

**2021**

**BHARAT HEAVY ELECTRICALS LIMITED  
SOLAR BUSINESS DIVISION, BENGALURU  
TENDER DOCUMENT**

**Name: Navit Mahajan  
Designation: Dy. Manager  
BHEL SBD Bangalore**



**NOTICE INVITING TENDER**

1. BHEL/ SBD (A Govt. of India Enterprise) invites Tender for engaging a Contractor for **“Works Contract Miscellaneous civil works related to SCR”** in Malleswaram, Bangalore
2. Sealed Bids are invited under single stage two part bid system from the competent agencies with sound technical and financial capabilities, fulfilling the qualifying requirements stated in the tender documents.
3. Interested and eligible parties may study the tender documents carefully visit the works to understand the scope and nature of work, discuss and clarify doubts if any and offer their bids.
4. The salient features of tender documents are as follows:  
The complete Tender documents consists of the following: Tender document- Part ‘A’ (Consists of Volume-I, Volume-II) and Part ‘B’.
5. The tender documents are available for download from the official website of BHEL [www.bhel.com](http://www.bhel.com) Corrigendum if any will be published in BHEL web site only.
6. In case, tender documents are requested by post, BHEL-SBD shall not be responsible for any delay due to any reasons (including postal delay) either in receiving the agencies request or receipt of tender documents by the agency.
7. Reverse Auction is not applicable for this work.

For all clarifications/ issues related to the tender, please contact:

**(i) Commercial:**

Mr. Navit Mahajan, Dy. Manager / Works Engineering Contract, BHEL-SBD,  
Prof CNR Rao Circle, IISc Post, Malleswaram, Bangalore- 560 012

E-MAIL: [navit@bhel.in](mailto:navit@bhel.in)

Ph. No. +91-080-22182216

or

Mr. BM Hiremani, AGM / WEX & Works Contract Cell, BHEL-SBD,  
Prof CNR Rao Circle, IISc Post, Malleswaram, Bangalore- 560 012

E-MAIL: [hiremani@bhel.in](mailto:hiremani@bhel.in)

Ph. No. +91-080-22182204

**(ii) Technical:**

Mr. Preetam Kumar Singh, Dy. Engineer/ WEX

BHEL-SBD, Prof CNR Rao Circle, IISc Post, Malleswaram, Bangalore- 560 012

E-MAIL: [preetam@bhel.in](mailto:preetam@bhel.in)

Ph. No. +91-080-22182216

OR

Mr. Ravi Y., Manager / WEX

BHEL-SBD, Prof CNR Rao Circle, IISc Post, Malleswaram, Bangalore- 560 012

E-MAIL: [raviy@bhel.in](mailto:raviy@bhel.in)

Ph. No. +91-080-22182375



# **TENDER DOCUMENT**

## **PART – A**

### **VOLUME - I**

1.	GENERAL INFORMATION
2.	SCOPE OF WORK
3.	ELIGIBILITY CRITERIA
4.	PRICE VARIATION CLAUSE
5.	PAYMENT TERMS
6.	ANNEXURES
7.	DESCRIPTION OF WORK, QUANTITY AND PERCENTAGE ALLOCATION OF THE TOTAL QUOTED AMOUNT



