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TENDER SPECIFICATION

TENDER NO. BHEL/ NR/ SCT/ BAWANA/CVL/941

FOR

**“Balance Civil Works of Boundary Wall and Entrance Gateway
No. 2 & 3 at 1500 MW, PRAGATI III CCPP, Bawana Delhi”**

PART- II - PRICE BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northern Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar,
NOIDA – 201 301 (INDIA)

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PRICE BID



**ISO 9001, ISO 14001,
OHSAS 18001 & SA 8000
certified company
SubContract and Purchase
Deptt.**

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Power Sector – Northern Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301(INDIA)
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IMPORTANT NOTE

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THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

RATE SCHEDULE

SCOPE: Balance Civil Works of Boundary Wall and Entrance Gateway No. 2 & 3 at 1500 MW, PRAGATI III CCPP, Bawana Delhi

S. NO	DESCRIPTION	UNIT	QUANTITY	RATE (INR)	AMOUNT (INR)
Part A					
100	EARTH WORK IN EXCAVATION, BACKFILLING AND DISPOSAL AS PER SPECIFICATION, DRAWINGS AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:-				
101	Earth work in excavation upto 2m depth below ground level for foundation, trenches, pipe lines, storm water drains etc including setting out, clearing & grubbing, removal of debris, dewatering if required, strutting, shoring/sheet piling if required, dressing the sides, levelling to grade and ramming the bottom, stacking/disposal of surplus excavated material including levelling the earth if required, within a lead of 1.0 KM etc complete for all types of soils including laterite, morrum etc which can be excavated by means of crow bar, pick axe, etc but does not require chiselling or blasting.	CUM	900.00		
102	Earth work in excavation for depth exceeding 2.0m but not exceeding 4.0m below ground level for foundation, trenches, pipe lines, storm water drains etc including dewatering if required, strutting, shoring/sheet piling if required, dressing the sides, levelling to grade and ramming the bottom, stacking/disposal of surplus excavated material including levelling the earth if required within a lead of 1.0 KM etc complete for all types of soils including laterite, morrum, etc which can be excavated by means of crow bar, pick axe, etc but does not require chiselling or blasting.	CUM	150.00		
103	Extra over item No 101 and 102 for Disposal of surplus excavated earth beyond an initial lead of 1 K.m and upto Max lead of 2 K.m including transpotation,... dumping/Unloading..and leveling the dumped soil etc all complete as specified and directed by Engineer.	CUM	800.00		
105	Extra over item No 101 and 102 for Disposal of surplus excavated earth beyond an initial lead of 2 K.m and upto Max lead of 4 K.m including transpotation,... dumping/Unloading..and leveling the dumped soil etc all complete as specified and directed by Engineer.	CUM	50.00		
106	Extra over item No 101 and 102 for Disposal of surplus excavated earth beyond an initial lead of 4 K.m and upto Max lead of 6 K.m including transpotation,... dumping/Unloading..and leveling the dumped soil etc all complete as specified and directed by Engineer.	CUM	50.00		
107	Back filling around foundations in plinths etc. to proper grade and level with specified soil within a lead beyond 1 k.m from available excavated materials including reexcating the loose soil/earth,Transportation,watering and ramming/compacting in layers not exceeding 25 CM in thickness and compacted to atleast 90 % of its maximum dry density for cohesive soil and to 75% relative density for non cohesive soil by manual/ mechanical means,dressing etc all complete as per specification and as directed by Engineer	CUM	100.00		
108	Back filling around foundations and plinths etc to proper grade and level with selected excavated soil directly from excavation area within a lead of 1Km including watering and ramming/compacting in layers of 25cm thickness to atleast 90% of its maximum dry density for cohesive soils and to 75% relative density for non-cohesive soils by manual/ mechanical means, dressing etc complete as per specification and as directed by Engineer	CUM	100.00		
200	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 AT ALL ELEVATIONS AS PER DRAWING, SPECIFICATIONS UNLESS SPECIFIED OTHERWISE AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:				
201	Lean concrete 100 mm thick of 1:3:6 proportion shall be provided below all structural concrete resting directly on soil/founding area.	CUM	15.00		
202	Concrete of grade M-25 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in all foundations, underground works, water retaining structures and outdoor works floors etc at any level below finished floor level, any shape, position or thickness etc complete.	CUM	150.00		
203	Concrete of grade M-25 conforming to IS:456 with coarse sand and graded hard stone aggregate 20mm nominal size in superstructure at all heights from finished floor level at any level, shape, position or thickness complete .	CUM	120.00		
205	Breaking existing concrete work at any level including cutting reinforcements, removing the rubbish within a lead of 1Km., including making good the broken edges/surface with cement mortar, painting, finishing to match with existing finishing, scaffolding/supporting at any level, all complete and as directed by Engineer.	CUM	2.00		

