



भारत हेवी इलेक्ट्रिकल्स लिमिटेड
(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED
(A Govt. of India Undertaking)

Ref: PSER:PUR:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129)

Date 21/01/2020

NOTICE INVITING TENDER

NOTE: INTENDING BIDDER TO PARTICIPATE MAY DOWNLOAD FROM WEB SITES

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-1) through [E-Procurement Portal https://bhel.abcprocure.com](#) only, for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Issue/ forwarding intimation regarding tender to any bidder shall not construe that the bidder is considered to be qualified. Following points relevant to the tender may please be noted and complied with.

1.0 Salient Features of NIT

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	PSER:PUR:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129) Date 21/01/2020.
ii	Broad Scope of job	"SUPPLY OF PERMANENT COLOUR COATED METAL CLADDING FOR COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH "
iii	DETAILS OF TENDER DOCUMENT	
A	Volume-IA	<i>General conditions of contract (Supply)</i> Applicable.
B	Volume-IB	<i>General conditions of contract (Service)</i> Not Applicable.
C	Volume-IC & ID	<i>Special conditions of contract (Supply & Service-Common)</i> Not Applicable.
D	Volume-IC	<i>Special conditions of contract (Supply)</i> Applicable.
E	Volume-ID	<i>Special conditions of contract (Service)</i> Not Applicable.
F	Volume-IE	<i>Forms & Procedures</i> Applicable.
G	Volume-IF	<i>Technical Conditions of Contract / Scope of Work (TCC)</i> Applicable.
H	Volume-III	<i>Price Schedule (Absolute value) – Rev-0</i> Applicable.
iv	ISSUE OF TENDER DOCUMENTS	a) Online through e-procurement platform at https://bhel.abcprocure.com. Offers are invited in two-parts only. b) In BHEL website (www.bhel.com & CPP Portal) : For tender view purpose only. Start date of the tender : 21/01/2020 Date: 31/01/2020, Time: 15:00 Hrs. INDIAN STANDARD a) Applicable b) Applicable
v		Applicable.

	DUE DATE & TIME OF OFFER SUBMISSION	<i>The bidder should respond by submitting their offer online in our e-Procurement platform at https://bhel.abcprocure.com only. Offers are invited in two-parts only.</i> <i>Hard copy bid or bids through email/fax shall not be accepted.</i>	
vi	OPENING OF TENDER	Date: 31/01/2020, Time: 16:00 Hrs. INDIAN STANDARD TIME Note :In case the due date of opening of tender becomes a working day, tenders shall be opened on next working day at the same time.	Applicable.
vii	EMD AMOUNT	Not Applicable	Not Applicable
viii	COST OF TENDER	Not Applicable	Not Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	Date: 29/01/2020, Time: 11:00 Hrs. INDIAN STANDARD TIME Along with soft version also, addressing to undersigned & to others as per contact address given below	Applicable.
x	SCHEDULE OF PRE BID DISCUSSION (PBD)	Not Applicable	Not Applicable
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	IEM DETAILS: Refer Clause No 40.0 below	Applicable
xii	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (www.bhel.com) ; CPP Portal & E-Procurement Site https://bhel.abcprocure.com only. Bidders to keep themselves updated with all such information.	Shall be intimated to bidder

2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly digitally signed & stamped on each page, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/ in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**

3.0 Unless specifically stated otherwise, bidder shall remit cost of tender (non-refundable) and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Kolkata, issuing the Tender, along with techno-commercial offer.

4.0 Unless specifically stated otherwise, bidder shall have to deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Kolkata. For other details please refer General Conditions of Contract.

5.0 Procedure for Submission of Tenders: The Tenderers must submit their Tenders as detailed below:

This is an E-tender floated online through our E-Procurement Site <https://bhel.abcprocure.com>. The bidder should respond by submitting their offer online only in our e-Procurement platform at <https://bhel.abcprocure.com>. Offers are invited in two-parts only. No Hard copy bid or bids through email/ fax shall be accepted. Bids are invited in two parts & shall be submitted as described below:

DOCUMENTS TO BE UPLOADED & MODALITY OF UPLOADING

Sl. No.	Description	Remarks
PART-I A	(TECHNO COMMERCIAL BID)	
	CONTAINING THE FOLLOWING:-	
i.	Covering letter/Offer forwarding letter of Tenderer. (To be attached in relevant Attachment section)	
ii.	Duly filled -in 'No Deviation Certificate' as per prescribed format. (To be attached in relevant Attachment section) Note: a. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be attached in relevant attachment section of the e – procurement portal . It shall be specifically noted that deviation recorded elsewhere shall not be entertained. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	

iii.	Supporting documents/ annexures / schedules/ drawing etc as required in line with Pre-Qualification criteria. It shall be specifically noted that all documents as per above shall be attached in relevant attachment section and credential certificates issued by clients shall distinctly bear the name of organization, contact ph no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT. (To be attached in relevant Attachment section)	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	
vi.	Duly filled-in annexures, formats etc as required under this Tender Specification/NIT (To be attached in relevant Attachment section)	
vii.	Notice inviting Tender (NIT) (To be attached in relevant Attachment section)	
viii.	Volume – IF : Technical Conditions of Contract / Scope of Work (TCC) (To be attached in relevant Attachment section)	
ix.	Volume – IC : Special conditions of contract (Supply) (To be attached in relevant Attachment section)	
x.	Volume – IA : General conditions of contract (Supply) (To be attached in relevant Attachment section)	
xi.	Volume – IE : Annexures, Formats, etc. (To be attached in relevant Attachment section)	
xii.	Volume–III – (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item. (To be attached in Unpriced Bid Attachment section)	
xiii.	Any other details preferred by bidder with proper indexing. (To be attached in relevant Attachment section)	

PART-I	COST OF TENDER	
B		
	CONTAINING THE FOLLOWING:-	
i.	1. Earnest Money Deposit (EMD) in the form as indicated in this Tender 2. Cost of Tender (Demand Draft or copy of Cash Receipt as the case may be)	1. Not Applicable 2. Not Applicable

PART-II	PRICE BID (TO BE ATTACHED IN PRICE BID ATTACHMENT SECTION)	
	CONTAINING THE FOLLOWING:-	
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I	
ii	Volume III – PRICE BID (Duly Filled in Schedule of Rates – rate/price to be entered in words as well as figures) Any other document uploaded in the price bid, apart from above tender format, shall not be taken into cognizance for evaluation of offer.	

SPECIAL NOTE:

- A) Your offer & documents submitted along with offer shall be digitally signed & stamped in each page by your authorized representative. No overwriting/ correction in tender documents by bidders shall be allowed. However, if correction is unavoidable, the same may be signed by authorized signatory.
- B) The credentials/documents submitted towards compliance of Pre-qualification requirement shall be physically signed by the authorized signatory & stamped before uploading/submission with the offer in the e-procurement portal.
- C) **All documents/ annexures submitted with the offer shall be properly attached in the respective sections.** BHEL shall not be responsible for any missing documents.

6.0 No Deviation with respect to tender clauses and no additional clauses/ suggestions/ in Techno-commercial bid/ Price bid shall normally be considered by BHEL. Bidders are requested to positively comply with the same. Offers with deviation are liable for rejection.

7.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD, as applicable). However, BHEL may communicate rejection to the unsuccessful bidder after award of work and acceptance by the successful bidder.

8.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions. No additional claim shall be entertained by BHEL in future, on account of non-acquaintance of above.

9.0 For any clarification on the tender document, the bidder may seek the same in writing, through e-mail or through **E-Procurement Site <https://bhel.abcpocure.com>**, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to any delay. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.

- 10.0** BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 11.0** In case of absence of any queries from bidder(s), their quoted price will be PRESUMED to be final and complete with reference to the tender documents (including Tender change notes (TCNs), clarifications, corrigendum issued by BHEL, if any). Bidders are requested to study the tender documents in detail and prepare their queries/clarifications accordingly. All such queries / clarifications shall be cleared/replied by BHEL. Such clarification letters, corrigendum and/or Tender change notes (TCNs), if issued by BHEL, shall form part of tender document.
- 12.0** In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer else BHEL's interpretation shall prevail & binding on you.
- 13.0** Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender along with TCNs including PBD, if any.
- 14.0** Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **along with techno - commercial bid**. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (xi) of 1 above.**
- 15.0** The Bidder has to satisfy the Pre Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre Qualification Criteria specified in this NIT as per Annexure-1 (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD. BHEL's decision in this regard shall be final & binding.
- 16.0** While BHEL reserve the right to open the price bid of the offers in camera, the date & time to open the PRICE BID, tender opening shall be intimated to the bidders in case BHEL decides it to be 'Public opening' and in such a case, **price bid (Volume-III) uploaded in E-Procurement Site <https://bhel.abcprocure.com> will be opened.**
- 17.0** Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 18.0 Bidders are required to submit their BEST price as per tender Price Schedule format in e-procurement portal/platform in the form & manner as mentioned in tender.**
- 19.0** BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with

the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.

