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**BHARAT HEAVY ELECTRICALS LIMITED**  
**RAMACHANDRAPURAM :: HYDERABAD-32**  
**TOWNSHIP ADMINISTRATION**

**TENDER DOCUMENTS (PRICE BID)**

**Name of the work : Additions & alterations to electrical points and repair of  
service connection to residential buildings in township.**

**Tender Notice : HY/TA/E/OT-01/2011-12, Dt. 10.05.2011; Item No. 01**

**INDEX**

**1. Schedule 'A' : Schedule of rates and approximate quantities**

**SIGN. OF TENDERER**

**ISSUING OFFICER**

**Address:**

**Phone No. \_\_\_\_\_**

**BHARAT HEAVY ELECTRICALS LIMITED**  
**RAMACHANDRAPURAM :: HYDERABAD - 32**  
**(TOWNSHIP ADMINISTRATION)**  
**ELECTRICAL DEPARTMENT**  
**SCHEDULE - 'A'**

**Tender No.: HY/TA/E/OT-01/2011-12**  
**Date : 10.05.2011**  
**Item No.: 01**

**Additions & Alterations to Electrical points and Repair of Service Connection to Residential Buildings in Township.**

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
	<b>WIRING</b>				
1	Supply & Wiring with 2run 1.5sq.mm (22/.3mm) PVC insulated multistranded copper conductor cable L&T / Finolex make run together with single run 1 sq mm PVC insulated multistranded copper conductor for earth continuity in concealed / surface rigid with PVC conduit pipe of 25mm dia ;1.5 mm thick (Sudhakar make) through MS junction box. Wiring includes supply and fixing of 5A, 250V ceiling rose / PVC holder Anchor make on teak wood / PVC round block and 6A 250V piano type switch Anchor / Icon make on hylam sheet of thickness 3mm preferably white with suitable MS box for control of light, fan, bell and exhaust fan point; all complete as directed by engineer in charge.	Each	120	742.00	89,040.00
2	Supply & wiring with 1.5 sq.mm (22/.3mm) PVC insulated multi stranded copper conductor cable L & T / Finolex make together run with single run of 1 sq.mm PVC insulated multi stranded copper conductor for earth continuity run in concealed surface rigid PVC conduit pipe 25mm dia, 1.5mm thick (sudhakar make) through MS junction box. supply and fixing of 1 no. brass holder, 2 nos. 6A,250V two way piano type/flush type switches Anchor / Icon Make on Hylam sheet of thickness 3mm preferably white with suitable MS box for control from two sides for stair case light points; all complete as directed by engineer in charge	Each	12	1,213.00	14,556.00

