

**BILL OF QUANTITY AND PRICE SCHEDULE****Name of Project :****400/220kV substation extension at Mysore****Name of work :****Balance Civil works of 400kV switchyard incl Reactor and SPR**

S.No.	Description of Item	QUANTITY	UNIT	UNIT RATE (Rs.)	AMOUNT (Rs.)
1(a)	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. All kinds of soil.	290	cum	166.4	48256
1(b)	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. Ordinary rock	10	cum	275.85	2758.5
1(c)	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. Hard rock (blasting prohibited)	5	cum	656.7	3283.5
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.	50	cum	125.75	6287.5
3	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 - Lead upto 1 km.	250	cum	98.34	24585
4(a)	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level. '1:2:4 (1 cement : 2coarse sand : 4 graded stone aggregate 20mm nominal size)	90	cum	4943.8	444942
4(b)	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level. 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	100	cum	4148.54	414854
4(c)	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level. 1:5:10 (1 cement : 5 coarse sand : 10 brick aggregate) with a layer of cement slurry of mix 1:6 (1 cement : 6 Fine Sand) over PCC layer as per Technical Specification. Note : The contractor has option to use stone aggregate in place of brick aggregate without any financial implication on BHEL)	510	cum	3577.55	1824550.5
5(a)	Providing and laying in position reinforced cement concrete of grade 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) , excluding the cost of centering, shuttering, finishing and reinforcement. All works upto plinth level	100	cum	5570.21	557021
5(b)	Providing and laying in position reinforced cement concrete of grade 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) , excluding the cost of centering, shuttering, finishing and reinforcement. All works above plinth level upto floor V level	5	cum	6500.69	32503.45

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6	Extra for finishing of concrete (in road pavement) with screed board vibrator, vacuum dewatering process and finally finished by floating, brooming with wire brush etc complete.	85	cum	194.57	16538.45
7(a)	Centering and shuttering including strutting, propping, etc., and removal of form for: Foundations, footings, bases of columns, etc., for mass concrete.	400	sqm	184.42	73768
7(b)	Centering and shuttering including strutting, propping, etc., and removal of form for: Lintels, beams, plinth beams and cantilevers.	15	sqm	333.23	4998.45
7(c)	Centering and shuttering including strutting, propping, etc., and removal of form for: Slab	20	sqm	413.62	8272.4
8	Steel reinforcement -Cold twisted bars /TMT- Fe 500- Excluding supply but including unloading, storing, watch & ward, handling, straightening, cutting, bending, binding, (i/c cost of binding wire), placing in position, etc., all labour & material, complete. (Note: Reinf, steel shall be supplied by BHEL. Testing of material as per PGCIL BOQ shall be in bidders scope)	3100	kg	10.77	33387
9	Brickwork with F.P.S.bricks of class designation 75 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	10	cum	4524.1	45241
10	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)	10	cum	5355.29	53552.9
11	12 mm cement plaster of mix: 1:6 (1 cement : 6 coarse sand)	50	sqm	154.72	7736
12	18 mm cement plaster in 02 coats on external surface of brick wall of mix : Under layer of 12mm thick with 1:5 (1 cement : 5 coarse sand) and finished with 6mm thick with 1:6 (1 cement : 6 Fine sand)	50	sqm	245.49	12274.5
14	6 mm cement plaster to all ceilings of mix: 1:3 (1 cement : 3 Fine sand)	20	sqm	138.39	2767.8
15	Neat cement punning	675	sqm	39.55	26696.25
16	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade New work (two or more coats) over and including priming coat with cement primer.(Work to be carried as per relevant IS codes.)	120	sqm	91.81	11017.2
17	Finishing walls with Premium Acrylic Smooth exterior flat paint with Silicone additives of required shade over an under coat of suitable primer on new cement plaster surface: New work : (Two or more coat).	120	sqm	91.61	10993.2
18	Structural steelwork welded in built up sections like edge protection angles, pipes, 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.	500	kg	51.56	25780
19	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. 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.	600	kg	56.66	33996
20	Applying priming coat With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works.	10	sqm	28.47	284.7

