



# भारत हेवी इलेक्ट्रिकल्स लिमिटेड

## Bharat Heavy Electricals Limited

Transmission Business Group  
5<sup>th</sup> Floor, Advant Navis IT Business Park,  
Plot No-7, Sector-142, Expressway Noida,  
Noida-201305 (Uttar Pradesh)  
email: virendra.ubnare@bhel.in

### **AMENDMENT -03 to NIT No. 38713**

**Dated 09.07.2018**

**Ref: Tender Spec No: TBSM/VELLALAVIDUTHI/CIVIL/TENDER**

With reference to above tender for " EXECUTION AND HANDING OVER OF CIVIL WORKS OF 400/230-110 KV AIS SUB STATION AT VELLALAVIDUTHI IN PUDUKOTTAI EDC, PUDUKOTTAI DISTRICT IN TRICHY REGION IN TAMILNADU." following clarifications/ amendments may please be noted.


- 1. Unit Rate of BOQ Item No 125 of Annexure -I has been changed from Rs 17.10 to Rs 6209.40/-.**
- 2. In view of above changes, following points may please be noted.**
  - (i) Total amount of Annexure I of BOQ is changed from Rs 24,61,74,274/- to Rs 25,12,02,419/-.
  - (ii) Total amount of Annexure V of BOQ is changed from Rs 25,58,97,959/- to Rs 26,09,26,104/-.
  - (iii) Accordingly revised BOQ cum price schedule (Annexure-I, II, III, IV and V) Rev.-01 is enclosed with this amendment.
  - (iv) The Pre-Qualifying Requirement criterion is changed. Accordingly revised PQR (Rev.-01) enclosed with this amendment.
  - (v) EMD amount as mentioned in clause no 1 of NIT is changed from Rs 3558980/- to Rs 3609261/-. Bidders are requested to submit revised EMD amount of **Rs 36,09,261/-**, along with their offer.

**3. Other Clarification (Asked by Bidders):-** As per Annexure-A enclosed.

Offer (Technical and price bid) should be submitted in line with revised documents mentioned in this amendment and other documents of NIT

Bidders are requested to submit a copy of amendment-03 duly signed & stamped by their authorized signatory along with Technical Bid.

All other terms & conditions of the tender specifications remain unchanged.

  
09.07.18  
**Virendra Kumar Ubnare**  
(Manager/ TBSM)

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
1	Clearing the site including removing the vegetation & levelling etc complete. Rates for cutting of trees, removal of roots & disposal are deemed to be included.	2	10000	sqm	5.43	54300.00
2	Earth work excavation for levelling the site in ordinary soil with initial lead, lift, etc, complete. Transporting and levelling of excavated earth to low lying area, watering and consolidation with power roller within sub station premises including cost of labour, lead, lift etc., complete as per specification.	3	250	cum	245.94	61485.00
3	Earth work excavation for foundation in hard gravelly soil with initial lead and lift of etc., complete. Depth upto 4m.	4	11641	cum	125.95	1466183.95
4	Earthwork excavation for foundation in soft disintegrated rock not requiring blasting with lead and lift etc complete. Depth upto 4m.	5	11171	cum	221.05	2469349.55
5	Earthwork excavation for foundation in medium rock and dense medium rock not requiring blasting and stacking including all lead and lift etc complete. Depth upto 4m.	6	14100	cum	420.43	5928063.00
6	Earthwork excavation for foundation in medium rock and dense medium rock requiring blasting and stacking including all lead and lift etc complete. Depth upto 4m.	7	13540	cum	305.425	4135454.50
7	Earthwork excavation for foundation in hard rock measured in solid including blasting and stacking all lead and lift etc. complete. Depth upto 4m.	8	1143	cum	389.80	445541.40
8	Earthwork excavation for foundation in hard rock with wedging and Chiseling including all lead and lift etc. complete. Depth upto 4m.	9	722	cum	619.80	447495.60
9	Refilling the foundation and basement with excavated earth including ramming, cost of all materials lead and lift etc. complete.	10	24945	cum	125.75	3136833.75
10	Filling the foundation and basement with quarry dust including ramming, cost of all materials, lead and lift etc. complete.	11	2501	cum	1066.72	2667856.72
11	Filling the foundation and basement with river sand including ramming, lead and lift etc. complete.	12	5849	cum	810.82	4742486.18
12	Disposal of excess excavated to an average distance of 100m including cost of all materials lead lift etc complete	13	36102	cum	98.34	3550270.68
13	Providing antitermite treatment in 4 stages i. Immediately after earthwork excavation and before laying foundation concrete, ii. After refilling for sides of foundation, iii. Before laying of flooring concrete and iv. outside of basement upto 1m around the building using termit 250 ml for 5 litres of water including cost of all labour, materials and T&P, etc.	14	892	Sqm	131.90	117654.80
14	PCC 1:4:8 mix using 40mm HB stone machine crushed metal for <b>foundation</b> without form work including cost of all labour, materials, lead, lift, curing, etc., complete.	15	2669	Cum	4148.54	11072453.26
15	PCC 1:4:8 mix, 100mm thick using 40mm hard broken granite stone for <b>control room flooring</b> including cost of all materials, form work for levelling course of floor etc., complete.	16	680	sqm	414.854	282100.72

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S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
16	RCC 1:1.5:3 mix using 12mm to 20mm HBS metal (machine crushed) <b>without form work for RCC raft foundation</b> including cost of all labour, materials, lead, lift etc., complete but excluding cost of steel reinforcement (By using mixer machine and vibrator)	17	4995	cum	5570.21	27823198.95
17	RCC 1:1.5:3 mix using 12mm to 20mm HBS metal (machine crushed) with form work for <b>RCC column with 100 x 100 x 300 mm deep pocket for 'Y' angle at the top of column</b> for boundary wall including cost of all labour, materials, lead, lift etc., complete but excluding cost of steel reinforcement (By using mixer machine and vibrator)	18	281	cum	7182.775	2018359.78
18	RCC 1:1½:3 mix for <b>column footing</b> using 12 to 20mm size hard broken stone <b>with formwork</b> including cost of all materials, form work, centering and all leads, lifts etc., complete but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	19	6133	Cum	5846.84	35858669.72
19	RCC 1:1½:3 mix for <b>columns below ground level</b> using 20mm size hard broken stone with formwork including cost of all materials, form work, centering and all leads, lifts etc., complete but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	20	32	Cum	6251.825	200058.40
20	RCC 1:1½:3 mix for <b>plinth beams</b> using 20mm size hard broken stone with formwork including cost of all materials, form work, centering, curing and all leads, lifts etc., complete as per specification but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	21	78	Cum	6070.055	473464.29
21	RCC 1:1½:3 mix for <b>Grade beams &amp; columns above GL</b> in floors using 12 mm to 20mm size hard broken granite stone with formwork including cost of all materials, form work, centering, curing and all leads, lifts etc., complete as per specification but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	22				
a	Grade beam	22.01	469	Cum	7001.005	3283471.35
b	Columns in Ground floor	22.02	78	Cum	7182.775	560256.45
c	Columns in First floor	22.03	54	Cum	7847.575	423769.05
d	Cable duct side walls	22.04	2710	Cum	7055.02	19119104.20
e	Cable duct road crossing Deck slab	22.05	68	Cum	7121.59	480707.33
f	Retaining wall side walls	22.06	37	Cum	7055.02	261035.74
22	RCC 1:1½:3 <b>beams (rib portion only) at roof level in all floors</b> using 12 mm to 20 mm size hard broken granite stone including cost of all materials, form work, centering, curing and all leads, lifts etc., complete as per specification but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	23	90	Cum	7001.01	630090.45
23	RCC 1:1½:3 using 12 mm to 20mm size hard broken granite stone including cost of all materials, form work, centering, curing and all leads, lifts etc., complete as per specification but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	24				
a	<b>Slab 150 mm thick</b> over ground floor	24.01	750.00	sqm	1388.79	1041592.50
b	<b>Slab 130 mm thick</b> over first floor	24.02	525.00	sqm	1258.77	660854.25