<b>Sl. No.</b>	<b>Nature of work</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
3	Supply & wiring with 2 run 1.5 sq.mm (22/.3mm) PVC insulated multi stranded copper conductor cable L&T / Finolex make run together with 1 sq. mm PVC insulated multi stranded copper conductor for earth continuity run in concealed surface rigid PVC conduit pipe 25mm dia / 1.5 mm thick (sudhakar make) and supply & fixing of 2/3 pin flush mounted multipurpose 6A, 250 V piano type switch and socket Anchor / Icon make on Hylam sheet of thickness 3mm preferably white with suitable MS box for separate socket; all complete as directed by engineer in charge.	Each	120	541.00	64,920.00
4	Supply & fixing and connecting of, 2/3 pin flush mounted multipurpose 6A, 250 V piano type switch and socket Anchor / Icon make with internal connection 1.5sq.mm wire for control to be fixed on common switch board; all complete as directed by engineer in charge.	Each	80	66.00	5,280.00
<b>RUN OF MAINS</b>					-
5	Supply & run of with 2.5 Sqmm PVC insulated Multistranded copper conductor cable of L&T /Finolex make run together with single run of 1.0 sq.mm PVC insulated multistranded copper conductor for earth continuity, run in concealed / surfaced rigid PVC conduit pipe 25 mm dia, 1.5 mm thick (sudhakar make) with all required accessories for single phase two wires run of mains; all complete as directed by Engineer-in-charge.	Rmt.	700	124.00	86,800.00
6	Supply & run of with 4.0 Sqmm PVC insulated Multistranded copper conductor cable of L&T /Finolex make run together with single run of 1.5 sq.mm PVC insulated multistranded copper conductor for earth continuity, run in concealed / surfaced rigid PVC conduit pipe 25 mm dia, 1.5 mm thick (sudhakar make) with all required accessories for single phase two wires run of mains; all complete as directed by Engineer-in-charge.	Rmt.	350	153.00	53,550.00
7	Supply & run of with 4.0 Sqmm PVC insulated Multistranded copper conductor cable of L&T /Finolex make run together with single run of 1.5 sq.mm PVC insulated multistranded copper conductor for earth continuity, run in concealed / surfaced rigid PVC conduit pipe 25 mm dia, 1.5 mm thick (sudhakar make) with all required accessories for three phase four wires run of mains; all complete as directed by Engineer-in-charge.	Rmt.	25	231.00	5,775.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
8	Supply & run of with 6.0 Sqmm PVC insulated Multistranded copper conductor cable of L&T /Finolex make run together with single run of 1.5 sq.mm PVC insulated multistranded copper conductor for earth continuity, run in concealed / surfaced rigid PVC conduit pipe 25 mm dia, 1.5 mm thick (sudhakar make) with all required accessories for single phase two wires run of mains; all complete as directed by Engineer-in-charge.	Rmt.	175	206.00	36,050.00
	<b>ACCESSORIES</b>				-
9	Supply and fixing of 250V, 6A ceiling rose of Anchor / Icon make; as directed by Engineer-in-charge.	Each	20	39.00	780.00
10	Supply and fixing of PVC slant / batten/ pendant holder Roma make. ( Catalog no. 30125, 30114, 30103 )	Each	35	57.00	1,995.00
11	Supply and fixing of Ding dong bell of Anchor / Icon make; as directed by Engineer-in-charge.	Each	5	118.00	590.00
12	Supply and fixing of Musical bell of Anchor / Icon make; as directed by Engineer-in-charge.	Each	3	263.00	789.00
13	Supply and fixing of 250V, 6A piano type switch of Anchor / Icon make; as directed by Engineer-in-charge.	Each	26	32.00	832.00
14	Supply of 250V, 6A flush type socket of Anchor / Icon make; as directed by Engineer-in-charge.	Each	44	26.00	1,144.00
15	Supply and fixing of 250V, 16A switch or socket of Anchor / Icon make; as directed by Engineer-in-charge.	Each	30	77.00	2,310.00
16	Supply and fixing of 7" x 4" M.S Box with Hylam sheet of thickness 3mm preferably white with 16A Switch and 16A socket (or switch cum socket) of Anchor / Icon make; complete as directed by Engineer-in-charge.	Each	70	190.00	13,300.00
17	Supply and fixing of 250V, 6A, 3-pin plug tops of Anchor / Icon make; as directed by Engineer-in-charge.	Each	10	43.00	430.00
18	Supply and fixing of 250V, 16A, 3-pin plug tops of Anchor / Icon make; as directed by Engineer-in-charge.	Each	5	60.00	300.00
	<b>DECOLAM BOARD</b>				-
19	supply of 7" x 4" decolam board.	Each	12	20.00	240.00
20	supply of 6" x 8" decolam board.	Each	12	25.00	300.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
21	supply of 8" x 10" decolam board.	Each	10	33.00	330.00
22	supply of 10" x 12" decolam board.	Each	10	48.00	480.00
	<b>TEAK WOOD BOARDS</b>				-
23	Supply of 7" x 4" teak wood board.	Each	15	8.00	120.00
24	Supply of 6" x 6" teak wood board.	Each	5	8.00	40.00
25	Supply of 6" x 8" teak wood board.	Each	15	14.00	210.00
26	Supply of 8" x 10" teak wood board.	Each	20	24.00	480.00
27	Supply of 10" x 12" teak wood board.	Each	20	31.00	620.00
28	Supply of 12" x 15" teak wood board.	Each	5	50.00	250.00
	<b>MAINSWITCHES, FUSES &amp; FUSE D.B.</b>				-
29	Supply and fixing of 32A, 250V Porcelain rewirable fuse unit reputable make	Each	26	121.00	3,146.00
30	Supply and fixing of 32A, 415V Porcelain rewirable fuse unit reputable make	Each	25	141.00	3,525.00
31	Supply and fixing of 63A, 415V Porcelain rewirable fuse unit reputable make	Each	40	220.00	8,800.00
32	Supply, fixing and connecting of 250V, 32A Double Pole Iron Clad Main Switch with porcelain rewirable fuse units; complete as directed by Engineer-in-charge.	Each	5	898.00	4,490.00
33	Supply, fixing and connecting of 415V, 32A Triple Pole Iron Clad Main Switch; complete as directed by Engineer-in-charge.	Each	2	937.00	1,874.00
34	Supply, fixing and connecting of 415V, 63A Triple Pole Iron Clad Main Switch; complete as directed by Engineer-in-charge.	Each	2	2,044.00	4,088.00
35	Supply, fixing and connecting of 250V, 16A, 1-phase 6-way porcelain fuses distribution board having metallic sheet steel enclosure; complete as directed by Engineer-in-charge.	Each	2	468.00	936.00
36	Supply, fixing and connecting of 250V, 16A, 1-phase 8-way porcelain fuses distribution board having metallic sheet steel enclosure; complete as directed by Engineer-in-charge.	Each	2	588.00	1,176.00
	<b>ISOLATORS, MCBs &amp; MCB D.B.</b>				-
37	Supply of 6A-32A MCB's of MDS make.	Each	35	210.00	7,350.00
38	Supply of 250V, 40/63A, 2-pole isolators (MCB) of MDS make.	Each	5	959.00	4,795.00
39	Supply of 415V, 63A, 4-pole isolators (MCB) of MDS make.	Each	5	1,852.00	9,260.00
40	Supply of 415V, 80/100A, 4-pole isolators (MCB) of MDS make.	Each	3	2,072.00	6,216.00

