

TENDER NO. BHEL/NR/SCT/CHHABRA/STORE/633

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TENDER SPECIFICATION

TENDER NO. BHEL/NR/SCT/CHHABRA II/STORE/633

FOR

Construction & Development of Store sheds & Yard at Chhabra TPS,
Stage II, Distt. Baran, Rajasthan

PART II – PRICE BID



भारत हैवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northern Region,
Plot No. 25, Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301. INDIA

RATE SCHEDULE

TENDER NO. BHEL/NR/SCT/CHHABRA/STORE/633

SI No	CODE	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE	AMOUNT
		(A) CIVIL WORKS				
		EARTHWORK/SITE CLEARANCE/ROADWORK				
1	C1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 200 m outside the periphery of the area cleared.	sqm	2000.00		
2	C2	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50m and lift upto 1.5m in all kinds of soil.	sqm	3600.00		
3	C3	Earth work in excavation in all types of ordinary and hard soil by mechanical means (Hydraulic excavator)/manual means including stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works such as concreting form work etc. and disposal of surplus excavated soil as directed, disposed soil to be neatly levelled and dressed lead upto 50 meters and lift upto 1.5meter complete.	Cu.M	51040.00		
4	C4	Back filling available excavated earth in trenches, plinth, slides of foundations etc., including re-excavating the deposited soil excavated earlier, breaking clods, laying at all depths and heights in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering complete lead upto 50 Metre and lift upto 1.5 Meter.	Cu.M	520.00		
5	C4a	Earth work in filling for levelling and grading using approved quality of earth/soil/quarry dust (earth/soil to be given free of cost by the Owner/BHEL on as is where is basis) on prepared surface obtained by compacting with mechanical means including setting out, sorting, breaking clods, excavation, handling, transportation, spreading, dewatering if necessary, watering, placing/laying in layers not exceeding 250mm loose thickness and compacting each layer with atleast 10 passes of 8-10 T roller including levelling, dressing, finishing to required lines, grades and slopes including all lifts etc all complete as per specification, drawing and as directed by the engineer-in-charge.	Cu.M	35000.00		
6	C4b	Earth work in filling for levelling and grading using approved quality of earth/soil/quarry dust including supply of earth/soil/quarry dust on prepared surface obtained by compacting with mechanical means including setting out, sorting, breaking clods, excavation, handling, transportation, spreading, dewatering if necessary, watering, placing/laying in layers not exceeding 250mm loose thickness and compacting each layer with atleast 10 passes of 8-10 T roller including levelling, dressing, finishing to required lines, grades and slopes including all lifts etc all complete as per specification, drawing and as directed by the engineer-in-charge.	Cu.M	15000.00		
7	C5	Disposal of surplus excavated earth and debris including re-excavating the deposited soil earlier, transportation, loading, unloading, laying at all depths and heights, leveling and dressing both the area (viz. From where earth is transported and where it is deposited) to required levels and slopes, complete with all lifts as directed.				
	a)	upto 1 km	Cu.M	50400.00		
8	C6	Preparation and consolidation of site area with power road roller of 8 to 12 tonne capacity after levelling, grading, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth lead upto 50 Mtrs	sqm	50000.00		
9	C8	Supply and Laying water bound macadam with specified stone aggregate stone screening and binding material including screening, sorting, spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc. complete with supply for stone aggregate, screenings, kankar, moorum and red bajri etc.				
	a)	Base course with 63 mm to 45 mm size including stone screening 13.2mm size.	cum	6300.00		
10	C11	Supplying the good earth from outside the site including the cost of filling the same within the site in layer not exceeding 20cm in depth & consolidating each deposited layer by ramming and watering including all leads & lifts etc. complete.	cum	680.00		
11	C12	Providing approved quality Yellow/silver sand as levelling course and filling the same where required under floors etc., watering, ramming, consolidating, grading and finishing to final levels and slopes for all lifts and leads involved, complete as directed (Payment to be made for solid measure of the consolidated filling).	Cu.M	200.00		
		PCC				
12	C14	Plain cement concrete of mix 1:3:6 (1 cement : 3 coarse sand and 6, 20 mm down graded stone aggregate) for column footing, levelling, floors etc., including cost of all materials, lead, lift, labour charges, consolidation, shuttering, curing etc. complete.	Cu. M	430.00		
13	C17	Providing and fixing at ground level precast 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement concrete in kerbs, RCC sleepers, edgings, drains, etc. as per approved pattern and placed in position including complete shuttering but without reinforcement steel .	cum	5.00		
		BRICKWORK				
14	C18	Brick work with class designation 75 in cement mortar 1:6 (1 cement : 6 coarse sand) in foundation, plinth and super structure in thickness of 230 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification and direction of Engineer In-charge.	Cu. M	280.00		
15	C19	Brick work with brick of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) in super structure in thickness of 115 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification. 2 nos. MS rods of 6 mm dia are to be provided after every 3rd layer for which no additional payment will be made.	Sq. M	1700.00		
		RCC				
16	C20	Reinforced cement concrete of mix 1:1.5:3 (1 cement, 1.5 coarse sand and ,3 :20 mm down graded aggregate) for column footing, sunshades, shelves, lintels etc. including cost of materials, lead lift, labour charges for concreting, curing etc. complete.	Cu. M.	148.00		
17	C21	Centring and shuttering including providing all shuttering material , strutting, propping etc. and removal of form work for : Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	800.00		
18	C22	Providing and placing mild steel/ tor steel reinforcement for RCC work including cost of all materials, labour for cutting, bending, binding and placing in position complete as per drawing and instruction of Engineer.	MT	12.00		

