



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL ENGINEERING DEPARTMENT

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-19/2012-13, Dt: 12.11.2012

PRICE BID

Item no.: 2

Name of work: Extension of the SRL Substation towards north side (Civil works).

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
1	Dismantling of tile work in floors, pathway tiles laid in cement mortar including stacking material within 50m lead (Fort thickness of tiles 25mm) etc. complete as directed by Engineer-in-charge.	49.00	Sqm	10.90	534.10
2	Dismantling brick masonry walls for all heights, removing and clearing the debris and carting away upto a lead of 2 Km including loading, unloading and spreading segregating useful materials as directed by Engineer-in-charge including the cost of all labour scaffolding etc. complete as directed by Engineer-in-charge.	1.00	Cu.M	355.88	355.88
3	Dismantling reinforced cement concrete / plain cement concrete and disposing of debris upto a lead of 2 Km including loading, unloading and spreading as directed by Engineer-in-charge etc. complete.	0.50	Cu.M	582.68	291.34
4	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkats, architrave, holdfasts etc.; complete and stacking within 50 meters lead -of area beyond 3.00 sq.m meters etc. complete as directed by Engineer-in-charge.	10.50	each	75.35	791.18
5	Dismantling steel work in built up sections in angles tees, flats and channels including all gusset plates, bolts, cutting rivets, welding etc., including dismembering and stacking within 50 meters lead etc. complete as directed by Engineer-in-charge.	0.50	MT	890.11	445.06
6	Dismantling of Galvalume sheet roofing including ridges, hips valleys and gutters etc.; and stacking the material within 50 meters lead etc. complete as directed by Engineer-in-charge.	15.00	Sq.m	24.70	370.50
7	Earth work in excavation in all soils by mechanical means (Hydraulic Excavators) / manual means in foundations trenches or drains (not exceeding 1.5m in width or 10 Sq.m on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50M etc. complete as directed by Engineer-in-charge.	60.00	Cu.m	103.40	6,204.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
8	Earth work in excavation by mechanical means (Hydraulic Excavators) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 Sq.M on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposing earth to be leveled and neatly dressed for Hard Rock (Blasting prohibited) etc. complete as directed by Engineer-in-charge.	15.00	Cu.M	325.25	4,878.75
9	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 20 mm nominal size) etc. complete as directed by Engineer-in-charge.**	9.00	Cu.M	1,560.50	14,044.50
10	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement, including consolidation by vibrations for all works up to plinth level with 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size) etc. complete as directed by Engineer-in-charge.**	17.00	Cu.M	1,641.30	27,902.10
11	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement, including consolidation by vibrations for all works up to floor five level with 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size) etc. complete as directed by Engineer-in-charge.**	11.50	Cu.M	2,002.00	23,023.00
12	Centering and shuttering including strutting, propping etc.; and removal of form work, for columns, pillars, piers, abutments, machine foundations, posts and struts etc. complete as directed by Engineer-in-charge.	243.00	Sq.m	180.40	43,837.20
13	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding grills with binding wire all complete by cold twisted bars etc. complete as directed by Engineer-in-charge. (Reinforcement steel will be issued by BHEL on free of cost at BHEL stores).	3.66	M.T	4,003.00	14,650.98
14	Coursed rubble masonry in second sort with hard stone in foundation & plinth with cement mortar 1:6 (1 cement : 6 coarse sand) (Cement will be issued by BHEL on free of cost at BHEL stores.) etc. complete as directed by Engineer-in-charge.	9.50	Cu.M	1,521.00	14,449.50
15	Damp proof course in CM 1:4, 20mm thick mixed with water proofing compound, Make: "Sika" @ 3% by weight of cement as per manufacturer's specification, curing as directed. Rate quoted shall include finishing, cost of all materials and labour etc., complete. (Cement =7.69 kgs/sq.m x3% WP@ Rs 20.00 per kg=Rs 4.61) upto 10 m height. Only cement will be issued by BHEL on free of cost at their store etc. complete as directed by Engineer-in-charge.	9.00	Sq.m	94.45	850.05

