

BILL OF QUANTITY CUM PRICE SCHEDULE

ANNEXURE-I

Name of Project

: 400kV Substation at Badnawar

Name of Work

: Construction of Control room

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
	IN PLINTH & FOUNDATION					
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 i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0.00	0.00
3	Excavation in Disintegrated Rock i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0.00	0.00
4	Excavation in soft Rock i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00	0.00
5	Excavation in hard rock i/c 50 m lead and 1.5 m lift (a) Blasting permitted.	405(a)	Cum	196.00	0.00	0.00
6	PCC 1:4:8 with graded metal of 40mmsize	717(b)	Cum	1486.00	80.82	120095.55
7	Second class T.M. open bhatta or pajwa burnt brick masonary in C.M. 1:6 in plinth and found with one or half brick wall	901(e)-906+909	Cum	1677.00	15.00	25155.00
8	Second class T.M. open bhatta or pajwa burnt brick masonary in C.M. 1:6 in plinth and found	901(e) -906	Cum	1589.00	1.00	1589.00
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 confirming to I.S.280-1978 (i/c cost of binding wire)					
	(a) MS steel bars confirming to grade IS-432 pt-I	1304(a)	Kg	40.00	345.74	13829.72
	(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
	(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	5624.58	18561.10
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.	1601b)	Cum	4253.00	0.00	0.00
11	Labour only for Filling foundation and arround masonary works for filling watering and ramming.	709(a)	Cum	43.00	200.00	8600.00
	SUPER STRUCTURE (GROUND FLOOR)					
1	Second class T.M. open bhatta or pajwa burnt brick masonary in C.M. 1:6 in super structure. and found.	901(e)+909	Cum	1737.00	95.00	165015.00
2	Second class T.M. open bhatta or pajwa burnt brick masonary in C.M. 1:6 in super structure and found.	901 (e)+909+910	Cum	1797.00	20.00	35940.00
3	Providing, fabricating and fixing in position M.S. grill for window opening (or any other similar opening) or worksof similar nature of any pattern, anydesign (straight or curved) fitted andfixed in position, including all welding rivetting etc.to floors, walls.....complete					
	(b) MS Grills consisting of MS flats, channels, angle iron,T-section,joints, plates.	1320(b)	Kg	53.00	600.00	31800.00
	(c) MS Grills consisting of square or hexagonal bars or sheets	1320(c)	Kg	55.00	750.00	41250.00
4	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	1400.00	57400.00
	(a) MS steel bars confirming to Grade I of IS: 432 (Part-I)	1304(a)	Kg	40.00	1000.00	40000.00
	(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	12600.00	41580.00
5	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	80.00	340240.00
6	-----do----- extra for each additional floor or every additional 3m or part therof for R.C.C. and P.C.C. work in superstructure.	1601(b)+1608	Cum	4306.00	100.00	430600.00
7	6mm cement plaster to ceiling in CM 1:4	1103(b)	Sqm	59.00	1100.00	64900.00
8	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	800.00	51200.00
9	20mm thick cement plaster on brick work in CM 1:6	1106(c)	Sqm	88.00	625.00	55000.00
10	Wall painting two or more coats (excluding priming coat) on new surface with plastic emulsion paint (IS 5411-Pt.1) to give an even shade.	1818	Sqm	53.00	2000.00	106000.00
11	Priming coat with ready mixed paint brushing,wood primer, pink(IS:3536)on new wood work (hard or soft) includingpreparing the surface.	1801	Sqm	17.00	65.00	1105.00
12	Priming coat with ready mixed paint brushing Zinc chrome ,priming on new steel /galvanised iron surface l/c preparing the surface.	1803	Sqm	19.00	105.00	1995.00

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
13	Painting two or more coats (excluding priming coat) on new surfaces with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	190.00	5130.00
14	Sawn, sal, Bija, hald, kem or hollock wood wrought framed and fixed complete in position.	1202	Cum	40150.00	0.50	20075.00
15	Providing and fixing in position (solid core type) flush door, single leaf shutters bonded with thermosetting liquid phynol-formeldehyde, synthetic resin (with iron hinges, cleats, door stoppers eyes and hooks) fixed in position complete but excluding fitting.					
	(c) 40 mm thick shutters	1262 (c) (i)	Sqm	2778.00	3.00	8334.00
	(i) Commercial on both sides					
16	-----do-----double leaf					
	(c) 40 mm thick shutters	1263(c) (i)	Sqm	2857.00	20.00	57140.00
	(i) Commercial on both sides					
17	Providing and fixing aluminium sliding door bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 300 x 16 mm	1288(ii) (a)	each	378.00	4.00	1512.00
18	Providing and fixing aluminium tower bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 250x10 mm	1288(iii)(b)	each	130.00	23.00	2990.00
19	Providing and fixing aluminium handles anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 125 mm	1288 (v)(a)	each	73.00	30.00	2190.00
20	Providing and fixing in position collapsible steel shutters with vertical channels 20x10 x2mm at 10 cm. centre and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-iron 40x40x6 mm with 40 mm dia steel pulleys complete with bolts,	1316	Sqm	2398.00	5.25	12589.50
21	Supplying and fixing rolling shutters of approved make, made of 80*1.25 mm latch interlocking.....shutter.	1324	Sqm	1323.00	8.00	10584.00
	SUPER STRUCTURE (FIRST- FLOOR)					
1	Second class T.M. open bhutta or pajwa burnt brick masonry in C.M. 1:6 in super structure. and found for one or half brick wall add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.	901 (e) +909+910	Cum	1797.00	85.00	152745.00
2	Second class T.M. open bhutta or pajwa burnt brick masonry in C.M. 1:6 in super structure. and found for one or half brick wall add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.	901 (e) +909+2(910)	Cum	1857.00	55.00	102135.00
3	Second class T.M. open bhutta or pajwa burnt brick masonry in C.M. 1:4 in super structure and found for one or half brick wall add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.	901 c +909+910	Cum	1947.00	7.00	13629.00
4	Second class T.M. open bhutta or pajwa burnt brick masonry in C.M. 1:4 in super structure and found for one or half brick wall above add extra for additional floor or every additional 3 m height or part thereof for such works which have no intermediate floors.6m.	901 c +909+2(910)	Cum	2007.00	4.00	8028.00
5	Providing, fabricating and fixing in position M.S. grill for window opening (or any other similar opening) or work of similar nature of any pattern, any design (straight or curved) fitted and fixed in position, including all welding rivetting etc. to floors, walls.....complete.					
	(b) MS Grills consisting of MS flats, channels, angle iron, T-section, joints, plates.	1320(b)	Kg	53.00	400.00	21200.00
	(c) MS Grills consisting of square or hexagonal bars or sheets	1320(c)	Kg	55.00	500.00	27500.00
6	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	1200.00	49200.00
	(a) MS steel bars confirming to Grade I of IS: 432 (Part-I)	1304(a)	Kg	40.00	1500.00	60000.00
	(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 be 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	10800.00	35640.00
7	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		
	(a)-----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.	1601(b)+1608	Cum	4306.00	32.00	137792.00
	(b)-----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.(ht. Above 6m)	1601(b)+2(1608)	Cum	4359.00	140.00	610260.00
8	6mm cement plaster to ceiling in CM 1:4	1103(b)	Sqm	59.00	1000.00	59000.00
9	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	1050.00	67200.00
10	20mm thick cement plaster on brick work in CM 1:6	1106(c)	Sqm	88.00	650.00	57200.00
11	Wall painting two or more coats (excluding priming coat) on new surface with plastic emulsion paint (IS 5411-Pt.1) to give an even shade.	1818	Sqm	53.00	2200.00	116600.00
12	Priming coat with ready mixed paint brushing, wood primer, pink (IS:3536) on new wood work (hard or soft) including preparing the surface.	1801	Sqm	17.00	40.00	680.00
13	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	25.00	475.00

