

Issued to: _____

BHARAT HEAVY ELECTRICALS LIMITED

RAMACHANDRAPURAM :: HYDERABAD-32
TOWNSHIP ADMINISTRATION

TENDER DOCUMENTS (PRICE BID)

Name of the work : Renovation of Type-III & Type-IV quarters (50 blocks) in NH-IV area - Electrical Works.

Tender Notice : HY/TA/OT-05/2012-13, Dt. 04.08.2012; Item No. 02

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1. Schedule - A : Schedule of rates and approximate quantities

ADDRESS :

PHONE NO. : _____

E-mail : _____

BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM :: HYDERABAD - 32
TOWNSHIP ADMINISTRATION / ELECTRICAL DEPARTMENT

Tender No.: HY/TA/OT-05/2012-13
Date : 04.08.2012
Item No.: 02

SCHEDULE - 'A'
RENOVATION OF TYPE - III & IV QUARTERS - ELECTRICAL WORKS.

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
	PART - A : TYPE - III BLOCK (30 nos.)				
1	Supply & Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Point	2820	416.00	1,173,120.00
2	Supply & Wiring for twin control light point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Point	60	625.00	37,500.00
3	Supply and fixing 3-pin, 5 Amps. ceiling rose (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	1320	34.00	44,880.00
4	Supply and fixing PVC batten / angle holder (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	1440	34.00	48,960.00
5	Supply and wiring for light plugs (separate socket) with 2 x 1.5 sq.mm + 1 x 1.5 sq.mm (earth wire) of FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit as required along with Supply and fixing metal box of 150mm X 75mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 3 pin 5/6 amps socket outlet and 5/6 amps piano type switch, connection etc. as required; complete all as directed by Engineer-in-charge.	Each	960	687.00	659,520.00
6	Supply and fixing of 6 Amps. piano type switch and 3 pin 6 Amps. socket outlet on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	1800	65.00	117,000.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
7	Supply and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 6A/16A amps socket outlet and 16 Amps piano type switch, connection, etc. as required; complete all as directed by Engineer-in-charge. (<i>wiring separate with 2.5 sq.mm run of mains</i>)	Each	360	225.00	81,000.00
8	Supply and installation of 20A SP MCB and 20A metal clad socket outlet in single phase MCB box on surface or in recess, with chained cover for the socket outlet and complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge. (<i>wiring separate with 4.0 sq.mm run of mains</i>)	Each	240	693.00	166,320.00
9	Supply & wiring for circuit / submain wiring alongwith earth wire with the following sizes of FR PVC insulated multistranded copper conductor, single core cable in surface/ recessed medium class PVC conduit as required; complete all as directed by Engineer-in-charge.		0		-
a)	2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire	Metre	13500	131.00	1,768,500.00
b)	2 x 4.0 sq.mm + 1 x 4.0 sq.mm earth wire	Metre	4500	162.00	729,000.00
c)	2 x 6.0 sq.mm + 1 x 6.0 sq.mm earth wire	Metre	1500	206.00	309,000.00
10	Supply, fixing and connecting calling bell on Hylam sheet of thickness 3mm preferably white with suitable MS box concealed in wall; complete all as directed by Engineer-in-charge.	each	120	126.00	15,120.00
11	Supply and fixing of 63A, 415V rewirable fuse unit including connections etc. as required; complete all as directed by Engineer-in-charge.	each	120	121.00	14,520.00
12	Supplying and fixing 240V, 2 + 12 way, Double door, sheet steel, single pole and neutral MCB distribution board on surface / in recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required (<i>But without MCB/RCCB/Isolator</i>); complete all as directed by Engineer-in-charge.	Each	120	1,068.00	128,160.00
13	Supplying and fixing 240V, 63 Amps, double pole isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge.	Each	120	303.00	36,360.00
14	Supplying and fixing Single Pole, 5 Amps to 32 Amps rating, 240/415 volts, "C" curve, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge.	Each	1440	141.00	203,040.00
15	Supply & installation of earthing arrangement comprising of 40 mm dia, 3 mm thick GI pipe buried upto a minimum depth of 4.5 mtrs including excavation of pit and filling the pit with homogenous layers of coke/charcoal, salt & sand etc. as required conforming to IS Standards (IS:3043). 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.	Each	60	3,385.00	203,100.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
16	Providing and fixing 4.00 mm dia annealed copper wire on surface or in recess for loop earthing as required; complete all as directed by Engineer-in-charge.	metre	1800	87.50	157,500.00
17	Supply, fabrication and mounting of 16 SWG (1.6 mm) MS sheet enclosure for power control cubicle panel / boxes with hinges & mechanical locking arrangements etc., including cutting, bending, drilling, welding & reveting etc., complete and painting with powder coating including cost and conveyance of all materials and labour charges; complete all as directed by Engineer-in-charge.	kgs	1500	184.00	276,000.00