S. NO	DESCRIPTION	UNIT	QUANTITY	RATE (INR)	AMOUNT (INR)
300	SUPPLYING, FIXING AND REMOVING FORMWORK AT ANY ELEVATION INCLUDING ALL LABOUR, MATERIAL, SCAFFOLDING COMPLETE INCLUDING POCKETS ETC. AS PER SPECIFICATIONS AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:				
301	Ordinary form work below finished ground floor level for foundations, footings, bases of columns, walls, columns pilasters, beams, mass concrete, trenches etc.	SQM	375.00		
302	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	20.00		
303	Ordinary form work above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches etc for all heights.	SQM	20.00		
304	Fairface form work above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches etc for all heights.	SQM	675.00		
400	REINFORCEMENTS				
402	Providing, straightening, cutting, bending, placing in position at any level, binding in position of steel reinforcements shall be TMT HYSD bars of grade Fe-415 and / or Fe-500 conforming to relevant IS codes, including cost of binding wire, labour, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer.	MT	30.00		
500	M.S. EMBEDMENTS				
501	Supply , fabricating and fixing of embedments, MS inserts , pipe sleeves, guide rails, angle pieces, rungs of various diameters, plates of dimensions as required including cost of all labour, materials and equipment, transportation, loading, unloading, handling, welding, cutting, drilling, scaffolding and setting complete as per specifications, drawings and as directed by Engineer.	MT	1.00		
502	Transportation from stores , delivery at work spot and erection, installation and alignment of embedments, MS inserts, pipe sleeves , rails, guide rails, angle pieces, anchor bolts, foundation bolts of various diameters, plates of dimensions as required including cost of all labour, equipment, material, loading, unloading etc. all complete as per specifications, drawings and as directed by Engineer.	MT	1.00		
600	GROUTING AS PER SPECIFICATION FOR THE FOLLOWING:				
601	Providing and grouting of pocket holes , pipe sleeves of any shape and size under base plates after erection of necessary structural steel work, machinery with minimum M30 nonshrink flowable grout at any elevation including roughening surface, cleaning, ramming, curing etc complete (non-shrink flowable grout as per specification using approved admixture) as per specification and as directed by the Engineer.	CUM	0.50		
700	BRICKWORK MASONRY INCLUDING SUPPLY OF MATERIAL, COST OF LABOUR ETC. COMPLETE, AS PER SPECIFICATIONS.				
701	Providing brick work in cement mortar 1:6 (1 part cement 6 parts coarse sand) in walls, chambers etc. in thickness varying from 230mm to 460mm at all depths, places and positions above plinth including raking out joints, curing, scaffolding etc. complete excluding plastering and painting.				
i)	Using fly ash lime bricks conforming to IS 12894 with crushing strength of 75 kg/cm2 minimum percentage of fly ash shall be 25%	CUM	60.00		
ii)	Using clay ash bricks shall be as per IS 13757 with crushing strength of 75 kg/cm2 and minimum percentage of fly ash shall be 25%	CUM	2.00		
iii)	Using ordinary bricks of class designation 7.5 of nominal dimension	CUM	2.00		
702	Breaking of existing brick work at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	CUM	2.00		
703	Making openings in existing brick wall or partition wall including making good the broken edges/surface with cement mortar etc. complete.	CUM	2.00		
800	DAMP PROOF COURSE INCLUDING ALL MATERIALS, LABOUR, SHUTTERING, CENTERING, CURING ETC., COMPLETE WITH THICKNESS AS SPECIFIED/SHOWN ON DRAWINGS OR AS DIRECTED BY ENGINEER FOR THE FOLLOWING:-				
801	Damp Proof Course 50mm thick 1:1.5:3 concrete (10mm and down graded aggregate) with 2% of approved admixture of water proofing compound. Two layers of hot bitumen coating 85/25 grade as per IS:702 @ 1.7Kg./sqm shall be applied before & after the DPC as per specification.	SQM	5.00		