SI No	CODE	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE	AMOUNT
19	C23	Supplying,Fabricating and fixing in position, M.S.Holding down bolts with sleeves and washers, nuts and lock nuts etc. including threading of required length and type as per instructions of Engineer I/C				
	a)	Upto 20 mm dia. bolt	kg	1600.00		
		ROOFING				
20	C24	Supply fabrication and erection of structural steel beams,channels,plates,steel tubular trusses, purlins,gates, wind ties, base plates, gusset plates, bolts, nuts etc. complete as per drawings, specifications & instructions of engineer including cost of all materials leads, lifts labour charges etc. and one coat of primer and two coats of approved enamel paint for finished products at site complete as per technical specification and direction of engineer.				
	a)	Trusses (medium grade pipes),Purlins side ties, bottom ties	MT	68.00		
	b)	structural steel for columns, crane girders,etc	MT	20.00		
	c)	Wind ties (Flats) 50 x 6 mm thick, angles,box sections,soild bars for rails etc	MT	2.00		
21	C25	Steel work in built up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel for gates, railings, frames,gratings etc.	kg	700.00		
22	C26	Supplying , fitting & fixing steel rolling shutter , profile type in 18 B.G of approved type of steel lathe section 75 mm wide fitted with coil wire spring to necessitate the fitting of required nos of C.J pulley's on heavy type solid drawn gearless steel tube complete with locking arrangements bothside and outside specially built up side guide channels including,providing a hood for the rolling shutter painting with two coats of approved brand of aluminium paint over a coat of red lead primer complete.				
	a)	Mechanically and manually Operated	Sq.M	800.00		
23	C27	Providing and fixing corrugated Asbestos cement sheet 6 mm thick roofing and side cladding fixed with polymer coated J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	6000.00		
24	C28	Providing and fixing 2mm thick corrugated Transluscent FRP sheet roofing fixed with GI J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	140.00		
25	C29	Providing and fixing Asbestos cement ridges and hips including supply and fixing J or L bolts and nuts bitumen & GI washers etc. complete as per Technical Specification including Bitumen coating at all joints .	RM	204.00		
26	C30	Providing and fixing PVC pipe (2.5 kg/cm2) of 110 mm dia. as rain water pipe in above item complete in all respect including required shoes, bends, etc	RM	20.00		
		CEILING				
27	C31	Providing and fixing at all height false ceiling of 12.5mm thick tapered edge gypsum board conforming to IS : 2095 including providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanized in accordance with zinc coating 350 as per IS : 277 and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastner 12.5 mm dia x 40mm long with 6 mm dia bolts to the angle hangers of 25x25x.55 mm of reqd. length, and other end of angle hanger being fixed with nut and bolts to G.I.Channels 45x15x0.9 running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80mm with tapered flanges of 26mm				
		each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. Channel with connecting clips made out of 2.64mm diax230mm long G.I. Wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers specification and also including the coat of making openings for light fittings, grills, diffusers, cutouts made with frame of permieter channels suitably fixed all complete as per drawing and specification and direction of the Engineer -in-charge but exluding the cost of painting.	sqm	36.00		
		FINISHING				
28	C32	50 mm thk. Ironic Topping Cement Concrete flooring consisting(1-admixture:1 coarse sand: 2-stone aggregate 6mm nominal size) by volume with metallic hardening compound of approved quality is mixed in the ratio(4:1) (4 cement : 1 metallic floor) hardening compound of approved quality by weight including cement slurry rounding off edges and strips etc. but excluding the cost of nose of steps etc. complete.	Sq. M	3560.00		
29	C33	Providing and fixing glass strips in joints of terrazo / cement concrete floors 40mm wide and 4mm thick	RM	5200.00		
30	C35	Providing and laying vitrified floor tiles in 60x60 cm size (thickness to be specified by the manufacturer) of NITCO, ORIENT, SOMANY KAJRIA, or equivalent make with water absorptions less than 1% and flexural strength not less than 30N/mm2, in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete	Sq.M	36.00		
31	C38	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 12 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	Sq. M	1760.00		
32	C39	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 15 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	Sq. M	760.00		
33	C43	Providing and fixing IS : 3564 marked Aluminium die cast body tubular type universal hydraulic door closer, Hardwyn make (Classic Queen) or equivalent with necessary accessories and screws etc. complete.	each	4.00		
34	C44	Providing and fixing steel glazed windows and ventilators of operable standard rolled steel section joints mitred and welded with 15 x 3 mm lugs, 10 cm long, with steel lugs embedded in cement concrete blocks 15 x 10 x 10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 approved graded hard stone aggregate 20 mm nominal size) or with wooden plugs and screws or raw plugs and screws or with fixing clips or with bolts and nuts as required including providing and fixing of glass panels with glazing clips and special metal sash putty of approved make complete including painting with two coats of approved quality synthetic enamel paint over a base coat of red oxide zinc chromate primer including the cost of minor repair work, if required. Windows and ventilators will be provided with horizontal steel bars (8 mm x 8 mm) , welded to the frame @ 150 mm including supply of MS frames, bars glazing etc. all complete	Sq. M	6.00		

