

TENDER

TENDER NOTIFICATION NO. - FCX/22231059

FOR

**Repair & Maintenance of various civil structures/
installations 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:

The evaluation currency for this tender shall be INR. Total price of the package consisting of **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 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:- Repair & Maintenance of various civil structures/ installations inside factory area.

SUMMARY

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

Amount in words: Rs.

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NOTE:

- 1 The evaluation currency for this tender shall be INR. Total price of the package consisting 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.
- 2 In case of "discrepancy in words and figures", the same shall be adjusted in accordance with following rule:
 - (a) If, in the price structure quoted for the required goods/ services/ works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
 - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
 - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.
 - (d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

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

Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1		Carriage of material by Mechanical transport including, loading, unloading & stacking of.			
(a)	1.1.1	Lime, moorum, building rubbish 1 km lead	3.00	cum	0.0464
(b)	1.1.2	Earth - 1 Km lead	150.00	cum	2.8984
(c)	1.1.11	Steel - 1 Km lead	1.00	tonne	0.0137
2		Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed :			
	2.1.1	All kinds of soil.	13.00	sqm	0.1149
3		Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m; disposed earth to be levelled and neatly dressed.			
	2.6.1	All kind of soil	181.00	cum	5.4650
4	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.	3.00	cum	0.0587
5		Extra for every additional lift of 1.5 m or part thereof in excavation / banking excavated or stacked materials.			
	2.26.1	All kinds of soil.	1.00	cum	0.0081
6		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:(Excluding cost of cement which shall be paid saperately)			
(a)	4.1.3	a) 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	15.00	cum	9.0209
(b)	4.1.8	b) 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	5.00	cum	2.9514
7		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.(Excluding cost of cement which shall be paid saperately)			

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Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
(a)	5.1.2	a) 1 : 1.5 : 3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	5.00	cum	3.1467
(b)	5.1.3	b) 1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	15.00	cum	9.6856
8		Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : (Excluding cost of cement which shall be paid saperately)			
	5.2.2	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	2.00	cum	1.5579
9	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size). (Excluding cost of cement which shall be paid saperately)	2.00	cum	1.6605
10		Centering and shuttering including strutting, propping etc. and removal of form for :			
(a)	5.9.1	a) Foundations, footings, bases of columns, etc. for mass concrete.	31.00	sqm	1.1252
(b)	5.9.2	b) Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	5.00	sqm	0.3197
(c)	5.9.3	d) Suspended floors, roofs, landings, balconies and access platform.	2.00	sqm	0.1407
(d)	5.9.5	e) Lintels, beams, plinth beams, girders, bressumers and cantilevers.	1.00	sqm	0.0587
(e)	5.9.6	f) Columns, pillars, piers, abutments, posts and struts.	1.00	sqm	0.0816
11	Ana. 5.22A.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. (Reinforcement bars will be supplied free of cost from BHEL store).			
		Thermo-Mechanically Treated bars.	800.00	Kg	1.3819

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
12		Brick work with non modular fly ash lime bricks (FALG Bricks) conforming to IS:12894, class designation 10 average compressive strength in super structure above plinth level up to floor V level in : (Excluding cost of cement which shall be paid saperately)			
	6.34.2	Cement mortar 1:6 (1 cement : 6 Coarse sand)	5.00	cum	3.9193
13		Half brick masonry with non modular fly ash lime Gypsum bricks (FALG bricks) of class designation 10, conforming to IS : 12894, in super structure above plinth and upto floor V level. (Excluding cost of cement which shall be paid saperately)			
	6.45.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	3.00	cum	0.2845
14		Coursed rubble masonry (second sort) with hard stone in foundation & plinth with (Excluding cost of cement which shall be paid saperately) (Excluding the cost of stone which shall be supplied free of cost by BHEL, Excluding cost of cement which shall be paid saperately)			
	Ana 7.7.1	Cement mortar 1:6 (1 cement : 6 coarse sand).	2.00	cum	1.2859
15		Coursed rubble masonry (second sort) with hard stone in foundation & plinth with. (Excluding cost of cement which shall be paid saperately)			
	7.7.1	Cement mortar 1:6 (1 cement : 6 coarse sand).	1.00	cum	0.4314
16		Providing and fixing 18 mm thick gang saw cut mirror polished premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1 : 4 (1 cement : 4 coarse sand) joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. (Excluding cost of cement which shall be paid saperately)			
		Granite of any colour and shade			
	8.2.2.2	Area of slab over 0.50 sqm	3.00	sqm	1.8271

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
17	9.119	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in-Charge.	10.00	metre	0.8072
18		Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.			
	9.120.2	30 mm thick pre laminated PVC door shutters	3.00	sqm	1.4944
19	Ana. 10.1	Structural steel work in single section fixed without connecting plate including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.(Structural steel will be issued free of cost from BHEL stores).	50.00	Kg	0.0928