S. NO	DESCRIPTION	UNIT	QUANTITY	RATE (INR)	AMOUNT (INR)
900	CEMENT MORTAR PLASTER INCLUDING MAKING GROOVES WHEREVER REQUIRED, ALL MATERIALS, SCAFFOLDING, CURING ETC. COMPLETE AS PER SPECIFICATION, DRAWING AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:-				
901	Providing 18mm thick plaster in two layers outside the building wall in cement mortar 1:6 on walls, finished to a smooth finish as per specification including providing 3mmx3mm size grooves at junctions of two dissimilar materials.	SQM	250.00		
902	Providing 12mm thick plaster in two layers inside the building in cement mortar 1:6 on walls finished to a smooth finish as per specification.and shall confirm to IS 1661.3mmx3mm size grooves at junctions of two dissimilar materials.	SQM	375.00		
1000	FINISHES, PAINTING TO CONCRETE, PLASTERED SURFACES, SURFACE PREPARATION INCLUDING ALL MATERIALS, LABOUR, SCAFFOLDING ETC. ALL COMPLETE AS PER SPECIFICATION, DRAWING AND AS DIRECTED BY ENGINEER FOR THE FOLLOWING:-				
1001	Two or more coats of exterior masonry paint (water or solvent base) of special resins, adhesives and additives mixed with fine, hard stone aggregate and finest available pigment.The paint shall be applied on a coat of primer over dried, prepared plaster surface as manufacturers guidelines. The final finished coating shall be fungus resistant, UV resistant, water repellent, alkali resistant and extremely durable with color fastness as per specification.	SQM	750.00		
1002	Providing and applying resin bonded granular textured finish, for external applications shall consist of crushed stone/quartz chips of 2.5 mm size and of approved color/ shade and bonded with synthetic resins, adhesives and additives altogether in a single pack mix AS PER SPECIFICATION, applied on cured and dried plaster surface with a dry film thickness of minimum 2 mm as manufacturer guideline and instruction of engineer in charge The grooves shall be provided as per drawing and same shall be filled with h poly sulfide sealant of matching color and shade.	SQM	50.00		
1100	FENCING AND GATES.				
1101	Providing,laying and fixing eight string of galvanised concertina wireclamped to vertical y shaped angle post of 600 mm high Minimum@3000 mm c/c complete as per specification. Payment to be made per mitere cost of wire used. Cost of angle paid seperately elsewhere.	MT	1.00		
1102	Providing,laying and fixing galvanised concertina spiral wire fencing over boundry wall including eight string of galvanised concertina wire min 205 mm dia clamped to vertical y shaped angle post of 600 mm high (min)@ 3000 mm c/c complete as per spec.	MT	0.50		
1103	Supply,fabrication and installing in position and testing galvanised MS gates of width min 7.5 m and height of about 3.6 m including wicket gate of size 1.0 m x2.1 m. out of channels joints,angles,flates,plates,pipes and sheets including stiffners ,bracing,fabricated hinks,MS aldrps locking arrangement, tempered steel pivots,guide trackof MS tee,ball bearing arrangement,casters wills etc. all complete as per drawing,specification and as directed by Engineering encharge all complete. The main entrance gate shal be fabricated out of Mild steel sections completed with synthetic enamel painting. The structural steel works for gates shall include supply ,fabrication,transportation,erection of structural steel gates complete with fabricated hings,MS eldrops,locking arrangements, tower bolts,GI pipes stub,tempered steel templates,tempered steel pivots,guide track MS tee,caster wheels with bearing arrangements and placing in position embaded parts in concrete/brick work and in road surface including cutting,grinding,drilling of holes, welding and painting etc complete. The mild steel gates shall be electrically operated the gates should be double leaf sliding type, which can be operated from remote push buttons from the sequiry control room.	No.	1.00		
	Part B				
1201	Providing and laying polished Granite stone of approved color and texture 20 mm thick in flooring. Under bed shall average 30mm thick of 1 part cement, 2 part sand : 4 parts stone chip by volume and brought to proper level. The granite stone slabs/tiles laid over under bed with cement mortar, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, cutting, grinding, granite polishing etc complete.	Sqm	5.00		
1202	Providing and laying polished Granite stone 20 thick in skirting and dado including pigments, curing, grinding, granite polishing etc. complete.	Sqm	100.00		
1203	Providing and laying marble flooring/dado of minimum 20mm thickness projecting 6mm from adjacent plaster all complete including underbed mortar, labour, material, scaffolding, etc as per specification.	Sqm	5.00		
1204	Providing and fixing at all levels Aluminium Composite Panel (Alucobond make) cladding on brick/concrete surfaces comprising of 4 mm thick thermoplastic core of mid low density poly-thelene sandwiched between two skin of aluminium of approved colour including approved aluminium back up perimeter extrusions & frames, MS channels, stainless steel fastners, sealants between panels and all other miscellaneous accessories complete including all staging, labour, T&P as per manufacturers specifications and drawings.	Sqm	280.00		
1205	Providing and fixing text letters/logos as per drawings, instuctions and specifications of Engineer I/C as detailed below:				

