

Issued to: _____

BHARAT HEAVY ELECTRICALS LIMITED

RAMACHANDRAPURAM :: HYDERABAD-32
TOWNSHIP ADMINISTRATION

TENDER DOCUMENTS (PRICE BID)

Name of work : Annual electrical maintenance works contract in township (Group - 5).

Tender Notice : HY/TA/E/OT-03/2015-16, Dt. 06.10.2015; Item No. 01

- - INDEX - -

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

ADDRESS :

PHONE NO. : _____

E-mail : _____

SCHEDULE - 'A'

ANNUAL ELECTRICAL MAINTENANCE WORKS CONTRACT IN TOWNSHIP (GROUP - 5).

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
	GROUP - 5 (HT/LT Lines, cables & street lights)				
	HT/LT OVER HEAD LINES WORK				
1	Transportation & Erection of Heavy Duty RCC pole of length above 8.0m and upto 11.0m in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top including excavation and refilling etc as required; complete all as directed by Engineer-in-charge.	Each	20	2,749.00	54,980.00
2	Dismantling of pole / street light standard / strut embedded in cement concrete foundation etc. as required; complete all as directed by Engineer-in-Charge.	Each	20	859.00	17,180.00
3	Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, turn buckle (20 mm X 60 cm), 7/ 3.15 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required; complete all as directed by Engineer-in-charge.	Each	10	3,086.00	30,860.00
4	Supply & erection of MS plain ended swaged tubular pole [specifications as per IS 2713 -1980, 410 SP25] of 8.50m length, in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. The pole shall have single arm arrangement, junction box etc. and painted with primary coat of red oxide and black bituminous paint upto ground level with base plate; complete all as directed by Engineer-in-charge.	No.	10	8,100.00	81,000.00
5	Supply & erection of MS plain ended swaged tubular pole [specifications as per IS 2713 -1980, 410 SP44] of 10.0m length, in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. The pole shall have 1.0m dia ring arm arrangement, junction box for provision of load master and fuse cut out etc. and painted with primary coat of red oxide and black bituminous paint upto ground level with base plate; complete all as directed by Engineer-in-charge.	No.	5	14,040.00	70,200.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
6	Supply & fixing of stay wire stranded galvanised of size 7/10 SWG as directed by engineer incharge	Mtr.	25	105.00	2,625.00
7	Supply & stringing fixing in position, binding of GI guarding for road crossing with necessary cradle guard etc., as directed by engineer incharge.	Mtr.	25	98.00	2,450.00
8	Supplying and erection of 75 mm X 90 mm shackle insulator for a working pressure of 1100V, with G.I. Bolt, nuts and straps etc. as required; complete all as directed by Engineer-in-charge.	Each	30	129.00	3,870.00
9	Supplying and erection of 11 KV disc insulator for 11 KV over head lines with galvanised insulator fittings, ball and socket type and complete with galvanised strain clamps, bolts, nuts, washers etc. as required; complete all as directed by engineer incharge	Each	6	390.00	2,340.00
10	Supply & erection of single run of ACSR conductor, 7/2.11mm diameter including binding wire on to the existing insulators; complete all as directed by Engineer-in-charge.	Mtr.	50	23.00	1,150.00
11	Supply & erection of single run of ACSR conductor, 7/2.59mm diameter including binding wire on to the existing insulators; complete all as directed by Engineer-in-charge.	Mtr.	50	31.00	1,550.00
12	Supply & erection of single run of ACSR conductor, 7/3.60mm diameter including binding wire on to the existing insulators; complete all as directed by Engineer-in-charge.	Mtr.	50	50.00	2,500.00
13	Supply & fixing of following sizes of copper flat / strips on surface or in recess for connections as required; complete all as directed by Engineer-in-charge.				-
