

In



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TENDER CHANGE NOTE 04 (TCN – 04) DT:04-09-2007

WITH REFERENCE TO THE NIT, PUBLISHED IN THE WEB SITES FOR MOBILIZATION OF ALL NECESSARY EQUIPMENTS, PROVIDING NECESSARY ENGINEERING SUPERVISION AND TECHNICAL PERSONNEL, SKILLED AND UNSKILLED LABOURS, SITE LEVELLING AND GRADING (PART), CONSTRUCTION OF APPROACH ROADS, CEMENT STORE, SITE OFFICE WITH NECESSARY ELECTRICALS & SANITARY SYSTEM FOR 2 X 500 MW DURGAPUR STEEL TPS, WEST BENGAL. FOLLOWING CHANGES MAY PLEASE BE NOTED AND COMPLIED WHILE SUBMITTING THE OFFER FOR THE SUBJECT JOB.

REF: TENDER DOCUMENT NO-PSER:SCT:DGP-C786:07

1.0 Bidders are requested to refer the letter dated 04/09/07 to them and accordingly requested to quote for items under sl.no.17, 18, 19 and 28 as per Volume-IIIA (R-3) for absolute values and Volume-IIIB(R-4) for percentage values enclosed.

ALL OTHER TERMS & CONDITIONS OF THE TENDER SHALL REMAIN UNALTERED.

DGM (SCT)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

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TCN-04



00 MW DURGAPUR STEEL' TPS, UNITS 1 & 2

GENERAL CIVIL WORKS FOR GRADING & LEVELLING

BILL OF QUANTITIES CUM RATE/PRICE SCHEDULE-VOL IIIA (REV-3)


SPECIFICATION NUMBER PE-BQ-286-600-C001 REVISION 00

TENDER NO:PSER:SCT:DGP-C786:07

SL NO.	DESCRIPTION	UNIT	QTY	UNIT RATE (Rs/Unit)	TOTAL PRICE (In Rupees/ In Figures)
17	Using ordinary bricks of class designation 5 of nominal dimension for below ground brick work,1:6 cement & sand.	MT	20		
18	Using ordinary bricks of class designation 5 of nominal dimension for above ground brick work,1:6 cement & sand	CUM	50		
19	Using ordinary bricks of class designation 5 of nominal dimension for above ground, partition wall-half brick work (125 mm thick) - 1:4, cement & sand.	CUM	150		
28	Providing & fixing one SINTEX or equivalent make drinking water tank 2000 Lit capacity	NO	1		

SIGNATURE OF THE BIDDER WITH SEAL.

PRICE SCHEDULE, VOL-III B REV-I (TCN-01)	
SITE GRADING & LEVELING (PART), APPROACH ROAD, CEMENT STORE, SITE OFFICE. FOR 2X500 MW DURGAPUR STEEL THERMAL POWER STATION, WEST BENGAL	
TENDER NO - PSER:SCT:DGP-C786:07	
VOLUME – IIIB (REV-I)	
PREAMBLE	
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with other volumes of tender as applicable.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the tender document and this schedule.
5.0	The quantities of the various items mentioned in this schedule of items are approximate, based on very preliminary information and may vary to any extent or be deleted altogether. The quoted rates of each item will remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in the total value of work executed under any part of this contract including extra items, if any but excluding any price variation remains within thirty percent ($\pm 30\%$) of the contract price.
6.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing and leveling etc. including fixing of grid pillars, benchmarks etc. required for commencement of site activities. No separate payment will be made towards the same.
7.0	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
8.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
9.0	The tender shall be deemed to have studied the specifications, details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
10.0	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.

