

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project

:400kV Substation at Badnawar

Name of Work

:Construction of Boundary wall

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
1	2	3	4	5	6	7
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	638.34	16596.84
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	645.34	23232.24
3	Cement concrete 1:4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	115.24	171246.64
4	Supplying and fixing steel reinforcement bars (tested) FOR R.C.C. including cleaning, straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming I.S.280-1978 (i/c cost of binding wire)					
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	0.00	0.00
	(a) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	2351.74	94069.64
	(c) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	9411.60	31058.28
5	Providing and Placing in position M-20 R.C.C. excluding cost of reinforcement but including , form work , vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	252.43	1073563.53
6	Labour only for Filling foundation and around masonry works with material obtained from spoils i/c watering and ramming, labour only.	709(a)	Cum	43.00	1088.00	46784.00
7	Steel work in single section i/c forging, hoisting, fixing in position etc complete					
	(b) In angles, channels, flats and tees.	1301(b)	Kg	42.00	4900.00	205800.00
8	Water Proofing cement paint snowcem or Durocem (Two coats)	1733	Sqm	40.00	8960.00	358400.00
9	Priming coat with ready mixed paint brushing Zinc chrome, priming on new steel /galvanised iron surface i/c preparing the surface.	1803	Sqm	19.00	320.00	6080.00
10	Painting two or more coats (excluding priming coat) on new surfaces with enamel paint (IS:2933-1975) to give an even shade.	1808		27.00	320.00	8640.00
11	P&L in position cement concrete with graded metal of max. 20 mm for coping ..... complete (a) 1:2:4 concrete	2455(a)	Cum	4136.00	24.00	99264.00
12	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in plinrh foundation for one or half brick wall .	901e-906+909	Cum	1677.00	128.00	214656.00
13	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in super structure for one or half brick wall .	901e+909	Cum	1737.00	704.00	1222848.00
14	15mm thick cement plaster on brick work in CM 1:6	1105 (c)	Sqm	64.00	4480.00	286720.00
15	20mm thick cement plaster on brick work in CM 1:6	1106 (c)	Sqm	88.00	4480.00	394240.00
16	P&F barbed wire ( 9.88 Kg per 100 m) to M.S.angle iron post i/c screwing with G.I.tying wire, GI Staples, or steel pins i/c cost of wire, staples, pins, etc. complete at above 2.5 m height as per direction of Engineer-in-charge.					
	(Base rate Rs. 9/- per m).	NUSR	RM.	9.00	9600.00	86400.00
	<b>Total Amount ( A)</b>					<b>4339599.16</b>

## BILL OF QUANTITY CUM PRICE SCHEDULE

Name of Project  
Name of Work

: 400kV Substation at Badnawar  
:Construction For Cable Trenches

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
1	2	3	4	5	6	7
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	0.00	0.00
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	1000.00	36000.00
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	1500.00	106500.00
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	650.00	79300.00
5	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (a) Blasting permitted)	405(a)	Cum	196.00	0.00	0.00
6	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (b) Blasting prohibited)	405(b)	Cum	233.00	0.00	0.00
7	PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	310.00	460660.00
8	Cement concrete 1:2:4 with graded metal of 20 mm size.	715 (c )	Cum	2299.00	675.00	1551825.00
9	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire)					
	(b) Cold worked steel high strength bars confirming to grade Fe	1304(b)	Kg	41.00	0.00	0.00
	(c ) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire conforming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL	1305(a)	kg	3.30	1000.00	3300.00
10	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	21.00	89313.00
11	Steel work in single section including forging and hoisting, fixing in position etc. complete-(b) In angles, channels, flates and tees	1301(b)	Kg.	42.00	19000.00	798000.00
12	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in plinth and found for one or half brick wall .	901(e)-906+909	Cum	1677.00	880.00	1475760.00
13	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	3700.00	236800.00
14	Filling foundation and around masonry works with hard moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00
15	Filling foundation and around masonry works with hard moorum picked up noulder including watering and ramming.	705	Cum	195.00	0.00	0.00
16	Labour only for filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	800.00	34400.00
17	Priming coat with ready mixed paint ..... l/c preparing the surface.	1803	Sqm	19.00	1250.00	23750.00
18	Painting two or more coats (excluding priming coat ) on new surfaces with with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	1250.00	33750.00
19	P&L in position cement concrete with graded metal of max. 20 mm for coping ..... complete (a) 1:2:4 concrete	2455(a)	Cum	4136.00	20.00	82720.00
	<u>NON USR ITEMS</u>					
1	Providing and Fixing 5mm or 8 mm thick chequered plates of mild steel for cable trench covers, of desired size including fixing of handles, 2 Nos.on each end made of 10mm dia 500mm long MS Bar including making holes in the covers for handles to drop down as per approved drawing including cost of all material, cutting, welding, grinding T&P, taxes transportation complete as per direction of Engineer-in-Charge. ( Upto opening of the size of "D" type cable trench. 5 mm thick covers will be used (Base rate : Rs. 75/ per Kg ).	NUSR	Kg	75.00	19500.00	1462500.00

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
2	Providing & Laying of 160 mm diameter heavy duty PVC Pipes beneath the yard capable to withstand minimum pressure 4 Kg. per sq. cm. laid over 75 mm thick plain cement concrete of mix 1:4:8 (1 Cement: 4 sand: 8 metal) , pipe fixed in main trench wall and running upto desired point & secured through fixing of pipe cap or plugging the same by suitable sealing adhesives including all lead & lift and cost of all material, excavation of trench, refilling, <del>compaction transportation royalty taxes levies labour charges</del> (Base Rate Rs. 700/- per metre)					
		NUSR	Mtr	700.00	0.00	0.00
	<b>Total Amount ( A)</b>					<b>6474578.00</b>

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project  
Name of Work

: 400kV Substation at Badnawar  
: Construction of Foundations for  
Structures (including foundation of  
peripeherial lighting poles ).