<b>Sl. No.</b>	<b>Nature of work</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
41	Supply, fixing and connecting of 1-phase 4-way single door MCB Distribution Box with 6A-32A MCB's and 40/63A isolator of MDS make; complete as directed by Engineer-in-charge.	Each	2	2,255.00	4,510.00
42	Supply, fixing and connecting of 1-phase 6-way single door MCB Distribution Box with 6A-32A MCB's and 40/63A isolator of MDS make; complete as directed by Engineer-in-charge.	Each	5	2,646.00	13,230.00
43	Supply, fixing and connecting of 1-phase 8-way single door MCB Distribution Box with 6A-32A MCB's and 40/63A isolator of MDS make; complete as directed by Engineer-in-charge.	Each	1	3,321.00	3,321.00
44	Providing of earthing arrangement comprising of 100 mm inner dia, 3 mm thick GI pipe buried upto a minimum depth of 3.0 mtrs including filling the earth pit with homogenous layers of coke/charcoal, salt & sand etc. as required conforming to IS:3043. Suitable length of 8 SWG bare copper conductor to be bolted at bottom of the pipe and run around the pipe upto the surface connection point ( Copper conductor included as separate item ). The earth pit to be provided with brick masonry chamber with hinged cover and watering arrangement; complete in all respects, as directed by Engineer-in-charge.	Set	8	3,111.00	24,888.00
45	Supply and fixing of Copper flat / bare conductor.	Kg.	10	559.00	5,590.00
46	Supply and installation of 20A single phase MCB box with 20A metal clad plug-socket of Legrand / MDS make for termination of cable for AC point.	Each	35	1,077.00	37,695.00
	<b>M.S. ITEMS</b>				-
47	Supply & fixing of angular iron frame in wall with 1/1.6 mm MS sheet on top with hinges & all four sides with screws. Necessary red-oxide / grey painting as directed by engineer in charge.	Kg.	20	112.00	2,240.00
48	Supply, fabrication & fixing of MS sheet cupboards made of sheet 1.6mm thick with single/double shutter and mechanical locking arrangements. The cupboards shall be given 2 coats of red-oxide paint and finished with necessary general purpose quick drying oil paint of suitable shade, etc. complete as directed by engineer in charge.	Kg.	26	184.00	4,784.00
	<b>METERS</b>				-
49	Supply, fixing and connecting of 3 phase 5Amp /100Amp – 415V C.T meter	Each	1	2,990.00	2,990.00
50	Supply, fixing and connecting of 3 phase 5Amp/100Amp-415V C.T. meter coil.	Each	3	143.00	429.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
	<b>LIGHTING</b>				-
51	Supply and fixing of bulk head fitting with cast aluminium enamel painted body with water light clear glass with wire guard hinged with lock & key arrangement etc complete of best Indian make.	Each	5	416.00	2,080.00
52	Supply, fixing & connecting of bulk head luminaire cat.no. NXC101, with 1 x GLS 60 watts lamp philips make.	Each	5	687.00	3,435.00
53	Supply of Tube light starters / starter base / side holder / side holder base / Rotary type holder reputed make.	Each	65	17.00	1,105.00
54	supply of 20W/40W copper choke philips make	Each	15	143.00	2,145.00
55	Supply of CFL (bulb)14W/18 watts (without choke) of Bajaj / Philips make as directed by engineer in charge	Each	5	198.00	990.00
56	Supply and fixing of decoratvie CFL luminaire for wall mounting FL 800/320 with 20 W bulb philphs make.	Each	5	669.00	3,345.00
	<b>SPECIAL ITEMS</b>				-
57	Cleaning of switch boards/ switches/ shades/ fittings with detergent powder, wherever it is necessary.	Each	75	26.00	1,950.00
58	supply & fixing of tubular type heating element suitable for 50 Ltrs / 90 Ltrs water heaters 3 hole /triangular disc type / non-threaded type as per samples given as directed by engineer in charge .	Each	25	440.00	11,000.00
59	Supply & fixing of thermostat 30 °C to 90 °C adjustable and suitable for 25Lts to 90Lts.	Each	5	230.00	1,150.00
60	Servicing of storage type water heaters (geyser). Work involves cleaning, replacement, dismantling & refixing.	Each	10	193.00	1,930.00
61	Removal of MS rod from ceiling and fixing of 4'/5' tube light fitting to down rods with suitable MS clamps to provide ceiling rose on Teakwood round block ( The work includes dismantling of fittings removal of existing gutties, clamps, bolts & nuts.) as directed by engineer in charge	Each	30	182.00	5,460.00
62	Supply of emergency lamp dry cell 6 Volts 10 AH rechargable maintenance free battery as directed by engineer in charge.	Each	20	510.00	10,200.00
	<b>SERVICE CONNECTIONS</b>				-