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S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
c	Slab 100 mm thick over front porch	24.03	46.00	sqm	983.35	45233.92
24	RCC 1:1½:3 for lintels in all floors using 12mm to 20mm hard broken granite stone including cost of all materials, form work, centering, curing and all leads, lifts etc., complete but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	25				
a	Ground floor	25.01	20.50	Cum	6834.39	140105.00
b	First floor	25.02	6.00	Cum	6834.39	41006.34
25	Providing sunshade including the front (chajja) in RCC 1:1½:3 using 12mm to 20mm hard broken granite stone including cost of all materials, form work, centering, curing etc but excluding cost of steel reinforcement. (By using mixer machine and vibrator)	26	8.1	Cum	6914.78	56009.72
26	Supplying and fixing PVC downfall pipes 100 mm dia with necessary couplings, grating shoes, bends, clamps etc complete including cost of all materials and making holes in masonry or concrete and restoring affected surface to original condition.	27	100	RM	211.92	21192.00
27	Brick work in CM 1:5 for wall 23 cm thick using chamber burnt bricks 2nd sort including cost of all materials leads lift and curing etc complete.	28				
a	In super structure, Ground floor	28.01	3821.00	Cum	4952.36	18922967.56
b	In super structure First floor	28.02	167.00	Cum	4952.36	827044.12

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S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
28	<b>Brick work in CM 1:3</b> using II class bricks of size 9" x 4 3/8" x 2 3/4 " including cost of all material, lead, lift, labour, curing, etc,complete.	29				
a	Brick on edge	29.01	104.00	Cum	5045.77	524760.08
b	Parapet wall, staircase etc	29.02	78.00	Cum	5045.77	393570.06
29	<b>Granolithic</b> cement concrete 1:2:4 mix for floor finish <b>20 mm thick</b> using stone chippings of 10 mm size and below, including cost of all material, lead, lift, labour, curing, etc,complete.	30	270	Sqm	167.63	45258.75
30	PCC 1:2:4 mix using 12mm to 20mm HBS metal (machine crushed) for column top with form work including cost of all labour, materials, lead, lift etc., complete.	31	78	Cum	5171.00	403338.00
31	Manufacturing and fixing in position of <b>anodised aluminium glazed door</b> using 100x44x2mm box section for frame and 95x44x2mm for shutter bottom style and 65x44x2mm section for other side style with everite/pioneer floor gear glazing clips rubber beedings, hinges, handle, lock with 5 mm thick CGL cooling glass etc complete <b>Single leaf door</b> (size of the door D 8 (2000+1000+1000)x2500 mm, <b>for main door</b> .	32	10	Sqm	3936.96	39369.60
32	Manufacturing and fixing of <b>steel door</b> using 40x40x6mm for outer frame 25x25x6mm for shutter frame with MS flat 25x6mm 3 nos and for panels with 12mm thick one side laminated MDF duratuff exterior quality with bolts, washer, hinges 12mm dia tower bolt of 200x38x2.4mm at top and 150x38x2.4mm at bottom 1 No 250x16mm aldrop etc complete as per standard drawing and specification as well as per the direction of Engineer at site (Size of the door D5 1000X2100mm <b>single leaf</b> )	33	10.30	Sqm	3936.96	40550.69
33	Manufacturing and fixing of <b>steel door</b> using 40x40x6mm for outer frame 25x25x6mm for shutter frame with MS flat 25x6mm 3 nos and for panels with 12mm thick one side laminated MDF duratuff exterior quality with bolts, washer, hinges 12mm dia tower bolt of 200x38x2.4mm at top and 150x38x2.4mm at bottom 1 No 250x16mm aldrop etc complete as per standard drawing and specification as well as per the direction of Engineer at site (Size of the door 1500X2500mm <b>double shutter</b> )	34	7.50	Sqm	3936.96	29527.20
34	Manufacturing and fixing in position of <b>anodised aluminium glazed door</b> using 100x44x2mm box section for frame and 95x44x2mm for shutter bottom style and 65x44x2mm section for other side style with everite/pioneer floor gear glazing clips rubber beedings, hinges, handle with 12 mm thick prelaminated board for bottom and with 5 mm thick CGL cooling glass for top etc complete. <b>Single leaf door</b> (size of the door 1000 x 2100 mm)	35	10.50	Sqm	3936.96	41338.08