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S.No.	Description of Item	QUANTITY	UNIT	UNIT RATE (Rs.)	AMOUNT (Rs.)
21	Providing and laying medium duty hume pipe (NP3) as per drawing and specification all complete excluding concrete and reinforcement. 300mm dia	5	RM	1084.61	5423.05
22	Supplying and erection of approved make dewatering pumps including all cable and pipe connections alongwith auto starter and necessary shed all complete as per customer's specification and instruction of engineer in charge 0.5 HP	2	Nos	9280.6	18561.2
23	Providing & fixing in position precast cement concrete trench covers or perforated covers wherever necessary 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. Grade of concrete shall be 1:1.5:3	10	Cum	6186.67	61866.7
24	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.	7	cum	12179.63	85257.41
25	Suppling and stacking at site including filling & compaction moorum	20	cum	563	11260
26	Laying spreading and compacting stone aggregate of specified sizes to WBM specifications including spreading in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10tonne in stages to proper grade and camber, applying and brooming requisite type of screening/binding material to fill up interstices of coarse aggregate water and compacting to the required density (payment for stone aggregate, screenings, kankar, moorum and red bajri etc., to be made separately)	95	cum	449.1	42664.5
27	Supplying and filling stone (40mm size) over grating for transformer/reactor foundation.	28	cum	1584.89	44376.92
28	Providing and laying pressed mangalore tiles (as per approved pattern 20mm nominal thickness of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound, laid over a bed of 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finish neat complete	55	Sqm	206.82	11375.1
29	Dismantling of RCC Foundations including necessary excavation, stacking of steel bars and disposal of unservicable material within the substation boundary as per direction of site-in-charge.	2	cum	1454.55	2909.1
30	Antiweed treatment in switchyard area including micro leveling, dressing, removal of grass etc as per Technical Specification.	7900	Sqm	12.54	99066
31	Supplying and spreading stone aggregate in switchyard as per drawing and specification all complete but excluding micro leveling, dressing & antiweed treatment as per Technical Specification C/ENGG/SPEC/CIVIL Rev No.: 09.	4300	Sqm	158.47	681421
32	Relaying of existing stone in switchyard but excluding micro leveling, dressing & antiweed treatment as per Technical Specification.	3400	Sqm	79.17	269178

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S.No.	Description of Item	QUANTITY	UNIT	UNIT RATE (Rs.)	AMOUNT (Rs.)
33	Providing & fixing galvanised chain link fencing including all allied activities, all complete as per POWERGRID Technical Spec Clause No. 9.0, Drawing (C/ENGG/CVL/SYD/FENCE/101 R1) 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)	155	RM	2827.69	438291.95
34	Re-erection of dismantled chain link fencing as per direction of site-in-charge. (The rate shall be exclusive of Concrete but inclusive of earthwork, brickwork, plaster, cement painting & shuttering and erection all complete)	80	RM	622.08	49766.4
35	Supply and fixing of customer approved cast Iron pit cover as per drg and specification.	27	No.	1048.94	28321.38
36	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	1100	SQM	491.76	540936
37	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand)	30	0	3775.85	113275.5
	<b>TOTAL</b>				<b>6230295.5</b>

The above amount is excluding GST

**ANNEXURE-II**

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

**PRICE SCHEDULE FORMAT**

**SUB: TENDER FOR “EXECUTION AND HANDING OVER OF BALANCE CIVIL WORKS OF  
400 KV SWITCHYARD INCLUDING REACTOR AND SPR FOR 400/220 KV  
SUBSTATION EXTENSION AT MYSORE IN KARNATAKA”.**

**TENDER NO.:- TBSM/MYSORE/BAL-CIVIL/01/TENDER**

**DATE: 25.09.2019**

(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)**

**EXECUTION AND HANDING OVER OF BALANCE CIVIL WORKS OF 400 KV SWITCHYARD INCLUDING REACTOR AND SPR FOR 400/220 KV SUBSTATION EXTENSION AT MYSORE IN KARNATAKA**

SI No.	Description	Amount (Rs.)
1	Total amount as per the rates in BOQ for " Execution and handing over of balance civil works of 400 kV switchyard including reactor and SPR for 400/220kV substation extension at Mysore in Karnataka " (Annexure-I)	62,30,295.50
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	<b>Total amount after consideration of percentage above/below/ at par.</b>	