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
14	Painting two or more coats (excluding priming coat) on new surfaces with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	75.00	2025.00
15	Sawn, sal, Bija, haldu, kem or hollock wood wrought framed and fixed complete in position.	1202	Cum	40150.00	0.50	20075.00
16	Providing and fixing in position (solid core type) flush door, single leaf shutters bonded with thermosetting liquid phynol-formeldehyde, synthetic resin (with iron hinges, cleats, door stoppers or eyes and hooks) fixed in position complete but excluding fittings					0.00
	(c) 40 mm thick shutters	1262 (c) (i)	Sqm	2778.00	16.00	44448.00
	(i) Commercial on both sides					
17	-----do-----double leaf					
	(c) 40 mm thick shutters	1263(c) (ii)	Sqm	3711.00	0.00	0.00
	(i) Commercial on both sides					
18	Providing and fixing aluminium sliding door bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 300 x 16 mm	1288(ii) (a)	each	378.00	9.00	3402.00
19	Providing and fixing aluminium tower bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 250x10 mm	1288(iii)(b)	each	130.00	18.00	2340.00
20	Providing and fixing aluminium handles anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 125 mm	1288 (v)(a)	each	73.00	18.00	1314.00
	SUPER STRUCTURE (TERRACE)					
1	Second class T.M. open bhutta or pajwa burnt brick masonry in C.M. 1:6 in super structure. and foundation.	901 e +909+(2x910)	Cum	1857.00	22.00	40854.00
2	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	35.00	1435.00
	(a) MS steel bars confirming to Grade I of IS: 432 (Part-I)	1304(a)	Kg	40.00	50.00	2000.00
	(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	315.00	1039.50
3	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.					
	-----do----- extra for each additional floor or every additional 3m or part thereof for R.C.C. and P.C.C. work in superstructure.(ht. Above 6m)	1601(b) +2x1608	Cum	4359.00	5.00	21795.00
4	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	150.00	9600.00
5	20mm thick cement plaster on brick work in CM 1:6	1106(c)	Sqm	88.00	100.00	8800.00
6	I.T. Flooring 40 mm thick in cement concrete 1:2:4 with 20 mm graded metal	1017	Sqm	150.00	600.00	90000.00
7	Providing and fixing in position (solid core type) flush door, single leaf shutters bonded with thermosetting liquid..... cleats, door stoppers or eyes and hooks fixed in position complete but excluding fitting.					
	(c) 40 mm thick shutters	1262 (c) (i)	Sqm	2778.00	2.00	5556.00
	(i) Commercial on both sides					
8	P/L in position CC with graded metal of 20mm size for coping over walls laid in panels of 1.5m, I/c form work, temping vib., finishing etc. complete					
	(a) 1:2:4 concrete	2455(a)	Cum	4136.00	1.00	4136.00
9	Priming coat with ready mixed paint brushing, wood primer, pink (IS:3536) on new wood work (hard or soft) including preparing the surface.	1801	Sqm	17.00	5.00	85.00
10	Painting two or more coats (excluding priming coat) on new surfaces with enamel paint (IS:2933-1975) to give an even shade.	1808	Sqm	27.00	5.00	135.00
11	Providing and fixing aluminium sliding door bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 300 x 16 mm	1288(ii) (a)	each	378.00	1.00	378.00
12	Providing and fixing aluminium tower bolts anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 250x10 mm	1288(iii)(b)	each	130.00	1.00	130.00
13	Providing and fixing aluminium handles anodised transparent or dyed to required colour or shade with nuts and screws etc., complete-					
	(a) 125 mm	1288 (v)(a)	each	73.00	2.00	146.00
	INTERNAL WATER SUPPLY					
1	Providing and fixing galvanised mild steel tubes (Medium Grade), IS:1239 part-I, complete with fittings and clamps, including cutting and making good the walls, etc. complete (Internal work)					
	(a) 15 mm dia	3001(a)	Rmts.	136.00	50.00	6800.00
	(b) 20 mm dia	3001(b)	Rmts.	170.00	30.00	5100.00
	(c) 25 mm dia	3001(c)	Rmts.	204.00	30.00	6120.00
	(d) 32 mm dia	3001(d)	Rmts.	236.00	30.00	7080.00
2	Providing and fixing galvanised mild steel tubes (Medium Grade), IS:1239 part-I-1979, complete with fittings including trenching and refilling etc. complete (External work)					
	(e) 40 mm dia	3004(e)	Rmts.	225.00	50.00	11250.00
3	Providing and fixing in position best Indian make copper alloy gate, globe and check valve (class I), IS:778-1980 with iron wheel head etc. complete.					