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S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
35	Supplying and fixing factory made solid PVC door 30 mm thick consisting of frame made up of MS tubes of 19 gauge thickness and size of 19x19 mm for styles and 15 x 15 mm for top and bottom rails. MS frame shall be painted with primer. MS frame shall be covered with 5mm thick heat moulded PVC C Channel of size 30x50 mm forming styles, and 5mm thick 75 mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 10 mm thick (5x2 mm) 20 mm wide cross PVC sheet as gap insert for top rail and bottom rail. Panelling of 5 mm thick PVC sheet to be fitted in the MS frame welded / sealed to the styles and rails with 30 mm wide 5mm thick PVC sheet beading on either side and joined together with solvent cement adhesive. An additional, 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the C channel using PVC solvent cement adhesive etc., complete. with frame, Forex or Equivalent make of size not less than 50x47x5mm with all required accessories and PVC shutter made out of 30mm thick [width 75mm for lock rail, bottom rail, top rail on either side] including the cost of all materials, labour, lead, lift, T&P, all fittings etc complete.	36	19	Sqm	3534.52	67155.88
36	Manufacturing and fixing of steel window partly glazed using 35x35x5mm and 35x5mm T angle for frame 25x25x2mm for shutter frame 3mm thick pin top glass for top and one side laminated exterior MDF duratuff Board for bottom and 10 nos 12mm dia MS bars with hook locking arrangements etc complete as per standard drawing and specification well as per the direction of Engineer at site (Size of the window W2 1475 X 1475 mm with grill )	37	24	Sqm	3976.33	95431.92
37	Manufacturing and fixing position of <b>Anodized Aluminium glazed sliding window</b> of size 1.475 x 1.475m as per IS 1038-1958 (1245 IS) using 50x50x2mm and 25x25x2mm section glazing clips rubber beadings hinges handle 5 mm thick sun cool glass pannelling including cost of materials, lead, lift etc complete.	38	29	Sqm	2428.51	70426.79
38	Manufacturing and fixing position of <b>Anodized Aluminium glazed sliding window of size</b> 1.475 x 0.975m as per IS 1038-1958 (1245 IS) using 50x50x2mm and 25x25x2mm section glazing clips rubber beadings hinges handle 5 mm thick sun cool glass pannelling including cost of materials, lead, lift etc complete.	39	46	Sqm	2428.51	111711.46
39	Supplying and fixing in position of <b>partly openable (side hung) partly fixed steel glazed ventilators</b> with fully glazed shutters with all necessary iron hold fasts and fittings including cost of all materials etc. but excluding iron grills which will be measured and paid for separately. <b>(size V 1575 x 975 mm)</b>	40	16	Sqm	3936.96	62991.36
40	Supplying and fixing in position of <b>partly openable (side hung) partly fixed steel glazed ventilators</b> with fully glazed shutters with all necessary iron hold fasts and fittings including cost of all materials etc. but excluding iron grills which will be measured and paid for separately. <b>(size V 750 x 450 mm)</b>	41	3	Sqm	3936.96	11810.88
41	Supplying and fixing <b>rolling shutter mechanically operated</b> with gear box crank handle top cover of 18 gauge thick MS sheet anchoring rod, hasp & shackle to details including labour and materials for providing pockets to guides of rolling shutters making necessary holes in masonry or concrete 1:2:4 and making good, including one shop coat of anti-corrosive primer erected in position <b>(size 2500x2500mm)</b> with high tension coils, type spring arrangements.	42	1.00	No	3092.70	3092.70

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S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
42	Supplying and fixing in position of best quality <b>teak wood hand rails</b> using teak wood (75x50mm) scantling, 20mm square rod, flat of (40x6mm), varnishing, enamel painting, including cost of all materials, labour, lead, lift, T&P etc. complete.	43	100.00	RM	534.55	53455.00
43	Fabricating and placing in position of MS/RTS steel reinforcement for RCC works including labour for cutting, bending, tying and fixing in position as per specification including cost of all materials, lead, lift, labour, cost of binding wire, etc., complete.	44	1779.5			
a	Including Supply of MS/RTS Steel Reinforcement	44	89.0	MT	49620.00	4416180.00
b	Excluding Supply of MS/RTS Steel Reinforcement	44	1690.5	MT	6433.44	10875730.32
44	Flooring with approved <b>virtified of non slippery type tiles</b> of size 600 x 600 mm or more over cement mortar 1:3, 12mm thick including pointing with white cement finishing the joints flush pointing the surface etc complete.	45	1120	Sqm	990.82	1109718.40
45	Flooring and for staircase with <b>granite slabs super fine polished</b> with machine cut edges 18 mm to 20 mm thick, including required edge nosing to suitable for steps - Ruby red or Raw silk, including cost of all materials, lead, lift, labour, cost of binding wire, etc., complete.	46	100	sqm	2560.03	256003.00
46	Dadoing with <b>glazed tiles</b> of best quality of approved make Johnson Neycer etc over CM1:3 12mm thick plastering including cost of all materials labour lead lift etc complete.	47	160	Sqm	676.81	108289.60
47	Flooring with approved <b>acid proof tiles</b> over cement mortar 1:3 12mm thick including pointing with white cement finishing the joints flush pointing the surface etc complete.	48	47	Sqm	925.22	43485.34
48	Finishing with <b>acid resistance tiles</b> of thickness 20 mm on the sides of the wall on battery room with CM 1:3 and pointing with CM 1:2 using acid proof cement etc., complete.	49	50	Sqm	991.91	49595.50
49	Plastering with <b>CM 1:5, 12mm thick</b> for interior faces of walls in all floors including cost of all materials, lead, lift and curring etc., complete.	50	4152	Sqm	167.22	694276.68
50	Plastering with <b>CM 1:5, 20 mm thick</b> for exterior faces of walls in all floors including cost of all materials, lead, lift and curring etc., complete.	51	1200	Sqm	231.21	277446.00
51	Plastering with <b>CM 1:3, 12 mm thick</b> to the exposed faces of under side of RCC slabs, sides and soffits of beams in all floors including cost of all materials, lead, lift and curring etc., complete.	52	50184	Sqm	172.21	8642136.46
52	Plastering with <b>CM 1:3, mix 20mm thick</b> for flooring including all cost labour materials lead lift labour curing etc complete.	53	23	Sqm	239.01	5497.23
53	Painting 2 coats using <b>white cement</b> for ceiling in all floors and exposed faces of beams including cost of all materials and scaffolding etc. complete.	54	1250	Sqm	56.21	70262.50
54	Painting with 2 coats <b>Interior emulsion paint</b> of approved colour over a priming coat of white cement including cost of all materials, labour, lead, lift etc complete for interior walls.	55	4124	Sqm	116.42	480116.08

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55	Painting with 2 coats <b>acid proof paint</b> of approved colour over a priming coat of white cement for battery room including cost of all materials, labour, lead, lift etc complete	56	90	Sqm	117.45	10570.50
56	<b>White washing</b> two coats with best quality of shell lime and robin blue pigment over primary coat for ceiling exposed surfaces of wall beam slab sunshade line etc including cost of all materials labour lead lift etc complete.	57	10	Sqm	53.24	532.40
57	Painting with 2 coats of approved colour <b>Exterior emulsion paint</b> over priming coat of white cement including cost of all materials, labour, lead, lift etc complete for exterior faces of walls.	58	13832	Sqm	85.91	1188307.12
58	Weathering course over roof slab with brick jelly 20 mm size and lime mortar in the ratio of 32:12.5 to in average thickness of 80mm and to required slope and providing one course of pressed tiles of size 150x150x20 mm or 200x200x20 mm, set in C.M 1:3 mixed with crude oil 10% by weight of cement and pointing with CM 1:3 mixed with crude oil including cost of all materials, lead, lift and curring etc., complete.	59	694	Sqm	831.14	576811.16
59	Water proofing three layers treatment to porch slab.	60	25	Sqm	831.14	20778.50
60	Plinth Protection all round the building for <b>one metre width and 100 mm thick</b> with Plain <b>CC 1:4:8</b> using 40 mm HGS and finishing surface with CM 1:5, 12mm thick including cost of all materials, lead, lift and curring etc., complete.	61	144	RM	473.92	68244.49
61	Providing projected border of 7.5 cm width on top of parapet wall in CM 1:3 mix 12mm thick including cost all materials lead lift curing etc complete.	62	34	RM	17.60	598.40
62	Providing projected border of 20cm width for plinth beam in CM 1:3 mix 20mm thick including cost all materials lead lift curing etc complete.	63	18	RM	58.61	1054.91
63	Forming expansion joints in roof slab with 18 gauge GI sheets as per 2B plan W.No.2/41 revised MDSS specification No.30	64	35	RM	959.85	33594.75
64	Forming expansion joints in floor slab with 16 gauge GI sheets as per sketch in MDSS specification clause 11-C	65	35	RM	959.85	33594.75
65	Forming vertical joints in RC columns with premoulded asphaltic pads 20 mm thick to full width of columns and providing aluminium cover strips out of 100 mm x 20 mm thick on both sides of the joints for interior column.	66	35	RM	959.85	33594.75
66	Forming vertical joints in RC columns with premoulded asphaltic pads 20 mm thick to full width of columns and providing aluminium cover strips out of 100 mm x 20 mm thick on the in side face and 100 mm wide 16 gauge GI sheet on the exterior face to exterior columns suitably.	67	35	RM	959.85	33594.75
67	Damp proof course cement concrete 1:1.5:3 with water proofing compound including cost of all materials lead lift etc. complete.	68	25	Sqm	310.13	7753.25