If it is found that L1 bidder has quoted higher in online seal bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

- 20.0** However, if Reverse Auction process is not adopted or Reverse Auction is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the 'PRICE BID' and price impacts (if any), already submitted in e-procurement portal/platform, submitted by the bidder shall be opened for deciding the successful bidder, as per BHEL's standard practice. BHEL's decision in this regard will be final and binding on bidder.
- 21.0** On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 22.0** In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
- 23.0** The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 24.0** The bidder shall submit documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped/ digitally signed (as applicable) by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
- 25.0** The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0** The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL Website (www.bhel.com).

i. Integrity commitment, performance of the contract and punitive action thereof:

a) Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

b) Commitment by Bidder/ Supplier/ Contractor:

b.i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.

b.ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

b.iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post execution stage includes in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on www.bhel.com and/ or under applicable legal provisions.

27.0 Corrigendum/ corrigendum/ extension/ addendum, if any, pertaining to this tender will be published in the web sites CPP Portal, www.bhel.com, <https://bhel.abcpurchase.com> etc. or will be issued directly to you, as applicable.

28.0 Unsolicited discounts received after opening of techno commercial bid shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-1 party, then the awarded price shall be after considering the discount.

29.0 The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL Website (www.bhel.com).

30.0 It may please be noted that applicable Guidelines/Rules in respect of Suspension of business dealings, Vendor Evaluation formats, quality, safety and HSE guidelines, standard T&P hire charges of BHEL etc. may undergo change from time to time and the latest one shall be followed. Latest applicable "Guidelines for Vendor Evaluation" is web based, quality, safety

& HSE"; standard T&P hire charges shall be available at site and shall be given to the successful vendors/ subcontractors during execution.

31.0 Bidders are requested to note that the accepted / agreed tender terms (technical, commercial or on Reverse Auction) in their original offer can not be altered / withdrawn by their own during the processing of tender.

32.0 The Bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

33.0 Suspension of Business dealings with Suppliers/ Contractors: BHEL reserves the right to take action against contractors who fail to perform or indulge in malpractices, by suspending business dealings with them as detailed in Annexure-F.

34.0 "For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15/06/2017 & 28/05/2018 and subsequent Orders issued by respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/PO/WO against this NIT. In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable".

35.0

- a) Cost of Tender: Not Applicable
- b) Earnest Money Deposit (EMD): Not Applicable
- c) Security Deposit (SD): Not Applicable
- d) Performance Bank Guarantee (PBG): Not Applicable
- e) Performance Bond: Not Applicable
- f) Additional Security Deposit: Not Applicable

36.0 "MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) /Udyog Aadhar Memorandum(UAM) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure-B where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted officer."

Any Bidder falling under MSME category, shall furnish the following details & submit documentary evidence/Govt. Certificate etc. in support of the same along with their techno-commercial offer: -

Type under MSME	SC/ST owned	Women owned	Others
Micro			
Small			
Medium			

Note: - If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSME category.

37.0 Annexure-B – Terms & conditions of Reverse Auction is enclosed herewith.

38.0 Annexure-E – State wise GST Registration nos. is enclosed herewith.

39.0 Duly filled & signed Annexure- CPP/I to be submitted by bidders along with their techno-commercial offer.

1.0 40.0 Integrity Pact (IP) –

(a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl	IEM	Address	Email
1.	Shri Arun Chandra Verma, IPS (Retd.)	Flat No. C -1204, C Tower, Amrapali, Platinum Complex, Sector 119, Noida (U.P.)	acverma1@gmail.com
2.	Shri Virendra Bahadur Singh, IPS (Retd.)	H. No. B-5/64, Vineet Khand, Gomti Nagar, Lucknow - 226010	ybsinghips@gmail.com

(b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

(c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

Details of contact person(s):

Name	Mr. Avijit Pan	Mr. Ujjwal Howlader
Dept.	Purchase Dept., BHEL PSER, Kolkata	Purchase Dept., BHEL PSER, Kolkata
Address	DJ-9/1, Sector – II, Salt Lake, Kolkata – 700091	DJ-9/1, Sector – II, Salt Lake, Kolkata – 700091
Phone	033-2339 8224	033-2339 8223
Email	avijitpan@bhel.in	ujjwalh@bhel.in
FAX	033-2321 1960	033-2321 1960

41.0 **Rights of BHEL:**

41.1 To withdraw any portion of work and/or to restrict / alter the quantum of work as indicated in the contract during the progress of work and get it done through other agency and/or by departmental labour to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergency reasons / BHEL's obligation to its customer.