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
	(c) 25 mm dia	3007(c)	each	385.00	2.00	770.00
	(d) 32 mm dia	3007(d)	each	446.00	3.00	1338.00
	(e) 40 mm dia	3007(e)	each	589.00	1.00	589.00
4	P&L in trenches and jointing water tight with jointing material rigid PVC class II pressure pipes fittings (d) 160 mm	2736(d)	RM	450.00	30.00	13500.00
	SANITARY ITEMS					
1	Providing and fixing white vitreous china wash basin 55x40 cm size, IS:2556 (Pt-IV) with R.S. or C.I. bracket, confirming to I.S.775, painted with enamel or aluminium paint, 15 mm C.P.brass pillar taps and C.P. brass chain with rubber plug, 32 mm brass waste coupling..... etc. complete	3224	each	2589.00	5.00	12945.00
2	P&F in position 100 mm dia C.I.nahani trap with hinged perforated cover complete with gasket and caulked joints, i/c making necessary chases and holes in floors and walls and repairing the same to the original condition complete.	3124	each	182.00	6.00	1092.00
3	Providing and fixing square mouthed S.W. gully trap, IS:651(Grade 'A') complete with C.I.grating brick masonry chamber and water tight C.I.cover frame 30x30 cm size (inside) the weight of cover to be not less than 2.72 kg. as per standard design.	3126	each	659.00	2.00	1318.00
4	Providing and fixing in position 60 mm long AC drain complete.(a) 50 mm dia.	3108(a)	each	112.00	50.00	5600.00
5	Constructing manhole in brick masonry in C.M.1:5 with RCC top slab in 1:2::4 mix, with graded metal of 20mm max.size, Foundation concrete 1:4:8 mix with graded metal of max. size 40mm. 12mm thick plastering in C.M.1:3 finished with a floating coat of neat cement.....finished complete.					
	(a) Inside size 90x80cm and 45 cm deep i/c C.I.cover with frame (light duty) 445x610mm internal dimensions, total Wt of cover and frame 38 kg(weight of cover 23kg and wt of frame 15 kg.)	3128(a)	each	3471.00	2.00	6942.00
	(b) Inside size 90x80cm and 60 cm deep i/c C.I.cover with frame (light duty)..... total Wt of cover and frame 38 kg(wt. of cover 23kg and wt of frame 15 kg.)	3128(b)	each	3664.00	1.00	3664.00
	(c) Inside size 1.2mx90cm and 90 cm deep i/c C.I.cover with frame (light duty) 455x610mm internal dimensions, total Wt of cover and frame 38 kg(weight of cover 23kg and wt of frame 15 kg.)	3128(c)	each	8807.00	1.00	8807.00
6	Providing and fixing soap dish chromiumplated with brackets fixed wooden cleats,with brass screws complete i/c making chases in walls and repairing the same with cement mortar 1:3.	3303	each	197.00	3.00	591.00
7	Providing and fixing 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick asbestos sheet ground fixed to wooden cleats with C.P. brass screws and washers.	3311	each	616.00	2.00	1232.00
8	Providing and fixing in position C.P.brass towel rail complete with brackets i/c making chases in walls and repairing the same in C.M.1:3 complete-					
	(b) 600x20 mm	3301(b)	each	331.00	2.00	662.00
	SEPTIC TANK					
1	Excavation in hard moorum & moorum... i/c 50 m lead & 1.5m lifts with dressing.	402	Cum	36.00	8.00	288.00
2	Excavation in disintegrated rock... i/c 50 m lead & 1.5m lifts with dressing.	403	Cum	71.00	4.00	284.00
3	Cement concrete 1:4:8 with graded metal of max. size 40 mm.	717(b)	Cum	1486.00	1.00	1486.00
4	Second class TM open bhatta or Pajwa burnt brick Masonary in CM 1:6 in plinth and foundation.	904(e)-906	Cum	1589.00	4.00	6356.00
5	Second class TM open bhatta or Pajwa burnt brick Masonary in CM 1:6 in plinth and foundation.,one or half brick.	901(e)-906+909	Cum	1677.00	2.00	3354.00
6	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)					
	(a) MS steel bars confirming to Grade I of IS: 432 (Part-I)	1304 (a)	Kg.	40.00	15.00	600.00
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304 (b)	Kg.	41.00	7.00	287.00
	(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	68.00	224.40
7	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	1.50	6379.50
8	Labour only for Filling foundation and around masonry works with spoil including watering and ramming.	709(a)	Cum	43.00	1.00	43.00
9	15 mm thick cement plaster on brick work in C..M. 1:3	1105(a)	Sqm	95.00	17.00	1615.00
10	Providing and fixing in position CI manhole cover and frames, IS:7267 embedded in RCC cover and slab all exposed edges rounded and finished in CM 1:3etc. complete:-					
	(a) Fixing manhole cover light duty with frame 38 kg.	3129(a)	each	1354.00	1.00	1354.00
	NON UCSR ITEMS					