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68	Painting of all exposed iron & steel faces with primer one coat and two coats of approved synthetic enamel paint to doors, windows and ventilators and rolling shutters.	69	94	Sqm	103.42	9721.48
69	Providing & fixing one mono-rail of length 3m with 2 Nos. chain pulley block of 5 tonnes capacity each as directed by Department Engineer at site including cost of all materials and scaffolding etc complete as per standard specification.	70	1	Set	153900.00	153900.00
70	Supply & fixing of 32 mm dia PVC spout pipes to sunshades, porch, roof slabs etc complete.	71	30	RM	36.27	1088.10
71	Supplying and fixing in position aluminium partition partly glazed & partly paneled with 12mm thick both side prelaminated boards [Novanpan or Equivalent] and 5mm thick machine frosted float glass, saint gobine or Equivalent using aluminium box section of not less than 63x38.4x2mm x 1.174kg/m for vertical @ 955mm c/c approx and horizontal[4Nos] including cost of all materials, labour, lead, lift&P etc. complete	72	50	Sqm	1590.53	79526.50
72	Supply of steel fabrication, galvanising and erection of cable rack supports and ladder made of ISMB 150 RSJ and 50x50x6 / 5 mm angles the one of which are to be welded to 10/8 mm plates including cost of all materials, lead, lift etc. complete.	73	10	MT	51070.50	510705.00
73	PCC 1:3:6 mix using 40mm HBG machine crushed metal for foundation of septic tank, retaining wall etc., without form work including cost of all labour materials lead lift curing etc complete	74	4510	Cum	4415.45	19913679.50
74	Supplying and fixing musical quartz type wall clock of size 30x30cm of approved quality such as Ajantha/Seiko/Citizen etc including cost of transport fixing charges etc complete.	75	4	No	1154.25	4617.00
75	Supplying and fixing in position sun control polyester film, reflective type 75 microns thick, gareware or equivalent including the cost of all materials, labour, lead, lift, T&P etc. Complete.	76	50	Sqm	227.61	11380.50
76	Supplying and fixing of 100 mm dia PVC pipe for sewer line including all cost of materials lead lift etc complete.	77	80	RM	211.92	16953.60
77	Supplying and fixing of 100mm dia. stoneware pipe with open joint and covered with pan tiles including all cost of materials lead lift etc complete.	78	8	RM	197.68	1581.44
78	Supplying and fixing of 100mm dia. PVC bend including all cost of materials lead lift etc complete.	79	4	No	99.44	397.76
79	Supplying and fixing of 100mm dia. PVC TEE including all cost of materials lead lift etc complete.	80	4	No	157.85	631.40
80	Supplying and fixing of 100mm dia PVC pipe of 3m height with cowl including all cost of materials lead lift etc complete for septic tank	81	2	Set	635.76	1271.52

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
81	Supplying and fixing in position of best quality mirror (22" x 16") with aluminium frame over wash basin including cost of all materials labour, lead, lift, etc. complete as directed by the engineer at site	82	9	Nos	755.54	6799.86
82	Supplying and fixing of white glazed wash basin of approved size 24"x18" of approved quality Neycer/ Parry ware including cost of wash basin with pedestal cock fixing with rug bolt and nuts, 15mm dia PVC connecting hose and outlet using 40mm dia PVC waste pipe , CP valve, tap etc complete.	83	9	Set	2068.68	18618.12
83	Supplying and fixing of Indian type water closet with flushing cistern of Neycer/Parry ware with "P" or "S" trap etc complete.	84	4	Set	2759.47	11037.88
84	Supplying and fixing of Indian type water closet without flushing cistern of Neycer / Parryware with P or S trap, etc., complete.	85	4	Set	2277.67	9110.68
85	Supplying and fixing in position PVC Multi Floor Trap of approved make and quality and size 110X75mm or 63mm fixed over a bed of brick jelly lime concrete and finished with CM 1:3, and fixed with stainless steel grating including the cost of all materials, labour, lead, lift, T&P etc. complete.	86	10	Nos	956.92	9569.20
86	Supplying and fixing of approved quality of aluminium towel rod with powder coating of size (2 ft) and fixing the same over teak wood round block and soap tray (PVC) in bath room including cost of all materials lead lift labour etc complete.	87	5	Nos	390.57	1952.85
87	Supplying and filling with 40mm metal as per standard specification including all cost of all materials lead lift etc complete for dispersion trench.	88	30	Cum	1498.76	44962.68
88	Supplying, laying and fixing in position of PVC pipe of best quality from approved manufacturer confirming to IS 4985-1968, 4984-1970 including cutting threading joining with necessary PVC specials including cost of all materials lead lift labour etc complete.	89				
a	40mm dia pipe 10KG/Cm2	89.01	150	RM	172.53	25879.50
b	32mm dia pipe 10KG/Cm2	89.02	350.00	RM	115.83	40540.50
c	25mm dia pipe 10KG/Cm2	89.03	500.00	RM	92.34	46170.00
d	20mm dia pipe 10KG/Cm2	89.04	300	RM	66.42	19926.00
e	15mm PVC pipe 1.00m length with cap for dripping arrangement	89.05	200	Nos	57.51	11502.00
89	Supplying and fixing in position of gun metal gate valve leader make of best quality including cost of materials lead lift labour etc complete.	90				
a	40mm dia GM Gate /wheel valve.	90.01	10	nos	499.13	4991.30
b	32mm dia GM Gate /wheel valve.	90.02	15	nos	427.70	6415.50
c	25mm dia GM Gate /wheel valve.	90.03	33	nos	365.84	12072.72
d	20mm dia GM Gate /wheel valve	90.04	25	nos	328.46	8211.50
90	Supplying and fixing in position of 12mm / 15 mm dia brass screw down bib cock of best quality including cost of materials lead lift labour etc complete.	91				
a	12 mm dia	91.01	20	nos	198.79	3975.84
b	15 mm dia	91.02	6	nos	248.49	1490.94

**BILL OF QUANTITY CUM PRICE SCHEDULE****Name of Project:****400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU****Name of Work:****CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING**