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
16	Fabrication and fixing inserts in concrete wall with lugs of required dia welded to the insert plates. (Structural Steel, electrodes and gas required for work will be issued on free of cost by BHEL at their stores) etc. complete as directed by Engineer-in-charge.	1.60	MT	3,500.00	5,600.00
17a	Fabrication of structural steel work including all materials going into the process of fabrication and forming an integral part of steel work together with all shop and site rivets and electrodes for site welding as necessary and all site connections comprising sag rods, floor beams, girders, bracings, trusses and frame work for fixed false ceiling and for movable false ceiling, purlins with channel / angles, MS flat supports including all connections as per detailed drawings connected steel works etc., cleats, gusset plates, all bolts, nuts, washers, base plates, anchor bolts as per detailed drawings, cutting, welding and painting 2 coats of red-oxide primer before erection etc., complete. The rate shall include painting 2 coat of Red-oxide as per IS specifications and all charges for handling, leading and loading at the fabrication yard. The raw structural steel sections, electrodes, gasses will be issued by BHEL on FREE of cost at their stores. etc. complete as directed by Engineer-in-charge.	3.00	MT	7,563.80	22,691.40
b	Erection of Steel work out lined in item No.17a above including the charges for handling, leading and stacking at site at approved locations prior to erection including all site riveting, bolting, jointing and site welding where ever required etc. complete as directed by Engineer-in-charge.	3.00	MT	3,241.60	9,724.80
18	Brick work with FPS ground moulded brick of class designation 75 in super structure above plinth level upto floor five level in cement mortar 1:6 (1 cement : 6 Coarse sand) etc. complete as directed by Engineer-in-charge.**	17.00	Cu.M	2,104.00	35,768.00
19	Plastering in CM 1:6, 20 mm thick to internal and external surfaces of walls including the cost of all materials, labour, curing etc. complete upto 10.00 M level etc. complete as directed by Engineer-in-charge.**	158.00	Sq.m	65.80	10,396.40

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
20	Supply and fixing of top fixed, side hung of Seccolor of make NCL/ Ajantha/Finesta windows & Ventilators fabricated from Roll formed section made of pre painted steel (Base steel as per IS 513 of 0.6 mm thick, 'D' quality, galvanized as per IS 277 with zinc 120 GSM / Sq. Mtr). Section for shutter should be of 46 x 46 mm, external frame should be of 46 x 52 mm, section for glass beading should be of 18 x 25 mm & center mullion should be 46 x 70 mm. The sections to be cut to length, meter joined with corner bracket. Centre mullions are to be fixed using mullion cap. Handle made of high grade aluminium powder coated & with nylon receiver & glazed with 5 mm thick, Modi/Saint Gobain float glass. Gasket made of E.P.D.M. Corner brackets made of C.R.C.A with zinc phosphating. Million caps made of glass filled nylon. The above frames should be fixed to the concrete / masonry walls by means of self expanding screws. Approximate size of windows 1.30mx0.9m and 3.00mx2.10m -Double shutter without guard bars(grills)... Excise duty/VAT inclusive. Service tax extra as applicable.	8.10	Sq.m	4,046.00	32,772.60
21	Supply and Fixing of colour coated aluminium zinc alloy coated metallic hirib profile sheet of nominal 1015-1020mm effective cover width and 28-30 mm deep ribs with subtle square fluting in the five pan at nominal 202-205mm center-to-center. The end rib shall be designed for anti-capillary action, to avoid any seepage of water through the lateral overlap. The feen material is manufactured out of nominal 0.45mm base metal thickness (BMT) or 0.5 mm TCT, Hi-Strength steel with minimum 550 MPa yield strength metallic hot dip coated with aluminium -Zinc alloy (55 % Aluminium ,45 % Zinc)as per AS 1397-Zincalume AZ150 (Min 150 Grams / Sq.Mt) Total on both sides) with colour bond steel quality paint coat as per AS/NZS 2728 type 3-4.The paint shall have a total coating thickness of nominal 35 µm, Comprising of nominal 20µm exterior coat on top surface and nominal 5 µm reverse coat on back surface over nominal 5µm primer coat on both surfaces of approved colour shade by concern authority. The steel manufactures test certificate for the certificate for the chemical and mechanical properties of steel must be submitted for approval by the engineer-in-charge.	60.00	Sq.m	672.40	40,344.00
22	Supply & Installation of 0.5 mm thick colour galvalume sheet flashings hood / ridges/ triangular portion closers to require shape with self threaded screws etc. complete as directed by Engineer-in-charge.	21.00	Sq.M	900.00	18,900.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
23	Granolithic topping of 25 mm thick using 1 cement 1 granite chips of 10mm down graded laid over base concrete when it is green conditions and ironite finishing 12mm thick using a mix of 50Kg of ironite, 200 Kg of cement and 0.30 Cu.m of granite metal 6mm down graded including cost of form work, curing etc. complete as directed by Engineer-in-charge.**	16.00	Sq.M	244.50	3,912.00
24	Filling with available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidation each deposited layer by ramming and watering, lead upto 50.00 m and lift upto 1.50 m etc. complete as directed by Engineer-in-charge.	23.00	Cu.M	45.70	1,051.10
25	Providing and fixing in true horizontal level 600 mm x 600mm false ceiling system manufactured by M/s. Armstrong World Industries US/UK using hot dipped galvanised steel sections exposed surface chemically cleared capping prefinished in baked polyester paint. Main tee of size 15x38x0.33 at every 1200mm c/c intervals and rotary stitched 1200mm cross tee of size 15x38x0.254 at every 600mm c/c and 15x22x0.457 mm wall angle all round the wall to form a grid size 600x600mm and suspending the grid using 2mm prestraightened GI wire and 6m nylon Rawal plug at every 1200mm interval at the main tee and laying Armstrong mineral fiber dune premier 99 microlook boards manufactured by ARMSTRONG WORLD INDUSTRIES US/UK having fire rating of 60 minutes as per BS 476/23 of 1987, Noise reduction coefficient(NRC) of 0.50, sound attenuation of 34 DB, Thermal conductivity of k=0.052 w/m, weight of 3.5 kg/sqm, humidity resistance of RH=99 of size 600x600x15 mm over the formed grid including all material etc. complete as directed by Engineer in charge.	30.00	Sq.m	948.00	28,440.00
26	Supply and fixing of doors in position(single shutter 31mm thick) along with teak wood door frame of required size consist teak scantlings of 100 mm x 75 mm and flush door shutter and laminating both door frame and shutter with premium quality teak veneer in required colour and design and malamine polish. Flush door shutter shall be chemically treated and water/insect/borer proof and 30 mm thick. This includes providing brass hinges, brass aldrops, brass tower bolts, brass handles and brass door stoppers etc. complete as directed by Engineer-in-charge.	2.10	Sq.m	3,180.00	6,678.00
27	Fixing of old removed steel door in position wherever required etc. complete as directed by Engineer-in-charge.	10.50	Sq.m	50.00	525.00
28	Applying exterior emulsion paint 2 coats over one coat of primer to external new plastered surfaces including cost of all labour and other incidentals. (only exterior paint will be issued by BHEL on free of cost) etc. complete as directed by Engineer-in-charge.	77.00	Sq.m	20.55	1,582.35