ANNEXURE-III

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
1	2	3	4	5	6	7
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	277.09	7204.34
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	2381.76	85743.18
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	5686.96	403773.95
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	6914.37	843552.53
5	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (a) Blasting permitted	405(a)	Cum	196.00	480.41	94159.97
	Excavation in HR i/c 50 m lead and 1.5 m lift with dressing. (b) Blasting prohibited	405(b)	cum	233.00	0.00	0.00
6	Cement concrete 1:4:8 with graded metal of 40 mm size.	717 (b )	Cum	1486.00	573.60	852369.60
7	Cement concrete 1:2:4 with graded metal of 20 mm size.	715 (c )	Cum	2299.00	5.00	11495.00
8	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (i/c cost of binding wire)					
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304(b)	Kg	41.00	0.00	0.00
	(a) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	18262.06	730482.40
	(c ) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	187229.70	617858.02
9	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork vibration, finishing, curing etc. complete with graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	1386.26	5895742.52
10	Steel work in single section including forging and hoisting, fixing in position etc. complete-(b) In angles, channels, flates and tees	1301(b)	Kg.	42.00	200.00	8400.00
11	Second class T.M. open bhatta or pajwa burnt brick masonry in C.M. 1:6 in plinth and found for one or half brick wall .	901(e)-906+909	Cum	1677.00	10.00	16770.00
12	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	50.00	3200.00
13	Filling foundation and arround masonry works with hard moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00
14	Filling foundation and arround masonry works with hard moorum picked up noulder including watering and ramming.	705	Cum	195.00	0.00	0.00
15	Labour only for filling foundation and arround masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	14200.00	610600.00
16	P&F bolts upto & above 300 mm in length l/c nuts & washers, galvanisation complete.	1336	Kg	77.00	47000.00	3619000.00
17	Labour only for P&F bolts upto & above 300 mm in length l/c nuts & washers complete.	1338	Kg	6.60	1000.00	6600.00
18	Transportation of excavated earth upto 200 m beyond initial lead of 50 mtr.	2902(2)-(a)-2903(4)	Cum	37.26	0.00	0.00
	<b>Total Amount (A)</b>					<b>13806951.50</b>

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project  
Name of Work

: 400kV Substation at Badhawar  
:Construction For Earth Pits

ANNEXURE-IV

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR ( Rs).
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1	Excavation in hard soil includg.50m lead & 1.5m lift with dressing.	401(b)	Cum	26.00	50.00	1300.00
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0.00	0.00
3	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00	0.00
4	PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	10.00	14860.00
5	Supplying & Fixing steel reinforcement bars tested for RCC includg.cleaning, straightening,cutting bending all handling,placing in position and binding with 0.9mm annealed binding wire confirming to IS 280.1978 (incldg.cost of binding wire)					
	b.Cold worked steel high strength bars confirming to grade FE 415 of IS 1786	1304(b)	Kg	41.00	90.00	3690.00
	a. MS Steel Bars confirming to Grade-I of IS 432 Part-I.	1304(a)	Kg	40.00	575.00	23000.00
	(c ) Labour only for binding cold worked steel high strength bars conforming to grade Fe 415 of IS 1786 steel reinforcement bars (tested) for R.C.C. including cleaning straightening, cutting, bending, all handling, placing in position and binding with 0.9 mm annealed binding wire confirming to I.S.280-1978 (i/c cost of binding wire). The rate quoted against this shall deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, JINDAL Steel or rerollers approved by main producers) stockyard.	1305(a)	kg	3.30	810.00	2673.00
6	P & P in position M-20 RCC excluding cost of reinf. but including form work, vibration, finishing, curing etc.complete with graded metal of Max.size 20mm.	1601(b)	Cum	4253.00	30.00	127590.00
7	Labour only for Filling foundation and arround masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	17.00	731.00
8	Filling foundation and arround masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00
9	P & F Galvanised mild steel tubes(Medium Grd) IS 1239 (Part -I - 1979) complete with fittings incldg. trenching and refilling etc.complete.(External work).					
	15mm dia	3004 (a)	Rm	116.00	350.00	40600.00
	20mm dia	3004 (b)	Rm	144.00	200.00	28800.00
	25mm dia	3004 (c )	Rm	178.00	325.00	57850.00
	40mm dia	3004 (e)	Rm	225.00	250.00	56250.00
10	P & F in position best Indian Make Copper alloy gate, globe and check valve(Class-I) IS 778 with Iron wheel head etc. complete.					
	20mm dia	3007 (b )	Each	311.00	10.00	3110.00
	25mm dia	3007 (c )	Each	385.00	20.00	7700.00
	40 mm dia	3007 (e)	Each	589.00	10.00	5890.00
11	P & F in position IS apprvped quality Copper Alloy Bib Cock 15 mm dia heavy duty complete with all materials etc.	3020(a)	Each	219.00	50.00	10950.00
	<b>Total Amount ( A )</b>					<b>384994.00</b>