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
1	Providing and fixing vitreous China Ivory colour Division plate for range of two urinals of hindware Category No. 61001 Size 69x16.5x32.5 cm. or equivalent make including all labour, all related works, material, T&P and cutting the holes making and finishing by cement mortar 1:3 etc., complete as per the direction of Engineer-In-Charge.					
	(Base Rate Rs. 2000/- each)	NCSR	No.	2000.00	1.00	2000.00
2	Providing and fixing premium quality Ceramic mat finish floor tiles of minimum thickness 5mm and size 300mm x 300mm in Derby brown or any approved colour of Johnson,Kajaria,Nitco or equivalent make in toilet including cost of all material,taxes,T&P,etc.complete including fixing the same on 20mm thick cement mortar bed of 1:4, (1 cement : 4 coarse sand) including pointing the joints with white cement , matching pigment and curing etc. complete as directed by Engineer-in-Charge.					
	(Base Rate Rs.700/- per Sq.m).	NUSR	Sqm	700.00	22.00	15400.00
3	Providing and fixing premium quality Ceramic glazed wall tiles of minimum thickness 5mm and size 200mm x 300mm in desired shade of Johnson,Kajaria,Nitco or equivalent make in toilet skirting, fixed in Cement Mortar 1:3 including pointing the joints with white cement , matching pigment and curing etc. complete as directed by Engineer-in-Charge.					
	(Base Rate Rs.700/- per Sq.m).	NUSR	Sqm	700.00	95.00	66500.00
4	Supply and fixing HR Johnson (Endura) or equivalent make IS approved acid / alkalic proof tiles of size 300x300mm (thickness as per manufacturers' specifications) of approved shade, confirming to relevant IS specifications for all physical properties hardness, compressive strength, impact strength, flexural strength, resistance to wear etc. and acid / alkali resistance , fixing the same with approved quality adhesive, on subbase of acid proof cement mortar 1:4 (1 cement:4 sand) i/c preparation of subbase,i/c all taxes and T & P complete as per the direction of Engineer-in-Charge.					
	(Base Rate : Rs. 800/- per sqm)	NCSR	Sqm	800.00	125.00	100000.00
5	Skirting of acid proof tiles complete as per above item for tile of size 300x300 mm & sub base of cement mortar 1:3 (1 cement :3 sand)					
	(Base rate Rs.800/- per Sqm.)	NCSR	Sqm	800.00	50.00	40000.00
6	Providing and fixing aluminum glazed door shutters powder coated made of aluminium sections Jindal, Man or equivalent make having frame 100mmx45mm , bottom rail 120mmx40mm, top rails and styles 80mmx40mm and lock rail 125mmx40mm, all aluminium sections 1.5mm thick including providing 5mm thick clear triplex glass , 2 Nos.handles,hydraulic door closers (floor type),aluminium tower bolts,suitable locking arrangements, rubber beading, clips and other necessary fittings as per approved drawing and direction of Engineer-in-charge including cost of all material, labour,T&P etc. complete.(The sample Door shall be approved by the Engineer-in-charge, before its fixing in position). (Base Rate Rs.3500/- per Sqm).	NCSR	Sqm	3500.00	26.00	91000.00
7	Providing & Fixing fully glazed two track/ three track/ fixed powder coated aluminium section windows of Jindal, Man or equivalent make having rectangular hollow section 62mmx32mm, frame shutter 40mmx12mm , two track section 62mmx40mm , all aluminum sections 1.5 mm thick including providing 4 mm thick clear triplex glass, handles, tower bolts, stoppers, rubber beading & clips and other necessary fittings as per approved drawing and direction of Engineer-in-charge including cost of all material, labour,T&P etc. complete.(The sample Window shall be approved by the Engineer-in-charge, before its fixing in position). (Base Rs.2800/- Per Sqm.)	NCSR	Sqm	2800.00	130.00	364000.00
8	Providing & Fixing fully glazed two track or louver type powder coated aluminium section Ventilators of Jindal, Man or equivalent make having rectangular hollow section 62mmx32mm, frame shutter 40mmx12mm , two track section 62mmx40mm , all aluminum sections 1.5 mm thick including providing 4 mm thick clear triplex glass, handles, tower bolts, stoppers, rubber beading & clips and other necessary fittings as per approved drawing and direction of Engineer-in-charge including cost of all material, labour,T&P etc. complete.(The sample Ventilator shall be approved by the Engineer-in-charge, before its fixing in position). (Base Rs.2800/- Per Sqm.)	NCSR	Sqm	2800.00	7.00	19600.00

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
9	P&F 25 to 30 mm thick machine polished Kota stone flooring of tiles size 450x600 mm of approved quality and shade laid over a bed of 20 mm sub base of CM 1:4 (1 cement : 4 coarse washed sand) in approved pattern/design including filling the joints with pigmented cement slurry to match the shade of tiles, fine dressing of edges and finishing joints neatly, including curing rubbing, polishing all labour, T&P, material, etc. complete as per the direction of the Engineer-In-Charge.					
	(Base rate Rs.700/- per Sqm)	NCSR	Sqm	700.00	425.00	297500.00
10	Providing and fixing 20 mm thick machine polished Kota stone skirting of tile of desired size and approved quality and shade laid over a bed of 20 mm subbase of cement mortar 1:3(1cement: 3coarse washed sand) fixed to wall finished with plaster in approved pattern/ design including filling the joints with pigmented cement slurry to match the shade of tiles, fine dressing of the edges and making a groove on top edge of the skirting and finishing joints neatly including curing, rubbing, polishing all labour, T&P materials,etc. complete as per the direction of Engineer-in-Charge					
	(Base rate Rs.700/- per Sqm)	NCSR	Sqm	700.00	30.00	21000.00
11	Providing and applying cement based putty of Birla, JK or equivalent make in two or more coats so as to give perfectly finished, even & smooth wall surface including preparation of wall surface by application of primers , if required, as per manufacturers' specifications and as directed by Engineer-in-charge.					
	(Base rate Rs. 80/- per Sq.M..)	NCSR	Sq.M.	80.00	5350.00	428000.00
12	Painting on wall and ceiling with acid proof paint Asian or equivalent brand of approved quality,color including preparation of surface,all leads and lifts,labour, T & P ,materials etc. complete so as to give an even and good surface, three coats i/c priming coat complete as per the Direction of Engineer -in-Charge.					
	(Base rate Rs.75/- per Sqm.)	NCSR	Sqm	75.00	225.00	16875.00
13	Providing & applying on exterior surface of control room and other buildings,two coats of exterior paint based on anti fungal element of APEX OF ASIAN PAINTS or WEATHER COAT of BERGER Paints or equivalent make including applying primer coat as per manufacturers' specifications including all arrangements for scaffolding,ladders,brushes, curing of priming coat as per manufacturer's recommendation and as directed by Engineer-in-Charge. (a) For new surfaces (Base Rate Rs.55/- per Sq.m.).	NCSR	Sqm	55.00	1150.00	63250.00
14	(a) Providing and laying vitrified tiles in floor,as per relevant IS standards and specifications of size 600mmx 600mm having thickness as per manufacturers specifications but not less than 8mm premium quality tiles of Johnson,Kajaria,Nitco or equivalent make with water absorption less than 1% and flexural strength not less than 30 N/Sqmm, in desired shade and colours,laid on 20mm thick sub base of cement mortar 1:4 (1cement:4 coarse sand) including grouting the joints with white cement or specified matching pigments with cost of all material, labour, T&P, all taxes, transportation charges etc. complete as per direction of Engineer-in-Charge. (Base Rate Rs.1200/- Per Sqm).	NCSR	Sqm	1200.00	725.00	870000.00
15	(b) Item same as above but for skirting with the suitable size of tiles as directed by Engineer-in-charge fixed on sub-base of CM 1:3 (1cement:3 sand),complete as directed by Engineer-in-charge. (Base Rate Rs.1200/- per Sqm.).	NCSR	Sqm	1200.00	75.00	90000.00
16	Providing & Fixing Glass reinforced Gypsum, 12 mm thick semi perforated designer tile of size 600x600 mm False Ceiling system A- class , fire resistant, RH 95, NRC 0.3 to 0.4 with 15 mm selct GI powder coated T grid system with black reviel suspended from existing roof by 4 mm GI wire hanger etc. complete duly approved at 1200 maximum centre to centre. Flush fitting 1200 mm cross Ts to be interlocked between main runner at 600 mm centers to form 1200 x 600 mm modules , cut cross Ts longer than 600 mm at 1200 mm cross Ts to form 600 x 600 mm grid to support ceiling tiles complete including all taxes and charges transportation etc. and as directed by Engineer in charge, the make of tiles (Armstrong or equivalent make) and shades will be got approved by the Engineer in charge.					

