

# TENDER

**TENDER NOTIFICATION NO. - FCX/20211033**

FOR

**Renovation of capacitor bank room near UHV lab 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 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 : Renovation of capacitor bank room near UHV lab inside factory area.**

	Details ANNEXURE	Total Amount (in Rs.) (To be quoted by bidder here)
	Total price of the package combining 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 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 & Annexure-III 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.

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**Price Schedule A : Anneuxre - I**

Name of work : Renovation of capacitor bank room near UHV lab inside factory area.

Sr. No.	Based on DSR'12	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1		Carriage of material by Mechanical transport including, loading, unloading & stacking of.			
	1.1.1	a Lime, moorum, building rubbish -1 km lead	20.00	cum	0.1715
	1.1.2	b.Earth - 1 Km lead	10.00	cum	0.1072
2		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 kinds of soil.	10.00	cum	0.1675
3	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.	10.00	cum	0.1085
4	**	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: <b>(Cement free issue by BHEL)</b>			
	4.1.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size ).	5.00	cum	1.6683
5	**	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. <b>(Cement free issue by BHEL)</b>			
	5.1.2	1 : 1.5 : 3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	2.00	cum	0.6983
6		Centering and shuttering including strutting, propping etc. and removal of form for :			
	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete.	46.00	sqm	0.9264

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7	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. <b>(Reinforcement bars will be supplied free of cost from BHEL store).</b> Thermo-Mechanically Treated bars.	660.00	Kg	0.6325
8	9.96.1	Providing and fixing aluminium sliding door bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with nuts and screws, etc., complete. 300 x 16 mm.	2.00	each	0.0455
9	9.97.4	Providing and fixing aluminium tower bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade with necessary screws, etc. complete: 150x10 mm	4.00	each	0.0261
10	9.100.1	Providing and fixing aluminium handles, ISI marked anodised (anodic coating not less than grade AC 10 as per IS:1868) transparent or dyed to required colour or shade, with necessary screws, etc. complete. 125 mm.	4.00	each	0.0276
11	** 13.4.2	12 mm cement plaster of mix: <b>(excluding cost of cement)</b> 1 : 6 (1 cement : 6 coarse sand) . (Note :-While plastering/painting etc. scaffolding shall be paid separately by measuring elevational area under item no. 17 of Ann-I )	541.00	sqm	6.9503
12	13.42.1	Distemping with 1st quality acrylic washable distemper (ready made) of approved manufacturer, of required shade and color complete as per Manufacturer's specification. Two or more coats on new work	541.00	sqm	2.5118

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Sr. No.	Based on DSR'12	Item Description	Qty.	Unit	% Weightage of item amount against total amount
13		Applying one coat of water thinable cement primer of approved brand and manufacture on wall surface:			
	13.43.1	Water thinnable cement primer.	541.00	sqm	1.7229
14		Finishing walls with Acrylic Smooth exterior paint of required shade:			
	13.46.1	New work (Two or more coats applied @1.67 litre/10 sqm) over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm).	541.00	sqm	4.3468
15		Painting with synthetic paint of approved brand and manufacture of required colour to give an even shade. <b>(Paint shall be provided free of cost form BHEL)</b>			
	14.54.1	One or more coats on old work.	100.00	sqm	0.3128
16		Painting with aluminium paint of approved brand and manufacture to give an even shade. <b>(Excluding the cost of aluminium paint and putty)</b>			
	14.55.1	One or more coats on old work	100.00	sqm	0.3859

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Sr. No.	Based on DSR'12	Item Description	Qty.	Unit	% Weightage of item amount against total amount
17	14.72	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge . <b><u>The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.</u></b>	1400.00	sqm	21.7937
		Note 1:-This item to be used for maintenance work judiciously. Necessary deduction for scaffolding in the existing item to be done. <b>Note 2:- For the repairing of ceiling of height 10 to 11 metre (approx.), scaffolding is mandatory. However, payment for scaffolding will be made on plan area basis of ceiling.</b>			
18		Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in-charge:			
	15.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	2.00	cum	0.1071
19	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	0.2536

Seal and Signature of Bidder

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Seal and Signature of BHEL Authority

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**Price Schedule A : Anneuxre - I**

Name of work : Renovation of capacitor bank room near UHV lab inside factory area.

Sr. No.	Based on DSR'12	Item Description	Qty.	Unit	% Weightage of item amount against total amount
20		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	0.0734
21		Dismantling doors, windows and clerestory windows (steel or wood) shutter including chokhats, architrave, holdfasts, etc. complete and stacking within 50 metres lead:			
	15.12.1	Of area 3 sqm and below.	10.00	each	0.1317
22	15.19	Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.	1403.00	kg	0.1908
23	15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead::	541.00	sqm	1.0510
24	21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. <b>(Glazing, paneling and dash fasteners to be paid for separately)</b>			

For fixed portion.