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35	C46	Providing and fixing ISI marked flush door shutters non decorative type , core of block baord construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters 30 mm thick including ISI marked stainless steel butt hinges, handle,tower and slide bolts, complete with necessary screws and other accessories	Sq. M	4.00		
36	C47	Providing and fixing ISI marked flush door shutters decorative type , core of block baord construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters 30 mm thick including ISI marked stainless steel butt hinges, handle,tower and slide bolts, complete with polishing to finish , necessary screws and other accessories	Sq. M	4.00		
37	C48	Providing and laying Ceramic glazed wall tiles 300x200 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 13755 of NITCO, ORIENT, SOMANY KAJARIA, or equivalent make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement Mortar 1:4 (1 cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc., complete(2.1 m.ht.).	Sq. M	32.00		
38	C49	Providing three coats of white wash to give a smooth and even shade including cost of materials, cleaning and preparation of surface, scaffolding etc. complete.	sqm	760.00		
39	C50	Finishing walls/ surfaces with water proofing cement paint of approved brand and manufacture and of required shade to give an even shade.	sq.M	760.00		
40	C51	Distemping with Oil bound washable distemper of approved brand and manufacture and of required shade to give an even shade on new wall (2 or more coats) over and including priming coat with cement primer.	sq.M	200.00		
41	C52	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade in two or more coats on new work	sqm	130.00		
		SANITARY/SEWAGE				
42	S1	Providing and fixing white vitreous china water closet squatting pan (Indian type / Oriss pattern WC pan) size 580 x 440 mm with 100 mm sand cast iron P trap, 12.5 Lit. high level CI flushing clastern with fittings RS or CI brackets 32 mm dia meter galvanised iron flush pipe with fitting and clamps 20 mm GI over flow pipe with special and mosquito proof coupling of approved design and GI chain and pull complete including painting of clastern and fittings, cutting and making good the walls and floors where required.	No.	2.00		
43	S2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever), conforming to IS : 7231, Parryware/Hindware/Seabrid /Orient (Coral) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	No.	2.00		
44	S3	Providing & fixing flat back white vitreous china wash basin 550 x 400 mm size with single 15 mm C.P.brass pillar with R.S. or C.I. brackets painted white 15 cm C.P. brass pillar taps C.P. brass chain with rubber plug, 32 mm dia CP Brass trap and M.I. unions, C.P. waste, C.P. connection, soap dish , waste pipe complete including cutting and making good the walls wherever required under counter complete in all respects	No.	2.00		
45	S7	Providing and fixing 100 mm sand cast iron gratingfor gully, floor or Nahanitrap.	each	4.00		
46	S8	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete lwith 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	sqm	1.00		
47	S9	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete	each	2.00		
48	S10	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality colour and make (Prayag or equivalent).				
	a)	450mm long towel rail with total elgnth of 495mm, 78mm wide and effective hight of 88mm, weighin not less than 170gms.	each	2.00		
49	S12	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less than 105gms (Prayag or equivalent)	each	2.00		
50	S13	Providing, laying and jointing glazed stone ware pipes grade A with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc., complete 100 mm dia pipe.	RM	20.00		
51	S14	Providing, laying, fitting and jointing medium grade GI pipes , confirming to IS 1239 for water lines at various elevations with all fittings stop cock, valve bends, elbows, tees, reducers., etc. making grooves in the brick wall, etc. (Internal work), trenching, refilling etc. (external work) including cost of all materials, labour charges etc. complete as per specifications and drawings.				
	(a)	25 mm dia G.I. Pipe (External work)	RM	20.00		
	(b)	20 mm dia G.I. Pipe (Internal work)	RM	20.00		
	c)	15 mm dia G.I. Pipe (Internal work)	RM	40.00		
52	S15	Providing and fixing GM full way valve with C.I wheel of approved quality etc. complete.				
	(a)	25 mm nominal bore	No.	4.00		
53	S16	Providing and fixing C.P. brass 15 mm stop cock of approved quilty of weight not less than 250 gms.	NO	4.00		
54	S17	Providing and fixing C.P. brass 15 mm bib cock of approved quality of weight not less than 250 gms.	No.	4.00		
55	S18	Construction brick masonry manholes of inside size 90x80 cm and 45-60 cm deep with 75 class designation bricks in cement mortar 1: 5 (1 cement : 5 find sand), RCC top slabs with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm size), foundation concrete 1:1:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a foating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded aggregate of 20 mm nominal size) neatly finished complete as per standard design excluding CI manhole cover.	NO.	4.00		