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
91	Supplying and fixing of PVC shower and Nickle control valve complete.	92	4	Set	290.94	1163.76
92	Supplying and fixing in position of ready made PVC water tank 1000 litre capacity, Sintex or equivalent make including cost of cover, with opening for inlet, outlet & over flow pipe, Transporting and cost of all materials, labour, lead, lift, etc. complete.	93	2	Nos	6290.00	12580.00
93	Supplying and fixing in position of 40mm GI pipe including cost of materials labour lead lift etc complete.	94	32	RM	356.26	11400.32
94	Supplying and fixing in position White glazed Flat back urinal - Size 455 x 350mm of approved make and quality [Parryware -Aquaseal urinal or equivalent] and with PVC pipe connection [Kohinoor], 32mm PVC waste pipe [Kohinoor], 12/15mm GM wheel valve ISI, fixing the urinal to the valve with necessary TW plugs, brass screws etc, connecting to the water main as directed at site including cost of all materials labour, lead, lift, T&P etc. complete.	95	4	Nos	3241.97	12967.88
95	Supply & fixing marble partition of 25 mm thick 600 mm wide and 1200 mm high including necessary cement mortar with white cement concrete inbetween urinals.	96	2	Nos	2719.15	5438.30
96	Providing inspection chamber with CI manhole cover including all cost of materials lead lift etc complete. 0.45x 0.45x0.45m inner size.	97	12	Nos	3576.73	42920.76
97	Supplying and fixing Precast RCC slab in RCC 1:1½:3 mix concrete using 12mm to 20mm HBS metal for cover slab, manhole cover, baffle wall, kerb stone/kerb wall, trench/drain etc., including the cost of all materials, lead, lift etc.,complete.	98	1007.5	Cum	5179.43	5218275.73
98	Supplying and fixing of RCC jolly of size 0.6x0.45 including cost of all materials, lead, lift etc.,complete.	99	0.54	sqm	640.48	345.86
99	Supplying and fixing of RCC jolly of size 0.6x0.45 including cost of all materials, lead, lift etc.,complete.	99	0.54	sqm	640.48	345.86
100	Providing gypsum board false ceiling including supplying and fixing of Gypsum board using required size of Anodized Aluminium section, perforated gypsum board with all materials, labour, lift, T&Ps etc, including providing opening, out holes for fixing light and fan fittings wherever necessary all including cost of all materials, leads, lift, etc., as directed by the Engineer in charge complete.	105	710	sqm	610.94	433767.40
101	Supply, fabrication and fixing of Stainless Steel grill for staircase / Balcony hand rails with required accessories including cost of all materials, lead, lift etc., complete.	153	200	kg	187.24	37448.00
102	Drilling 150 mm dia deep Bore well (upto 150m depth below Ground Level) in all classes of soil including hard rock, charges for inserting casing pipe assembling in the drilled bore holes welding the casing pipe etc transporting to the site and supporting charge for the site and place to place etc. complete.	154	500	RM	646.34	323168.75

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
103	Supplying and fixing of 150 mm dia (inner) PVC casing pipe of 60 kg / cm <sup>2</sup> including cost of all lead, lift, labour material etc complete	155	40	RM	485.53	19421.20
104	Supplying and erection of 3 phase 3 HP compressor motor pump set of crompton/ ELGI make of good quality of ISI including handling charge lead, lift, etc. complete, cost of motor and accessories etc complete. of approved ISI make with all necessary accessories etc complete.	156	2	SETS	15390.00	30780.00
105	Supplying and fixing of 15 mm dia 'B' class GI pipe for air pipe from compressor to bore well point including cost of all materials, specials labour for cutting, threading fixing in position etc complete. etc complete.	157	40	RM	146.22	5848.80
106	Supplying and fixing of 15 mm dia (inner) HDPE hose of fine flow TEE make ISI with connecting special for air pipe from GI 15 mm dia GI pipe to bore well including cost of all materials labour charges for fixing etc complete.	158	500	RM	233.70	116850.00
107	Supplying and fixing of 32 mm dia (outer) HDPE hose of fine flow TEE make ISI with connecting special for delivery with bore well including cost of all materials, labour, lead, lift etc complete.	159	500	RM	374.80	187400.00
108	Supplying, laying and fixing in position of PVC pipe of best quality from approved manufacturer confirming to IS 4985-1968, 4984-1970 including cutting threading joining with necessary PVC specials including cost of all materials lead lift labour etc complete.	160				
a	32 mm dia PVC pipe	160.01	200	RM	261.94	52388.00
b	25 mm dia PVC pipe	160.02	100	RM	198.12	19812.00
109	Supplying and fixing of 1000 litre capacity sintex water tank of ISI make including cost of all materials, transport charges, GI nipple GI union etc complete.	163	2	Nos	6290.00	12580.00
110	Supplying of 12 gauge best quality IOWA GI barbed wire 2 ply 4 barb conform to IS 278 of IOWA and labour charges for tensioning of barbed wire as per 2 x 4 rows horizontally including cost of GI barbed wire, GI binding wire with all labour lead lift etc complete.	165	1810	RM	36.72	66463.20
111	Supplying, fabrication, galvanising and placing in position of GI angle 50 x 50 x 5mm 'Y' angle fixed in the column of boundary wall including cutting, bending, dying, fixing and drilling holes as directed by the site Engineer cost of angle, fixing charges, labour lead, lift etc., complete.	166	4200	kg	69.35	291270.00
112	Supplying and fixing of galvanised grating using 16/25 mm dia MS rod including cutting, welding, galvanising, cost of fixing, labour, lead, lift etc complete.	167	18500	kg	60.38	1117030.00
113	Supplying and fixing in position of ornamental grill gate for main gate of 6m width and 1 no. wicket gate of 1.20 m width including cost of all materials, labour for painting, cost of paint, lead, lift etc, as per drawing with proper locking arrangements etc., complete.	168	1800	KG	78.01	140418.00
114	Providing and laying in position of pvc pipes for draining water including earth work excavation laying pipe, cost of pipe, coupling, elbow, bend transport charges lead lift etc complete	169				

