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

**TENDER DOCUMENTS ( PRICE BID )**

**Name of the work : Installation of digital energy meters and metering panels for shops in township.**

**Tender Notice : HY/TA/E/OT-04/2014-15, Dt. 16.02.2015; Item No. 01**

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

ADDRESS :

PHONE NO. : \_\_\_\_\_

E-mail : \_\_\_\_\_

**SCHEDULE - 'A'**

**INSTALLATION OF DIGITAL ENERGY METERS AND METERING PANELS FOR SHOPS IN TOWNSHIP.**

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
1	Supply, Installation and commissioning of floor-mounted, totally enclosed, vermin proof, outdoor type LT Power Distribution & Metering Panel fabricated out of 1.6 mm thick CRCA sheet fully powder coated/ enamel painted after seven tank treatment, having gasketed hinged doors (for both front & rear opening), incorporating aluminium busbars complete with all internal wiring, danger board, one earthing lug and switchgears/ meters etc., complete in all respect as directed by Engineer-in-charge.  (1-ph & 3-ph Energy meters will be supplied by BHEL and contractors to make provision for fixing in the panel as per the actual dimensions of the meters)				-
a)	Provision for fixing of 1-phase energy meters : 15 nos. Provision for fixing of 3-phase energy meters : 1 no. 200A Aluminium busbars : 4 nos. (3ph & N) 160A 35kA TPN MCCB (L&T) as Incomer - 1 No. 0-500V, Voltmeter with selector switch - 1 No. 0-300A, Ammeter with CT & selector switch - 1 No. R-Y-B indication lamps (LED type) with fuses - 3 nos. 32A DP MCB for each 1-phase energy meter : 15 nos. 63A TPN MCB for 3-phase energy meter : 1 no. 1-phase 32A closed type heavy duty connectors : 15 nos. 3-phase 63A closed type heavy duty connectors : 1 no. Power wiring of the panel with single core 4.0 sq. mm FR PVC insulated multi-stranded copper conductor cable.	Set	10	53,550.00	5,35,500.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
b)	Provision for fixing of 1-phase energy meters : 10 nos. Provision for fixing of 3-phase energy meters : 1 no. 150A Aluminium busbars : 4 nos. (3ph & N) 125A 35kA TPN MCCB (L&T) as Incomer - 1 No. 0-500V, Voltmeter with selector switch - 1 No. 0-300A, Ammeter with CT & selector switch - 1 No. R-Y-B indication lamps (LED type) with fuses - 3 nos. 32A DP MCB for each 1-phase energy meter : 10 nos. 63A TPN MCB for 3-phase energy meter : 1 no. 1-phase 32A closed type heavy duty connectors : 10 nos. 3-phase 63A closed type heavy duty connectors : 1 no. Power wiring of the panel with single core 4.0 sq. mm FR PVC insulated multi-stranded copper conductor cable.	Set	3	34,650.00	1,03,950.00
2	Supply & fixing of following sizes of twin core PVC insulated & sheathed WPTC 1.1 kV grade multistranded Aluminium Conductor flat cable of recommended make for service mains along with 7/20 SWG steel support wire including necessary clips, insulation tape etc., for service tapping complete all as directed by Engr-in-charge.				-
a)	16.0 Sq.mm (7/16) - single run	metre	1750	76.00	1,33,000.00
b)	10.0 Sq.mm (7/18) - single run	metre	3700	56.00	2,07,200.00
3	Supply & fixing of steel support wire 7/20 SWG with tape and link clips for restringing/ re-routing of the existing service mains complete all as directed by Engr-in-charge.	metre	2500	10.00	25,000.00
4	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	13	3,385.00	44,005.00
5	Laying of one number PVC insulated and PVC sheathed / XLPE, 1.1 KV grade 3.5 core power cable of size 50-95 sq. mm direct in ground including excavation, 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)	metre	750	173.00	1,29,750.00
6	Supplying and making end termination with brass compression gland and aluminium lugs for following sizes of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required; complete all as directed by Engineer-in-charge.				-
a)	3½ X 50 sq. mm (35 mm)	Each	3	262.00	786.00
b)	3½ X 95 sq. mm (45 mm)	Each	10	366.00	3,660.00

Sl. No.	Nature of work	Unit	Qty	Rate	Amount
(1)	(2)	(3)	(4)	(5)	(6)
7	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following sizes of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required; complete all as directed by Engineer-in-charge.				-
a)	3½ X 50 sq. mm	Each	3	601.00	1,803.00
b)	3½ X 95 sq. mm	Each	10	714.00	7,140.00
8	Supply & wiring for circuit / submain with 2 x 4.0 sq. mm size of FR PVC insulated multistranded copper conductor, single core cable in surface/ recessed medium class PVC conduit as required; complete all as directed by Engr.-in-charge.	Metre	750	124.00	93,000.00
9	Supply & fixing of meter box of approved design fabricated out of 18 gauge (1.2 mm) thick CRCA sheet fully powder coated, on surface/ in recess including cutting of wall & finishing with required masonry work followed by painting the plastered portion of the wall etc. The enclosure must have gasketed hinged door, mechanical locking arrangements and flush mounting 32A SP MCB (Legrand/ L&T/ Havells/ Hager) with internal connection etc. including cost & conveyance of all materials and labour charges; complete as directed by Engr.-in-charge.	Each	210	910.00	1,91,100.00
10	Supply & fixing of tamper proof, self locking type, polycarbonate, transparent meter covering box on existing meter box with necessary screws & seals etc., complete all as directed by Engr-in-charge.	Each	210	298.00	62,580.00
11	Fixing of new energy meter in panel box/ meter box/ TW board etc. including transportation of meters from store to site and all other incidental charges. The above shall be followed by removal of existing meters, boards, wires, fuse units etc. as required, stacking & handing over to store with proper marking & records etc., complete all as directed by Engr-in-charge.	Each	350	70.00	24,500.00
	<b>TOTAL ... ..</b>	<b>( Rupees fifteen lakhs sixty two thousand nine hundred &amp; seventy four only )</b>			<b>15,62,974.00</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 ( % )	in figures	in words
Excess		
Less		
Estimate rate only		

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

Conditions :

1	A penalty of 0.1% 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	<b>Maintenance period : one (1) year from the date of completion.</b>

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 ) ( of suitable colour code as directed by Engineer-in-charge )	1100 Volt Grade, Flame Retardant Low Smoke Type Only. FINOLEX / L&T / HAVELLS / ANCHOR.
2	PVC Conduits	Sudhakar / Avonplast / Nandi
3	Tamper proof, self locking type, polycarbonate, transparent meter covering box	Nakoda make
4	Miniature Circuit Breakers (MCB)	Havells / Legrand / Hager / L&T / Standard
5	<b>Generally all materials supplied by the Contractor</b>	<b>approved make and ISI certified as agreed by the Engineer-in-Charge.</b>