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Sr. No.	Based on DSR'12	Item Description	Qty.	Unit	% Weightage of item amount against total amount
	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	220.00	kg	9.0880
25		For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).			
	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	77.00	kg	3.6259
<b>Total : Annexure I</b>					<b>57.1251</b>

Note: Scaffolding shall be paid seperately as respective item no. - 17 of annexure-I.

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**Price Schedule A : Anneuxre - II**

Name of work : Renovation of capacitor bank room near UHV lab inside factory area.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item.)  With float glass panes of 5.00 mm thickness (Weight not less than 12.27 kg/sqm)	9.00	sqm	0.2770
2	Providing and fixing on wall face unplasticised-Rigid PVC rain water pipes conforming to IS : 4985/2000 class 2 including jointing with solvent cement to form a permanent water tight joints.(Working pressure-4.0 kgf/sqcm) Single socket (selfit) pipes:(Working pressure-4.0 kgf/sqcm)	100.00	metre	6.6633
3	Providing and fixing on wall face unplasticised-PVC moulded fittings/accessories for unplasticised - Rigid PVC rain water pipes conforming to IS : 4985/2000 class 2 including jointing with solvent cement to form a permanent water tight joints.(Working pressure-4.0 kgf/sqcm)			
a)	Coupler (Working pressure-4.0 kgf/sqcm) 160mm	20.00	each	0.4590
b)	Bend 87.5 degree (Working pressure-4.0 kgf/ sqcm) 160mm Bend/Elbow	20.00	each	0.6158

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
4	Fabrication and erection of structural steel members at all heights consisting of channels & angles, gutters ,M.S. plates, M.S. flat, M.S. tubes, supports including all connections as per detailed drawings connected steel works etc. cleats, gusset plates all bolts, nuts washers, base plates, anchor bolts etc.as per detailed drawings cutting welding and painting one coat of red oxide primer before erection & two coats of synthetic enamel paint of approved brand & colour after erection complete. Advani made electrodes or other approved make electrodes are to be used. All bolts, nuts, washers, gas, electrodes are in contractor's scope. Fabrication to be done as per I.S. codes of latest revision. <b>(Structural steel,primer and paint shall be provided free of cost by BHEL.)</b>			
a)	Only fabrication.	2805.00	kg	4.1377
b)	Only erection.	2805.00	kg	2.0125
	(Note:- Painting with synthetic enamel paint shall be paid for separately under respective item.)			
5	Brick work with Ghol bricks of class designation 50 and above in superstructure above plinth level up to floor V level in all shapes and sizes in cement mortar 1:6 (1 cement : 6 coarse sand) without presence of floor wise intermediate slabs <b>(Cement free issue by the Deptt.)</b>	1.00	cum	0.7358

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
6	<p>Providing and fixing motorized (springless) rolling shutters with sheet thickness greater than or equal to 1.0 mm for opening size 6m (W) x 6.2m (H). The shutters shall be interlocking GI rolling shutters with minimum 1 mm (tk) x 75mm widestrip with guide channels : 3.15 mm x 250 mm or suitable size. 18 gauge MS sheet top cover with bracket, clamps, handles and two coats of primer including fixing. Motor shall be 3-phase with thermostatic setting with limit switch, safety brake, manual chain drive, push button switch, gear with sprocket chain drive. Suitable coating should be done to make shutters corrosion resistant.</p> <p>Maximum speed of shutters to be around 3m/min. Shutter should have backup provision for manual operation through a ratchet spanner / handwheel / chain. Deflection of curtain limited to around 40mm over the width of 1000mm. Suitable blinker lights, Provision of copper flaps upto full height, end position limit switches &amp; sensors for door operation on both sides are to be provided. The shutter should have Control / Protection for Mechanical anti-fall, Breaking - dynamics, Limit switches at ends &amp; positive stopper with 1 No. buzzer.</p>	1.00	no	27.9738
<b>Total : Annexure II</b>				<b>42.8749</b>
<b>Total : Annexure I + Annexure II</b>				<b>100.0000</b>

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

Name of work : Renovation of capacitor bank room near UHV lab inside factory area.

The following material free issue from BHEL stores.

- 1 Reinforcement Steel.
- 2 Structural steel
- 3 Red oxide zinc chromate primer
- 4 Cement
- 5 Synthetic Enamel Paint
- 6 Aluminium Paint

**Price Schedule C**

Name of work : Renovation of capacitor bank room near UHV lab inside factory area.

- 1 Electricity charges at Rs.66.00/- per M.T. of fabrication of structural steel
  - 2 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