**BHARAT HEAVY ELECTRICALS LIMITED,  
SOLAR BUSINESS Division, Malleswaram,  
Bengaluru - 560 012**

**TENDER  
DOCUMENT  
(PART – A)  
Vol. I**

1.	<b>General Information</b>	
1.1.	Tender Reference Number :	<b>25224</b>
1.2.	Tender Name:	<b>“Works contract for Miscellaneous civil works related to SCR”</b>
1.3.	Tender System	Single Stage, Two Part Bid Part – A: Techno-Commercial & PQR Part – B: Price Bid
1.4.	Tender Type	Works Contract
1.5.	Estimated Value of Contract	Not Applicable
1.6.	Duration of Contract	3 Months
1.7.	Qualifying Requirement	As per NIT Terms & Conditions
1.8.	Earnest Money Deposit to accompany Tender	Rs. 29,467/- in the form of a crossed Demand Draft/EFT favoring BHEL-SBD, Bengaluru. If submitted through DD, the DD in original should reach to the office of undersigned within 7 days of Part A bid opening. Relaxation for MSMEs not available in this contract.
1.9.	Security Deposit	5% of the contract value
1.10.	Cost of Tender documents	NIL
1.11.	Issue of tender documents	As per Enquiry / RFQ / Notification on <a href="http://www.bhel.com">www.bhel.com</a>
1.12.	Pre- BID Meeting	As per Enquiry / RFQ / Notification on <a href="http://www.bhel.com">www.bhel.com</a>
1.13.	Last date for Issue of tender document	As per Enquiry / RFQ / Notification on <a href="http://www.bhel.com">www.bhel.com</a>
1.14.	Last date for submission of tender doc	As per Enquiry / RFQ / Notification on <a href="http://www.bhel.com">www.bhel.com</a>
1.15.	Date and time of opening of Tender (Part-A)	As per Enquiry / RFQ / Notification on <a href="http://www.bhel.com">www.bhel.com</a>
1.16.	Tender Submission Place	BHEL-SBD WEX TENDER BOX kept outside tender room(Bidder to ensure to put tender bids in specified place & box, BHEL-SBD will not be responsible if bids submitted in other than specified place and tender box
1.17.	Tender Opening Place	BHEL-SBD, Tender room, opposite to IISC, Prof. CNR Rao circle, Malleswaram, Bengaluru-560012
1.18.	Dealing Officer (For any Clarifications)	Navit Mahajan, Dy. Manager – Works Contract Cell Contact No.: 080-2218-2216 Email: <a href="mailto:navit@bhel.in">navit@bhel.in</a>  Hiremani B.M. Addl. General Manager – Works Contract Cell Contact No.: 080-2218-2204 Email: <a href="mailto:hiremani@bhel.in">hiremani@bhel.in</a>
2.	<b>SCOPE OF WORK</b>	
2.1.	Miscellaneous civil works related to SCR. Details as per Annexure I	
3.	<b>ELIGIBILITY CRITERIA</b>	
3.1.	The Firm of contractor/independent contractor (Proprietor) should be registered and having at least three years existence in business consecutively for the past three financial years.	
3.2.	Bidder to submit declaration for obtaining the essential license under Contract Labor (Regulation & Abolition) Act 1970 after award of work. Form-5 will be issued to successful bidder by BHEL for applying the license. Successful bidder has to get the endorsement in the license for the areas and nature of work which they will be performing as part of the contract.	
3.3.	Bidder should have independent ESI Employer code under ESI Act 1948. Photocopy of letter from ESI Corp. to establish that bidder is independently registered as an employer under ESI to be produced.	
3.4.	Bidder should have independent PF code under Employee Provident Fund and Miscellaneous Provisions Act 1952. Photocopy of letter from PF Commissioner’s Office to establish that bidder is independently registered as an employer PF to be produced.	
3.5.	Average Annual Financial turnover during the last 3 years ending 31 <sup>st</sup> March of the previous financial year, should be at least <b>Rs. 5.22 Lakhs incl. of GST</b> Audited Balance sheet and profit& Loss account OR Turn over Certificate from Chartered Accountant to be enclosed for the FY 2017-18, 2018-19 & 2019-20.	