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
63	Supply & fixing of one run of 2x10 Sq.mm (twin core WPTC) PVC insulated (WPTC) sheathed weather proof AL. Conductor cable of payal/gold model make 1100V grade together run with 7/18 SWG GI bearer wire outside building and concealed /surface in rigid PVC conduit inside the building including necessary clips insulation tape etc., for single phase service tapping as directed by engineer in charge.	Rmt.	220	54.00	11,880.00
64	Supply & fixing of two run (4 wires) of 2x10 Sq.mm (twin core WPTC) PVC insulated sheathed weather proof AL. Conductor cable Payal/gold model make 1100V grade together run with 7/18 SWG GI bearer wire outside building and concealed/surface in rigid PVC conduit 32mm dia 2mm thickness inside the building including necessary clips insulation tape etc., for single phase service tapping as directed by engineer incharge	Rmt.	438	92.00	40,296.00
<b>SERVICE CONNECTIONS SUPPORTING MATERIALS</b>					-
65	Supply, fabrication and fixing / grouting of eye bolt made of MS rounds 10/12/16mm dia. as directed by Engineer in charge.	Kg.	20	122.00	2,440.00
66	Supply & fixing of guy insulator of 80x50mm. One guy insulators to be fixed at either ends of the GI wire supporting the service connection cable.	Each	35	44.00	1,540.00
67	Supply & grouting in wall 32mm dia GI pipe (class B) at the building end for entry of service tapping to building. One end of the pipe should have threaded for fixing bends.	Mtr.	10	226.00	2,260.00
68	Supply & grouting in wall 25mm dia GI pipe at the building end for entry of service tapping to building. One end of the pipe should have threaded for fixing bends.	Mtr.	20	166.00	3,320.00
69	Supply & fixing of GI bends 32mm dia for fixing of 25mm/32mm dia GI pipe for arresting entry of rain water into the pipe . Also suitable size of PVC/Rubber bushes should be provided at the entry of the point of pipe/bend.	Each	20	82.00	1,640.00
70	supply & fixing of rigid conduit PVC pipe 35mm dia and 1.5 thick (sudhakar make) on surface/concealed including bends.	Each	80	68.00	5,440.00
71	Supply & fixing of Steel support wire 7/20 SWG with tape and new link clips to the existing weather proof wire only in case of breaking of GI wire.	Mtr.	800	11.00	8,800.00
72	Supply & fixing of bus bar insulators with necessary screw etc..	Each	100	22.00	2,200.00
73	Supply & fixing of 3 x25mm copper flat/ rod for bus bar with necessary screw etc..	Kg.	15	527.00	7,905.00
74	Restringing of old service connections with necessary link clips and tapes for the above item	Each	200	196.00	39,200.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
	<b>EARTH WORK &amp; CABLES</b>				-
75	Earth work excavation for cable trenches of size 0.6mm width & 0.9mm deep in all soils except rocky cutting of floor & roads & refill.	Rmt.	175	71.00	12,425.00
76	Supply & spreading of sand cushion 5cm thick around the cable & laying rough shahabad stone.	Rmt.	175	89.00	15,575.00
77	Providing and laying in position cement concrete of specified grade excluding the cost of carrying and shuttering etc1:5:10	Cu.M	1.5	2,080.00	3,120.00
78	Laying of PVC insulated PVC sheathed steel armoured Al conductor cable & connecting to switch and pole (both sides) ( cable supplied dept.)				-
a)	1.5sq.mm/2.5sq.mm to 16 sq.mm cable	Rmt.	130	13.00	1,690.00
b)	25 sq.mm to 70 sq.mm cable	Rmt.	220	19.00	4,180.00
79	Supply & crimping of copper lugs of following sizes:				-
a)	16 sq.mm	Each	30	14.00	420.00
b)	25 sq.mm	Each	20	17.00	340.00
c)	35 sq.mm	Each	20	30.00	600.00
d)	50 sq.mm	Each	20	39.00	780.00
e)	70 sq.mm	Each	10	47.00	470.00
f)	95 sq.mm	Each	10	55.00	550.00
g)	120 sq.mm	Each	10	85.00	850.00
			<b>TOTAL ... ..</b>		<b>749,555.00</b>