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
	(Base rate- Rs. 800/- per Sqm)	NCSR	Sqm	800.00	300.00	240000.00
17	Providing & Fixing 32 mm dia. chromium plated brass or suitable alloy flush valve (heavy duty) push type or quarter turn of Johnson,Parryware, Plumber, Jaguar or equivalent make fitted with all necessary fittings, including cutting, chasing and making good the walls after concealment in C.M. 1:3 complete as directed by the Engineer-in-Charge. (Base Rate Rs.1100/- Per No.)	NCSR	each	1100.00	3.00	3300.00
18	Supplying and fixing in position moulded (without joints, welds, seams and any defect) HDPE tank of approved/ISI make with 1000 ltrs. capacity conf.to ISI 2701-1989 (of latest revision) in single wall constn. with lid and locking arrangement suitable for storage of drinking water i/c providing brass float valve(horizontal plunger to be of brass & beil to be of PVC conf.to IS 1703-1977 connection with water pipe line (both for inlet & outlet) i/c testing etc. complete as per direction of Engineer-In-Charge					
	(Base rate Rs. 5000/- each)	NCSR	each	5000.00	2.00	10000.00
19	Providing & Fixing on wall face & jointing water tight with jointing material 110mm dia rigid PVC (Poly Vinyl Chloride) class-II pressure pipes (with working pressure of 4 Kg.per CM2) as rain water pipes as per I.S.4985-1988(Second Revision) including cost of all material, taxes,T&P etc. complete including cost of other fittings also as directed by Engineer-in-Charge. (Base Rate Rs.205/- Per Metre).	NCSR	Rmt.	205.00	95.00	19475.00
20	(a) Providing and fixing in position white Vitreous China (Orissa Pan) Hindware, Parryware , Johnson or equivalent , 580mm WC Pan with P or S trap and making connection with other accessories, such as flush pipe, outlet pipe in cement concrete 1:4:8 complete including making chases and holes in walls and floors repairing the same in CM 1:3, to original condition including painting of fittings and also providing and fixing 10 litre capacity plastic low level flushing cistern with all connections to inlet pipes and W.C.of Johnson,Parryware , Hindware or equivalent make with cost of all material,labour,fixtures, taxes,transportation etc. complete as directed by Engineer-in-Charge. (Base Rate Rs.2800/- per No.).	NCSR	No	2800.00	1.00	2800.00

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
21	Providing & Fixing European WC Unit having size 680x390x680 mm (LxBxH) of Johnson, Perryware, Hindware or equivalent make with PVC cistern having flush volume min. 10 litres, fixing all accessories such as jet, flush pipe, outlet pipes, making chases, holes in walls and repairing the same with CM 1:3 and painting etc. complete as per direction of engineer in charge.					
	(Base rate Rs. 3000/- each)	NCSR	Each	3000.00	3.00	9000.00
22	Providing & fixing Johnson, Perryware or equivalent make white vitreous china flat back single half stall urinal of size 580x380x350 mm with 5 ltr PVC automatic flushing cistern with fittings, flush pipes, spreaders, unions, clamps etc. of standard size all in CP brass with waste fitting as per IS 2556, CI trap with outlet grating and other couplings in CP brass including painting of fittings, making good the walls and floor wherever required including cost of all material, labour, T&P, etc. complete as per direction of Engineer in charge.					
	(Base Rate Rs. 4000/- each)	NCSR	Each	4000.00	4.00	16000.00
23	Providing and fixing premium quality Chromium plated 15mm Bib cock or Stop cock quarter turn made of suitable metal alloy of Johnson, Parryware, Plumber or Jaguar make including all fitting, labour, and other charges complete, as directed by Engineer-in-Charge					
	(Base rate Rs. 900/- each)	NUSR	each	900.00	10.00	9000.00
24	Providing, fabricating and fixing in position railing as per drawings & specifications made up of mild steel hollow square/Rectangular sections outer frame and inner section made up with 2 mm and 1.5 mm thick M.S. sheet respectively as per approved drawing and specifications inclusive of cost of all materials, fabrication charges, cutting, welding, riveting, transportation up to site, fixing in position by grouting of hold fasts to the R.C.C. columns, and applying suitable steel primer etc., complete as per direction of Engineer-in-charge.					
	(Base Rate Rs.80/- per Kg.)	NUSR	Kg	80.00	550.00	44000.00
25	Providing & Fixing of perforated cable tray, fabricated from 1.50mm thick MS Sheet in standard length, duly hot dipped galvanised after fabrication including jointing with coupler plate with nuts and bolts etc. complete including all transportation, taxes etc. complete as per Drawing and direction of Engineer-in-charge.					
	(Base Rate Rs. 80/- per Kg)	NUSR	Kg	80.00	2100.00	168000.00
26	Providing, fabricating and placing in position cable rack, consisting of vertical angles 65x65x6mm fixed on base plate 100x100x5mm and welded with runner angle of 50x50x5 mm in 4 tiers with horizontal support of MS Flat 50x5 mm also in 4 tiers including all transportation bending, cutting welding taxes etc. complete with placing of rack in position and fixing of cable tray with nuts and bolts etc. complete with applying two coats of steel primers as per drawing and direction of Engineer-in-charge.					
	(Base Rate Rs. 55/- per Kg)	NUSR	Kg	55.00	7000.00	385000.00
27	Providing and Fixing pre-cast Cement concrete M-15 strength, kerb stone of suitable size with excavation 150mm deep and thoroughly compacting the surface before laying the Kerb stone and will be back filled with CC 1:3:6 jointing the tiles with C.M.1:4 painting with synthetic enamel paint in coloured stripes painted alternatively, complete as per direction of the Engineer-in-charge					
	(b) Kerb stone of size 450mmx300mmx80mm (Base Rate Rs. 175/- per M)	NUSR	RM	175.00	100.00	17500.00
28	(a) Providing and Laying precast M-30 grade cement concrete inter locking paving blocks manufactured as per relevant I.S. specifications in PVC moulds and casted on vibratory platform, blocks of appropriate shape and size with required glazing in desired colour and shade, anti-skid lines on the blocks, mixed with suitable resins during manufacturing for desired colour and shade etc. complete, laid over 50mm thick bedding layer of stone crusher dust including brushing complete, joints filled by fine sand or stone dust including levelling, tamping and sweeping etc. complete including cost of all material, labour charges, T&P, transportation, taxes, royalty etc. complete as directed by Engineer-in-charge. This item is meant for execution in front of or around control room buildings or other prestigious buildings. (Colour, shade, glazing and shape of tiles shall be approved by Engineer-in-charge.) (a) 60 mm thick paving blocks					
	Base rate Rs.600/- per Sqm	NUSR	Sqm	600.00	400.00	240000.00
	Total Amount (A)					7318248.27