3.6.	Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following: <b>a. Three similar completed works costing not less than amount equal to Rs. 6.95 Lakhs each including Taxes OR</b> <b>b. Two similar works costing not less than the amount equal to Rs. 8.69 Lakhs each including Taxes OR</b> <b>c. One similar completed work costing not less than the amount equal to Rs. 13.91 Lakhs including Taxes</b> Definition of Similar Works: General Civil Works Proof of Experience: Work Completion Certificate and Work Order Copy
3.7.	The bidder shall also mention the PAN Number issued by Income Tax Department, copy of the PAN card or PAN number allotment letter shall be submitted along with the tender documents.
3.8.	There should be no litigation or charge under investigation / enquiry / trial against the Tenderer, or conviction in a court of law or suspension or blacklisting by any organization on any ground. During the course of work, if any such information comes to light, the contract may be terminated.
3.9.	The opinion / decision of BHEL regarding the bid shall be final and conclusive. BHEL reserves the right to reject any or all the bids at any time without assigning any reason.
3.10.	In case the bidder has a relative employed in BHEL, the authority inviting tender shall be informed of this fact in writing at the time of submission of tender, failing which the tender may be disqualified, or if such fact comes to light subsequently, the contract may be terminated.
3.11.	If the bidder gives wrong information in his tender or creates conditions favorable for the acceptance of his tender, BHEL reserves the right to reject such tender at any stage.
3.12.	For the works which are continuous in nature, & which require regular interaction & monitoring, bidder shall have an Office/Establishment in Bengaluru. Absence of such an arrangement may lead to disqualification of the Tenderer.
4.	<b>PRICE VARIATION CLAUSE: Not Applicable</b>
5.	<b><u>PAYMENT TERMS</u></b>
5.1.	The periodicity of payment to the contractor shall be stage-wise as on completion of work. The contractor shall raise the bill for payment as per the contractual terms & conditions mentioned in the contract, which should be duly certified by the BHEL official in charge of the contracted work.
5.2.	Deleted.
5.3.	The Contractor shall file the electronic return of PF/ESI and submit proof of payment of both the employers' and employees' contributions every month. (PF has to be remitted by 15th and ESI by 21st of the succeeding month). Contractor shall submit the challan along with copy of a self-certified list of contract workers (bearing their names and PF/ESI No. and deductions made) for whom the contribution has been submitted by him for the said period.
6.	<b>Annexures</b>
6.1.	Detailed Scope of Work – Annexure I
6.2.	Techno-commercial Bid Application – Annexure II
6.3.	Declaration by Bidder – Annexure III
6.4.	Techno-Commercial Bid Questionnaire– Annexure IV



**ANNEXURE – I SCOPE OF WORK**

- 1.0** Demolition of masonry and concrete including minor wood works and minor steel works (like steel reinforcement bars, door and windows frames etc.) either manually or by mechanical means including sorting and stacking serviceable material to the identified store and disposal of debris to the identified bins inside the factory premises including the cost of all materials, transportation and labour. *(Estimated Quantity = 5cum.)*
- 2.0** Dismantling of steel structures in built up sections in MS angles, tees, flats, channels etc. including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking to the identified bins inside the factory premises including the cost of all labour, transportation and materials. *(Estimated Quantity = 1000kg.)*
- 3.0** Earthwork excavation either by manual or mechanical means for the construction of foundation of buildings structure or machine foundations etc. including getting out and disposal of excavated earth to the identified bins inside factory premises including the cost of all materials, labour and transportation. *(as per specification provided in the Price bid Format.) (Estimated Quantity = 13.50cum.)*
- 4.0** Providing and fixing in position MS steel doors by fabricating shutter using 1mm thick MS sheets in the framework of ISA 40x40x6 and fixing it in a door frame of ISA 40x40x6, including fixing door frame to the structure including Gusset plates, all necessary fittings and applying on coat of metal primer complete. *(Estimated Quantity = 18sqm.)*
- 5.0** Fabrication of structural steel in tubular structure (round, square, rectangular hollow tubes) including cutting, hoisting, fixing in position and applying priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. *(Estimated Quantity = 1200.60kg)*
- 6.0** Providing and fixing in position MS hand rails in tubular section of approved size by welding etc. to steel staircase and ladder railings, balcony railings, and similar works, including applying priming coat of approved steel primer. *(Estimated Quantity = 510kg.)*
- 7.0** Fabrication of structural steel in IS standard sections for built up structures like columns, beams, trusses, purlins etc. including cutting, hoisting, fixing in position and applying priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. *(Estimated Quantity = 114.72kg.)*
- 8.0** Providing and laying in position PCC 1:4:8 using 40mm and downsize coarse aggregate including the cost of all materials and labour, curing etc. complete for foundation and all sub-surface works. Machine Mixed as per specification as mentioned in Price bid format. *(Estimated Quantity = 15.60cum.)*
- 9.0** Providing and laying plain cement concrete M20 grade in flooring, cill and copings using coarse graded aggregate 20mm and down size, compacted with wooden or cast iron rammers including necessary shuttering. If reinforcement is to be provided as per the GFC drawings, the same will be paid under relevant items. Including cost of all materials, labor, equipment etc. complete *(Estimated Quantity = 2cum.)*
- 10.0** Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work for all types of structures, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per



