



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

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-13/2012-13, Dt: 14.08.2012

PRICE BID

Item no.: 2

**Name of work: Renovation of LIG Pump House.**

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
	<b>PART - A</b>				
1	<b>Earth work in excavation in all soils</b> 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 etc. complete as directed by Engineer-in-charge.	25.00	Cu.m	103.40	2,585.00
a)	---do--- Up to 1st additional depth of 1.50 M to 3.00 M.	20.00	Cu.m	122.30	2,446.00
2	<b>Cutting road</b> and making good the same including supply of extra quantities of materials i.e., aggregate, moorum, screening, and labour required .. Bituminous portion etc. complete as directed by Engineer-in-charge.	3.00	Cu.M	1,081.80	3,245.40
a)	... do .. Water bound macadam	2.00	Cu.m	572.45	1,144.90
3	<b>Brick work</b> with clay flyash 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) etc. complete as directed by Engineer-in-charge.**	5.00	Cu.M	1,808.00	9,040.00
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with <b>1:2:4</b> (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) etc. complete as directed by Engineer-in-charge.**	5.00	Cu.M	1,585.00	7,925.00
5	Plastering in <b>CM 1:6, 20 mm</b> thick to internal and external surfaces of walls including the cost of all materials, labour, curing etc, complete -Upto 10.00 M level etc. complete as directed by Engineer-in-charge.**	100.00	Sq.m	65.80	6,580.00
6	Hiring of JCB for leveling the land at pump house premises etc. complete as directed by Engineer-in-charge.	56.00	machin e hours	750.00	42,000.00
7	Supply & fixing of GI Chain link fabric fencing of required width in mesh made of GI wire of dia 4 mm and size of 50 x 50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as directed by Engineer-in-charge.	500.00	Sq.m	373.45	1,86,725.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
8	Applying <b>exterior emulsion paint</b> two coats of given shade on old surfaces of walls at all heights of buildings including scraping the old surfaces, cost of all labour and other incidentals etc. complete as directed by Engineer-in-charge. <b>(Only exterior emulsion paint will be supplied by BHEL).</b>	700.00	Sq.m	20.55	14,385.00
9	Applying two or more coats of <b>synthetic enamel paint</b> of given shade to <b>old steel work</b> including scraping old surfaces, cost of all labour, tools and other incidentals etc. complete as directed by Engineer-in-charge. <b>(Only Synthetic enamel Paint will be supplied by BHEL)</b>	50.00	Sq.m	20.00	1,000.00
10	Applying two coats of <b>oil bound distemper</b> of given shade over a coat of primer including through cleaning of the surfaces, cost of all labour and other incidentals etc. complete as directed by Engineer-in-charge. <b>(Only OBD, OBD Primer Paint will be supplied by BHEL)</b>	350.00	Sq.m	29.00	10,150.00
	<b>Total of Part A</b>			₹	<b>2,87,226.30</b>
	<b>PART - B</b>				
1	<b>Dismantling (GI Pipe external work)</b> including excavation and refilling trenches after taking out the pipes, manually / by mechanical means including stacking of pipes within 50 meters lead as per direction of Engineer-in-charge. 15 mm to 40 mm nominal bore.	10.00	R M	24.90	249.00
a)	--- do --- above 40 mm nominal bore	20.00	R M	29.05	581.00
2	Dismantling the existing pipe lines, replacing and shifting them..... (a) 2" (50 mm) dia pipes.	10.00	R M	330.00	3,300.00
b)	--- do --- 3" (75 mm) dia pipes.	10.00	R M	371.00	3,710.00
c)	--- do --- 4" (100 mm) dia pipes.	10.00	R M	371.00	3,710.00
3	Conveying of CI 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 (All CI 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). 6" (150 mm) dia pipes.	10.00	R M	186.00	1,860.00
a)	8" (200 mm) dia pipes	10.00	R M	186.90	1,869.00
4	Conveying of GI pipes and specials from stores to site including cost of loading, unloading, lowering into trenches, cutting and threading where ever necessary, aligning including jointing and testing etc. complete all as directed by Engineer-in-charge. (GI 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). 1 1/2" (40 mm) dia pipes.	10.00	R M	42.10	421.00