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
a	Set contains 2nos of 150mm dia pvc pipes	169.01	30	RM	1183.51	35505.30
b	Set contains 3nos of 200mm dia pipes	169.02	30	RM	1889.02	56670.60
115	Supply & Erection of 2 HP Monoblock pump with starter to drain out water from cable duct water collection sump including cost of suitable GI suction & delivery pipe cover for motor wiring lead lift etc complete	170	2	Nos	11542.50	23085.00
116	Providing weep holes with filling of required balast including cost of 100 / 160 mm pvc pipes fixing them in position etc complete	171				
a	100 mm dia PVC pipes	171.01	137	RM	265.58	36384.46
b	160 mm dia PVC pipes	171.02	48	RM	509.61	24461.28
117	Supplying, Fabricating and fixing the angles in position for cable duct including cost of all labour, cost of angle and hot dip galvanising charges, etc complete.	172	64	MT	63372.50	4055840.00
118	Providing opening for cable, exhaust fan, AC duct, water pipe line etc in brick work/RCC in building and retaining wall & cable duct including cost of machinaries, labour etc complete.	173				
a	Brick wall	173.01	5	Nos	107.26	536.28
b	RCC wall	173.02	5	Nos	185.12	925.60
119	Earthwork excavation in hard stiff clay stiff black cotton hard red earth shales murram gravel stoney earth mixed with small size boulders and hard gravelly soil with initial lead of 10m and lift of 2m, for road work.	174	9808	CUM	173.50	1701688.00
120	Supplying and Paving with soling stone of 150 mm thick for road base as per the standard using 1.65 m3 of soling stone for 10 sqm including supplying and spreading of good quality of gravel at 0.87 m3 for 10 sqm over the soling stone to a thickness of 75 mm including rolling by power roller, watering consolidation labour lead lift T & P etc complete.	175	2434	CUM	1829.17	4452199.78
121	Collection and supply of well murambu for formation of road base and stacking them to Departmental gauge for premeasurements including cost of all materials lead, lift, loading, unloading complete.	176	7275	cum	563.01	4095897.75
122	Spreading of well murambu in layers of 150mm including watering, rolling by hand roller, lead, lift, etc., complete.	177	7275	cum	41.65	303003.75
123	Providing and laying two layers of WBM each layer of 75 mm compacted thickness with Grade 2 metal using 1.00 cu.m of 63-45mm IRC metal HBG metal with 0.24 cu.m of gravel for blindage per 10sq.m including cost and conveyance of all materials and stacking them at the site to departmental gauge for pre-measurement labour charges for spreading metal and gravel, hand picking to camber, watering with all leads for water and compaction by 80-100 KN power roller including hire charges and fuel charges for power roller, water sprinkler and all other tools and plant etc. Complete (as per clause 404 of North specification)	178	2434	CUM	1835.62	4467899.08

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
124	Providing and laying tack coat of 4 kg bitumen for 10 m2 and including cost of bitumen which will be arranged by the contractor at including heating the bitumen with bitumen boiler including labour charges for preparing the surface for laying quantity of bitumen and fuel cost including hire charges for bitumen boiler all T & P etc. completed.	179	16172	sqm	12.65	204575.80
125	Providing and laying Bitumen macadam of 50 mm thick clean course aggregate 26.50 mm to 11.20 IRC size metal at the rate of 0.42m3 for 10m2 for each layer with application of bitumen at the rate of 38 kg per 10 m2 over each layer spreading the lay aggregate at size 11.20 - 2.80 mm @ .10 m3 and 2.80 mm @ .18 m3 per 10 m2 as per specification and application of bitumen and consolidation of each layer by power roller including conveyance at all materials to departmental gauge for premeasurement including conveyance cost of bitumen handling charges for the same at both labour for spreading the metal packing camber and grade including labour for heating bitumen to required temperature all hire charges fuel charges for power roller bitumen sprayer all T & P including lead lift etc completed.	180	812	CUM	6209.40	5042032.80
126	Providing and laying pre mix carpet with seal coat for 20 mm (consolidated) using 0.18 cum of 13.20 mm and 0.09 cum of 11.20 IRC metal with 14.6 Kg of bitumen for pre-mixing 10 sq m of premix carpet and .09 cum of 6 mm IRC metal 9.80 Kg of bitumen for seal coat including charges for conveyance of metal to work site and stacking them to departmental metric gauge for premeasurement including cost of bitumen conveyance to site including mixing the materials in mini hot mix plant for premix carpet spreading including hire charges for hot mix plant, all other tools and plants etc.	181	16172	sqm	187.15	3026589.80
127	Supplying and spreading of good quality of gravel for forming of side berms on either side 60cm wide of road with spreading of gravel to 175mm thick and ramming including including cost of gravel, compaction, labour, lead, and lift etc, complete.	182	590	CUM	797.16	470324.40
128	Providing of RCC Heavy duty pipe (NP3) across road crossing including cost of collar pipe as directed by department engineer at site for cable crossing and storm water drainage including all materials leads and lift etc, complete.					
a	300mm dia	183.01	50	RM	934.90	46745.00
b	150mm dia	183.02	100	RM	641.42	64142.00
129	Supply and laying of 65mm dia GI Pipe B class including cost of materials labour, lead and lift etc. complete.	184	50	RM	398.08	19904.00
130	Supplying and Spreading machine broken 25 mm HBG metal including 400/230/110Kv yard portion as per instruction of site engineer including cost of material lead lift, etc, complete.	185	4680	Cum	1294.25	6057071.28

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
131	Supplying and filling with quarry rubbish for the road portion 400/230/110KV yard portion as per instruction of site engineer including cost of material lead lift, etc, complete.	186	1690	Cum	810.82	1370285.80
132	Cutting and filling in low lying area for levelling the surface including cost of cutting the gravelly soil/ soft disintegrated rock with JCB/ other earth moving machineries, consolidation as per standard specifications and consolidation with power rollers including all labour, hire charges for machineries etc., complete. (lead within S/S boundary).	187	5000	Cum	234.99	1174950.00
133	Fixing (all dia & length) foundation bolts in position with help of proper templates (template to be supplied by contractor) including nuts and washers without any tilt until completion of concrete, checking the alignment for various structures including cost of template, labour, lead lifts etc., all complete as per specs, drawings & directions of Engr-in-Charge. (Foundation bolts shall be supplied by BHEL). <b>Note:-</b> Weight of foundation bolts including nuts & washers only shall be measured for payment purpose.	188, 189 & 190	17950	KG	6.64	119188.00
134	Fabricating, galvanising & supplying of foundation bolts manufactured with steel of various sizes as per drawing with 3 Nos GI nuts including welding a plate of size 100x100x12mm thick at the bottom of bolt including cost of materials, labour, lead lift, galvanisation, etc. complete (sample to be approved by Department Engineer at site) as per standard specification. Galvanisation shall be 610 gm/sqm. <b>Note:-</b> Weight of foundation bolts including nuts & washers only shall be measured for payment purpose. Fixing charges shall be paid in item no. 132.	189	2000	KG	65.02	130040.00
135	Supply and fixing of M.S. rail for transformer plinth cutting to required length of 4.20m and welding of grip rods etc., including cost of rail, transport, cost of grip rod etc., complete.	194	12	Set	17903.01	214836.15
136	Providing gypsum board false ceiling with deck insulation using 50 mm thick including supplying and fixing of Gypsum board 12.5 mm thick using required size of Anodized Aluminium section, perforated gypsum board with all materials, labour, lift, T&Ps etc, including providing opening, out holes for fixing light and fan fittings wherever necessary all including cost of all materials leads, lift, etc., as directed by the Engineer in charge complete as per standard specification .		50	sqm	992.40	49620.00
137	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete : Serrated with central bulb (230 mm wide, 5-11 mm thick)		50	RM	216.54	10827.00
138	Supply and fixing of chicken wire mesh (Steel Wire) on junction of RCC & brick wall in control room building & switchyard panel room including cost of all materials lead lift etc., complete. as per standard specification.		1500	sqm	40.88	61320.00