(a)	25mm x 5mm copper strip. (1.12 kg/m)	Metre	10	766.00	7,660.00
(b)	50mm x 5mm copper strip. (2.24 kg/m)	Metre	10	1,439.00	14,390.00
14	Supply & fixing of HT side porcelain bushes for 250 kVA transformer should have test certificate as directed by engineer incharge.	Each	3	204.00	612.00
15	Supply & fixing of LT side porcelain bushes for 250 kVA transformer should have test certificate as directed by engineer incharge.	Each	3	182.00	546.00
16	Maintenance of signage board at main check post which includes servicing, cleaning, checking, rectification and replacement of cables / wires / LED drivers / boards etc., (required materials will be supplied by dept.). Providing of necessary safety equipment and taking safety precautions for the above operation is a must and sole responsibility of the contractor. The above operation to be completed as directed by engineering incharge.	operation	2	18,000.00	36,000.00
17	Supply & fixing of timer switch type TSQ-100 of L&T make; complete all as directed by Engineer-in-charge.	Each	6	3,652.00	21,912.00
18	Coping of poles in proper sloping above the foundation with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 stone aggregate 20mm) of specified size and shape including form work, plastering if required, curing etc. as required; complete all as directed by Engineer-in-charge.	Cu.M	6	4,025.00	24,150.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
19	Supply, fabrication & fixing of MS channel horizontal / V-shape cross arms / ring arms etc. of different sizes including drilling holes for insulator pins, bolts, nuts and washers etc. and painting with primer and finish paint as required; complete all as directed by Engineer-in-charge.	Kg.	60	204.00	12,240.00
20	Supply, fabrication & fixing of MS flat iron clamps including drilling holes for fixing of cross arms etc. as required; complete all as directed by Engineer-in-charge.	Kg.	60	95.00	5,700.00
21	Restranging of loose hanging guardings wherever necessary as required; complete all as directed by Engineer-in-charge.	Mtr.	50	8.00	400.00
22	Supply, fabrication and mounting of 1.6 mm thick 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.	Kg.	120	184.00	22,080.00
	MISC. PAINTING WORKS				-
23	Applying two coats of snowcem or equivalent cement paint of approved brand to old surface including cost & conveyance of all materials etc. (BHEL/P13/15) as directed by Engineer-in-charge.	Sq.M	10	62.00	620.00
24	Cleaning and applying of two coats of Red-oxide primer paint on the existing MS cross arms, MS channels, clamps and MS flat etc. including cost & conveyance of all materials etc. as directed by Engineer-in-charge.	Sq.M	100	61.00	6,100.00
25	Cleaning and applying of two coats of Al. base paint for final painting on the existing MS cross arms, MS channels, clamps and MS flat etc. including cost & conveyance of all materials etc. as directed by Engineer-in-charge.	Sq.M	200	72.00	14,400.00
26	Cleaning and applying of two coats of postal Red paint on the poles etc. including cost & conveyance of all materials etc. as directed by Engineer-in-charge.	Sq.M	30	72.00	2,160.00
27	Cleaning and applying of two coats of Dark admiral grey paint for MD boards, panel boards, transformers etc. including cost & conveyance of all materials etc. as directed by Engineer-in-charge.	Sq.M	50	72.00	3,600.00
28	Painting of BHEL serial no. on Electrical poles with black paint on white painted surface etc. including cost & conveyance of all materials etc. as directed by Engineer-in-charge.	Sq.M	100	61.00	6,100.00
	CABLE TRENCHES & MISC. ITEMS				-
29	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation (0.6 x 0.9m), sand cushioning, protective covering and refilling the trench etc as required; complete all as directed by Engineer-in-charge. (cable will be supplied by BHEL)				-