a)	---do--- 2" dia (50 mm) Pipes	10.00	R M	42.10	421.00
b)	---do--- 3" dia (50 mm) Pipes	10.00	R M	52.10	521.00
c)	---do--- 4" dia (50 mm) Pipes	10.00	R M	52.10	521.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
5	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). 1 1/2" (40 mm) dia. valves	2.00	Each	243.00	486.00
a)	--do-- 2" (50 mm) dia valves	2.00	Each	243.00	486.00
b)	-- do -- 3" (75 mm) dia valves	2.00	Each	403.00	806.00
c)	-- do -- 4" (100 mm) dia valves	2.00	Each	403.70	807.40
d)	-- do -- 6" (150 mm) dia valves	2.00	Each	872.70	1,745.40
e)	-- do -- 8" (200 mm) dia valves	1.00	Each	872.70	872.70
f)	-- do -- 12" (300 mm) dia valves	1.00	Each	1,274.70	1,274.70
6	Conveying, lifting into position and fixing non-return valves/CI sluice valves/Gun metal valves on CI/GI over head pipe lines 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). 1 1/2" (40 mm) dia pipes.	2.00	Each	346.00	692.00
a)	--do-- 2" (50 mm) dia valves	1.00	Each	346.00	346.00
b)	-- do -- 3" (75 mm) dia valves	2.00	Each	560.00	1,120.00
c)	-- do -- 4" (100 mm) dia valves	2.00	Each	560.00	1,120.00
d)	Maintenance of LIG Pump house including 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 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, caulking 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. Checking the electrical switch boards, panels, replacement of spares, laying and joining cables, repairing of motors at site and routine check up power points at all bore wells, Main water works, Bore well water works at LIG and any other allied electrical works in connection with water supply etc. complete. The electrician shall have necessary tools for checking and repairing at all heights. It also includes maintenance of horticulture works like lawns, flower beds, trees & shrubs, cleaning & clearing of vegetation etc. All required materials will be issued by BHEL at free of cost at their stores. The rate quoted shall include cost of labour, tools and tackles, safety equipments as directed etc. complete as directed by Engineer-in-charge.	3,60,000.00	Sq.m	2.00	7,20,000.00
<b>Total of part B</b>				₹	<b>7,46,919.20</b>
<b>PART - C</b>					
1	Fabrication and fixing at site MS flanges including cutting, drilling of holes..... etc. complete as directed by Engineer-in-charge. 4" (100 mm) dia flanges.	10.00	Each	299.00	2,990.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
2	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	2.00	Each	166.05	332.10
a)	--do-- 2" (50 mm) dia.	2.00	Each	423.20	846.40
c)	--do-- 3" (75 mm) dia.	2.00	Each	423.20	846.40
d)	--do-- 4" (100 mm) dia.	2.00	Each	423.20	846.40
3	Repairing the existing level indicator at a height of 40 M of the over head tank etc. complete as directed by Engineer-in-charge.	1.00	One Operr.	1,174.80	1,174.80
	<b>Total of part C</b>			₹	<b>7,036.10</b>
	<b>PART - D</b>				
1	1 Servicing of the submersible pump sets ranging from 7.5 to 12 HP including replacing the required spares (both Electrical & Mechanical), rewinding where ever required, testing and commissioning. The depth of the bore wells on an average of 150 R ft. 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 etc. complete as directed by Engineer-in-charge.	4.00	Each	8,250.00	33,000.00
a)	2 Servicing of the submersible pump sets ranging from 1 HP to 2 HP including replacing the required spares both Electrical & Mechanical....	2.00	Each	2,500.00	5,000.00
2	2 Servicing / overhauling of centrifugal pumps including replacement of required spares and placing in position, testing and commissioning and with a warranty of 12 months period. The rate quoted shall include dismantling, transportation, servicing and re-erection at site). 5 to 15 HP.	4.00	Each	3,500.00	14,000.00
a)	b) --do-- 25 to 40 HP	2.00	Each	4,000.00	8,000.00
b)	c) Spider Washers	5.00	Each	1,020.00	5,100.00
