



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL ENGINEERING DEPARTMENT

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-01/2013-14, Dt: 03.05.2013

PRICE BID

Item no.:1

Name of work: Maintenance of external water supply, repairs of submersible pumps in Factory and Administrative building area.

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
	PART - A				
1a	Earth work in excavation in all soils by mechanical means (Hydraulic Excavators) / manual means in foundations trenches or drains (not exceeding 1.5m in width or 10 Sq.m on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50M.	75.00	One Cu.M	103.40	7,755.00
b	----do---- up to First additional depth of 1.50 M to 3.00 M.	20.00	One Cu.M	122.30	2,446.00
c	Excavation in foundations trenches or drains not exceeding 1.5 M in width or 10 sq.m on plan including dressing of sides and ramming of bottom lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m .. Hard rock (blasting prohibited).	5.00	One Cu.M	332.45	1,662.25
d(i)	Cutting road and making good the same including supply of extra quantities of materials i.e., aggregate, moorum, screening, and labour required .. Bituminous portion	3.00	One Cu.M	1,081.80	3,245.40
d(ii)	... do .. Water bound macadam	2.00	One Cu.M	572.45	1,144.90
	PART - B				
1a	Dismantling (GI pipe external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including staking of pipes within 50 meters lead as per direction of Engineer-in - charge :15 mm to 40 mm nominal bore	100.00	One R M	24.90	2,490.00
b	... do.. Above 40 mm nominal bore	200.00	One R M	29.05	5,810.00
2a	Same as above for over head pipe lines all as directed by Engineer-in-charge. a) 1 ½" (40 mm) dia. Pipes	50.00	One R M	43.57	2,178.50
b	2" (50 mm) dia. Pipes	30.00	One R M	43.57	1,307.10
c	3" (75 mm) dia. Pipes	50.00	One R M	43.57	2,178.50
d	4" (100 mm) dia. Pipes	100.00	One R M	43.57	4,357.00
3a	Dismantling GI over head lines including gas cutting etc. complete as directed by Engineer-in-charge. a) 2" (50 mm) dia. Pipes	10.00	One R M	63.00	630.00
b	b) 3" (75 mm) dia. Pipes	10.00	One R M	98.50	985.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
c	c) 4" (100 mm) dia. Pipes	10.00	One R M	98.50	985.00
4a	Dismantling the existing pipe lines, replacing and shifting them and refixing at other locations including transportation charges, fixing charges, required white lead, jute etc. complete all as directed by engineer-in-charge. (a) 1½" (40 mm) Dia pipes	10.00	One R M	288.95	2,889.50
b	b) 2" (50 mm) dia. Pipes	10.00	One R M	330.00	3,300.00
c	c) 3" (75 mm) dia. Pipes	10.00	One R M	371.00	3,710.00
d	d) 4" (100 mm) dia. Pipes	10.00	One R M	371.00	3,710.00
5a	Conveying of C.I. Pipes and specials from stores to site including cost of loading, lowering into trenches, aligning and cutting of pipes to required length where ever necessary including jointing, testing etc., complete as directed by Engineer-in-charge. (All C.I. pipes and specials, pig lead, hemp yarn, bolts and nuts, rubber packing, white lead etc., required for the work will be supplied free of cost by BHEL at their stores) a) 6" (150 mm) dia. Pipes	10.00	One R M	186.00	1,860.00
b	b) 8" (200 mm) dia. Pipes	10.00	One R M	186.90	1,869.00
c	c) 14" (350 mm) dia. Pipes	10.00	One R M	253.70	2,537.00
d	d) 16" (400 mm) dia. Pipes	10.00	One R M	253.70	2,537.00
e	e) 600 mm (24") dia. Pipes	10.00	One R M	304.44	3,044.40
6a	Conveying of G.I. Pipes and specials from stores to site including cost of loading, unloading, lowering into trenches, cutting and threading wherever necessary, aligning including jointing and testing etc., complete. all as directed by Engineer-in-charge. (G.I. pipes and specials, pig lead, hemp yarn, bolts and nuts, washers, rubber packing, white lead etc., required for the work will be supplied free of cost by BHEL at their stores). a) 1 1/2" (40 mm) dia. Pipes	10.00	One R M	42.10	421.00