direction of Engineer-in-charge. Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately. *(Estimated Quantity = 36.85cum.)*

- 11.0 Supplying, straightening, cutting, bending, placing in position High Yield Strength (TMT Bars) confirming to IS 1786 of Fe 500 Grade reinforcement bars of all diameters to RCC work and binding with 18 SWG black annealed binding wire (double fold) etc., all complete as per drawings and specifications. The rate shall include cost of materials, cost of binding wire, PVC cover blocks as specified, labour, loading and unloading, transportation, scaffolding and all other incidental charges etc., with all leads and lifts, complete and as directed by the Engineer-in-charge at all levels. Lapping, chairs and Spacers, Binding Wire will not be measured and Paid separately. **TMT Steel will be provided by BHEL as free issue.** *(Estimated Quantity = 2519.50kg)*
- 12.0 Providing and laying autoclaved aerated cement blocks masonry with 100mm/150mm/200mm thick AAC blocks in super structure above plinth level up to floor 5 level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for separately). *(Estimated Quantity = 12.30cum.)*
- 13.0 Plastering exterior surfaces of walls, with plaster thickness of 20mm thick in cm1:4, with sponge/rough finish at all heights and levels including racking joints, hacking, preparation of surface, scaffolding, forming grooves wherever necessary & curing etc. The rate to include the provision of chicken mesh at junctions with RCC columns/beams and lapping of mesh should not be less than 75mm. The rate shall be inclusive of adding integral waterproofing compound of approved manufacturers 2% by weight of the cement for both the base coat and the finishing coat. *(Estimated Quantity = 51sqm.)*
- 14.0 Plastering interior surfaces of walls with CM 1:4, 15 mm thick, finished smooth with a thin coat of cement rendering at all heights and levels including racking hacking, preparation of surface, scaffolding, forming grooves wherever necessary curing etc. The rate to include the provision of chicken mesh at junctions with RCC columns/beams and lapping of mesh should not be less than 75mm. *(Estimated Quantity = 182.5sqm.)*
- 15.0 Providing and applying white cement based putty of 3 coats average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete, including cost of all labor, materials, tools, scaffolding etc. complete *(Estimated Quantity = 316.25sqm.)*
- 16.0 Providing and applying to walls and ceilings, two coats of acrylic emulsion paint including one under coat of ASIAN PAINTS make, including cost of all materials, touch-putty labor, scaffolding etc. complete *(Estimated Quantity = 316.25sqm.)*
- 17.0 Providing and applying two coats of external weather shield emulsion paint of ASIAN PAINTS make over a coat of primer including preparation of surface, touch putty, scaffolding, etc. complete at all heights levels and elevations. The surface should be thoroughly cleaned before painting. The cost includes cost of all materials, labor, tools, scaffolding etc. complete. *(Estimated Quantity = 475.75sqm.)*
- 18.0 Distempering with distemper of ASIAN TRACTOR DISTAMPER brand (two or more coats) of required shade on new / old work, over and including water thinnable priming coat to give an even shade, including touchup putty. *(Estimated Quantity = 2572.5sqm.)*



