	Supply and installation of 200 NB Non Return Valve (NRV) complete. Scope includes the valve assembly, all necessary matching flanges, high-tensile connecting bolts, nuts, rubber insertion gaskets, alignment check and field testing all complete.	No	2	.009084

Part C : Bill of Quantities

Tender Specification for Design, Supply, Installation, Testing & Commissioning of Construction water supply system including all associated civil, electrical and mechanical work along with Operation and Maintenance (O&M) for a period of one (01) year for Main Plant Package of 3x800 MW Telangana St-II STPP.

at Main Plant Package for Telangana STPP Stage-II (3X800 MW)

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
12.0	Supply and installation of Air Release Valve assembly of suitable size. Scope includes the air valve, dedicated isolation valve, matching companion flanges, high-tensile nuts/bolts, EPDM gaskets, and integration onto the 200 DN HDPE line, providing valve chamber at underground pipeline location all complete.	No	8	.0745841
13.0	Supply & installation of an inline, full-bore 200 mm NB Electromagnetic Flow Meter at the intake source station. Sensor protection class shall be IP65 with hard rubber/PTFE lining and SS316L electrodes, coupled to a digital LCD rate-indicator/totalizer transmitter. Scope includes the provision of all companion flanges, high-integrity gaskets, fasteners, equipotential line grounding setups, validation log checks as directed by the Engineer-in-Charge.	No	1	.0167336
14.0	Supply and installation of a 200 mm NB Mechanical Flow Meter at tank inlet location.	No	1	.0167336
15.0	Providing water inlet connection to 2 nos water storage tanks including supply and installation of pipe branching arrangement, Butterfly Valve and other required accessories for completion of work.	no.	2	.0119526
16.0	Providing Operator(s) for round the clock operation and maintenance over 12 months period.	Month	12	.0545037
17.0	Preparation and submission of as-built drawings, hydraulic calculations, test certificates, O&M manuals and handing-over documents	LS	1	.0071715
TOTAL Weightage				1.0