b	b) 2" (50 mm) dia. Pipes	10.00	One R M	42.10	421.00
c	c) 3" (75 mm) dia. Pipes	10.00	One R M	52.10	521.00
d	d) 4" (100 mm) dia. Pipes	10.00	One R M	52.10	521.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
7a	Conveying of G.I. Pipes and specials from stores to site including cost of loading, unloading, lifting into position and fixing over head pipe line (up to 15.00 M height) including cutting and threading wherever necessary including jointing, testing etc., complete. all as directed by Engineer-in-charge. (G.I. pipes and specials, pig lead, hemp yarn, bolts and nuts, washers, rubber packing, white lead etc., required for the work will be supplied free of cost by BHEL at their stores) a) 1 1/2" (40 mm) dia. Pipes	10.00	One R M	63.15	631.50
b	b) 2" (50 mm) dia. Pipes	10.00	One R M	63.15	631.50
c	c) 3" (75 mm) dia. Pipes	10.00	One R M	78.15	781.50
d	d) 4" (100 mm) dia. Pipes	200.00	One R M	78.15	15,630.00
8a	Conveying, lowering and fixing of C.I. sluice valves, gun metal valves on C.I./G.I pipes lines at or below ground level all as directed by Engineer-in-charge. (Valves, hemp yarn, bolts and nuts, washers, rubber packing, white lead etc., required for the work will be supplied free of cost by BHEL at their stores). a) 1 1/2" (40 mm) dia. valves	5.00	Each	243.00	1,215.00
b	b) 2" (50 mm) dia. valves	5.00	Each	243.00	1,215.00
c	c) 3" (75 mm) dia. Valves	5.00	Each	403.00	2,015.00
d	d) 4" (100 mm) dia. Valves	5.00	Each	403.70	2,018.50
e	e) 6" (150 mm) dia. Valves	5.00	Each	872.70	4,363.50
f	f) 8" (200 mm) dia. Valves	2.00	Each	872.70	1,745.40
g	g) 12" (300 mm) dia. Valves	2.00	Each	1,274.70	2,549.40
h	h) 14" (350 mm) dia. Valves	2.00	Each	1,274.70	2,549.40
9a	Conveying, lifting into position and fixing non-return valves /C.I sluice valves/ Gun metal valves on C.I./G.I. over head pipe lines etc. complete all as directed by Engineer-in-charge. (Valves, hemp yarn, bolts and nuts, washers, rubber packing, white lead etc., required for the work will be supplied free of cost by BHEL at their stores). a) 1 1/2" (40 mm) dia. valves	2.00	Each	346.00	692.00
b	b) 2" (50 mm) dia. valves	2.00	Each	346.00	692.00
c	c) 3" (75 mm) dia. Valves	2.00	Each	560.00	1,120.00
d	d) 4" (100 mm) dia. Valves	2.00	Each	560.00	1,120.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
10	Providing assistance to Water supply operators for maintenance of water supply lines of all sizes ranging from 40 mm to 300 mm dia. at all heights of the blocks and buildings, below or above the ground level as desired by Dept., The scope of work includes repair of valves, replacing gland ropes, cleaning of valve chambers, laying of new lines, cauking the lead joints, dewatering of valve chambers, shifting of pipes and valves etc. from stores to work spot and vice versa wherever necessary etc. complete all as directed by Engineer-in-charge. All required materials will be issued by BHEL on free of cost at BHEL stores. The rate quoted shall include cost of labour, tools and tackles, safety equipments as directed. The activity requires ONE skilled service, THREE semi-skilled services and TWO unskilled services are required for carrying out the above job per day for one				
a	1 Skilled services required for carrying out the work mentioned in item 10 above.	287.00	One Oper.	673.37	1,93,257.19
b	3 Semi skilled required for carrying out the work mentioned in item 10 above.	287.00	One Oper.	1,870.68	5,36,885.16
c	2 Unskilled services required for carrying out one operation -For assisting the above jobs listed in item no:10 a & b.	287.00	One Oper.	1,147.50	3,29,332.50