S. NO	DESCRIPTION	UNIT	QUANTITY	RATE (INR)	AMOUNT (INR)
1206	Opaque front, backlit (white light), powder coated (powder coating of matching shade with Silver ACP) Aluminium framed letter text in English/Hindi alphabets of approx. 1'x1' extents and depth as approved. All wiring for backlighting, light fixtures as approved, fixing of letters all complete in all respect shall be in contractors scope.	Letter	40.00		
1207	Stainless steel text letters of approx. 200x200 mm extents and depth as approved in English/Hindi alphabets in satin/matt finish all complete in all respect shall be in contractors scope.	Letter	120.00		
1208	Providing fancy spikes over special panels	No.	100.00		
1209	Supply, fabrication and instaling in position and testing MS gates out of Channels, joists, angles, flats, plates, pipes, welded steel wire mesh & sheets including stiffners, bracings, fabricated hinges, MS Aldrops with locking arrangement, tempered steel pivot, guide track of MS Tee, bronze aluminium ball bearing arrangements, castor wheels, painting, etc al complete	MT	3.00		
GROSS TOTAL					

Notes:

1. Contractor shall fully understand description and Specifications of items mentioned in BOQ.
2. Conditional price bids or price bids with any deviation / clarification etc. are liable to be rejected. No cutting / erasing / over writing shall be done.
3. Quantities mentioned in rate schedules are approximate only and liable for variation on either side depending upon site / design requirements. The tentative contract value (CV) of entire scope of work shall be calculated as per finally quoted / accepted rates & the Quantities indicated in Rate Schedule cum BOQ.
4. Contractor's total quoted price as per rate schedule will be taken as tentative only. The contractor undertakes to execute actual quantities as per advice of BHEL Engineer and accordingly the final contract price shall be worked out on the basis of quantities actually executed at site and payments will also be regulated for the same.
5. Evaluation of bids shall be done on total price against this rate schedule / BOQ.
6. In case of any mismatch in rate and amount on price discrepancy, the same will be dealt as per clause no. 1.4 of GCC.

(Signature, Date and Seal of Authorized Representative of Bidder)