 2X500 MW DURGAPUR STEEL' TPS, UNITS 1 & 2				
GENERAL CIVIL WORKS FOR GRADING & LEVELLING				
BILL OF QUANTITIES CUM RATE/PRICE SCHEDULE-VOL IIIB (REV-4)				
SPECIFICATION NUMBER PE-BQ-286-600-C001 REVISION 0				
SL NO.	DESCRIPTION	UNIT	QTY	TOTAL PRICE IN PERCENTAGE OF GROSS TOTAL PRICE
1	Earth work in stripping of top soil upto a minimum depth of 0.30 m below ground level so as to exclude all debris, grass, vegetation, bushes, trees including roots and organic materials etc for levelling and grading including dressing to specified levels & grades and compacting the graded/stripped surface by manual or mechanical means, disposal of stripped materials within a lead of 1km etc as per specification, drawing and as directed by the engineer.	SQM	40,000	
2	Earth work in excavation upto any depth in all types of soil and soft rock including ash, laterite, moorum, weathered rock, decomposed rock etc which can be excavated by means of crow bar, pick axe etc but does not require chiselling or blasting, for levelling and grading including dressing the sides, leveling to grade, ramming/compacting the graded surface, stacking/disposal of surplus excavated material within a lead of 1 km etc complete as per specification, drawings and as directed by the engineer.	CUM	5,000	
3	Earth work in filling for levelling and grading using selected excavated earth from compulsory excavations inside the project site on prepared surface obtained by compacting with mechanical means including setting out, filling in horizontal layers not exceeding 250mm compacted thickness, spreading, sorting, breaking clods, watering, compaction with proper moisture content to achieve a minimum 95% of maximum dry density (standard Proctor density), dewatering (if required), testing, approaches, finishing to required lines, grades and slopes, levelling etc complete as per specification, drawing and as directed by the engineer.	CUM	1,000	
4	Earth work in filling for levelling and grading using borrowed good earth (borrowed good earth shall be provided by customer free of cost but transportation from a lead of 12 km to be arranged by the contractor at his own cost) on prepared surface obtained by compacting with mechanical means including setting out, filling in horizontal layers not exceeding 250mm loose thickness, spreading, sorting, breaking clods, watering, compaction with proper moisture content to achieve a minimum 90% of maximum dry density (standard Proctor density), dewatering (if required), testing, approaches, finishing to required lines, grades and slopes, levelling etc complete as per specification, drawing and as directed by the engineer. The Royalty/Statutory fees for Earth and/or maintenance/royalty Fee for public/private road etc. will reimbursed on production of documentary evidences.	CUM	1,00,000	
ROADS				
5	Providing, stacking and laying granular morrum for shoulder including watering, compaction with road roller to required camber etc. complete as per specification.	CUM	1,200	

**2X500 MW DURGAPUR STEEL' TPS, UNITS 1 & 2****GENERAL CIVIL WORKS FOR GRADING & LEVELLING****BILL OF QUANTITIES CUM RATE/PRICE SCHEDULE-VOL IIIB (REV-4)**