- 19.0 Painting with synthetic enamel paint of ASIAN brand and manufacture to give an even shade to masonry, metal or wooden surfaces. *(Estimated Quantity = 730sqm.)*
- 20.0 Providing Super Skilled Workmen (Mason / Welder / Carpenter etc.) on man-days basis. Wages to be paid as per Minimum wages declared by Karnataka State Government. *(Estimated Quantity = 120mandays.)*
- 21.0 Providing Semi-Skilled Workmen (Helper to Mason / Welder / Carpenter and other support staff etc.) on man-days basis. Wage to be paid as per Minimum wages declared by Karnataka State Government. *(Estimated Quantity = 120mandays.)*
- 22.0 Providing and fixing pre-coated Galvalume iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm. as per IS: 277, in 550 MPa steel grade, 5-7 microns' epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length up to 12 meter or as desired by Engineer -in- charge. The sheet shall be fixed using self-drilling /self-tapping screws of size (5.5x 55 mm) with SBDM seal, complete up to any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. *(Estimated Quantity = 105sqm.)*
- 23.0 Dismantling roofing sheets including ridges, hips, valleys and gutters etc., and stacking the material within 500 meters lead of PPGI Sheets, Curve Sheets, Ridge etc. - 0.5mm thickness. *(Estimated Quantity = 40sqm.)*
- 24.0 Re-fixing above dismantled roofing sheets and accessories including ridges, hips, valleys and gutters etc., back in its original position including the coat of all materials, SDS Screws including washers, fixing charges, safety tools and tackles etc complete. *(Estimated Quantity = 40sqm.)*
- 25.0 Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia. 3 mm including strengthening with 2 mm dia. wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge. *(Estimated Quantity = 30sqm)*
- 26.0 Contractor or any person authorized by the contractor must be available at the time of execution of work for supervising and taking instructions from the officer in charge.
- 27.0 The quantities of mentioned in (Part B) Price Bid Format of tender is only approximate and billing will be done as per actual work carried out and after taking joint measurement by BHEL and contractor.
- 28.0 This contract consists various miscellaneous Civil works in small quantities at various locations inside the factory premises. Hence contractors are advised to visit the site, understand the scope of work and quote the rates accordingly.
- 29.0 The cost of carrying out tests as per IS-456 for Concrete and other relevant Indian Standards as per requirement are in the scope of contractor.
- 30.0 BHEL will not be responsible for accommodating workers of the contractor and contractor has to make arrangement in this regard. Also any night halt of workers inside factory premises will not be allowed. If





requirement arises to work inside factory premises during night hours, contractor has to obtain a separate permission in the prescribed format on day to day basis.

31.0 Contractor has to obtain a work permit in prescribed format for carrying out following nature of works before entry of workers inside factory premises on daily basis:

- (i) Working at height above 10 feet,
- (ii) Earthwork excavation,
- (iii) Hot works,
- (iv) Working in confined space,
- (v) Any other hazardous works



**ANNEXURE – II TECHNO-COMMERCIAL BID APPLICATION**

To,

Dy. Manager / WC  
Bharat Heavy Electricals Limited  
Electric & Photovoltaic Division,  
IISc Post, Malleswaram,  
Bengaluru – 560 012

Dear Sir,

I / We hereby offer to carry out the work

**Works Contract for Miscellaneous civil works related to SCR. Tender Ref. No. 25224**

I /We have carefully perused the all the clauses mentioned in NIT and agree to abide with the same.

1. Notice Inviting Tender – Part A Volume 1
2. Notice Inviting Tender – Part A Volume 2
3. Price Bid Format - Part – B

I/ We further agree to execute all the works referred to in the said documents.

I declare that, there was never / is no litigation or charge under investigation / enquiry / trial against me / us, nor conviction in a court of law or suspended or blacklisted by any organization on any grounds.