**BILL OF QUANTITY CUM PRICE SCHEDULE**

Name of Project:

400/230-110 KV SUB-STATION AT VELLALVIDUTHI, TAMILNADU

Name of Work:

CIVIL WORKS FOR SUB-STATION INCLUDING BUILDINGS,  
COMPOUND WALL & STONE SPREADING

S. No.	Description of Item	Customer Item No.	Quantity	Unit	Unit Rate (Rs)	Amount (Rs)
139	Supply and fixing of weld mesh (22SWG Steel Wire) on brick wall for earthing purpose in bay control room including cost of all materials lead lift etc., complete. as per standard specification.		500	sqm	253.12	126560.00
140	Supplying and fixing of Name Board letter in brass including cost of all materials lead lift etc as directed by Engineer and approval as per standard specification		10	sqm	4355.86	43558.60
141	Supply, Fabrication & fixing of Name Board of vinyl sticker laminated in alco panel using 18 gauge M.S. sheet with outer in suitable angle and stiffener including cost of all materials,leads & lifts etc., complete. As per standard specification.		10	sqm	483.84	4838.40
142	Supply, Fabrication & fixing of Name Board of vinyl sticker laminated in alco panel using 18 gauge M.S. sheet with outer in suitable angle and stiffener including cost of all materials,leads & lifts etc., complete. As per standard specification.		20	sqm	496.72	9934.40
143	Supplying and fixing 60mm thick paver block made of cement concrete of M30 grade to the foot path of the operational switches inside the yard including the cost of all materials, leads, fixing charges, lifts etc., complete as per standard specification.		100	SQM	549.38	54938.00

<b>TOTAL ESTIMATED VALUE (RS.)</b>	<b>251202419</b>
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Note:-

- 1) Cost for surveying & contouring of the substations area, marking boundary line coordinates and deciding FGL as per specification are included in the unit rates of item no. 2& 132. This shall also include cost of mobilization and arranging all necessary T&P.



ANNEXURE-IIIFYj '1\$%L					
PROJECT : TANTRANSCO's 400/230-110kV Vellalaviduthi Substation Pkg.					
BILL OF QUANTITIES FOR UNDER GROUND EARTHING AND ELECTRODES, REV					
S. No	Description	Unit	Qty	Unit Rate	Total
1	<p>Laying of 40 mm dia MS Rods for earthing as per drawing , technical specification and direction of site engineer incharge, <b>includes the following</b> .</p> <p>(1) Excavation and refilling upto average width of 0.3 m and average depth of 0.8 m.</p> <p>(2) Laying of 40mm dia MS rods for main earthmat grids at a minimum depth of 800 mm measured from the top of FGL( finished ground level).Including cutting, bending, welding , fixing as per site requirements.</p> <p>(3) Bringing out 40mm dia MS rod risers from main earthmat grid upto 150mm below the FGL near the equipment /tower foundations. Including cutting, bending, welding , fixing as per site requirements.</p> <p>(4) The welding should be treated with red lead and afterwards coated with two layer bitumen compound to prevent corrosion before backfilling.</p> <p>(5) Any other work necessary to complete the laying of earthmat deemed to included in the scope.</p> <p><b>40 mm Dia MS Rod shall be provided by BHEL.</b></p>	MT	475	5537.33	2630229.6
2	<p>Fabrication &amp; laying of Auxiliary Mat of 40 mm Dia MS Rods at a depth of <b>300</b> mm from top of FGL as per enclosed drawing, <b>including</b> following works as mentioned below.</p> <p>(1) Excavation and refilling .</p> <p>(2) connection with main earthmat through riser and bringing riser to near by Isolator and earth switch mechanism box( Riser shall be paid under above item sl. no. -1 above) .</p> <p>(3) The welding should be treated with red lead and afterwards coated with two layer bitumen compound to prevent corrosion.</p> <p>(4) Any other work necessary to complete the laying of Auxiliary earthmat deemed to included in the scope.</p> <p><b>40 mm Dia MS Rod shall be provided by BHEL.</b></p>	Nos.	285	1690.60	481821.18
3	<p>Rod electrode with treated earth pit complete including</p> <p>1. boring of 150mm dia using power rig in all types of soil,</p> <p>2. supply and laying mixture of bentonite powder, salt &amp; red earth,</p> <p>3. supplying and fixing of Reinforced cement collar</p> <p>4. identification board including all labour, material, hardwrae (nut, bolts, washers) etc. as per attached drawing, specification and direction of engineer in charge.</p> <p><b>40 mm Dia MS Rod &amp; 75x12mm MS Flat shall be provided by BHEL.</b></p>	Nos.	235	6999.04	1644774.4
				<b>Total</b>	<b>47,56,825</b>
<p><b>Note 1-</b> 40mm Dia MS rod and 75x12 mm MS flat will be supplied by BHEL.  <b><u>However unloading , storing , watch and ward shall be in the scope of contractor.</u></b></p> <p><b>Note -2</b> - Refer attached Annexure-1 for technical specification and Annexure -2 for earthing drawings.</p>					

**ANNEXURE-III(Rev.-01)**

**BILL OF QUANTITIES CUM PRICE SCHEDULE**

<b>Name of Project :400/230-110 KV AIS SUB STATION AT VELLALAVIDUTHI</b>					
<b>Name of Work: Construction of Stores</b>					
<b>Sl No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Unit Rate (Rs.)</b>	<b>Amount (Rs.)</b>
1	2 No Open stores of size 2500 Sqm (as per specification enclosed).	Sqm	5000	488.00	24,40,000.00
2	2 No Covered store of size 200 sqm (As per specification enclosed).	Nos.	2	12,63,430.00	25,26,860.00
	<b>Total Amount (Rs.)</b>				<b>49,66,860.00</b>
<b>Notes:</b>					
1	The quoted rate is inclusive of all materials, tools & plants etc. required for above works.				
2	Decision of store location and execution of above items shall be taken by site incharge as per site requirement.				

**ANNEXURE-IV**

**(Rev.-01)**

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

**PRICE SCHEDULE FORMAT**

**SUB: EXECUTION AND HANDING OVER OF CIVIL WORKS OF 400/230-110 KV AIS SUB STATION AT VELLALAVIDUTHI IN PUDUKOTTAI EDC, PUDUKOTTAI DISTRICT IN TRICHY REGION IN TAMILNADU.**

(a) I/ We hereby agree to execute the above work at ----- % (in figure).....  
----- (in words) Above / Below/ At Par the rates of items given in BOQ  
(Annexure-I,II & III) of subject tender.

**NOTE:**

1. In this annexure the tenderer shall quote a percentage above/ below/At Par the rates shown in the Bill of Quantities (Annexure-I, II & III) of subject tender. The percentage quoted shall be clearly written both in words and figures In case of discrepancy in rates in figure and words, the minimum will be taken into account by BHEL.
2. The quoted percentage will apply to the individual items uniformly.