SPECIFICATION NUMBER PE-BQ-286-600-C001 REVISION 0

SL NO.	DESCRIPTION	UNIT	QTY	TOTAL PRICE IN PERCENTAGE OF GROSS TOTAL PRICE
6	Providing and laying soling with hand broken hard metal of sizes of 50mm to 100mm, at all position and depths below or above finished ground floor level, below foundations, below flooring, and for providing hard standing etc in one or more layers each of approximately 150mm thickness, hand packing, filling in interstices with quarry spalls and providing a layer of moorum/sand over layer of soling to make the surface even including watering, thoroughly compacting each layer with 10 tonne power roller / vibromax with minimum 6 passes (or with vibrating plate of approved capacity at places not approachable by power roller) all as per the direction of the Engineer and as per specification.	CUM	11,000	
7	Supplying and filling with river sand in compacted layers including watering, consolidation to required camber including transportation, royalties complete.	CUM.	7,200	
8	Providing and laying rubble soling with specified sizes of approved quality hard rock rubble or hand broken hard metal of sizes ranging from 100mm to 230mm, at all position and depths below or above finished ground floor level, below foundations, below flooring, road sub base and for providing hard standing etc in one or more layers each of approximately 230mm thickness, hand packing, filling in interstices with quarry spalls and providing a layer of 50mm. thickness (consolidated) of moorum over each layer of soling including watering, thoroughly compacting each layer with 12 tonne power roller or VIBROMAX with minimum 6 passes (or with vibrating plate of approved capacity at places not approachable by power roller) all as per the direction of the Engineer and as per specification.	CUM.	5,425	
9	Providing & Laying water bound macadam base / sub base course in layers of required thickness with stone aggregate 63mm to 40mm size, stone screening and blinding material including screening sorting, spreading to template and consolidation with road roller including carriage, spreading and consolidation of blinding material moorum etc Including cost of material labour etc. all complete as per specification.	CUM	1,800	
	TEMPORARY OFFICE & CEMENT STORE (for levelling & grading work) ALL MATERIALS INCLUDING CEMENT AND REINFORCEMENT STEEL ARE IN BIDDERS SCOPE.			
	Excavation with lift up to 2.5 meters including providing coffer dams, shoring, strutting, sheeting, bracing, draining and pumping out water other than water below ground water table, clearing all grass, vegetation etc. including trimming of excavation bottom, staking, levelling, grading etc. of excavated materials all complete as per specifications, drawings and instructions of the engineer, including a lead upto 100 meters, loading and unloading.			
10	In all types of soils including expansive soil, ash, morrum, laterite, in soft rock and weathered rock which can be excavated by means of crow bar, pick axe etc. but does not require chiselling, chemical grouting and blasting.	CUM	1,600	
11	Earth work in filling around foundations, floors trenches, drain etc as per specification with manual compaction.	CUM	9,917	
12	Ordinary form work below finished ground floor level for foundations, footings, bases of columns, walls, columns pilasters, beams, mass concrete, trenches etc.	SQM	150	
13	Fairface form work below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc for exposed concrete works.	SQM	150	




2X500 MW DURGAPUR STEEL' TPS, UNITS 1 & 2

GENERAL CIVIL WORKS FOR GRADING & LEVELLING

BILL OF QUANTITIES CUM RATE/PRICE SCHEDULE-VOL IIIB (REV-4)

SPECIFICATION NUMBER PE-BQ-286-600-C001 REVISION 0

SL NO.	DESCRIPTION	UNIT	QTY	TOTAL PRICE IN PERCENTAGE OF GROSS TOTAL PRICE
14	PROVIDING AND PLACING CONCRETE WORK INCLUDING COST OF LABOUR, MATERIALS AND EQUIPMENT FOR HANDLING, TRANSPORTATION, BATCHING, MIXING, PLACING, VIBRATING AND CURING, (EXCLUDING COST OF CENTERING, SHUTTERING AND REINFORCEMENT) COMPLETE AS PER DRAWING AND SPECIFICATIONS UNLESS SPECIFIED OTHERWISE FOR Concrete 1:4:8 as filling course at any level below finished floor level, under and around foundations/floors, mass dumps etc with 40 mm nominal size graded aggregate. Supply of cement is in bidders scope	CUM	100	
15	Concrete of 1:1.5:3 in under floors, foundations, columns, beams etc complete with 20 mm nominal size graded aggregate. Supply of cement is in bidders scope	CUM	196	
16	Providing, straightening, cutting, bending, placing at any level, binding in position high yield strength steel reinforcements in concrete including cost of reinforcement and binding wire, labour etc. complete all as per specifications & drawings. Supply of reinforcement steel is in bidders scope	MT	20	
17	Using ordinary bricks of class designation 5 of nominal dimension for below ground Brick Work, 1:6 Cement and Sand.	CUM	50	
18	Using ordinary bricks of class designation 5 of nominal dimension for above ground brick work, 1:6 Cement and Sand.	CUM	150	
19	Using ordinary bricks of class designation 5 of nominal dimension for above ground partition wall half-Brick work(125 mm thick), 1:4 Cement and Sand	SQM	300	
20	Damp Proof Course 40mm thk. 1:1.5:3 concrete (10mm down aggregate) with 2% of approved admixture of water proofing compound. Hot bitumen @ 1.7Kg./sqm shall be applied before & after the DPC as per specification.	SQM	30	
21	Providing 12 mm thick plaster in cement mortar 1:6 on walls, finished to a smooth finish as per specification.	SQM	900	
22	Providing 18 mm thick plaster in two layers in cement mortar 1:6 on walls finished	SQM	650	
23	Two or more coats of cement paint (for internal use) of approved brand and manufacture to give an even shade including priming coat complete.	SQM	900	
24	Providing and applying 2 or more coats of water proof cement paint of approved make and color on exterior surface at all heights including material, labour, scaffolding, curing etc complete as per specification.	SQM	650	
25	Providing Toilet(area approx. 20 sq.M) consisting of asbestos roofing, steel purlin, brick masonry wall height 2.9 M 250mm thick, finished with white glazed tiles (6mm thick) on floor & walls (height 1.5 M, 1 bath (1200 x 1200), 1 EWC (1200 x 1200). 3 Nos. Urinals with flushing system, One wash basin with mirror & CP towel rail, 12/20 mm dia PVC Pipe supreme quality, CP bib cock/stop cock, PVC door Sintex or equivalent quality of size 650 X 2000 mm etc. complete. Fitting shall be ESCO or equivalent brand, Sanitary items (all white colour) shall be Parryware or equivalent. For general toilet	SET	1	
26	Providing Toilet(area approx. 6 sq.M) consisting of asbestos roofing, steel purlin, brick masonry wall height 2.9 M 250mm thick, finished with white glazed tiles (6mm thick) on floor & walls (height 1.5 M, One EWC (1200 x 1200)., One wash basin with mirror & CP towel rail, 12/20 mm dia PVC Pipe supreme quality, CP bib cock/stop cock, PVC door Sintex or equivalent quality of size 650 X 2000 mm etc. complete. Fitting shall be ESCO or equivalent brand, Sanitary items (all white colour) shall be Parryware or equivalent. For Project Manager	SET	1	