BILL OF QUANTITY CUM PRICE SCHEDULE

ANNEXURE-II

Name of Project
Name of Work

:400kV Substation at Badnawar
:Construction For Yard Fencing

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	7.50	270.00
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	15.00	1065.00
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	5.50	671.00
5	Boring holes with auger for under reamed pile..... (i) For 200 mm dia piles	420(a)(i)- 420(b) (i)	Each	65.00	0.00	0.00
6	Cement concrete 1:4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	5.00	7430.00
7	Cement concrete 1:3:6 with graded metal of 20 mm size.	716(c)	Cum	1854.00	31.00	57474.00
8	Steel work in single section l/c forging, hoisting, fixing in position etc complete (b) In angles, channels, flats and tees.	1301(b)	Kg	42.00	3150.00	132300.00
9	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling,.....rming 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 (a) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(b) 1304(a)	Kg Kg	41.00 40.00	0.00 0.00	0.00 0.00
10	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	0.00	0.00
11	Priming coat with ready mixed paint brushing Zinc chrome ,priming on new steel /galvanised iron surface l/c preparing the surface.	1803	Sqm	19.00	155.00	2945.00
12	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	140.00	3780.00
13	Filling foundation and arround masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00
14	Labour only for Filling foundation and arround masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	6.00	258.00
15	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	6.00	10062.00
16	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	60.00	3840.00
17	Water Proofing cement paint snowcem or Durocem (Two coats)	1733	Sqm	40.00	60.00	2400.00
	NUSR ITEMS					
1	P/F 2400 mm high chain link mesh 75x75 mm square size of GI wire 4 mm dia confirming to IS specification 2771-1981 including all necessary arrangment for fixing the same to angle iron post as per drawing and direction of Engineer- in- Charge. (Base rate Rs. 300/- per sqm).	NUSR	Sqm	300.00	480.00	144000.00
2	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. 9.00 per m).	NUSR	RM.	9.00	600.00	5400.00
3	Dismantling of chainlink mesh fencing which include taking out the mesh from the posts including barbed wire and lower & Upper Runner Angles if any, i/c stacking , rolling the mesh and keeping all taken out material at specified place in desired pattern ncluding all labour , T&P, taxes etc as per direction of Engineer in Charge (Base rate Rs. 8/- per sqm).	NUSR	sqm	8.00	0.00	0.00
4	Taking out RCC Posts of Yard fencing from the embedded pits or piles by excavating the pit or exposing the piles and then separating it from the concrete mass through chieseling , hammering or any other suitable safe method and then stacking it at desired place including all labour , T&P, taxes etc as per direction of Engineer in Charge (Base rate Rs. 40/- per Post).	NUSR	each	40.00	0.00	0.00

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
5	Taking out MS Angle Posts of Yard fencing from the embedded pits or piles by excavating the pit or exposing the piles and then separating it from the concrete mass through chieseling , hammering or any other suitable safe method and then stacking it at desired place including all labour , T&P, taxes etc as per direction of Engineer in Charge					
	(Base rate Rs. 35/-- per Post).	NUSR	each	35.00	0.00	0.00
6	Labour only for fixing of chain link mesh fencing in position on angle iron with nuts, bolts, washer including grouting of angle post if required including cost of nuts,bolts, flat washers of size 100 x 30 x 3mm as required but excluding cost of other material as per direction of Engineer-in-Charge.					
	(Base Rate Rs.20/- per Sqm).	NUSR	sqm	20.00	0.00	0.00
YARD FENCING CONTINUEDFor 1 No. gate						
Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective fromm 2009		
1	Excavation in hard soil i/c 50 m lead and 1.5 m lift with dressing.	401(b)	Cum	26.00	20.00	520.00
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	20.00	720.00
2	Cement concrete1::4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	2.00	2972.00
3	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	10.00	410.00
	(a) MS steel bars confirming to grade -I of I.S.432 (Pt-I)	1304(a)	Kg	40.00	30.00	1200.00
	(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	90.00	297.00
4	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	2.00	8506.00
5	15mm thick cement plaster on brick work in CM 1:6	1105 c	Sqm	64.00	20.00	1280.00
6	Water Proofing cement paint snowcem or Durocem (Two coats)	1733	Sqm	40.00	20.00	800.00
7	Priming coat with ready mixed paint brushing Zinc chrome, priming on new steel /galvanised iron surface l/c preparing the surface.	1803	Sqm	19.00	30.00	570.00
8	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	30.00	810.00
9	Filling foundation with moorum & moorum with boulder including watering and ramming etc.	703	Cum	95.00	0.00	0.00
10	Labour only for Filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	36.00	1548.00
11	Providing,fabricating and fixing in position compound gate made of mild steel hollow square ractangular sections outer frame and inner sections made up with 2 mm and 1.5mm thick MS sheet respectively as per specifications and approved drawings inclusive of cost of all materials, fabrication charges, cutting, welding, riveting, transportation up to site, fixing in position by grouting of hold fast to the RCC column, and applying suitable steel primer etc.complete as per direction of Engineer-in-charge. (i) Pair of gate of 2x2.5x2.4 Mtr.size (ii) 1 No.wicket gate of 1x1.25x2.4m size. (Abovesaid sizes are standard sizes but likely to chande during execution.) (Base Rate Rs.80/- per Kg.)	NUSR	Kg	80.00	700.00	56000.00
	Total Amount (A)					447528.00