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
29	Applying two coats of oil bound distemper of given shade over a coat of primer including through cleaning of the surfaces, cost of all labour and other incidentals. (Only OBD, OBD Primer Paint will be supplied by BHEL) etc. complete as directed by Engineer-in-charge.	95.00	Sq.m	29.00	2,755.00
30	Applying two coat of Synthetic enamel paint of given shade over a coat of primer to new wood work including scraping the surfaces, cost of all labour, tools and other incidentals etc. complete as directed by Engineer-in-charge.	21.00	Sq.m	28.50	598.50
31	Applying one coat of exterior emulsion paint of given shade to old painted surface including scraping old surfaces, cost of all labour, tools and other incidentals etc. complete as directed by Engineer-in-charge. (Only synthetic enamel paint will be supplied by BHEL)	100.00	Sq.m	15.00	1,500.00
32	Applying one coat of synthetic enamel paint of given shade to old steel works including scraping old surfaces, cost of all labour, tools and other incidentals etc. complete as directed by Engineer-in-charge. (Only synthetic enamel paint will be supplied by BHEL)	15.00	Sq.m	13.60	204.00
33	Applying one coat of OBD paint of given shade to old walls including scraping old surfaces, cost of all labour, tools and other incidentals etc. complete as directed by Engineer-in-charge. (Only OBD paint will be supplied by BHEL)	100.00	Sq.m	10.30	1,030.00
34	Supply & fixing in position PVC Pipes of 110 mm dia of 6 Kg/Sq. cm of approved quality and conforming to IS:4985/2000 with specials, accessories and approved sealing / jointing compound on the exterior of the inserted portion and jointing to MS gutters, including cost of all materials, sealing compound, labour etc., for all heights etc. complete as directed by Engineer-in-charge.	8.00	R M	211.00	1,688.00
35	Casting and placing in position of R.C.C cable trench covers of 75 mm thick in mix of 1:1.5:3 using 20 mm down graded metal including cutting, welding of Angle iron frame, cost of MS reinforcement as specified including cutting bending, binding wire, spreading of Ironite powder at 2 Kg / Sq.m, neat finishing, cost of labour, etc. complete as directed by Engineer-in-charge. (MS angles, electrodes only will be issued on free of cost by BHEL at BHEL stores).	19.00	Sq.m	184.00	3,496.00
36	Conveyance of excavated spoil up to a lead of 2 Kms, including loading, unloading and spreading etc. complete as directed by Engineer- in- charge.	24.00	Cu.M	56.41	1,353.84

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
37	Fabrication and fixing of M.S holding down bolts , threaded both sides including supply of nuts, washers etc. complete as directed by Engineer-in-charge. (M.S. rounds as per required size will be issued on free of cost at BHEL stores)	0.04	MT	26,476.30	1,059.05
	Total			₹	3,84,698.17
	Add increase in Vat 1% over the material cost (70% of contractor scope)			₹	2,692.89
	Total value of work			₹	3,87,391.06
Total : ₹ Three lakhs eighty seven thousand three hundred ninety one and six paise only					

Note: **The required Cement, structural steel, MS reinforcement steel will be issue by BHEL on free of cost at BHEL stores.

1	A penalty of 0.5% of the gross value of work will be levied for every week's delay of work or part there of subject to a maximum penalty of 10% of the gross value of work executed after the period of completion.
2	The rates are inclusive of all taxes and duties except Service tax, which is extra as per service tax norms will be paid by BHEL to the agency after submission of necessary documents

Note : The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

Tender %	In figure	In words
Excess		
Less		
Estimated value		

Name of the Contractor :

Signature of the Contractor