 2X500 MW DURGAPUR STEEL' TPS, UNITS 1 & 2				
GENERAL CIVIL WORKS FOR GRADING & LEVELLING				
BILL OF QUANTITIES CUM RATE/PRICE SCHEDULE-VOL IIIB (REV-4)				
SPECIFICATION NUMBER PE-BQ-286-600-C001 REVISION 0				
SL NO.	DESCRIPTION	UNIT	QTY	TOTAL PRICE IN PERCENTAGE OF GROSS TOTAL PRICE
27	Providing one masonry septic tank as per PWD specification for 20 Users	SET	1	
28	Providing & fixing one SINTEX or equivalent make drinking water tank 2000 Lit capacity	NO	1	
29	Structural steel work in tubular roof truss etc including all materials conforming to relevant IS codes, labour etc as per drawing, specification and direction of engineer with one coat of primer and two coats of synthetic enamel painting.	MT	20	
30	Structural steel work in columns, beams, wind ties, etc with simple rolled structural members connected to one with another with brackets gusset cleats, bolts and nuts or welding etc. as per design & direction complete including fabrication, hoisting & erection including all materials, labour etc. complete with one coat of primer and two coats of synthetic enamel painting.	MT	9	
31	Supply & fixing of wooden Platform/False Ceiling work for cement store/office made of Hard wood Batton of 75x50/75x75/50x25 size. This includes all hanging/fixing arrangement from roof truss (for false ceiling work)	CUM	6	
32	Supply & fixing of wooden planks for cement store floor cover (to be fixed over the platform work)	SQM	600	
33	Supply & fixing of ply (4 mm) at around 3 M height for false ceiling in office complete with 3 coats of paint (1 coat of Primer and subsequent 2 coats of synthetic enamel paints) including labour consumables etc. complete.	SQM	600	
34	ASBESTOS (6mm) CORROGATED (EVEREST OR EQUIVALENT QYALITY) sheet work in roof or wall with sheet fitted and fixed with 10 mm dia 'J' or 'L' hook bolts and nuts , sheet bolts, limpet and bitumen washer and putty complete including the cost of A C sheet, carriage, taxes etc complete.	SQM	1,400	
35	ASBESTOS (6mm) (EVEREST OR EQUIVALENT QYALITY) ridging with 230mm lap each way, fitted and fixed with necessary hook bolts, nuts, screws, washers etc complete including the cost of A C sheet ridge, carriage, taxes etc complete.	RM	71	
36	Supplying and fixing of electrical fittings, cables, wires, lugs, conduits & lamps as per following quantities for cement store:- 1. Main Switch 32 Amps ICTPN - 1 No. 2. Distribution board/ for distribution of wires for lamps (at roof truss level) 3. Switches, switch boards, wires, conduit, clamps, tees, bends etc. all complete as per requirement. 4. Medium bay HPSV lamps with all accessories of make PHILIPS/HAVELS/CGL/BAJAJ - 6 Sets. 5. 4 Core 35 Sq mm Al cable with armour - 500 Mtr	SET	1	
37	Supplying and fixing of electrical fittings, cables, wires, lugs, conduits & lamps as per following quantities for office of size 400-450 sq.m:- 1. Main Switch 63 Amps ICTPN - 1 No. 2. Distribution boards/ for distribution of wires for lamps (at roof truss level) - for office & Bathroom area. 3. Switches, switch boards with fuse, 5A and 15 A Power points with fuse, wires, conduits, clamps, tees, bends etc. all complete as per requirement. 4. Dual Flurosent lamp with all accessories of make PHILIPS/HAVELS/CGL/BAJAJ - 15 Sets. 5. 4 Core 95 Sq mm Al cable with armour - 500 Mtr	Set	1	
38	Providing and fixing steel openable windows with steel sections as per IS:1038, IS:1361 & IS:7452 latest revision. Glazing shall be of 4.0mm thick clear glass panes including all fittings, putty, 2 Nos. Al hold fasts, with one coat of primer & 2 coats of sythetic enamel painting as per specification all complete.	SQM	10	