BILL OF QUANTITY CUM PRICE SCHEDULE

ANNEXURE-III

Name of Project
Name of Work

:400kV Substation at Badnawar
:Construction of Area Fencing

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/c 50 m lead and 1.5 m lift	401(b)	Cum	26.00	5.00	130.00
2	Excavation in hard moorum i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	0.00	0.00
3	Cement concrete 1:4:8 with 40 mm metal	717 (b)	Cum	1486.00	1.00	1486.00
4	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)					
	(a) MS steel bars confirming to Grade I of IS: 432 (Part-I)	1304(a)	Kg.	40.00	15.00	600.00
	(b) Cold worked steel high strength bars confirming to grade Fe 415 of I.S.1786	1304(b)	Kg.	41.00	5.00	205.00
	(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	45.00	148.50
5	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.					
	(b) 20 mm	1601(b)	Cum	4253.00	1.00	4253.00
6	15mm thick cement plaster on brick work in CM 1:6	1105(c)	Sqm	64.00	10.00	640.00
7	Providing, fabricating and fixing in position M.S. grill for window opening (or any other similar opening) or worksof similar nature of any pattern, anydesign (straight or curved) fitted andfixed in position, including all weldingrivetting etc.to floors, walls, coloums,etc., and repairing the same to the original condition in CM 1:3 complete					
	(c) M.S.grills consisting of square or hexagobal MS bars or sheets	1320(c)	Kg	55.00	200.00	11000.00
8	Water proofing cement paint Snowcem or Durocem.(Two coats)	1733.00	Sqm	40.00	10.00	400.00
9	Painting two or more coats (including priming coat) on new surfaces with with enamel paint (IS:2933-1975) to give an even shade.	1803+1808	Sqm	46.00	15.00	690.00
10	Labour only for filling foundation and arround masonary works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	3.00	129.00
11	Providing & Fixing precast RCC post M-20 strength of section 100mmx100mm casted with 4 Nos.6 mm dia MS bars and stirrups placed 300 mm C/c , 1.85 M long placed at 2 M C/c , corner and every tenth post to be strainer post and strutted with struts (struts , strainer post & main post all of same size) , excavation of pit in all type of strata and pit size 30cmx30cmx60 Cm and grouting the posts in Cement Concrete 1:3:6 laid in the pit , providing & fixing 6 horizontal rows and 2 diagonals of barbed wire (9.38 Kg per Metre) to concrete posts and tied up suitably with GI wire & staple pins of 6 mm dia MS Bars embedded in posts , complete as per approved drawing & direction of Engineer in charge including cost of all material , labour , T&P, transportation etc. complete .					
	(Base rate Rs. 325/ per Rmt.)	NCSR	RMt.	325.00	50.00	16250.00
	Total Amount (A)					35931.50

BILL OF QUANTITY CUM PRICE SCHEDULE

ANNEXURE-IV

Name of Project

:400kV Substation at Badnawar

Name of Work

:Yard Metalling Work

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	Supply,stacking and spreading of 40mm crusher broken metal black trap, basalt or granite uniformly in substation yard in desired thickness, free from dust and foreign matter,including transportation up to site, lead and lift, T&P, labour,royalty and taxes etc. complete as directed by Engineer-in-charge. (Base Rate Rs. 1100/- per Cum.)]	NUSR	Cum	1100.00	6048.00	6652800.00
2	Providing & Laying stone crusher dust (1st layer) and mix of stone crusher dust & cement (2nd layer) in substation yard as indicated below (applicable for other than B.C.soil strata) : (a) <u>1st layer</u> : Providing & Laying stone crusher dust (free from organic matter and foreign matters etc.) of average thickness 50 mm including spreading, watering so as to attain desired degree of moisture for optimum compaction, compaction by light roller, making top surface levelled, even and smooth etc. for all lead & lift including cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge. (b) <u>2nd layer</u> : Providing & Laying mixture of stone crusher dust (free from organic matter and foreign matters etc.) and cement in ratio of 1 : 14 (1 cement : 14 stone crusher dust, the quantity of cement shall not be less than 1 standard bag of 50 Kg. in 0.5 Cum of stone crusher dust) of minimum thickness 50 mm including mixing of stone crusher dust and cement in mixer with desired water cement ratio, laying, vibration, curing etc.complete to give a perfect cohesive, smooth & even surface , finishing as per requirement ,cleaning etc. including all lead & lift and cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge (Base Rate combined for both the layers @ Rs. 103/--per Sqm).	NUSR	Sqm	103.00	75610.00	7787830.00
	Note: This item shall not be executed without prior permission of CE(Civil-Trans.). The quantity of stone crusher dust shall be measured in volumetric terms also so as to exercise cross check.					
3	Providing & Laying stone crusher dust (1st layer) and mix of stone crusher dust & cement (2nd layer) in substation yard as indicated below (applicable for B.C.soil strata) : (a) <u>1st layer</u> : Providing & Laying stone crusher dust (free from organic matter and foreign matters etc.) of average thickness 100 mm including spreading, watering so as to attain desired degree of moisture for optimum compaction, compaction by light roller, making top surface levelled, even and smooth etc. for all lead & lift including cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge. (b) <u>2nd layer</u> : Providing & Laying mixture of stone crusher dust (free from organic matter and foreign matters etc.) and cement in ratio of 1 : 14 (1 cement : 14 stone crusher dust, the quantity of cement shall not be less than 1 standard bag of 50 Kg. in 0.5 Cum of stone crusher dust) of minimum thickness 50 mm including mixing of stone crusher dust and cement in mixer with desired water cement ratio, laying, vibration, curing etc.complete to give a perfect cohesive, smooth & even surface , finishing as per requirement ,cleaning etc. including all lead & lift and cost of all material, transportation, royalty, taxes, levies, labour charges, T&P and other consumable etc. complete as directed by Engineer-in-charge (Base Rate combined for both the layers @ Rs. 135/--per Sqm).	NUSR	Sqm	135.00	0.00	0.00
	Note: This item shall not be executed without prior permission of CE(Civil-Trans.). The quantity of stone crusher dust shall be measured in volumetric terms also so as to exercise cross check.					