18	Supply & fixing of two run of 14.0 Sq.mm (twin core WPTC) PVC insulated (WPTC) sheathed weather proof 1100V grade Aluminium Conductor cable of recommended make with 7/20 SWG steel support wire outside building and concealed /surface in rigid PVC conduit inside the building including necessary clips insulation tape etc., for service tapping as directed by engineer in charge.	metre	2100	67.00	140,700.00
19	Supply, fabrication and fixing / grouting of eye bolt made of MS rounds 10/12/16mm dia. as directed by Engineer in charge.	kg	60	122.00	7,320.00
20	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	120	44.00	5,280.00
21	Providing and fixing of 40 mm dia G.I. pipes complete with G.I. fittings and clamps including cutting and making good the walls, for entry of service wire to the building. Also suitable size of PVC/Rubber bushes should be provided at the entry side; all complete as directed by Engineer-in-charge.	metre	240	264.05	63,372.00
22	supply & fixing of rigid conduit PVC pipe 40 mm dia and 2.0 mm thick (sudhakar make) on surface/concealed including bends; all complete as directed by Engineer-in-charge.	metre	240	72.00	17,280.00
23	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 .	metre	2100	10.00	21,000.00
24	Supply & fixing of bus bar insulators with necessary screw etc..	Each	240	22.00	5,280.00
25	Supply and fixing of crimping type copper lugs of suitable sizes confirming to I.S. specifications for cables upto 16 sq. mm. including connections; complete all as directed by Engineer-in-charge.	Each	3600	10.00	36,000.00
26	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable etc. as required; complete all as directed by Engineer-in-charge. (Ceiling fan will be supplied by BHEL)	Each	360	73.50	26,460.00
27	Supplying and fixing stepped type electronic fan regulator on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	360	322.00	115,920.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
28	Installation of exhaust fan (upto 450 mm sweep) in the existing opening, including making good the damage, connection, testing, commissioning etc. as required; complete all as directed by Engineer-in-charge. <i>(Exhaust fan will be supplied by BHEL)</i>	Each	240	163.00	39,120.00
29	Dismantling and removal of old wirings and fittings such as switch boards / fans / tube lights / old wire accessories etc. Removed materials to be segregated and to be handed over at stores; as directed by directed by Engineer- in-charge.	Each	2400	64.00	153,600.00
30	Dismantling & refixing of three phase / single phase energy meters 5-10/20 amps 250V / 415 V as directed by Engineer-in-charge.	Each	120	96.00	11,520.00
PART - B : TYPE - IV BLOCK (20 nos.)					
1	Supply & Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Point	2400	544.00	1,305,600.00
2	Supply & Wiring for twin control light point with 1.5 sq.mm FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box, required bends, junction boxes etc. and earthing the point with 1.5 sq.mm. FR PVC insulated multistranded copper conductor single core cable etc as required; complete all as directed by Engineer-in-charge.	Point	40	710.00	28,400.00
3	Supply and fixing 3-pin, 5 Amps. ceiling rose (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	1160	34.00	39,440.00
4	Supply and fixing PVC batten / angle holder (ISI marked) including connection etc. as required; complete all as directed by Engineer-in-charge.	Each	1200	34.00	40,800.00
5	Supply and wiring for light plugs (separate socket) with 2 x 1.5 sq.mm + 1 x 1.5 sq.mm (earth wire) of FR PVC insulated multistranded copper conductor single core cable in surface / recessed medium class PVC conduit as required along with Supply and fixing suitable size GI box on surface or in recess including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, modular plate, connection etc. as required; complete all as directed by Engineer-in-charge.	Each	960	823.00	790,080.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
6	Supply and fixing of 6 Amps. modular switch and 3 pin 6 Amps. modular socket outlet with modular base & cover plate on the existing switch box including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	1760	313.00	550,880.00
7	Supply and fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 6 pin 6A/16A amps modular socket outlet and 16 Amps modular switch with neon, connection, etc. as required; complete all as directed by Engineer-in-charge. <i>(wiring separate with 2.5 sq.mm run of mains)</i>	Each	560	366.00	204,960.00
8	Supply and installation of 20A SP MCB and 20A metal clad socket outlet in single phase MCB box on surface or in recess, with chained cover for the socket outlet and complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge. <i>(wiring separate with 4.0 sq.mm run of mains)</i>	Each	240	693.00	166,320.00
9	Supply & wiring for circuit / submain wiring alongwith earth wire with the following sizes of FR PVC insulated multistranded copper conductor, single core cable in surface/ recessed medium class PVC conduit as required; complete all as directed by Engineer-in-charge.				-
a)	2 x 2.5 sq.mm + 1 x 2.5 sq.mm earth wire	Metre	16000	131.00	2,096,000.00
b)	2 x 4.0 sq.mm + 1 x 4.0 sq.mm earth wire	Metre	4000	162.00	648,000.00