	PART - C				
1	Maintenance of water storage reservoirs, adjacent areas by sweeping the area, cleaning the floors/removing the weeds, grass cutting and disposal of the debris/garbage at the nearest bins on the daily basis etc. complete as directed by Engineer-in-charge. (One operation requires one Un-skilled service)	287.00	One operation	573.75	1,64,666.25
2a	Maint. of water storage reservoirs by sweeping, cleaning the doors and side walls with coir brushes, removing the clay from the reservoir etc. complete as directed by Engineer-in-charge. a) Under ground reservoir 5.00 lakhs gallons capacity.	6.00	One operation	5,505.00	33,030.00
b	b) ---do--- 2.50 lakh gallons.	6.00	One operation	2,767.00	16,602.00
c	c) ---do--- 1.00 lakh gallons.	6.00	One operation	1,754.00	10,524.00
d	d) ---do--- 20,000 gallons (Admn. Bldg. pump house)	4.00	One operation	1,280.00	5,120.00
e	e) ---do--- 5,000 gallons capacity.	4.00	One operation	640.00	2,560.00
f	f) over head tank of 40 mt. height and 2.20 lakh gallons capacity (two compartments of each 1.10 gallons capacity).	3.00	One operation	14,136.00	42,408.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
	PART - D				
1	supply and fixing at site GI flanges including cutting, drilling of holes, welding etc. complete as directed by Engineer-in-charge.				
a	3" (80 mm) dia. flanges	5.00	Each Pair	250.00	1,250.00
b	4" (100 mm) dia. flanges	5.00	Each Pair	299.00	1,495.00
2a	Making connection of GI distribution branch with GI main of following sizes by providing and fixing 'T' including cutting threading the pipe etc. complete as directed by Engineer-in-charge. 25 mm to 40 mm nominal bore	6.00	Each	166.05	996.30
b	... do.. 2" (50 mm) dia.	6.00	Each	423.20	2,539.20
c	... do.. 3" (75 mm) dia.	6.00	Each	423.20	2,539.20
d	... do... 4" (100 mm) dia.	6.00	Each	423.20	2,539.20
3	Repairing the existing level indicator at a height of 40 M of the over head tank....	3.00	One operation	1,174.80	3,524.40
	PART - E				
1a	Servicing of the submersible pump sets ranging from 7.5 to 12 HP including replacing the required spares (both Electrical & Mechanical), rewinding wherever required, testing and commissioning. The depth of the borewells on an average of 150 Rft. The rate shall include lifting, erection, transportation from & to water works, to site, erection, testing & commissioning etc., complete. (The rate quoted shall include all materials for repairs, rewinding, required tools such as chain pulley, pipe wrenches, labour etc., and warranty for the bore should be 12 months from the date of commissioning or completion of work which ever is later.	6.00	One operation	8,250.00	49,500.00
b	Servicing of manoblock submersible pump sets ranging from 1 HP to 2 HP by winding with required standard copper wire as per the existing specifications all as directed by Engineer-in-charge.	3.00	One operation	2,500.00	7,500.00
2	Dismantling of the existing motor from pump, Servicing/overhauling of centrifugal pump including winding of motor with a standard specifications as per the existing motor, testing of motor along with the pump, commissioning with a warranty of 12 months period. The rate quoted shall include dismantling, transportation, servicing and re-erection at site.				
a	20 to 50 HP	2.00	Each	9,500.00	19,000.00
b	Spider washers	5.00	Each	1,020.00	5,100.00
c	63 amps 415 V ICTP switch.	5.00	Each	420.00	2,100.00
d	100 amps 415 V ICTP switch.	5.00	Each	960.00	4,800.00
3	Laying of PVC insulated and aluminium armoured cable ranging from 35 Sq. mm to 70 Sq. mm	20.00	One R M	14.40	288.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
