

TENDER

TENDER NOTIFICATION NO. - **FCX/22231017**

FOR

Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within 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 :Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within 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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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** 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.
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 : Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within 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 up to 1 km lead:			
	1.1.11	Steel	45.00	Tonne	0.0405
	RA	Sheets	2.00	Tonne	0.0027
2	Ana.	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:(Paint free issue from BHEL store)			
	13.61.1	Two or more coats on old work.	735.00	sqm	0.3976
3	Ana.	Painting with aluminium paint of approved brand and manufacture to give an even shade:(Paint free issue from BHEL store)			
	13.63.1	Two or more coats on old work.	100.00	sqm	0.0551
4	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. (Note: Dismantling of rain water gutter shall also be paid under this item.)	44360.00	Kg	0.7112
5	15.28	Dismantling roofing including ridges, hips valleys and gutters, etc., and stacking the material within 50 metres lead of:			
a)	15.28.1	G.S. sheet/ Aluminum sheet	4070.00	sqm	2.8401
b)	15.28.2	Asbestos sheet	100.00	Sqm	0.0330
Total Annexure -I					4.0802

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

Name of work : Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within factory area.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
1	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 permanent water tight joints.(Working pressure-4.0 kgf/sqcm)			
	(i) Single socket (selfit) pipes:(Working pressure-4.0			
a)	200 mm dia.	50.00	metre	0.4156
b)	160 mm dia	100.00	metre	0.7272
2	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)			
	200mm	5.00	each	0.0186
b	Single Pushfit Coupler(Working pressure-4.0 kgf/sqcm)			
	200mm	10.00	each	0.0668
c	Single Tee without Door(Working pressure-4.0 kgf/sqcm)			
i)	200x200x200mm	5.00	each	0.0519
ii)	160X160X160mm	5.00	each	0.0223
d	Bend 87.5 degree(Working pressure-4.0 kgf/sqcm)			
i)	200mm Bend/Elbow	5.00	each	0.0631
ii)	160 mm Bend/Elbow	10.00	each	0.0371
e	Shoe(plain)(Working pressure-4.0 kgf/sqcm)			
	200mm Shoe	5.00	each	0.0297

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

Name of work : Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within factory area.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
3	Supply & fixing of flashings, ridges, cappings, corner pieces etc. made of 0.50 mm TCT (total coated metal thickness) plain galvalume steel sheet as per site requirement. The supplied material is to be manufactured out of 0.50 mm TCT (Total coated thickness) and 550 MPA tensile strength, with zinc aluminium alloy of AZ-150 (As per IS-15961:2012). The sheet shall have a hot dip metallic zinc aluminium alloy coating of zinc (43%), silicon (1.5%) and aluminium (55%) with total mass coating of 150 gms/sqm considering both sides together , self drilling/self tapping screws with EPDM seal fixed to the existing MS purlins/MS runners complete as per drawing in required shape & size & fixed with stitching screw complete and as directed by engineer-in-charge .	52.00	metre	0.2698
	Note- The perimeter width of flashing/ ridges may be up to 600 mm.			
4	Supply & fixing M.S Galvanised Gutters with 3.0 mm thick (minimum) M.S. Galvanised sheet including zinc coating of 120 gsm considering both side together and sheet width 900 mm in the required shape and size as per drawing of valley gutter with necessary fastener, welding and supports on steel bracket & sealing the space as required with external cladding as directed by Engineer-in -Charge .	9780.00	kg	11.4031
5	Providing and fixing fire retardant and U.V. resistant profiled and solid transparent embossed polycarbonate sheet of minimum 3 mm thick with profile to match with that of adjacent galvalume sheets on roof with self drilling/self stitching fasteners with EPDM seal for transmission of light, fixing of the sheet to the existing support system underneath as per the standard practice complete and as directed by engineer-in-charge.The soild transparent polycarbonate sheet shall be free from scratches and other surface damage and it shall be UV treated and tested as per relevant ASTM or DIN or AS etc.as the case may be.	396.00	Sqm	8.8120

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

Name of work : Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within factory area.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
6	Fabrication and erection of structural steel works at all heights consisting of, railing, clamps, purlins with channels & angles, 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 1 coats of red oxide primer before erection & 2 coats of synthetic enamel paint/Aluminium paint of approved brand & colour after erection complete. Advani make 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. (Only structural steel and paint shall be paid under different item) Note- Work may be done at a maximum height of 25 mtr.			
a)	Only fabrication.	27500.00	Kg	4.5224
b)	Only erection.	27500.00	Kg	2.2003
7	Providing & fixing South/North light curve in required girth with 0.5 mm TCT (Total coated metal thickness) coloured galvalume sheet with SMP coating of 20 micron thickness on exposed face and back coat pre-coating of 5-7 micron thickness on unexposed face with length of south/north light curve equal to maximum width of Galvalume sheet fixed to the steel members with self drilling/self stitching fasteners at maximum spacing of 500 mm c/c along length of capping, flashing etc complete as directed by Engr-in-charge. The curved width of south/ north light curve shall be as per drawing/ site condition and instructions of Engineer-in-charge. (Note: 1. The profile of the curve shall be as per the direction of Engr-in-charge. 2. the maximum perimeter width of the curve may be 1200 mm.)	490.00	Metre	4.6398