**2X500 MW DURGAPUR STEEL' TPS, UNITS 1 & 2****GENERAL CIVIL WORKS FOR GRADING & LEVELLING****BILL OF QUANTITIES CUM RATE/PRICE SCHEDULE-VOL IIIB (REV-4)**

SPECIFICATION NUMBER PE-BQ-286-600-C001 REVISION 0

SL NO.	DESCRIPTION	UNIT	QTY	TOTAL PRICE IN PERCENTAGE OF GROSS TOTAL PRICE
39	Providing & fixing steel single shutter doors (1200 X 2100 mm). Shutters shall be of 18 gauge MS sheets fixed outside over angle frame (50X 50 X 6 mm) with three MS hinge fixed on masonry wall and shall present a flush surface on the outside, with anodized 16 dia aluminium sliding door bolt for locking arrangement for Cement godown etc. Complete with fixtures, with one coat of primer and 2 coats of sythetic enamel painting as per specification.	SQM	9	
40	Providing and fixing 30 mm thick commercial flush door shutters (single (1000 x 2100 mm) or double (1500 x 2100)) with commercial faces and hard board edges. Core of solid core doors shall be of block board or wood particle board of approved make including all fixtures like 2 nos. aluminium handle 100mm size, Al tower bolt 150 mm, one sliding door bolt 16 mm dia 300 long MS anodized, for locking, with one coat of wooden primer and two coats of synthetic enamel painting as per specification all complete including test certificates.	SQM	10	
41	Providing & laying 40 mm thick ordinary IPS concrete flooring with. Under concrete mix 1:2:4 (1 part cement, 2 parts sand and 4 parts stone chips 12.5 mm well graded) including cement slurry with glass strips of 4 mm thk, rounding off edges and strips etc all complete as per specification.	SQM	600	
42	Providing & laying 2 mm thick PVC floor of approved shade including all labour, material etc all complete as per drawing & as directed by Engineer.	SQM	575	
43	Cutting and felling trees of the girth measuring 30 cms and above (measured at a height of 1.5 mtr above ground level), including cutting of trunks and branches, removing the roots and disposal of same within a lead of two kilometers.	NOS	400	
44	Providing, laying light duty non pressure NP3 class RCC pipes with collars jointed with stiff mixture of cement mortar 1:2 including testing of joints etc complete - 1200 mm dia, as per specification.	RM	100	
	GROSS TOTAL PRICE			100%
45	For item not covered above, quote % above or below the CPWD schedule (DSR-2002)			
	(i) Rate for complete	%		
	(ii) Rate for supply only	%		
	(iii) Rate for item excluding supply of materials	%		