**Note:- The tenderers are required to quote their tender value on %age basis at excess or less or on par with estimated value.**

Tender %	Figures	words
<b>Excess</b>		
<b>Less</b>		
<b>Estimate rate only</b>		

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)

**Conditions :**

1	A <b>penalty of 0.5%</b> of the gross value of work will be levied for every week's delay of work subject to a maximum penalty of 10% of the gross value of work.
2	The rates quoted for the items of work shall be inclusive of taxes ( excluding sales tax & service tax ) and duties levied by Central / State Govt. Organisations as well as local authorities.
3	<b>Sales tax &amp; Service tax will be extra if applicable for this contract.</b> Taxes if paid by the contractor with respect to this work will be reimbursed by BHEL on production of documentary evidence for having paid the taxes by the contractor.
4	If the contractor has not quoted the <b>%age clearly</b> , it is considered as incomplete tender and tender cannot be accepted.
5	All BHEL general conditions of contract and special conditions enclosed to this document are applicable to this work.
6	In case there is any difference in the quoted % age between figures and words, the resultant higher tender value will be taken for evaluation of tender priority and while awarding, lower tender value will be taken and this should be binding on the contractor.
7	The department reserves the right to cancel the work without assigning any reasons therefor.
8	The billing is done as per the units specified and completion to the satisfaction of Engineer-in-charge.
9	The quantities shown above are approximate and liable for variation.
10	Conditional offers are not acceptable.
11	All the bills of the contractors will be cleared subject to the production of clearance certificate by the contractors in respect of compliance of all statutory requirement, issued by IR section of BHEL-HR department.