

BILL OF QUANTITY CUM PRICE SCHEDULE

Name of Project : 765/400/220 KV PGCIL SUB-STATION (NEW) AT BANASKANTHA IN GUJRAT

Name of Work : ANTIWEED, PCC & STONE SPREADING, ROAD, DRAIN, WATER TANK, RAIN WATER RECHARGE STRUCTURE, FENCE & GATE

S. No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
1	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and disposal of excavated earth upto 100m and lift upto 3.5m, disposed earth to be levelled and neatly dressed.				
(a)	All kinds of soil.	8543	cum	125.95	1075990.85
2	Filling available excavated earth (including rock) in trenches, plinth, sides of foundations, etc., in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 100m and lift upto 3.5m.	1000	cum	125.75	125750.00
3	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 3.0 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming,watering etc.and disposing of surplus excavated soil as directed within a lead of 100m.				
(a)	All kinds of soil				
3.1	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	120	meter	225.45	27054.00
4	Carriage & disposal of surplus excavated earth/rock beyond initial lead by mechanical means not necessarily all the times on pucca roads, including loading, unloading, dressing of excavated material, etc., complete as per specifications -.				
(a)	Lead upto 1 km.	1090	cum	98.34	107190.60
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
(a)	1:2:4 (1 cement : 2coarse sand : 4 graded stone aggregate 20mm nominal size)	10	cum	4943.80	49438.00
(c)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	1375	cum	4148.54	5704242.50
6	Extra for providing and mixing water proofing material 'Impermo' or equivalent in cement concrete work in the proportion recommended by the manufacturer.	50	per 50 kg cement	41.73	2086.50
7	Providing and laying in position machine batched, machine mixed and machine vibrated design mix M25 grade cement concrete for reinforced cement concrete work, using cement as per approved design mix, including plumbing of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS 9103 to accelerate, retrard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note:- cement content considered in this item is 330kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).				
(a)	All works upto plinth level	2720	cum	5887.43	16013809.60
(b)	All works above plinth level upto floor V level	5	cum	6691.00	33455.00

S. No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
8	Providing and laying reinforced CC road/ pavement of design mix M-25 grade with readymixed concrete from batching plant. The readymixed concrete shall be laid and finished with screed board vibrator, vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per customer's technical specifications and directions of Engineer-in-charge excluding the cost of panel shuttering and reinforcement steel but including the cost of admixtures in recommended proportions (as per IS 9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability. (Note:- cement content considered in this item is 330kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	900	Cum	6353.11	5717799.00
9	Centering and shuttering including strutting, propping, etc., and removal of form for:				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	3000	sqm	184.42	553260.00
(b)	RCC walls at all levels (any thickness).	24960	sqm	369.24	9216230.40
10	Add for using extra cement in the items of design mix over and above the specified cement content therein.	152.00	MT	4595.94	698582.88
11	Steel reinforcement -Cold twisted bars /TMT- Fe 500 (To be procured from SAIL, TISCO, IISCO and RINL only)				
(a)	Excluding supply but including straightening, cutting, bending, binding, (i/c cost of binding wire), placing in position, etc., all labour & material, complete. (Reinforcement steel shall be issued by BHEL free of cost. Unloading, storage and watch & ward is in the scope of the contractor).	15000	kg	7.78	116700.00
(b)	Including supply, straightening, cutting, bending, binding, (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	2000	kg	49.62	99240.00
12	Brickwork with F.P.S.bricks of class designation 75 in superstructure above plinth level to floor V level in all shapes and sizes in:				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	12	cum	5355.29	64263.48
13	Providing and laying Non Pressure NP-3 (Medium duty) R.C.C. hume pipe including collars/spigot jointed with stiff mixture of cement mortar of mix 1:2 (1 cement : 2 fine sand) including testing of joints etc all complete as per drawing and specification excluding the cost of concrete, shuttering, reinforcement, brickwork, plaster on brickwork and painting.				
a)	100mm dia	50	RM	599.99	29999.50
b)	250mm dia	50	RM	900.38	45019.00
c)	300mm dia	50	RM	962.38	48119.00
d)	450mm dia	50	RM	1660.11	83005.50
e)	600mm dia	50	RM	2159.04	107952.00
14	Providing and fixing in position in culvert/road crossing/building PVC pipes conforming to IS : 12818 including jointing with seal all complete as per drawing and specification.				
	150mm diameter	20	RM	211.92	4238.40
15	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc and re-rolling the sub grade and disposal of surplus earth lead upto 50 metres.	10920	sqm	90.10	983892.00
16	Extra for compaction of earthwork in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (Proctor density)	10920	sqm	10.70	116844.00
17	Suppling and stacking at site				