Date:

Place

Signature of tenderer  
Name & Designation of authorized person(s) with seal

**ANNEXURE-V(Rev.-01)**  
**( Summary of Prices)**

**Name of Project: 400/230-110 KV AIS SUB STATION AT VELLALAVIDUTHI (T.N.)**

**Name of Work: CIVIL WORKS OF 400/230-110 KV AIS SUB STATION AT VELLALAVIDUTHI IN PUDUKOTTAI EDC, PUDUKOTTAI DISTRICT IN TRICHY REGION IN TAMILNADU**

1 (a)	Total amount as per the rates in BOQ for Civil Works of 765/400kV yard (excluding land development, boundary wall and security room) (Annexure-I)	2512,02,419.00
1 (b)	Total amount as per the rates in BOQ for underground earthing works (Annexure-II)	47,56,825.00
1 (c)	Total amount as per the rates in BOQ for construction of stores (Annexure-III)	49,66,860.00
<b>1</b>	<b>Total Amount (Annexure- I, II &amp; III)</b>	<b>2609,26,104.00</b>
<b>2</b>	Value of percentage above/below/at par (As indicated in Price Schedule Format, Annexure-IV) applicable to the total amount for subject work (Sl. no. 1 above)	.....% above/below/at par
<b>3</b>	Total amount after consideration of percentage above/below/ at par.	

**BHARAT HEAVY ELECTRICALS LIMITED**  
**TRANSMISSION BUSINESS GROUP, NOIDA**

**PRE-QUALIFYING REQUIREMENTS (Rev-01)**

**Tender Ref. No.: TBSM/CIVIL/ VELLALAVIDUTHI/TENDER**

**Date: 09.07.2018**

**SUB: TENDER FOR EXECUTION AND HANDING OVER OF CIVIL WORKS OF 400/230-110 KV AIS SUB STATION AT VELLALAVIDUTHI IN PUDUKOTTAI EDC, PUDUKOTTAI DISTRICT IN TRICHY REGION IN TAMILNADU**

Sealed Tenders (Under two part bid system) are invited from competent civil contractors for civil works of 400/230-110 kv AIS sub station at Vellalaviduthi in Pudukottai edc, Pudukottai district in Trichy region in Tamilnadu. Only those who are technically and financially capable to execute the Job and who fulfil the Pre-Qualifying Requirements [PQR] given under are eligible to quote against the above NIT. Tenderers should submit their offer in a sealed envelope as per the procedure specified in tender documents. The PQR of contractor for tender submission shall be as under:

Sl. No.	Criteria	Description
A	Turn Over	Vendors should have a minimum average annual turnover of <b>Rs. 783 lacs</b> for last three fin. years (2013-14, 2014-15 & 2015-16 OR 2014-15, 2015-16 & 2016-17) and should submit audited balance sheet and Profit & Loss Account Sheet of these years. In case audited balance sheet is not available due to turnover being less than statutory requirement of audit, bidder should furnish self-certified copies of Balance Sheet, Profit & Loss account along with income tax returns and form 26 AS of these years.
B	Profit	Vendor should have earned profit in at least one year during last three financial years as mentioned in A above.
C	Similar Work	Vendor should have successfully executed civil works of switchyard OR Power Plant OR Industry (All industry excluding residential, irrigation & road work) involving predominantly concrete work during last seven years ending on 30.04.2018 and should be either of the following:  i. <b>Three similar jobs executed costing (except service tax/GST) not less than Rs. 1044 lacs each.</b> OR ii. <b>Two similar jobs executed costing (except service tax/GST) not less than Rs. 1305 lacs each.</b> OR iii. <b>One similar job executed costing (except service tax/GST) not less than Rs. 2087 lacs.</b>
D	Additional Qualification	In addition to sl. no. C above the bidder should have experience (during last seven years ending on 30.04.2018) of successful execution of Civil works of double storey building consisting of RCC framed Structure and Roof slab, shuttering etc.

**Note:**

Experience mentioned at sl. no. D may be included in work order furnished towards sl. no. C or separate work of any value.

**Important Notes:**

1. The word 'executed' means the bidder should have achieved the criteria specified in the PQR even if the total contract has not been completed or closed.
2. In order to technically qualify in this tender, bidder should meet all criteria i.e. A, B, C & D mentioned above.
3. If the job is executed in the last seven years period, as specified above, even if it has been started earlier, the same will also be considered meeting the qualifying requirements.
4. The bidder shall submit the Contract Agreement/ Work Order/LOI, BOQ and performance/ completion/ execution certificate issued by Customer/ Contractor along with technical bid in support of qualification.
5. Consortium/ JV bidding is not allowed.
6. BHEL reserves the right to:
  - (a) Accept or reject any bid received at its discretion without assigning any reasons whatsoever.
  - (b) Postpone the above mentioned date, split and distribute the work among more than one bidder without assigning any reason whatsoever.
  - (c) May ask for further qualification during techno commercial scrutiny of bids received.
  - (d) May ask for further proofs including TDS certificates/ Final bill/ 26AS payment detail for the said job for cross- verification.
7. BHEL shall not be responsible for any delay, loss, damage for bids sent by post.
8. BHEL shall not be liable for any expenses incurred by bidder in preparation of bid irrespective of whether it is accepted or not.
9. Quotations received from bidders who do not fulfil the PQR shall be summarily rejected without any further evaluation and information to bidders.
10. Canvassing i.e. soliciting favour, seeking advantage etc. in any form is strictly prohibited and any bidder found to have engaged in canvassing shall be liable to have his bid rejected summarily.
11. If the bidder deliberately gives any wrong information in his tender to create in circumstances for the acceptance to his bid, BHEL reserves the right to reject such application.
12. Bidder's selection is subject to approval of BHEL's customer for this work.
13. All corrigenda, addenda, amendments and clarifications to this Tender will be hosted in web page, [www.bhel.com](http://www.bhel.com) and not in the newspaper. Bidders shall keep themselves updated with all such amendments.

**ANNEXURE-A**

**Other Clarification (Asked by Bidder's)**

<b>S. No.</b>	<b>BOQ Item No.</b>	<b>Description</b>	<b>Bidder's query</b>	<b>Our Clarification</b>
<b>1</b>	BOQ Item No. 11:	Filling the foundation and basement with river sand	River sand is not available in the market so we kindly request you to approve M-sand for the same.	Bidder to quote considering river sand only for all items of BOQ related with sand. However in case of non-availability of the river sand, and subject to approval by customer, good quality crushed stone sand / M-sand, conforming to the grading limits and other requirements set in IS:383 may be used. If crushed stone sand/M-sand is used in place of river sand, Net rebate of Rs. 100/- per cum of concrete on final amount shall be given by the bidder for all concreting items.
<b>2</b>	BOQ Item No. 27 & 28	Brick Work	We kindly request you to approve fly ash bricks instead of chamber burnt bricks.	The bidder to follow specifications.
<b>3</b>	BOQ Item No. 43	Quantity – 1779.5	Unit and rate are not mentioned.	The figure 1779.5 written in front of item no. 43 is actually sum of quantities of sub-item no. 43a & 43b. Rate, quantity and unit of 43a & 43b are already given and to be treated for all purposes.