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56	S19	Construction of 2.0x0.90x1.60 size Septic tank in all types of soil with 250 mm thick brick masonry in cement Mortar of 1:6 15 cm thick cement concrete 1:4:8 grade in bed, 75 mm thick 1:2:4 grade cement concrete flooring and 100 mm thick over RCC slab of 1:2:4 grade, 75 mm thick partition wall, 15 mm thick plaster on brick wall finished with neat cement providing M.S. rugs etc., complete as per drawing including excavation, disposal of surplus earth with a load of 50 Mtr. item includes all material, labour, leads, lifts etc., complete but excluding C.I manhole cover.	NO.	1.00		
57	S20	Providing and fixing square mouth stone ware gully trap grade'A' conforming to IS:651 complete with G.I. Grating, brick masonry chamber with bricks of class designation '50' and water right C.I. Cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kgs and frame to be not less than 2.70 kg as per specification. 100X100 MM P TYPE	NO.	4.00		
58	S22	Construction soak pit of 2.5Mtr dia and 3 Mtr depth filled with brick bats including S.W. drain pipe 100 mm dia and 1.2 meter long complete as per standard design.	NO.	1.00		
59	S23	Providing and laying soil, waste and vent pipes, centrifugally cast (spun) iron S&S pipes				
	a)	100mm	RM	20.00		
	b)	125 mm	RM	20.00		
60	S24	Supplying and installation of HDPE cylindrical and vertical water tank with closed top of SINTEX or approved equivalent of undermentioned capacity with all necessary fittings including supplying and fixing input and out putlines including support of brick pillars of height of 3 Mtrs each complete.				
	a)	500 Ltr. Capacity tank	per litre	500.00		
61	S25	Providing and Laying of non-Pressure NP2 class (light duty) RCC Pipe with collar of 250 mm dia jointed with stiff mixture of cement motar in proportion of 1:2 (1 cement :2 fine sand)including testing of joints etc complete	RM	40.00		
62	S26	Construction of brick masonry road gully chamber 50 cm x 45 cm x 60 cm with MPS Brick of class 75 kg in cement motar (1 cement : 6 fine sand) including 500 , 450 mm RCC precast horisontal with frame completed as per standard specification	EACH	4.00		
63	S28	Boring, installing, stabilising, and commisioning of atleast 100 mm dia borewell complete with all labour, T&P, accessories, fittings, pumps, valves, joints/connections including supply of all materials complete functional for domestic water supply. The borewell shall be of depth corresponding to throughout year water supply.	Set	1.00		
		FENCING				
64	F1	1.5 m high fencing with 2.0 m angle iron 65 x 65 x 6 mm posts placed every 3 m centre to centre embedded in cement concrete block, every 15th post last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 8 horizontal lines and two diagonals inter woven with horizontalwires of barbed wire 9.38 Kg per 100 m (min) between the two posts and fixed with GI stapies, turn buckles etc. complete. including providing and laying earth work and concrete (1:3:6)				