ANNEXURE-I

S. No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
(a)	90 mm to 45 mm size stone aggregate	3250	cum	1278.69	4155742.50
(b)	63 mm to 45 mm size stone aggregate	10	cum	1386.53	13865.30
(c)	53 mm to 22.5 mm size stone aggregate	10	cum	1475.02	14750.20
(d)	Stone screening 13.2 mm nominal size (type A)	735	cum	1439.66	1058150.10
(e)	Stone screening 11.2 mm nominal size (type B)	10	cum	1398.19	13981.90
(f)	moorum	190	cum	563.01	106971.90
18	Laying, spreading and compacting stone aggregates of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3-wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening/ binding materials to fill up interstices of coarse aggregate, watering and compacting to the required density etc., all complete. (Payment will be made for compacted layers only. Stone aggregates, screenings & moorum to be paid separately.).				
(a)	Subbase with stone aggregate 90mm to 45mm including stone screening 13.2mm size and moorum/blinding material.	3250	cum	449.10	1459575.00
(b)	Base course with stone aggregate 63mm to 45mm including stone screening 13.2mm size and moorum/blinding material.	10	cum	449.10	4491.00
(c)	Base course with stone aggregate 53mm to 22.4 mm including stone screening 11.2mm size and moorum/blinding material.	10	cum	449.10	4491.00
19	Providing and placing in position suitable PVC water stops conforming to IS 12200 or equivalent for construction/expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.				
	Serrated with central bulb (230mm wide, 8-11mm thick)	100	RM	216.54	21654.00
20	Providing and laying 75mm thick PCC 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) shoulder over well compacted earth on both sides of the road including smooth finished top surface all complete as per drawing, customer's Technical Specifications and directions of Engineer-in-charge. (Rate shall be inclusive of all labours, materials, well compacted earth, T&P, etc.)	1440	Sqm	331.06	476726.40
21	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS: 1838, including the cost of primer, sealing compound Grade-A in expansion joints.	84	per cm depth per 100 m	397.12	33358.08
22	Providing and laying polythene sheet of 125 microns between the PCC and RCC slab in road/ pavement works all complete as per direction of Engineer-in-Charge)	9000	sqm	12.70	114300.00
23	Providing and fixing in position pre moulded joint filler in expansion joints	84	per cm depth per cm width per m length	1.89	158.76
24	Providing and laying in position bitumen hot sealing compound for expansion joints etc.				
	Using grade A ceiling compound	84	per cm depth per cm width per m length	2.16	181.44
25	Providing & fixing galvanised chain link fencing including all allied activities, all complete as per POWERGRID Technical Specifications Clause No. 9.0, Drawing (C/ENGG/CVL/SYD/FENCE/101) and directions of Engr-in-Charge. (The rate shall be inclusive of all the labour, materials, earthwork, brickwork, plaster, cement painting, CC, PCC & shuttering and erection all complete)	1700	RM	4016.48	6828016.00

