

BILL OF QUANTITIES CUM PRICE SCHEDULE**Name of Project : 765kV SUB-STATION EXTENSION AT AJMER****Name of Work : CIVIL WORKS FOR 765kV SWITCHYARD**

S.No.	Description of Item	Unit	Quantity	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.	cum	3000	129.35	388050.00
(b)	Ordinary rock	cum	600	197.75	118650.00
(c)	Hard rock(requiring blasting)	cum	200	347.80	69560.00
(d)	Hard rock(blasting prohibited)	cum	200	490.10	98020.00
2	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and dressing of sides and ramming of bottoms, lift upto 3.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 100m.				
(a)	All kinds of soil.	cum	1021	130.80	133546.80
(b)	Ordinary rock	cum	200	212.00	42400.00
(c)	Hard rock(requiring blasting)	cum	100	378.80	37880.00
(d)	Hard rock(blasting prohibited)	cum	100	491.95	49195.00
3	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.	cum	3021	83.80	253159.80

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
4	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				
4.1	Pipes, cables etc, not exceeding 80mm dia.	meter	20	101.40	2028.00
4.2	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	meter	20	165.60	3312.00
4.3	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm	meter	40	258.55	10342.00
(b)	Ordinary rock				
4.4	Pipes, cables etc, not exceeding 80mm dia.	meter	20	142.95	2859.00
4.5	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	meter	20	353.95	7079.00
4.6	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm	meter	40	407.30	16292.00
(c)	Hard rock(requiring blasting)				
4.7	Pipes, cables etc, not exceeding 80mm dia.	meter	10	222.55	2225.50
4.8	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	meter	10	549.80	5498.00
4.9	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm	meter	20	634.15	12683.00
(d)	Hard rock(blasting prohibited)				
4.10	Pipes, cables etc, not exceeding 80mm dia.	meter	10	276.05	2760.50
4.11	Pipes, cables etc. exceeding 80mm dia. but not exceeding 300 mm dia.	meter	10	683.50	6835.00
4.12	Pipes, cables etc. exceeding 300mm dia but not exceeding 600mm	meter	20	786.50	15730.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
5	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.	cum	1500	82.78	124170.00
(b)	Lead upto 2 km.	cum	400	93.94	37576.00
(c)	Lead upto 3 km.	cum	250	104.98	26245.00
(d)	Lead upto 5 km.	cum	250	125.92	31480.00
6	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 : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	cum	108	4514.05	487517.40
(b)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size)	cum	10	3888.20	38882.00
(c)	1:4:8 (1 cement : 4 fine sand : 8 graded stone aggregate 40mm nominal size)	cum	292	3331.25	972725.00
7	Extra for providing and mixing water proofing material 'Impermo' or equivalent in cement concrete work in the proportion recommended by the manufacturer.	per 50 kg cement	100	35.35	3535.00
8	Providing and laying in position machine batched and machine mixed design mix M25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping 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, retard 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	cum	1300	5242.15	6814795.00
(b)	All works upto above plinth level upto floor V level	cum	114	5781.5	659091.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
9	Add for using extra cement in the items of design mix over and above the specified cement content therein	quintal	1045	589.80	616341.00
10	Centering and shuttering including strutting, propping, etc., and removal of form for:				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	sqm	900	166.90	150210.00
(b)	RCC walls at all levels (any thickness).	sqm	4400	285.15	1254660.00
(c)	Lintels, beams, plinth beams and cantilevers.	sqm	50	262.25	13112.50
(d)	Columns, Pillars, Piers, Posts and Struts .	sqm	1525	365.60	557540.00
11	Steel reinforcement -Cold twisted bars /TMT/HCR				
(a)	Including supply (To be procured from SAIL/RINL/TISCO/IISCO) and straightning, cutting, bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	kg	3000	62.25	186750.00
(b)	Excluding supply but including straightening, cutting, bending, binding, (i/c cost of binding wire), placing in position, etc., all complete as per specification and directions of Engineer-in-Charge. (Reinforcement shall be supplied by BHEL as per conditions of contract)	kg	140000	10.20	1428000.00
12	Providing & fixing in position 12mm thick bitumen impregnated fibre board conforming to IS:1838 including cost of primer, sealing compound in expansion joints	per cm depth per 100m	10	430.30	4303.00
13	Brickwork with F.P.S.bricks of class designation 75 in foundation and plinth in:				
	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	10	3316.55	33165.50
14	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)	cum	100	3876.15	387615.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
15	Structural steelwork welded in built up sections like edge protection angles, insert plates with lugs & framed work including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	kg	6000	66.50	399000.00
16	Steelwork welded in built up sections/framed work including providing, cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required.				
(a)	In covering of floors/trenches of control room building with chequered plates, stringers, treads, landings, etc., of staircases involving use of chequered plates, wherever required, all complete.	kg	500	67.20	33600.00
(b)	In gratings, frames, ladders, stair railings, rails, ISMB, ISMC and similar works.	kg	9500	77.90	740050.00
17	12mm cement plaster on even side of the walls in the mix:				
	1:6 (1cement :6 fine sand)	sqm	50	112.50	5625.00
18	12mm cement plaster finished with a floating coat of neat cement of mix:				
	1:6 (1cement :6 fine sand)	sqm	10	143.60	1436.00
19	Applying one coat of water thinable cement primer of approved brand and manufacture on wall surface:				
	Water thinnable cement primer	sqm	50	25.50	1275.00
20	Finishing walls with water proofing cement paint of required shade:				
	New Work (Two or more coats applied @3.84kg/10sqm)	sqm	50	44.95	2247.50

