

TENDER

TENDER NOTIFICATION NO. - **FCX/20211007**

FOR

**Maintenance & Repair of water supply lines/mains in
BHEL inside factory area.**

PRICE BID



FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

BHOPAL – 462 022 (M.P)

PREAMBLE OF PRICE BID

1.0 This Price Bid consists of Three Schedule:

1.1 Schedule A

Schedule A consists of **Two** Annexure:

Total price of the package combining **Annexure I & Annexure II** to be quoted by the bidders which shall form the basis for comparison for deciding lowest bid. For further processing and award, total quoted amount by the L1 (lowest) bidder for the package shall be used for deriving individual item rate by BHEL based on % (percentage) weightage specified at Annexure I & Annexure II of Price Schedule.

1.2 Schedule B

It consists of details of free issue materials by BHEL.

1.3 Schedule C

It consists of details of tools & tackles provided by BHEL either on higher basis or on free of cost basis which are mentioned in price bid.

2.0 The work to be carried out under the contract shall, except as otherwise provided in tender conditions, include all labour, materials, tools, plant, equipment, and transport which may be required in preparation of and for full & entire execution and completion of the Works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include waste on materials, carriage and cartage, carrying in return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion as aforesaid in accordance with good practice and recognized principles as laid down in Technical Specification & elsewhere in Tender Specification.

3.0 The price bid should not contain any condition. Conditional price Bids shall be summarily rejected.

4.0 The bidder should not leave any column blank in Price Schedules.

5.0 Price Quoted shall include all taxes, & duties except **GST**.

6.0 Unless otherwise specified in the items involving cement, reinforcement steel or structural steel, these items shall be issued free of cost by BHEL.

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule**

Name of work: Maintenance & Repair of water supply lines/mains in BHEL inside factory area.

SUMMARY

	Details ANNEXURE	Total Amount (Rs.)
	Total price of the package combining of Annexure-I & Annexure-II.	

Amount in words: Rs.

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Total price of the package combining of Annexure-I & Annexure-II to be quoted by the bidders which shall form the basis of comparison for deciding lowest bid.

For further processing & award total quoted Amount for the package by the L1 (lowest) bidder shall be used for deriving Individual item rate by BHEL based on % (percentage) weightage specified at Annexure-I & Annexure-II of Price Schedule.

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule : Anneuxre - I**

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1		Carriage of materials by mechanical transport including loading, unloading and stacking -1 km lead			
a)	1.1.1	Lime, Moorum, Building rubbish	38.00	cum	0.9713
b)	1.1.2	Earth	34.00	cum	1.0862
2	2.8	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, 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.			
	2.8.1	All kinds of soil.	210.00	cum	10.6004
3		Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :			
		All kinds of soil.			
	2.10.1.1	a) Pipes, cables etc. not exceeding 80 mm dia.	19.00	metre	0.7435
	2.10.1.2	b) Pipes, cables, etc. exceeding 80 mm dia but not exceeding 300 mm dia.	37.00	metre	2.3646
4		Open timbering in trenches including strutting and shoring complete (Measurements to be taken on the face area timbered)			
a)	2.20.1	Depth not exceeding 1.5 m	18.00	sqm	0.3647
b)	2.20.2	Depth exceeding 1.5 m, but not exceeding 3 m	9.00	sqm	0.1919
		Dy. Manager (FCX/PLG)			
5	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	137.00	cum	4.4306
6		Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked			
	2.26.1	All kinds of soil.	49.00	cum	0.6543

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION

Price Schedule : Anneuxre - I

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
7	**	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:(Cement free issue by BHEL)			
a)	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	5.00	cum	4.9714
b)	4.1.8	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	2.00	cum	1.9518
8	**	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor,etc., up to floor five level, excluding the cost of centering, shuttering and finishing :(Cement free issue by BHEL)			
	4.2.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	2.00	cum	2.5739
9	**	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work upto plinth level. (Cement free issue by			
	5.1.3	1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	2.00	cum	2.1351
10	Ana. 5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. (Reinforcement bars will be supplied free of cost from BHEL store).			
		Thermo-Mechanically Treated bars.	126.00	Kg	0.3598
11	**	Coursed rubble masonry (second sort) with hard stone in foundation & plinth with (Excluding the cost cement and stone):-			
	7.7.1	Cement mortar 1:6 (1 cement : 6 coarse sand).	6.00	cum	4.279
12	14.23	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	93.00	kilo litre	2.6039