c)	d) 63 Amps, 415 V, ICTP Switch.	5.00	Each	420.00	2,100.00
d)	e) 100 Amps, 415 V, ICTP Switch.	5.00	Each	960.00	4,800.00
3	3 Supplying and fixing the spares for the control panel for the submersible pump sets of the make (L&T), cutter hammer or Siemens etc. complete as directed by Engineer-in-charge. HRC Fuse base 100/125 Amps, busbar type.	20.00	Each	150.00	3,000.00
a)	b) -- do -- HRC Fuse links (TCP 100) 100 Amps.	20.00	Each	150.00	3,000.00
b)	c) -- do -- Contactor Kit 32 Amps, Model ML 1.5/MI 3.	10.00	Each	480.00	4,800.00
c)	4 Laying of PVC insulated and aluminium armoured cable ranging from 35 Sq. mm to 70 Sq. mm	20.00	R M	14.40	288.00
d)	5 Supply & laying of 3 core copper flexible submersible cable for 2.50 Sq. mm of ISI make.	100.00	R M	40.80	4,080.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
6	Supply & fixing of Star Delta Starter with Push button operated in a steel enclosure with OLR rating 13 to 24A, 3 Phase, 415 V - 3 Nos. of make L&T/Siemens/Crompton Greaves as per ISI all as directed by Engineer-in-charge.	10.00	Each	8,500.00	85,000.00
7	Supply & fixing of Combination switches 63A, 415V, 3 Phase with neutral link of make L&T/ Siemens / Crompton Greaves as per ISI all as directed by Engineer-in-charge.	10.00	Each	3,500.00	35,000.00
8	Supply and Fixing of Timer FMIQT or FMQT 24 hrs of make L&T / Siemans / Crompton Greaves as per ISI all as directed by Engineer-in-charge.	10.00	Each	1,800.00	18,000.00
9	Supplying and Erection of 10 HP Submersible Pump with 12 stages, ISI marked, having copper rotor and capable to total working head of 360ft, including flat cable suitable to submersible pump to the required length of motor commenced in the bore well.	3.00	Each	40,000.00	1,20,000.00
10 (a)	Supply & Installation of lighting/fans wiring with 1.5 sq. mm copper conductor single core multi-strand PVC insulated cable run through rigid PVC pipe of suitable size (Sudhakar make) from switch board/FBD to individual points laid on wall/roof including earth continuity for all points with copper wire of 14 SWG with 5 A ceiling rose on teakwood round block etc. complete as directed by Engineer-in-charge. Make: Fine cab / Finolex.	10.00	Point	372.00	3,720.00
(b)	---do--- for Boards consisting 10 A - 4 Nos. Switch cum sockets with 2.5 Sq. mm FRLS Cable for (Separate line to be drawn from MCB) etc. complete as directed by Engineer-in-charge. Make: Finecab / Finolex.	4.00	Point	540.00	2,160.00
(c)	---do--- for 10 Amps Power Switch cum sockets for chargers, pedestal fans and emergency lamps with 1.5 Sq. mm cable etc. complete as directed by Engineer-in-charge. Make: Fine cab / Finolex.	2.00	Point	372.00	744.00
(d)	---do--- for Boards consisting 25 A Switch cum sockets with 4 Sq. mm FRLS Cable for AC's, Refrigerators and Heaters etc. complete as directed by Engineer-in-charge. (Separate line to be drawn from MCB). Make: Finecab / Finolex.	2.00	Point	1,200.00	2,400.00
11 (a)	Supply and fixing of 10 Amps, 250 V SPT switches for control of light fittings with ROMA, Code: 21 011 of Anchor make / North-West make fixed on a suitable Modular type concealed box with suitable top cover for item 11 (a).	10.00	Set	250.00	2,500.00
(b)	Supply and fixing of 230 V, 10 Amps - 4 Nos. switch cum sockets of ROMA code: 21 003 & 30 373 of Anchor make / North-West make for PC's fixed on a suitable Modular type concealed box with suitable top cover for item 11 (b).	4.00	Set	1,225.00	4,900.00
(c)	Supply and fixing of 230 V, 10 Amps - 4 Nos. switch cum sockets of ROMA code: 21 003 & 30 373 of Anchor make / North-West make fixed on a suitable Modular type concealed box with suitable top cover for item 11 (c).	2.00	Set	400.00	800.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
(d)	Supply and fixing of 25 Amps, 240 V Box type mounting Double Pole MCB and heavy duty plug & socket with overload & short circuit protection of North-West make catalogue No. ACPU 6M-BTJ fixed on a suitable modular type concealed box with suitable top cover for AC's - item 11 (d).	2.00	Set	1,050.00	2,100.00