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
21	Providing and laying non-pressure NP3 class (Heavy duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	100mm dia. RCC pipe	RM	10	519.80	5198.00
(b)	250mm dia. RCC pipe	RM	112	835.80	93609.60
(c)	300mm dia. RCC pipe	RM	16	906.30	14500.80
(d)	450mm dia. RCC pipe	RM	16	1587.60	25401.60
22	Grouting of block outs, pockets, foundations, bolts holes and underside of base plates with cement, sand aggregate (of size 6 mm and down) grout 1:1:2 with non-shrink additive and shall be of strength not less than M30 including placing, curing, cleaning, surface preparation, testing, etc. complete with labour, materials, equipment, handling, testing, etc. all complete as per specifications, drawings and instructions of the Engineer.	cum	8	17750.00	142000.00
23	Providing & fixing in position precast cement concrete trench covers, coping, roof units, fascia, RCC grills, etc., at various elevations in all kinds of work including moulding, formwork, mixing, laying out, compacting and curing, storing, transportation, erection without damage, setting in position with cement and sand mortar, grouting etc all as per specs, drawings and directions of Engr-in-Charge but excluding the cost of reinforcement, inserts, edge angles, etc, and of following grade:				
(a)	M25	cum	70	6747.30	472311.00
24	Fixing (all dia & length) foundation bolts in position with help of proper templates(template to be supplied by contractor) including nuts and washers all complete as per specs, drawings & directions of Engr-in-Charge.(Foundation bolts shall be supplied by BHEL. The dia of bolts shall generally be upto 80mm)	kg	20000	9.75	195000.00

S.No.	Description of Item	Unit	Quantity	Unit Rate(Rs)	Amount(Rs)
25	Supplying and spreading stone including levelling, site preparation, antiweed treatment in the switchyard area as per Customer's specification clause no. 5.0 & directions of Engineer in Charge (Rates shall be inclusive of all labour material items like 40mm size stone, antiweed treatment, levelling, subgrade preparation, PCC (1 cement: 5 fine/coarse sand : 10 40mm nominal size burnt brick/stone aggregate) and cement slurry (1:6) etc.)	Sqm	10500	385.00	4042500.00
26	Providing and placing in position suitable PVC water stops conforming to IS 12200 of Deep-Jyoti 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(225mm wide,8-11mm thick)	meter	20	459.15	9183.00
				Total:	21288757

NOTE:

- 1 Reinforcement steel shall be supplied by BHEL free of cost as per norms indicated in conditions of contract. The rate quoted against **Item no.: 11(b)** above shall be deemed to be inclusive of cost against all activities mentioned in item description.

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

**PRICE SCHEDULE FORMAT
(ANNEXURE-A)**

**SUB: EXECUTION AND HANDING OVER OF CIVIL WORKS OF 765KV
SUB-STATION EXTENSION AT AJMER IN RAJASTHAN**

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

NOTE:

1. In case of discrepancy in rates in figure and words, the minimum will be taken into account by BHEL.

Date:

Place

Signature of tenderer

Name & Designation of authorized person(s) with seal