c)	2 x 6.0 sq.mm + 1 x 6.0 sq.mm earth wire	Metre	1600	206.00	329,600.00
10	Supply, fixing and connecting calling bell on Hylam sheet of thickness 3mm preferably white with suitable MS box concealed in wall; complete all as directed by Engineer-in-charge.	each	80	126.00	10,080.00
11	Supply and fixing of 63A, 415V rewirable fuse unit including connections etc. as required; complete all as directed by Engineer-in-charge.	each	80	121.00	9,680.00
12	Supplying and fixing following way, sheet steel, single pole and neutral MCB distribution board on surface / in recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required <i>(But without MCB/RCCB/Isolator)</i> ; complete all as directed by Engineer-in-charge.				-
a)	240V, 2 + 12 way, Double Door	Each	80	1,068.00	85,440.00
b)	240V, 2 + 6 way, Double Door	Each	80	778.00	62,240.00
13	Supplying and fixing following rating isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge.				-
a)	240V, 63 Amps, double pole isolator	Each	80	303.00	24,240.00
b)	240V, 40 Amps, double pole isolator	Each	80	245.00	19,600.00
14	Supplying and fixing Single Pole, 5 Amps to 32 Amps rating, 240/415 volts, "C" curve, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required; complete all as directed by Engineer-in-charge.	Each	1440	141.00	203,040.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
15	Supply & installation of earthing arrangement comprising of 40 mm dia, 3 mm thick GI pipe buried upto a minimum depth of 4.5 mtrs including excavation of pit and filling the pit with homogenous layers of coke/charcoal, salt & sand etc. as required conforming to IS Standards (IS:3043). 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.	Each	40	3,385.00	135,400.00
16	Providing and fixing 4.00 mm dia annealed copper wire on surface or in recess for loop earthing as required; complete all as directed by Engineer-in-charge.	metre	1200	87.50	105,000.00
17	Supply, fabrication and mounting of 16 SWG (1.6 mm) MS sheet enclosure for power control cubicle panel / boxes with hinges & mechanical locking arrangements etc., including cutting, bending, drilling, welding & reveting etc., complete and painting with powder coating including cost and conveyance of all materials and labour charges; complete all as directed by Engineer-in-charge.	kgs	1000	184.00	184,000.00
18	Supply & fixing of two run of 14.0 Sq.mm (twin core WPTC) PVC insulated (WPTC) sheathed weather proof 1100V grade Aluminium Conductor cable of recommended make with 7/20 SWG steel support wire outside building and concealed /surface in rigid PVC conduit inside the building including necessary clips insulation tape etc., for service tapping as directed by engineer in charge.	metre	1400	67.00	93,800.00
19	Supply, fabrication and fixing / grouting of eye bolt made of MS rounds 10/12/16mm dia. as directed by Engineer in charge.	kg	40	122.00	4,880.00
20	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	80	44.00	3,520.00
21	Providing and fixing of 40 mm dia G.I. pipes complete with G.I. fittings and clamps including cutting and making good the walls, for entry of service wire to the building. Also suitable size of PVC/Rubber bushes should be provided at the entry side; all complete as directed by Engineer-in-charge.	metre	160	264.05	42,248.00
22	supply & fixing of rigid conduit PVC pipe 40 mm dia and 2.0 mm thick (sudhakar make) on surface/concealed including bends; all complete as directed by Engineer-in-charge.	metre	160	72.00	11,520.00
23	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 .	metre	1400	10.00	14,000.00
24	Supply & fixing of bus bar insulators with necessary screw etc..	Each	160	22.00	3,520.00
25	Supply and fixing of crimping type copper lugs of suitable sizes confirming to I.S. specifications for cables upto 16 sq. mm. including connections; complete all as directed by Engineer-in-charge.	Each	3000	10.00	30,000.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
26	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable etc. as required; complete all as directed by Engineer-in-charge. <i>(Ceiling fan will be supplied by BHEL)</i>	Each	400	73.50	29,400.00
27	Supplying and fixing stepped type electronic fan regulator on the existing switch box / cover including connections etc. as required; complete all as directed by Engineer-in-charge.	Each	400	322.00	128,800.00
28	Installation of exhaust fan (upto 450 mm sweep) in the existing opening, including making good the damage, connection, testing, commissioning etc. as required; complete all as directed by Engineer-in-charge. <i>(Exhaust fan will be supplied by BHEL)</i>	Each	240	163.00	39,120.00
29	Dismantling and removal of old wirings and fittings such as switch boards / fans / tube lights / old wire accessories etc. Removed materials to be segregated and to be handed over at stores; as directed by directed by Engineer- in-charge.	Each	2000	64.00	128,000.00
30	Dismantling & refixing of three phase / single phase energy meters 5-10/20 amps 250V / 415 V as directed by Engineer-in-charge.	Each	80	96.00	7,680.00
	TOTAL	(Rupees one crore forty three lakhs eighty six thousand seven hundred & forty only)			14,386,740.00