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule : Anneuxre - I**

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
13		Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.			
a)	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	3.00	cum	0.7769
b)	15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	3.00	cum	0.4789
14	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	2.00	cum	0.7556
15		Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.			
	15.7.4	In cement mortar.	2.00	cum	0.4373
16		Demolishing stone rubble masonry manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :			
	15.9.2	In cement mortar	7.00	cum	1.8263
17	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	27.00	sqm	0.7679
18		Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :			
a)	15.43.1	Water bound macadam road	18.00	sqm	0.4286
b)	15.43.2	Bituminous road	18.00	sqm	0.8332
19		Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :			
	15.44.1	15 mm to 40 mm nominal bore.	37.00	metre	0.6297

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule : Anneuxre - I**

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
	15.44.2	Above 40mm nominal bore.	37.00	metre	0.7182
20		Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:			
a)	15.45.1	Up to 150 mm diameter	25.00	metre	1.4998
b)	15.45.2	Above 150 mm diameter up to 300 mm dia	21.00	metre	1.6103
21	15.48	Taking out C.I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C. work manually/ by mechanical means and stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead as per direction of Engineer-in-charge.	4.00	each	0.306
22		Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres			
a)	15.53.1	Upto 150 mm diameter	9.00	each	0.3303
b)	15.53.2	Above 150 mm diameter	2.00	each	0.2561
23	15.54	Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead.	13.00	each	0.9979
24	Analysis	Fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.(Excluding Cost of GI Pipe)			
		External work			
	18.12.6	50 mm dia nominal bore	35.00	metre	0.7436
25		Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :			
a)	18.13.1	25 to 40 mm nominal bore.	9.00	each	0.9323
b)	18.13.2	50 to 80 mm nominal bore.	3.00	each	0.6701
26		Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :			
	18.20.3	25 mm nominal bore	6.00	each	0.6824

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule : Anneuxre - I**

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
27	18.23	Laying in position centrifugally cast (spun) iron S&S or flanged pipes (excluding cost of pipe) .	18.00	quintal	0.7065
28	18.24	Laying in position S & S or flanged C.I. Special such as tees, bends, collars, tapers and caps, etc. (excluding cost of specials) .	7.00	quintal	0.5027
29		Providing and laying S&S C.I. Standard specials such as tees, bends, collars, tapers, caps, etc. (Heavy class):			
	18.25.1	up to 300 mm dia.	3.00	quintal	4.1534
30		Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps, etc. suitable for flanged jointing as per IS:1538.			
	18.26.1	up to 300 mm dia	2.00	quintal	4.173
31	18.28	Providing lead caulked joints to spun iron or C.I. Pipes and specials, including testing of joints, but excluding the cost of pig lead:			
a)	18.28.1	100 mm diameter pipe.	18.00	each	1.0166
b)	18.28.3	150 mm diameter pipe.	32.00	each	2.7129
c)	18.28.4	200 mm diameter pipe.	5.00	each	0.5627
d)	18.28.5	250 mm diameter pipe.	6.00	each	0.843
e)	18.28.6	300 mm diameter pipe.	17.00	each	2.8741
32	18.30	Providing flanged joints to double flanged C.I./D.I. pipes and specials including testing of joints.			
a)	18.30.2	100 mm diameter pipe	18.00	each	0.9617
b)	18.30.4	150 mm diameter pipe	18.00	each	1.1893
c)	18.30.5	200 mm diameter pipe	4.00	each	0.2719
d)	18.30.6	250 mm diameter pipe	6.00	each	0.6056
e)	18.30.7	300 mm diameter pipe	4.00	each	0.4159
33	Ana. 18.31	Fixing C.I. Sluice valves (with cap) complete with bolts , nuts, rubber insertions etc. (the tail pieces if required will be paid separately).only C.I. Sluice valve will be free issue from BHEL store.			
a)	18.31.3.1	150 mm diameter			
		Class I	6.00	each	1.1204
b)	18.31.4.1	200 mm diameter			
		Class I	3.00	each	0.6823
c)	18.31.5.1	250 mm diameter			