		With G.I. Barbed wire (Payment to be made for per metre of complete fencing)	Metre	1200.00		
65	F2	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite directionfor 10 cm length and drilling holes upto 10 mm dia. Etc. complete including a priming coat and two coats of enamel paint	kg	5100.00		
66	F3	Cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as rquired including minimum reinforcement, consolidation finishing and tamping complete includingg laying in position bitumen hot sealing compound for expansion joints	cum	2.00		
		(B) ELECTRICAL WORKS				
67	E0	Supply, Erection , testing & commisioning of LT panel, 440 V, outdoor type, Electrical panel comprising of 200/400A Switch fuse unit as incomer with no of 200A , 100A & 63A switche fuse unit as outgoing as the common main panel complete with switch fuses, bus bar chamber, adoptor box with stand,etc making good & ready for commisioning, grouting in the floor, and commisioning is under contractors scope.	No.	1.00		
68	E1	Providing and fixing 1 x 40 Watt Batten type fluorescent tube fitting (Crompton / Philips / Bajaj make),fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like fluorescent lamp,copper wound polyester choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	Nos.	112.00		
69	E2	Providing and fixing 2 x 40 Decorative type fluorescent tube fitting (Crompton / Philips / Bajaj make),fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like fluorescent lamp,copper wound polyester choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	Nos.	4.00		
70	E4	Providing and fixing 1 x 250 W HPSV out door type fittings (Crompton / Philips/BajaJ , complete with lamp, ballast control gear box, fixing clamp etc.	Nos.	16.00		
71	E5	Providing and fixing of following sweep exhaust fan/ceiling fan/wall mounted fan (Khaitan / Crompton make) single phase alongwith gravity louvers, frame / tripod for holding the motor including making necessary opening in wall, supply & fixing of assembly with grouting bolts, making connections, loop earthing etc.				
	a)	230 mm sweep	Nos.	4.00		
	b)	Ceiling fan	Nos.	4.00		
72	E8	Providing & fixing of 240 V, 5 / 15 Amp 6 Pin Power socket outlet point (with 15 A switch) . Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet	Nos.	8.00		
73	E9	Providing & fixing of 240 V, 5A 3 Pin Power socket outlet point (with switch) . Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet along with the piano switches and fan regulator	Nos.	8.00		
74	E10	Providing & fixing 5A piano type switch for Light / Fan Control (Anchor make)	Nos.	100.00		
75	E14	Providing & fixing of 240 V, 20 Amp INDUSTRIAL Power socket outlet point (with 20 A MCB) . Switch / socket to be fitted in suitable size 20 SWG metal type box .	Nos.	4.00		
76	E15	Wiring of above power sockets with 4 Sq. mm PVC insulated Copper Conductor wires as per IS, 650 / 1100 V grade including 20 SWG GI earthing wire in PVC medium grade conduit including supply of items.				
	a)	Length per point upto 20 m	Points	4.00		