Sl.No.	PARTICULARS	USR item No.	Unit	USR unit rate effective from 2009	Quantity	Total Amt as per USR (Rs).
4	Providing and Fixing pre-cast Cement concrete M-15 strength, kerb stone of suitable size with excavation 150mm deep and throughly compacting the surface before laying the Kerb stone and will be back filled with CC 1:3:6 jointing the tiles with C.M.1:4 painting with synthetic enamel paint in coloured stripes painted alternatively, complete as per direction of the Engineer-in-charge					
	Kerb stone of size 450mmx300mmx60mm (Base Rate Rs. 125/- per M)	NUSR	RM	125.00	3000.00	375000.00
5	Providing and laying precast cement concrete inter-locking paving blocks (the compressive strength should not be less than 350 kg/cm2) manufactured as per relevent IS Specification by electric hydraulically operated block making machine of appropriate size & shape, laid over 50 mm thick bedding layer of river sand or stone crusher dust i/c sand brushing complete, joint 3 mm thick filled by fine sand i/c levelling, tamping & sweeping etc. complete i/c cost of all material & preparation of bedding surface with all material , all taxes, T&P, etc. complete as per direction of Engineer-in-charge. (Size & pattern of tiles shall be decided by the Engineer-in-charge.)					
	60 mm thick paving blocks-Base rate Rs.450/- per Sqm	NUSR	Sqm	450.00	2000.00	900000.00
	Total Amount (A)					15715630.00

BILL OF QUANTITY CUM PRICE SCHEDULE

ANNEXURE-V

Name of Project

:400kV Substation at Badnawar

Name of Work**:Construction of Culverts inside the Yard**

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	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	25.00	900.00
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	25.00	1775.00
4	PCC 1:4:8 with graded metal of 40mm size	717(b)	Cum	1486.00	10.00	14860.00
5	Cement concrete 1:2:4 with graded metal of 20 mm size.	715 (c)	Cum	2299.00	6.00	13794.00
6	Uncoursed and random rubble masonry in plinth and foundation in cement mortar 1:6.	812 (e)-827	Cum	1681.00	50.00	84050.00
7	Filling foundation and around masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00
8	Labour only for filling foundation and around masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	60.00	2580.00
9	Pointing on stone work in CM 1:4					
	(a) Flush pointing.	1126 (a)	Sqm	52.00	60.00	3120.00
	NUSR Items					
1	Providing and laying in position NP 3 hume pipe of required diameter including filling 450 mm thick moorum bed well compacted above the pipes, jointing the pipe with complete fixtures if required & placing in position including all charges for labour transportation, loading, unloading and taxes etc. complete as per direction of Engineer-in-charge.					
	Pipe Diameter 300mm (Base Rate Rs.1700/- per Metre)	NUSR	RM	1700.00	0.00	0.00
	Pipe Diameter 600mm (Base Rate Rs.2125/- per Metre)	NUSR	RM	2125.00	30.00	63750.00
	Pipe Diameter 1000mm (Base Rate Rs.4375/- per Metre)	NUSR	RM	4375.00	15.00	65625.00
	Total Amount (A)					251754.00

BILL OF QUANTITY CUM PRICE SCHEDULE

ANNEXURE-VI

Name of Project

:400kV Substation at Badnawar

Name of Work

:Construction of Retaining 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	80.00	2080.00
2	Excavation in hard moorum & moorum with boulder i/c 50 m lead and 1.5 m lift with dressing.	402	Cum	36.00	70.00	2520.00
3	Excavation in DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0.00	0.00
4	Excavation in SR i/c 50 m lead and 1.5 m lift with dressing.	404	Cum	122.00	0.00	0.00
5	Cement concrete 1:4:8 with graded metal of 40 mm size.	717(b)	Cum	1486.00	25.00	37150.00
6	Supplying and fixing steel reinforcement bars (tested) R.C.C. including cleaning straightening, cutting, bending, all handling,.....rming to I.S.280-1978 (i/c cost of binding wire)				0.00	0.00
	(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	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 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	4230.00	13959.00
7	P/P in position M-20 RCC excluding cost of reinforcement but including ,formwork graded metal of max.size 20 mm.	1601(b)	Cum	4253.00	94.00	399782.00
8	P&F AC pipe with grating for weep holes.... Cmplte. (a) 100 mm dia .	2434	Mtr	206.00	32.00	6592.00
9	Filling foundation and arround masonry works with moorum & moorum with boulder including watering and ramming.	703	Cum	95.00	0.00	0.00
10	Filling foundation and arround masonry works with material obtained from spoils including watering and ramming.	709(a)	Cum	43.00	116.00	4988.00
	Total Amount (A)					467071.00

BILL OF QUANTITY CUM PRICE SCHEDULE

Name of Project

:400kV Substation at Badnawar

Annexure-VII

Name of Work

:Construction of Road

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	1450.00	37700.00
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 DR i/c 50 m lead and 1.5 m lift with dressing.	403	Cum	71.00	0.00	0.00
4	Supply, stacking, spreading and packing of 80 mm oversize metal black trap / basalt or granite free from dust and foreign materials i/c all leads and lifts of material, labour charges, T&P, transportation from approved quarry to S/S site, stacking, boxing, handling, all taxes, royalty charges etc. complete as per specification & instruction of Engineer-in-charge.					
	(Base rate Rs. 800/- per cum.)	NUSR	Cum	800.00	1450.00	1160000.00
5	Supply and stacking of 40 mm metal black trap / basalt or granite free from dust and foreign materials i/c all leads and lifts of materials, labour charges, transportation from approved quarry to S/S site, stacking, handling, all taxes, royalty charges etc. as per specification & instruction of Engineer-in-charge.					
	(Base rate Rs. 900/- per cum.)	NUSR	Cum	900.00	360.00	324000.00
6	Supply and spreading of hard moorum in EHV Substation yard or road works, including stacking, boxing all lead and lifts, labour, T&P,Taxes,Royalty etc. complete as per specifications and direction of Engineer-in-Charge					
	(Base rate Rs. 350/- per cum.)	NUSR	Cum	350.00	700.00	245000.00
7	Same as above but including compaction as per direction of Engineer-in-charge..					
	(Base rate Rs. 375/- per cum.)	NUSR	Cum	375.00	160.00	60000.00
8	Consolidation of oversize metal by SRR / DRR including spreading moorum and lead of water up to 100 mt.					
	(I) including hire and running expenses of roller.	2003(b)(i)	Cum	98.00	1450.00	142100.00
9	80 mm thick W.B.M. coat in wet season by SRR / DRR i/c spreading of metal and moorum watering, korbandi (40 mm metal)					
	(i). including hire and running expenses of roller.	2008(a)	Cum	167.00	360.00	60120.00
	Total Amount (A)					2028920.00