Sl. No.	Name of accessories	Recommended Make to be used
1	FR PVC insulated multistranded copper conductor single core cable (1.5 / 2.5 / 4.0 / 6.0 sq.mm)	1100 Volt Grade, Flame Retardant Low Smoke Type Only. FINOLEX / L&T / HAVELLS / ANCHOR. <i>(of suitable colour code as directed by Engineer-in-charge)</i>
2	PVC Conduits	Sudhakar / Avonplast / Nandi
3	6A & 16A piano type / modular type switches & sockets, Bell push	Anchor / GM / SSK / MK
4	Lamp Holder, 3-pin ceiling rose	Anchor / GM / SSK / MK
5	Calling Bell	Anchor / GM / SSK / MK
6	63A, 240V rewirable porcelain fuse unit	Anchor / GM / SSK / MK
7	MCB Dist. Board, 5-32A SP MCBs, 63A DP isolators	Havells / Legrand / Indoasian / Standard
8	Metallic MCB Distribution Board with Metal Clad Socket + Plug top <i>(for Air Conditioner)</i>	Havells / Legrand / Indoasian / Standard
9	14.0 Sq.mm (twin core) PVC insulated, sheathed, 1100V grade Aluminium Conductor cable	Payal / Fincab / Gold / Havells
10	Stepped type electronic fan regulator	Anchor / GM / SSK / MK
11	Generally all materials supplied by the Contractor	standard make and ISI certified as agreed by the Engineer-in-Charge.

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

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

Tender (%)	in figures	in words
Excess		
Less		
Estimate rate only		

Conditions :

1	A penalty of 1% per week subject to maximum of 10% (on the gross value of 10 Blocks) will be levied on the contractor for any slippages in handing over of each set of 10 blocks.
2	The tender % age quoted by the contractor shall be inclusive of all taxes and duties other than service tax as applicable from time to time.
3	Service tax will be extra if applicable for this contract. Service Tax if paid by the contractor with respect to this work will be reimbursed by BHEL on production of documentary evidence for having paid the service tax by the contractor.
4	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.
5	Maintenance period will be 2 years from the date of completion of the complete work. Security Deposit will be released only after completion of the maintenance period.