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	b)	Length per point upto 30 m	Points	4.00		
	c)	Length per point upto 40 m	Points	4.00		
	d)	Length per Among Points	Points	4.00		
77	E20	Wiring of the following points (including supply of Wires, conduits, clamps, boards, other misc. items) with 2.5 sq.mm colour coated PVC insulated copper conductor wires as per IS- 650/1100 volts grade in surface PVC conduits (medium grade) including laying of 20 SWG GI wire, conduit fitting. (Fixing of piano type control switches (Anchor make) in suitable sized 20 SWG metal box with 3 mm sunmica sheet having provision for fan regulator, 5 Amp switch socket (supplied above) included in scope)				
	a)	Long Point (Panel to Switch Box)	Points	20.00		
	b)	Medium Point (Switch Box - first Point / Socket)	Points	20.00		
	c)	Short Point (among points)	Points	80.00		
	d)	Wiring for ceiling fan and regulator	Points	4.00		
	e)	Wiring for exhaust fan.	Points	4.00		
	f)	1 x 250 W HPSV out door type fitting. One number 10 A DP switch to be used for controlling 2 fittings. D.P Switches to be fixed on outside of the store shed wall	Points	16.00		
78	E21	Providing and fixing of 32 Amp TPN with HRC fuses along with earth wire. The TPN to be provided on one side of the central shed with rain protection cover.	Nos.	4.00		
79	E22	Supply and burying of earths electrodes 40mm dia 3 mtrs. Long including earthing upto switch board with 8 SWG GI wire.	Nos.	4.00		
80	E23	Providing , Installation and commissioning of 18 W Lighting Panel with 18 nos 16 A MCB with 63 A SFU incomer in Sheet metal housing with double door arrangement , including all earthing and statutory requirements .	Nos.	4.00		
81	E24	Supplying and laying of following type of PVC Insulated, PVC armoured standard aluminium conductor cable conforming to IS:1554-1976 (part 1), glanding with single compression gland, termination of both end in DB & SFU. The cable has to be laid underground on sand cushion including backfilling, suitable clamp, clamping on surface including all materials etc. complete.This includes road crossing for which suitable GI Pipe to be provided by the contractor.				
	a)	3 1/2 core x 185 / 300 Sq.mm armoured cable	RM	50.00		
	b)	3 1/2 Core x 50 / 95 Sq.mm armoured cable	RM	50.00		
	c)	2c/3c/4c upto 16 sq.mm armoured cable	RM	50.00		
82	E26	Earthing Flat 30 x 6 for Earthing	RM	50.00		
GROSS TOTAL OF ALL THE ABOVE WORKS A+B						

NOTES:

1	In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.
2	The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.
3	The bidders shall enter both 'Unit Rate' & 'Amount'. In case of any mismatch between 'Total Amount based on Unit Rate' & 'Total Amount as quoted', the higher of the two shall be considered for evaluation and the lower of the two shall be considered for award.
4	The quantities indicated against each item above are tentative and are liable to vary depending upon the site requirement. The contractor has to supply/ install actual quantities as per advice of BHEL Engineer and accordingly the final contract price shall be worked out.
5	Evaluation of the bids shall be done based on total price against this BOQ.

Signature with Seal