

TENDER

TENDER NOTIFICATION NO. - **FCX/22231057**

FOR

**Repair of roof /side cladding Sheet with Galvalume sheet
and repair of N-L glass frame with polycarbonate sheet in
Bay-6, Block-3 (Part) and other area within factory
premises.**

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 : Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (Part) and other area within factory premises.

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 A : Anneuxre - I**

Name of work:- Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (part) and other area within factory premises.

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	0.0375
	RA	Sheets	2.00	Tonne	0.0025
2		Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:			
	13.61.1	Two or more coats on old work.	820.00	sqm	0.5830
3	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.)	14360.00	Kg	0.2136
4	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	2.6343
b)	15.28.2	Asbestos sheet	100.00	Sqm	0.0306
		Total Annexure -I			3.50

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

Name of work:- Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (part) and other area within factory premises.

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 kgf/sqcm)			
a)	200 mm dia.	50.00	metre	0.3855
b)	160 mm dia	100.00	metre	1.0118
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	0.0172
b	Single Pushfit Coupler(Working pressure-4.0 kgf/sqcm)			
	200mm	10.00	each	0.0620
c	Single Tee without Door(Working pressure-4.0 kgf/sqcm)			
i)	200x200x200mm	5.00	each	0.0482
ii)	160X160X160mm	5.00	each	0.0251
d	Bend 87.5 degree(Working pressure-4.0 kgf/sqcm)			
i)	200mm Bend/Elbow	5.00	each	0.0585
ii)	160 mm Bend/Elbow	10.00	each	0.0502
e	Shoe(plain)(Working pressure-4.0 kgf/sqcm)			
	200mm Shoe	5.00	each	0.0275
3	Supply & fixing of flashings, ridges, cappings, corner pieces etc. made of 0.5mm TCT plain galvalume steel sheet in required shape & size & fixed with stitching screw complete at a maximum height up to 35.00 m as per the instruction of Engineer-in-charge.	42.00	metre	0.2465

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Name of work:- Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (part) and other area within factory premises.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
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 .	2510.00	kg	4.1056
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 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.	429.00	Sqm	12.7123
6	Providing & fixing in position including fabricating and erecting structural steel works at all heights comprising sag rods floor beams, columns, girders, rails bracings,clamps,purlins with channels &angles, gutters with M.S.Plates, M.S. Flat 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 2 coats of red oxide primer before erection & 2 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 paints are in contractor's scope. Fabrication to be done as per I. S. Codes of latest revision. Structural Steel will be provided free of cost by BHEL. (Note:- The item includes cost of cutting, threading of sag rods etc.)			
a)	Only fabrication with free issue of Structural Steel by BHEL	19800.00	Kg	4.2514
b)	Only erection	19800.00	Kg	2.0724

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

Name of work:- Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (part) and other area within factory premises.

Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
7	Providing & fixing South/North light curve in required girth with 0.5 mm TCT coloured galvalume sheet 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 .	490.00	Metre	3.8871
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	45.7011
	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 .			
9	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	660.00	Sqm	0.4062

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
10	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.	675.00	sqm	19.1319
11	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	0.2107
12	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 8.00 m.	100.00	sqm	0.4586

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
13	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	0.2762
14	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	0.2903
15	Providing and using following safety equipments , to be utilised during the entire course of contract and during maintenance period, to make safe working environment for work at height , on hire basis: 1. Safety harness confirming to EN 361:2002 - 6 no's 2. Retractable Fall arrestor confirming to EN 60:2002- 4 no's 3. At height, for horizontal movement and vertical movement Safety Lifeline of polyster rope of dia 16mm or more shall be used during entire course of contract. Temporary lifeline of any reputed brand such as KARAM/UDYOGI/SEIZEFALL shall be used. The total length of the working area is 244 m . Lifeline shall be fixed in the lifting beams/trusses/auxiliary girder as available at site and shall be straightened by use of tensioner in order to avoid sagging. Lifeline shall always be used accompanied by retractable arrestor and Safet Harness . At any point of time , workmen will be at two point of contact while working at height. Retractable arrestor shall be fixed with this line.	1.00	Lot	1.0622

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Sr. No.	Item Description	Qty.	Unit	% Weightage of item amount against total amount
	Note: 1. All material shall be used will be approved before use. 2. Material , if during the course of contract is damaged due to use or wear & tear, shall be replaced. No additional cost shall be payable for replacement. 3. No defective/sub standard equipments shall be used during the course of work. 4. Payment shall be made on Job basis in the final running bill of the contract. 5. Standard procedures for fixing and use shall be followed. 6. In event of non-deployment of any of the abovementioned material , work shall be then and there stopped.			
	Total : Annexure II			96.50
	Total : Annexure I + Annexure II			100.00

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

Name of work:- Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (part) and other area within factory premises.

The following material free issue from BHEL stores.

- 1 Structural Steel

Price Schedule C

Name of work:- Repair of roof /side cladding Sheet with Galvalume sheet and repair of N-L glass frame with polycarbonate sheet in Bay-6, Block-3 (part) and other area within factory premises.

- 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