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Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
20	10.2 Ana	Structural steel work welded /riveted/ bolted in built up sections, trusses and framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. (Structural steel will be issued free of cost from BHEL store)	950.00	Kg	2.8939
21	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of Cement Mortar 1:3 (1 Cement :3 Coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete. (Excluding cost of cement which shall be paid saperately)	10.00	sqm	1.2707
22	11.37	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours, such as White, Ivory, Grey, Fume, Red Brown, laid on 20mm thick Cement Mortar 1:4 (1 cement : 4 Coarse sand) including pointing the joints with white cement and matching pigment etc. complete. (Excluding cost of cement which shall be paid saperately)	10.00	sqm	1.4026
23	**	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc. complete. (Excluding cost of cement which shall be paid saperately)			
	11.41.2	Size of Tile 600x600 mm	50.00	sqm	12.9013
24	11.42	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles. (Excluding cost of cement which shall be paid saperately)	50.00	sqm	-3.3432

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

Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
25	11.43	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	50.00	sqm	3.7644
26	**	12 mm cement plaster of mix:(Excluding cost of cement which shall be paid saperately)			
	13.4.2	1 : 6 (1 cement : 6 coarse sand) .	10.00	sqm	0.2316
27	**	15 mm cement plaster on rough side of single or half brick wall of mix:(Excluding cost of cement which shall be paid saperately)			
	13.5.2	1 : 6 (1 cement : 6 coarse sand).	20.00	sqm	0.5337
28	**	20 mm cement plaster of mix:(Excluding cost of cement which shall be paid saperately)			
	13.6.2	1 : 6 (1 cement : 6 coarse sand).	10.00	sqm	0.3163
29	**	6 mm cement plaster of mix:(Excluding cost of cement which shall be paid saperately)			
	13.16.1	1 : 3 (1 cement : 3 fine sand).	50.00	sqm	0.9269
30		Painting with synthetic enamel paint of approved brand and manufacture to give an even shade.			
	Ana. 13.61.1	Two or more coats on new work.	13.00	sqm	0.1523
31	**	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts embedding hold fasts in cement concrete blocks with cement concrete 1 : 3 : 6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete including disposal of rubbish to the dumping ground within 50 metres lead:(Excluding cost of cement which shall be paid saperately)			
	14.2.1	Door chowkhats.	1.00	each	0.1271
32	Ana	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade			
	14.54.1	One or more coats on old work	3.00	sqm	0.0231

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
33		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)	2.00	cum	0.3133
(b)	15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	1.00	cum	0.0966
34	15.3	Demolishing RCC 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.	1.00	cum	0.2285
35		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.	1.00	cum	0.1323
36		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	1.00	cum	0.1578
37		Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead:			
(a)	15.13.1	a) Of area 3 sqm and below.	1.00	each	0.0093
(b)	15.13.2	b) Of area beyond 3 sqm.	1.00	each	0.0122
38	15.19	Dismantling steel work manually / by mechanical means in built up sections without dismembering and stacking within 50 meters lead. as per direction of Engineer-in-charge.	125.00	Kg	0.0306
39		Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50metres lead:			
	15.23.1	For thickness of tiles 10 mm to 25 mm.	39.00	sqm	0.1848

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

Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
40	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	331.00	sqm	5.6943
41	15.36	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	10.00	kg	0.0237
42		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	a) Water bound macadam road	1.00	sqm	0.0144
(b)	15.43.2	b) Bituminous road	3.00	sqm	0.0840
Non-DSR Items					
43	FCX/ 2122200 9	Supplying and filling in plinth with stone dust under floors, including watering, ramming, consolidating and dressing complete.	8.00	cum	0.6381
44	FCX/ 2122200 9	40 mm thick fine dressed stone flooring over 20 mm (average) thick moorum base with joints finished flush in cement mortar 1:5 (1 cement : 5 coarse sand).(Excluding the cost of sand stone which shall be supplied free of cost by BHEL, Excluding cost of cement which shall be paid saperately)			
		Red sand stone.	196.00	sqm	3.9529
Total : Annexure I					82.65

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

Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

Sr. No.	Based on DSR' 2012	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1	PO No. 8020004	Supply and stacking of Portland Pozzolana Cement (PPC) of make ACC, UltraTech, Mycem, Ambuja, JK Cement, Wonder Cement or Shree Cement at site conforming to IS 1489: 1991 Re-affirmed 2005 Part 1 of Latest Revision, packed in non-returnable bags of 50 Kg.	151.00	Quintal	17.3479
		Note :- (i) Manufacturing date of cement should not be older than one month from the date of supply. (ii) For each running Bills, Contractor shall submit Cement reconciliation statement with actual cement consumption & theoritical consumption as per CPWD, DSR. Wastage of cement @ 2% of Theoritical Consumption is permissible. (iii) In case the supplied cement is more than the consumed cement, balance quantity of cement shall be returned by Contractor to BHEL's Store before processing of final bill.			
		Total : Annexure II			17.35
		Total : Annexure I + Annexure II			100.00

FACTORY CIVIL CONSTRUCTION & MAINTENANCE DIVISION

Price Schedule : B

Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

The following material free issue from BHEL stores.

- 1 Reinforcement Steel.
- 2 Structural steel
- 3 Red sand stone against item no 44

Price Schedule : C

Name of work:- Repair & Maintenance of various civil structures/ installations inside factory area.

- 1 Electricity charges at Rs.66.00/- per M.T. of fabrication of structural steel

Hire charges.

- | | | |
|-------------------------------------|---|---------------------------|
| i) Drill machine @ 252.00/- per day | } | (Subject to availability) |
| ii) Jack Hammer @ 108.00/- per day | | |

Drill machine/jack hammer rod Rs. 100.00 per rod