4	Supplying and spreading of sand all around the cable to a thickness of 10 cms. Supply and laying bricks all along the cable on both sides, supply and laying of rough shahabad stone of 30 Cms width and 12 mm thick on top of the brick and refilling the cable trench upto a level of 250 mm above ground level and providing cable markers at every 25 mtrs.	40.00	One R M	18.00	720.00
5	Supply and Fixing of 3 core copper flexible submersible cable. 2.5 sq. mm of ISI make and cable jointing to the motor when ever required and etc. complete as directed by engineer-in-charge.	100.00	One R M	40.80	4,080.00
6	Supply and wrapping PVC insulation tape of standard width (of ISI make) for jointing of cables etc. complete all as directed by Engineer-in-charge.	15.00	Each	12.00	180.00
7a	Supplying and fixing the spares for the control panel for the submersible pump sets of the make "L&T", cutter, hammer or Siemens a) Contractor kit 32 Amps, Model ML1.5/MI 3.	20.00	Each	480.00	9,600.00
b	H R C Fuse base 100/125 Amps, busbar type	10.00	Each	150.00	1,500.00
c	H R C Fuse links (TCP 100) 100 Amps	10.00	Each	150.00	1,500.00
8	Checking the electrical switch boards, panels, replacement of spares, laying and joining cables, repairing of motors at site and routine check up of power points at all bore wells, Main water works, Bore well water works at LIG and 09 Block reservoir and any other allied electrical works in connection with water supply etc. complete all as directed by Engineer-in-charge. The electrician shall have necessary tools for checking and repairing at all heights. All required materials will be issued by BHEL on free of cost at BHEL stores. The rate quoted shall include cost of labour, tools and tackles, safety equipments as directed. The activity requires one skilled service and one semi-skilled services are required for carrying out the above job per day for one operation.				
a	1 Skilled worker required for carrying out the work mentioned in item 8 above.	287.00	One Oper.	673.37	1,93,257.19
b	1 SSW required for carrying out the work mentioned in item 8 above.	287.00	One Oper.	623.56	1,78,961.72
9	Dismantling reinforced cement concrete / plain cement concrete and disposing of debries upto to a lead of 2 KM including loading, unloading and spreading as directed by Engineer-in-charge etc., complete.	6.00	Cu.m	582.68	3,496.08
10	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement, including consolidation by vibrations for all works up to plinth level with 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate of 20 mm nominal size).**	6.00	Cu.M	1,641.30	9,847.80
11	Brick work with Ground moulded clay FPS brick of class designation 75 in super structure above plinth level upto floor five level in cement mortar 1:6 (1 cement : 6 Coarse sand).**	5.00	Cu.M	2,104.00	10,520.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
12	Plastering in CM 1:6, 20 mm thick to internal and external surfaces of walls including the cost of all materials, labour, curing etc., complete -Upto 10.00 M level.**	50.00	Sq.m	65.80	3,290.00
	Total value of work			₹	19,57,994.44
Total : ₹ Nineteen lakhs fifty seven thousand nine hundred ninety four and forty four paise only					

Note: ** The cement will be issued by BHEL on free of cost at BHEL stores.

1	A penalty of 0.5% of the gross value of work will be levied for every week's delay of work or part there of subject to a maximum penalty of 10% of the gross value of work executed after the period of completion.
2	The rates are inclusive of all taxes and duties except Service tax, which is extra as per service tax norms will be paid by BHEL to the agency after submission of necessary documents.

Note : The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

Tender %	In figure	In words
Excess		
Less		
Estimated value		