Signature of Tenderer  
Date:



**ANNEXURE – III DECLARATION BY TENDERER**

I, -----, aged-----Yrs., S/o -----,  
Residing at -----  
-----

Hereby declare as follows:

- (i) That my nationality is \_\_\_\_\_.
- (ii) That I am a major and eligible to enter into contract / my firm / my company is competent to enter into an agreement.
- (iii) I shall employ only such personnel who have not been found unfit for employment in Organizations such as Central / state / Public undertaking by the Police Authorities.
- (iv) I shall not employ persons against whom Criminal cases are pending or under investigation.
- (v) I shall also not employ persons found guilty of offences involving moral turpitude for executing work in BHEL contracts.
- (vi) That there are no Criminal cases/Civil/Labor pending or under investigation against me or my firm or company.
- (vii) I have not been found guilty of offences involving moral turpitude nor any of the company directors / partners of my firm have been found guilty of offences involving moral turpitude.
- (viii) Neither I nor my firm nor my company has been declared insolvent in the past.
- (ix) I have taken due care and efforts to furnish only information which are true in the tender document.
- (x) I shall employ labor who is more than 18 years of age and less than 58 years and having sound physical and mental health.
- (xi) I shall keep Photograph / identity proof / residential proof of the laborers to be employed against this tender and arrange for police verification.
- (xii) I shall employ and deploy suitable qualified personnel for supervision of the work in each shift and additionally as required for monitoring compliance to process requirements and compliance to contract terms & conditions.

[Signature with Name & seal of the Tenderer]

Date :  
Place :



**ANNEXURE – IV TECHNO-COMMERCIAL BID QUESTIONNAIRE:**

1.	Tender Ref. No.	<b>25224</b>
2.	Name of Work	<b>“Works Contract for Miscellaneous Civil works related to SCR”</b>
3.	Name of Bidder’s Firm	
4.	Whether bidder’s registered firm is 3 years (Cl. 3.1)	YES / NO
5.	Proof of registration of Firm (Cl. 3.1)	Submitted / Not Submitted
6.	Declaration for Labor License (Cl. 3.2)	Submitted / Not Submitted
7.	ESI Code No.	
8.	Proof of ESI Registration (Cl. 3.3)	Submitted / Not Submitted
9.	PF Code No.	
10	Proof of PF Registration (Cl. 3.4)	Submitted / Not Submitted
11	GST Registration No.	
12	GST Registration Certificate	Submitted / Not Submitted
13	Banker’s Name & Address	
14	Cancelled Cheque Copy of Bank Account	Enclosed / Not Enclosed
15	MSME / NSIC registration No.	
16	Proof of MSME (Udyog Aadhaar) / NSIC registration	Submitted / Not Submitted
17	Average Annual Financial Turnover for last 3 years (Cl. 3.6) more than 5.22 Lakhs	YES / NO
18	Proof of average annual financial turnover (Cl. 3.6)	Submitted / Not Submitted
19	Whether bidder has sufficient experience (Cl. 3.7)	YES / NO
20	Proof of Experience (Cl. 3.7)	Submitted / Not Submitted
21	PAN No. (Cl. 3.8)	
22	Registered Office Address of Bidder	



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23	Whether Bidder has an office in Bangalore	YES / NO
24	Email Id of Bidder	
25	Contact No. (Mobile / Landline)	
26	Whether bidder is already executing any contract in BHEL	YES / NO
27	Details of contracts as per point no. 27 (Work Order Number, Value, BHEL-Unit, Expiry Date) – if applicable	<div>i. Contract 1:</div> <div>ii. Contract 2:</div> <div>iii. Contract 3:</div>
28	Whether Bidder has any relative employed in BHEL	YES / NO
29	Details of bidder's relative employed in BHEL as per point 29 (if applicable) (Name, Designation and BHEL-Unit)	
30	EMD Details	Bank name: Date: DD No./UTR No.: Amount: Enclose specified document if exemption claimed:
31	Have you quoted including all the items as mentioned in Price Bid?	Yes/ No (if the answer is no, the bid will be rejected)
32	Any other comments	

Note:

- Photocopy in support of above wherever applicable should be attached.