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Name of work : Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within factory area.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
8	Supply and installation of coated galvalume steel sheet having maximum of pitch of 205 mm c/c and minimum 28 mm crest depth in length for roofing / side cladding as per site requirement. The supplied material is to be manufactured out of 0.50 mm TCT (Total coated thickness) and 550 MPA tensile strength, with zinc aluminium alloy of AZ-150 (As per IS-15961:2012). The sheet shall have a hot dip metallic zinc aluminium alloy coating of zinc (43%), silicon (1.5%) and aluminium (55%) with total mass coating of 150 gms/sqm considering both sides together , self drilling/self tapping screws with EPDM seal fixed to the existing MS purlins/MS runners complete as per drawing and as directed by engineer-in-charge.	4070.00	Sqm	39.4432
	Note:- Pre dispatch inspection of the material shall be carried out to witness the tests as per FQP. Sample shall be submitted for color approval .			
10	Removal of North light Glass from the existing sheds (while the plant is in running condition) taking care of safety factors and depositing the dismantled glass/broken pieces to the department within the plant premises upto a lead of 1.0 Km including loading , unloading and stacking .			
	For North light glass	1320.00	Sqm	0.8757
11	Providing and fixing fire retardant and U.V. resistant plain and solid transparent embossed polycarbonate sheet of minimum 3 mm thick with profile to match with that of adjacent galvalume sheets on roof with self drilling/self stitching fasteners with EPDM seal for transmission of light, fixing of the sheet to the existing support system underneath with aluminium flats as per the standard practice complete and as directed by engineer-in-charge.The solid transparent polycarbonate sheet shall be free from scratches and other surface damage and it shall be UV treated and tested as per relevant ASTM or DIN or AS etc.as the case may be.	1040.00	sqm	21.2180

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
12	Dismantling existing profiled galvalume sheets/ profiled puff insulated sandwich panel sheets at any height from Fy. Block roof, wall cladding etc including unscrewing of self tapping screws from supporting steel frame work, including dismembering of existing supporting steel framework including scaffolding, taking all safety measures, lead and lift etc, and stacking the material within 50 meter lead all as per the Instructions of Engineer-in-Charge.	100.00	sqm	0.2272
13	Labour only for fixing in position factory manufactured profiled PUF insulated Galvalume panels, 40 mm thick of different sizes. The insulation sandwich in between the top and bottom sheets shall be polyurethane foam (PUF) of density 40 ± 5 Kg/m ³ approximate having a thickness of 40 mm as per IS: 12436 -1988 or latest revision. The work shall include cutting of sheets to required sizes and fixing them in position with the help of stainless steel self tapping/ self drilling screws , including all safety measures, lead and lift, labour, tools and tackles and cost of screws, fittings & fixture etc complete as per the instructions of engineer-in-charge. Note: 1. Only PUF insulated sandwich panels shall be issued free of cost by BHEL. 2. Sheetting work shall be done up to a maximum height of	100.00	sqm	0.4944
14	Fabrication and fixing of MS clamps for the rain water pipes dia 150 mm at columns/ truss including fabrication and erection of clamps at all heights in manufacturing blocks with primer and two coat paint including all tools and tackles. The details of clamps shall be as follows:- MS flat having 5 mm thick , 50 mm width & total length 650 mm. The clamp is bend as per suitability & as per existing clamps. (Only structural steel and paint shall be paid under different item)	50.00	each	0.1832

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
15	Fabrication and fixing of MS clamps for the rain water pipes dia 200 mm at columns/ truss including fabrication and erection of clamps at all heights in manufacturing blocks with primer and two coat paint including all tools and tackles. The details of clamps shall be as follows:- MS flat having 5 mm thick , 50 mm width & total length 850 mm. The clamp is bend as per suitability & as per existing clamps. (Only structural steel and paint shall be paid under different item)	50.00	each	0.1985
Total : Annexure II		Total = Rs.		95.92
Total : Annexure I + Annexure II				100.00

Note:- 1. All work will be done upto height of 25 mtr in safe manner.

2. Use of safety arrangements like life line, safety net, fall arrester, safety helmet, safety belt, safety shoes, etc. must be made at site. Work permission at height will be obtained on daily basis before start of work.\

3. Safety net as per site conditions shall be fixed at appropriate level to restrict vertical fall.

4. Any vertical movement shall be accompanied by use of fall arrester connected to fixed rope .

5. All safety equipments shall be regularly inspected .

6. Any structural modification done to ensure safety shall be paid such as Ladder , bracket for safety ropes etc.

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

Name of work :Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within factory area.

The following material free issue from BHEL stores.

- 1 Structural Steel

Price Schedule : C

Name of work :Replacement of roof /side cladding Sheet with Galvalume sheet and replacement of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 and other area within 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

ii) Jack Hammer @108.00/- per day

} (Subject to availability)

Drill machine/jack hammer rod Rs. 100.00 per rod