ANNEXURE-I

S. No.	Description of Item	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
26	Providing & fixing gate made of medium duty MS pipes, ISMC, Plates, Cleat Angle, Gate Stopper, Drop Bolt, Roller, etc including all allied activities, all complete as per POWERGRID Technical Specifications Clause No. 9.0, Drawing (C/ENGG/CVL/SYD/GATE/002) and directions of Engr-in-Charge. (The rate shall be inclusive of all the labour, materials, earthwork, CC, PCC, shuttering, fabrication, welding, steel primer, painting and erection all complete.) (Only weight of structural steels used shall be measured for payment purpose).	2500	Kg	78.07	195175.00
27	Construction of Rain Water Harvesting as per Technical Specification and Drawings including all labour, material, tools, tackles, equipments, safeguards & incidentals as necessary as per specification and direction - of - Engineer -in- charge.	2	Nos	253706.00	507412.00
28	12mm cement plaster on even side of the walls in the mix:				
	1:6 (1cement :6 fine sand)	55	sqm	154.72	8509.60
29	15mm cement plaster on rough side of the walls in the mix:				
	1:6 (1cement :6 fine sand)	18	sqm	178.47	3212.46
30	18mm cement plaster on external face of walls in two coats with under layer 12mm thick cement plaster 1:5 (1 cement :5 coarse sand) finished with a top layer of 6mm thick 1:6 cement plaster (1cement : 6 fine sand)	45	sqm	245.49	11047.05
31	Providing & laying in position plain cement concrete (PCC) of 1:5:10 (1 cement : 5 coarse sand : 10 stone aggregate 40mm nominal size) with a layer of cement slurry of mix 1:6 (1 cement : 6 Fine Sand) over PCC layer as per Technical Specification, Drawings and instruction of Engineer-in-charge including cost of all labour, materials, T&P, etc.	22200	cum	2910.55	64614210.00
32	Antiweed treatment in switchyard area including micro leveling (earthwork cutting & filling upto ±200mm), dressing, compaction, effectiveness test of antiweed chemical, etc all complete as per Technical Specification and instruction of Engineer-in-charge including cost of all labour, materials, T&P, etc.	295300	Sqm	17.52	5173656.00
33	Supplying and spreading stone aggregates of 40mm nominal size (ungraded single size) in switchyard over yard PCC as per drawing and specification all complete including cost of all labour, materials, T&P, etc. but excluding the cost of PCC. Final compacted thickness of the stone aggregate layer shall be 100mm uniformly.	92000	Sqm	99.57	9160440.00
	TOTAL (Rs)				1350,04,238.00

ANNEXURE-II

**TRANSMISSION BUSINESS GROUP
(SUB- CONTRACTS MANAGEMENT)
TBG - NOIDA**

PRICE SCHEDULE FORMAT

SUB: EXECUTION AND HANDING OVER OF CIVIL WORKS OF ANTIWEED, PCC & STONE SPREADING, ROAD, DRAIN, WATER TANK, RAIN WATER RECHARGE STRUCTURE, FENCE & GATE OF 765/400/220KV SUBSTATION AT BANASKANTHA IN GUJARAT.

(a) I/ We hereby agree to execute the above work at ----- % (in figure).....
----- (in words) Above / Below/ At Par the rates of items given in BOQ
(Annexure-I) of subject tender.

NOTE:

1. In this annexure the tenderer shall quote a percentage above/ below/At Par the rates shown in the Bill of Quantities (Annexure-I) of subject tender. The percentage quoted shall be clearly written both in words and figures In case of discrepancy in rates in figure and words, the minimum will be taken into account by BHEL.
2. The quoted percentage will apply to the individual items uniformly.

Date:
Place

Signature of tenderer
Name & Designation of authorized person(s) with seal

ANNEXURE-III

SUMMARY OF PRICES FOR EXECUTION AND HANDING OVER OF CIVIL WORKS OF ANTIWEED, PCC & STONE SPREADING, ROAD, DRAIN, WATER TANK, RAIN WATER RECHARGE STRUCTURE, FENCE & GATE OF 765/400/220KV SUBSTATION AT BANASKANTHA IN GUJARAT

Sl No.	Description	Amount (Rs.)
1	Total amount as per the rates in BOQ for Execution and handing over of civil works of antiweed, PCC & stone spreading, road, drain, water tank, rain water recharge structure, fence & gate of 765/400/220kv substation at Banaskantha in Gujarat (Annexure-I)	1350,04,238
2	Value of percentage above/below/at par (As indicated in Price Schedule Format, Annexure-II) applicable to the total amount of civil work (Sl. no. 1 above)	% above/below/ at par
3	Total amount after consideration of percentage above/below/ at par.	