Signature of Bidder with Seal



**Description of work, quantity and percentage allocation of the total quoted amount.**

<b>Sl. No.</b>	<b>Description of work</b>	<b>Unit</b>	<b>Quantity</b>	<b>Percentage allocation</b>	<b>SAC / HSN</b>
1	Demolition of masonry and concrete including minor wood works and minor steel works (like steel reinforcement bars, door and windows frames etc.) either manually or by mechanical means including sorting and stacking serviceable material to the identified store and disposal of debris to the identified bins inside the factory premises including the cost of all materials, transportation and labour.	Cum	5.00	0.3805	To be filled by bidder
2	Dismantling of steel structures in built up sections in MS angles, tees, flats, channels etc. including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking to the identified bins inside the factory premises including the cost of all labour, transportation and materials.	Kg	1000.00	0.2148	To be filled by bidder
3	Earthwork excavation either by manual or mechanical means for the construction of foundation of buildings structure or machine foundations etc. including getting out and disposal of excavated earth to the identified bins inside factory premises including the cost of all materials, labour and transportation.	Cum	13.50	0.1271	To be filled by bidder
4	Providing and fixing in position MS steel doors by fabricating shutter using 1mm thick MS sheets in the framework of ISA 40x40x6 and fixing it in a door frame of ISA 40x40x6, including fixing door frame to the structure including Gusset plates, all necessary fittings and applying on coat of metal primer complete.	Sqm	18.00	4.1261	To be filled by bidder
5	Fabrication of structural steel in tubular structure (round, square, rectangular hollow tubes) including cutting, hoisting, fixing in position and applying priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.	Kg	1200.60	8.0391	To be filled by bidder
6	Providing and fixing in position MS hand rails in tubular section of approved size by welding etc. to steel staircase and ladder railings, balcony railings, and similar works, including applying priming coat of approved steel primer.	Kg	510.00	3.9307	To be filled by bidder
7	Fabrication of structural steel in IS standard sections for built up structures like columns, beams, trusses, purlins etc. including cutting, hoisting, fixing in position and applying priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.	Kg	114.72	0.6043	To be filled by bidder
8	Providing and laying in position PCC 1:4:8 using 40mm and downsize coarse aggregate including the cost of all	Cum	15.60	4.6754	To be filled



	materials and labour, curing etc. complete for foundation and all sub-surface works. Machine Mixed as per specification as mentioned in Price bid format.				by bidder
9	Providing and laying plain cement concrete M20 grade in flooring, cill and copings using coarse graded aggregate 20mm and down size, compacted with wooden or cast iron rammers including necessary shuttering. If reinforcement is to be provided as per the GFC drawings, the same will be paid under relevant items. Including cost of all materials, labor, equipment etc. complete.	Cum	2.00	0.70284	To be filled by bidder
10	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work for all types of structures, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately.	Cum	36.85	15.25545	To be filled by bidder
11	Supplying, straightening, cutting, bending, placing in position High Yield Strength (TMT Bars) confirming to IS 1786 of Fe 500 Grade reinforcement bars of all diameters to RCC work and binding with 18 SWG black annealed binding wire (double fold) etc., all complete as per drawings and specifications. The rate shall include cost of materials, cost of binding wire, PVC cover blocks as specified, labour, loading and unloading, transportation, scaffolding and all other incidental charges etc., with all leads and lifts, complete and as directed by the Engineer-in-charge at all levels. Lapping, chairs and Spacers, Binding Wire will not be measured and Paid separately. <b>TMT Steel will be provided by BHEL as free issue.</b>	Kg	2519.50	3.02500	To be filled by bidder
12	Providing and laying autoclaved aerated cement blocks masonry with 100mm/150mm/200mm thick AAC blocks in super structure above plinth level up to floor 5 level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for separately).	Cum	12.30	4.22588	To be filled by bidder
13	Plastering exterior surfaces of walls, with plaster thickness of 20mm thick in cm1:4, with sponge/rough	Sqm	51.00	0.96428	To be filled by bidder