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
(a)	Upto 35 sq. mm	Metre	350	167.00	58,450.00
(b)	Above 35 sq. mm and upto 95 sq. mm	Metre	350	173.00	60,550.00
30	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including sand cushioning, protective covering and refilling the trench etc as required; complete all as directed by Engineer-in-charge. (cable will be supplied by BHEL)				-
(a)	Upto 35 sq. mm	Metre	150	115.00	17,250.00
(b)	Above 35 sq. mm and upto 95 sq. mm	Metre	150	121.00	18,150.00
31	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of size upto 120 sq.mm direct in ground including excavation (0.6 x 0.9 m), sand cushioning, protective covering (using shahabad stones) and refilling the trench etc as required; complete all as directed by Engineer-in-charge. (cable will be supplied by BHEL)	Metre	300	213.00	63,900.00
32	Earth work excavation for laying of additional cable, replacing of damaged cables and diverting the existing cable trenches in different routes as directed by engineer in charge.	Cu.M	200	65.00	13,000.00
33	Providing earthing conforming to IS:3043 with 40 mm dia G.I. earth pipe and all accessories including excavation of pit, filling with homogenous layers of coke/charcoal & salt and providing masonry enclosure with hinged cover plate having locking arrangement and watering pipe etc.; including cost and conveyance of all materials; complete as directed by Engineer-in-charge.	Set	2	3,385.00	6,770.00
34	Supply and laying of local sand including cost of conveyance to site and spreading for sub stations.	Metric Ton	5	458.00	2,290.00
35	Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required; complete all as directed by Engineer-in-charge.				-
(a)	50 mm dia G.I. pipe	Metre	100	330.00	33,000.00
(b)	100 mm dia G.I. pipe	Metre	100	746.00	74,600.00
36	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required; complete all as directed by Engineer-in-charge.				-
(a)	150 mm dia	Metre	30	328.00	9,840.00
(b)	250 mm dia	Metre	30	394.00	11,820.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
37	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3 core - 120 sq. mm. XLPE aluminium conductor cable of 11 KV grade as required; complete all as directed by Engineer-in-charge.	Each	2	8,187.00	16,374.00
38	Supply and fixing of heavy duty flange type brass cable glands with brass washers complete for the following sizes of cables :				-
(a)	2/3/4 core 2.5 - 6.0 sq.mm	No.	6	41.00	246.00
(b)	2/3/4 core 10 sq. mm	No.	6	72.00	432.00
(c)	4 core 16 sq. mm / 3.5 core 25 sq. mm	No.	6	87.00	522.00
(d)	3.5 core 35 sq.mm / 3.0 core 50 sq.mm	No.	6	91.00	546.00
(e)	3.5 core 50 sq.mm	No.	6	101.00	606.00
(f)	3.5 core 70 sq.mm	No.	6	126.00	756.00
(g)	3.5 core 95 sq.mm	No.	6	155.00	930.00
39	Supply & fixing of crimping type copper lugs conforming to I.S. specifications for following sizes of cables including connections; complete all as directed by Engineer-in-charge.				-
(a)	120 sq.mm	Each	10	85.00	850.00
(b)	150 sq. mm	Each	10	101.00	1,010.00
40	Cutting / trimming of trees / branches including shrubs and bushes along the overhead HT & LT electrical lines and at substations in township by engaging a minimum of 4 persons with tools such as rope, axe, power saw etc. as required for effective work including all safeguards & incidental; all complete as per the instructions of the Engineer-in-charge or his authorized representative.	Day	50	2,200.00	1,10,000.00
41	Engaging a tractor (along with driver) with hydraulic lift trailer for transporting the chopped trees/ branches/ bushes/ shrubs on the same day of cutting and dumping within a lead of 3 kms., including loading, unloading etc.; complete all as directed by the Engineer-in-charge. The rate includes cost of diesel. (the tractor engaged shall have a valid fitness certificate)	Day	50	1,400.00	70,000.00
42	Engaging a tractor (along with driver) with trolley / water tanker for transporting of cables and electrical material from factory main store to Township Electrical store including loading & unloading and Watering of all substations and earth pits with one unskilled person to be deployed along with the tractor etc. complete as directed by Engineer-in-charge. (The tractor shall have a valid fitness certificate) (water supplied by BHEL)	Day	12	815.00	9,780.00
43	Supply of Glassiel chemical for eradication of grass at all electrical substations in township; all complete as directed by Engineer-in-charge.	Litre	20	385.00	7,700.00

Sl. No.	Nature of work	Unit	Qty.	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
44	Engaging a JCB for levelling of ground, clearing of thick bushes, removal of roots after cutting of trees, etc. as required; all complete as directed by Engineer-in-charge. The hiring cost shall be inclusive of all, such as operator, helper, fuel, transportation etc.	Hour	30	750.00	22,500.00
45	Engaging a Crane for loading & unloading of transformers on to the plinth of substations across the township, lifting of RCC poles for erection at site and other miscellaneous lifting & loading-unloading jobs etc. as required; all complete as directed by Engineer-in-charge. The hiring cost shall be inclusive of all, such as operator, helper, fuel, transportation etc.	Hour	30	1,000.00	30,000.00
GRAND TOTAL		(Thirty ten lakhs ninety one thousand two hundred & forty seven only)			10,91,247.00

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 0.5% 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 rate quoted by the contractor shall be inclusive of all taxes (except service tax) and duties levied by Central/State Govt. organizations as well as local authorities, 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	The contractor if asked by the contract executing officer should produce proper documents (i.e., cash bills/invoices/delivery challans etc. in original) in support of purchase of materials, whichever is in the scope of the contractor as mentioned in the schedule of the contract.
5	Maintenance period : six (6) months from the date of completion