12	Supply and installation of Energy efficient light fitting, T5 type 2 x 28 W industrial luminaire with 28W T5 Fluorescent lamps. This includes supply & fixing of down rods, round blocks, connecting the copper twin twisted wire from ceiling rose to fitting and other accessories etc. complete as directed by Engineer-in-charge. Make: Philips/Asian Electronics.	6.00	Set	1,800.00	10,800.00
13	Supply & installation of ceiling fan 1400 mm sweep (56") double ball bearing type, ISI mark, white colour with all standard accessories including fan hook, down rod, clamps and connecting it up to the fan point with suitable length of 16/02 mm PVC insulated twin twisted copper conductor cable etc. complete as directed by Engineer-in-charge. Make: Bajaj / Orient.	2.00	Set	1,580.00	3,160.00
14	Supply and installation of 300 mm (12") sweep exhaust fans, which includes assembling and testing of all fans. The fans are to be rigidly fixed to wall with suitable arrangement. Black colour, double ball bearing, low noise, white epoxy powder coated paint finish with bird guard etc. complete as directed by Engineer-in-charge. Make: Orient/Usha/Crompton.	2.00	Set	1,600.00	3,200.00
15	Supply and installation of MCB Distribution Board with TPN 415V, 8 way(8GB0409H) consisting of single pole 20A -8 Nos. each phase of Siemens/Legrand/Hager make along with controlling four pole Isolator 63A(5SQ26107YA63), entry & reverse entry Cable boxes & cable glands etc., fixing neatly by fabricating steel frame and mounting on wall as per instructions of site engineer etc. complete as directed by Engineer-in-charge.	1.00	Set	8,750.00	8,750.00
16	Installation of 12 way Fuse Distribution Board with 200A Combination Fuse Switch, entry & reverse entry Cable boxes & cable glands etc., fixing neatly by fabricating steel frame and mounting on wall, Incoming/Outgoing Cables are to be terminated neatly as per instructions of site engineer. The termination with suitable lugs and supply of glands are in the scope of contractor etc. complete as directed by Engineer-in-charge. <b>(FBD will be BHEL supply)</b>	1.00	Set	1,500.00	1,500.00
17	Shifting & Laying of 3 1/2C X 25/35 Sq.mm Aluminium LT Cable from FBD to MCB on wall/roof neatly with suitable clamping, dressing and Cable end termination at both side with suitable copper lugs, glands and accessories etc. complete as directed by Engineer-in-charge. <b>(Cable will be BHEL supply).</b>	100.00	R M	40.00	4,000.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
18	Supply & installation of earth pits with material for power boards (including excavation) comprising of 600mm X 600mm X 3mm thick copper plate buried at minimum depth of 2.5 mtrs including necessary materials like charcoal, salt etc. as required confirming to IS 3043 with latest amendments having brick masonry chamber with hinged cover and watering arrangement complete in all respects etc. complete as directed by Engineer-in-charge.	2.00	Each	9,000.00	18,000.00
19	Supply & installation of 6 Sq.mm Copper earthing wire laid through 20mm PVC conduit separately from Earth pit to FBD/MCB. All fasteners are to be supplied by the contractor etc. complete as directed by Engineer-in-charge.	100.00	R M	85.00	8,500.00
<b>Total of Part - D</b>				₹	<b>4,22,402.00</b>
<b>Total of Part A+Part B+Part C+Part D</b>				₹	<b>14,63,583.60</b>
<b>Add increase in VAT 1% over the material cost (70 % of above value)</b>				₹	<b>10,245.09</b>
<b>Total value of work</b>				₹	<b>14,73,828.69</b>

**Total : ₹ Fourteen lakhs seventy three thousand eight hundred twenty eight and sixty nine paise only**

**Note:** \*\*The required Cement, structural steel/MS reinforcement steel, paint will be issue by BHEL on free of cost at BHEL stores.

1	A penalty of 0.5% of the gross value of work or part thereof will be levied for every week's or part thereof delay of work subject to a maximum penalty of 10% of the gross value of work.
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		

Name of the Contractor :

Signature of the Contractor