	finish at all heights and levels including racking joints, hacking, preparation of surface, scaffolding, forming grooves wherever necessary & curing etc. The rate to include the provision of chicken mesh at junctions with RCC columns/beams and lapping of mesh should not be less than 75mm. The rate shall be inclusive of adding integral waterproofing compound of approved manufacturers 2% by weight of the cement for both the base coat and the finishing coat.				
14	Plastering interior surfaces of walls with CM 1:4, 15 mm thick, finished smooth with a thin coat of cement rendering at all heights and levels including racking hacking, preparation of surface, scaffolding, forming grooves wherever necessary curing etc. The rate to include the provision of chicken mesh at junctions with RCC columns/beams and lapping of mesh should not be less than 75mm.	Sqm	182.50	3.48889	To be filled by bidder
15	Providing and applying white cement based putty of 3 coats average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete, including cost of all labor, materials, tools, scaffolding etc. complete.	Sqm	316.25	1.88520	To be filled by bidder
16	Providing and applying to walls and ceilings, two coats of acrylic emulsion paint including one under coat of ASIAN PAINTS make, including cost of all materials, touch-putty labor, scaffolding etc. complete.	Sqm	316.25	2.39347	To be filled by bidder
17	Providing and applying two coats of external weather shield emulsion paint of ASIAN PAINTS make over a coat of primer including preparation of surface, touch putty, scaffolding, etc. complete at all heights levels and elevations. The surface should be thoroughly cleaned before painting. The cost includes cost of all materials, labor, tools, scaffolding etc. complete.	Sqm	475.75	4.05621	To be filled by bidder
18	Distempering with distemper of ASIAN TRACTOR DISTAMPER brand (two or more coats) of required shade on new / old work, over and including water thinnable priming coat to give an even shade, including touchup putty. (Estimated Quantity = 2572.5sqm.)	Sqm	2572.50	15.6805	To be filled by bidder
19	Painting with synthetic enamel paint of ASIAN brand and manufacture to give an even shade to masonry, metal or wooden surfaces.	Sqm	730.00	4.5933	To be filled by bidder
20	Providing Super Skilled Workmen (Mason / Welder / Carpenter etc.) on man-days basis. Wages to be paid as per Minimum wages declared by Karnataka State Government.	Mandays	120.00	8.8449	To be filled by bidder
21	Providing Semi-Skilled Workmen (Helper to Mason / Welder / Carpenter and other support staff etc.) on	Mandays	120.00	7.4578	To be filled by bidder





**BHARAT HEAVY ELECTRICALS LIMITED,  
SOLAR BUSINESS Division, Malleswaram,  
Bengaluru - 560 012**

**TENDER  
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	man-days basis. Wage to be paid as per Minimum wages declared by Karnataka State Government.				
22	Providing and fixing pre-coated Galvalume iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm. as per IS: 277, in 550 MPa steel grade, 5-7 microns' epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length up to 12 meter or as desired by Engineer -in- charge. The sheet shall be fixed using self-drilling /self-tapping screws of size (5.5x 55 mm) with SBDM seal, complete up to any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	105.00	3.4110	To be filled by bidder
23	Dismantling roofing sheets including ridges, hips, valleys and gutters etc., and stacking the material within 500 meters lead of PPGI Sheets, Curve Sheets, Ridge etc. - 0.5mm thickness.	Sqm	40.00	0.2524	To be filled by bidder
24	Re-fixing above dismantled roofing sheets and accessories including ridges, hips, valleys and gutters etc., back in its original position including the coat of all materials, SDS Screws including washers, fixing charges, safety tools and tackles etc complete.	Sqm	40.00	0.2524	To be filled by bidder
25	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia. 3 mm including strengthening with 2 mm dia. wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	Sqm	30.00	1.4126	To be filled by bidder
	<b>Total Quoted Amount for the Work</b>				To be filled by bidder
	<b>GST- %age</b>				To be filled by bidder
	<b>GST - Value</b>				To be filled by bidder
	<b>Grand Total</b>				To be filled by bidder

Bidder to indicate SAC / HSN Code

( SEAL & SIGN OF BIDDER)