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule : Anneuxre - I**

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Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
		Class I	2.00	each	0.6747
d)	18.31.6.1	300 mm diameter			
		Class I	2.00	each	0.7809
34	18.82	Dismantling old C.I. Pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes at site lead up to 50 metre:			
a)	18.82.2	100 mm diameter C.I. Pipe.	10.00	metre	0.509
b)	18.82.4	150 mm diameter C.I. Pipe.	50.00	metre	2.7333
c)	18.82.5	200 mm diameter C.I. Pipe.	20.00	metre	1.2172
d)	18.82.6	250 mm diameter C.I. Pipe.	10.00	metre	0.6694
e)	18.82.7	300 mm diameter C.I. Pipe.	10.00	metre	0.7221
35	18.83	Labour for cutting C.I. Pipe with steel saw:			
a)	18.83.2	100 mm diameter C.I. Pipe.	7.00	each cu	0.1503
b)	18.83.4	150 mm diameter C.I. Pipe.	28.00	each cu	1.1314
c)	18.83.5	200 mm diameter C.I. Pipe.	25.00	each cu	1.3473
d)	18.83.6	250 mm diameter C.I. Pipe.	6.00	each cu	0.4008
e)	18.83.7	300 mm diameter C.I. Pipe.	10.00	each cu	0.8029
		Total : Annexure - I			89.8951

Note :

- 1 If any damages/leakages are found in the water supply lines inside BHEL factory premises, then the contractor has to mobilise immediately the required men and material within 24 hours and expedite the work at the earliest.
- 2 Gate pass entry of material is necessary and shall be submitted by the contractor at the time of submission of bills.
- 3 All the materials should be as per IS & CPWD specifications.
- 4 The above work is for 6 months and no PVC (Price variation clause) is applicable. Contractors are advised to quote accordingly.

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule : Anneuxre - II**

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1	Laying and jointing flanged GI pipe in all direction including transportation , clamping of pipe , making leak proof at joints with necessary rubber gasket etc. complete upto a maximum height of 20 metre from ground level. (GI pipe shall be issued free of cost from BHEL)			
	GI Pipe of size 100 mm dia	36.00	metre	2.9355
2	Fixing of GI pipes complete with GI fittings including transportation , clamping of pipe , threading (if required) with necessary teflon tape etc. complete upto a maximum height of 20 metre from ground level. (GI pipe and fittings shall be provided by BHEL free of cost)			
a)	GI Pipe of size 15 mm dia	10.00	metre	0.4465
b)	GI Pipe of size 20 mm dia	5.00	metre	0.2403
c)	GI Pipe of size 25 mm dia	10.00	metre	0.4864
d)	GI Pipe of size 50 mm dia	25.00	metre	1.2360
				0.0000
3	Repair of lead caulked joints to spun iron or C.I. pipes and specials to stop the leakage including cost of excavation and refilling complete but excluding the cost of pig lead only.			0.0000
a)	100 mm dia	3.00	each	0.3948
b)	150 mm dia	14.00	each	2.0598
c)	200 mm dia	6.00	each	0.9211
d)	250 mm dia	1.00	each	0.1660
e)	300 mm dia	6.00	each	1.0355
f)	Dy. Manager (FCX/PLG)	1.00	each	0.1830
	Total : Annexure - II			10.1049
	Total : Annexure - I + Annexure II			100.0000

Note :- 1) Gate pass entry of material is necessary and shall be submitted by the contractor at the time of submission of bills.

2) All the materials should be as per IS codes & CPWD specifications.

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION**Price Schedule B**

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

The following material free issue from BHEL stores.

- | | |
|---|---|
| 1 | C I Pipes and specials |
| 2 | Cement |
| 3 | Reinforcement steel |
| 4 | Sluice valve |
| 5 | Pig lead |
| 6 | GI pipe of size 15 mm, 20 mm , 25 mm & 50 mm and fittings |
| 7 | Stone |

SCHEDULE-C

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

- | | | | |
|---|--|---|---------------------------|
| 1 | Hire charges. | } | (Subject to availability) |
| | i) Drill machine @ 252.00/- per day | | |
| | ii) Jack Hammer @108.00/- per day | | |
| 2 | Drill machine/jack hammer rod Rs. 100.00 per rod | | |
| 3 | Electricity charges at Rs.66/- per M.T. of fabrication of structural steel | | |

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION

Scope of work

Name of work : Maintenance & Repair of water supply lines/mains in BHEL inside factory area

- 1 Laying of C.I. Line inside blocks and factory area.
- 2 Breakdown repairing work.
- 3 maintenance & repair of drinking water line & raw water line inside blocks and factory area.
- 4 Dismantling work of bricks, RCC, stone rubble masonry, G.I.Pipe & C.I. pipe etc.

The scope shall also include all associated & enabling works including the cost of labour, tools & tackles and materials except for those to be provided by BHEL free of cost or on chargeable basis as mentioned in the schedule.