41.2 To terminate the contract or withdraw portion of work and get it done through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:

- i) Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available (#) period considering its performance of execution.
- ii) Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
- iii) Non-completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor.
- iv) Termination of Contract on account of any other reason (s) attributable to Contractor.
- v) Assignment, transfer, subletting of Contract without BHEL's written permission.
- vi) Non-compliance to any contractual condition or any other default attributable to Contractor.

(#) In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract.

Risk & Cost Amount against Balance Work:

Risk & Cost amount against balance work shall be calculated as follows:

Risk & Cost Amount= [(A-B) + (A x H/100)]

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

(*) Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In-case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line with LD clause as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence), for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of "LD against delay in executed work in case of termination of contract" is given below.

i) Let the time period from scheduled date of start of work till termination of contract excluding the period of

Hold (if any) not attributable to contractor = T1 ii) Let the value of executed work till the time of termination of contract = X

iii) Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y

iv) Delay in executed work attributable to contractor i.e. $T2 = [1 - (X/Y)] \times T1$

v) LD shall be calculated in line with LD clause [as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence)] of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

41.3 Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor

Following sequence shall be applicable for recoveries from contractor:

- a) Dues available in the form of Bills payable to contractor, SD, BGs against the same contract.
- b) Demand notice for deposit of balance recovery amount shall be sent to contractor, if funds are insufficient to effect complete recovery against dues indicated in (a) above.
- c) If contractor fails to deposit the balance amount to be recovered within the period as prescribed in demand notice, following action shall be taken for balance recovery:
 - i) Dues payable to contractor against other contracts in the same Region shall be considered for recovery.
 - ii) If recovery cannot be made out of dues payable to the contractor as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor.
 - iii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.

41.4 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customers are terminated for any reason.

42.0 ARBITRATION & CONCILIATION:

42.1 ARBITRATION:

42.1.1 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 2.14.2 herein below or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, commence arbitration in respect of such Dispute by issuance of a notice in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice'). The Notice shall contain the particulars of all claims to be referred to arbitration in sufficient detail and shall also indicate the monetary amount of such claim. The arbitration shall be conducted by a sole arbitrator to be appointed by the Head of the BHEL Power Sector Region issuing the Contract within 60 days of receipt of the complete Notice. The language of arbitration shall be English.

The Arbitrator shall pass a reasoned award.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder as in force from time to time shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Kolkata (the place from where the contract is Issued). The Contract shall be governed by and be construed as per provisions of the laws of India. Subject to this provision 42.1.1 regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.

42.1.2 In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute

or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018 as amended from time to time.

42.1.3 The cost of arbitration shall initially be borne equally by the Parties subject to the final allocation thereof as per the award/order passed by the Arbitrator.

42.1.4 Notwithstanding the existence of any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner unless the dispute inter-alia relates to cancellation, termination or short-closure of the Contract by BHEL.

42.2 CONCILIATION:

If at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation effect, interpretation or breach of the agreement, contract), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee (IEC) to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure 2.3 : "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com). The Procedure 2.3: "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com) together with its Formats (as available in www.bhel.com) will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC.

The Contractor hereby agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Procedure 2.3 : "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com) from time to time and confirms that it shall be bound by such amended or modified provisions of the Procedure 2.3 : "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com) with effect from the date as intimated by BHEL to it.

42.3 NO INTEREST PAYABLE TO CONTRACTOR:

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case

may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.

43.0 It may please be noted that Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid, else bid shall be liable for rejection.

All overwriting/ cutting, etc. will be numbered by bid opening officials and announced during bid opening.

44.0 Order of Precedence

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- a) Amendments/Clarifications/Corrigenda/Errata etc issued in respect of the tender documents by BHEL
- b) Notice Inviting Tender (NIT)
- c) Price Bid/Schedule – Volume-III
- d) Technical Conditions of Contract / Scope of Work (TCC) – Volume-IF
- e) Special conditions of contract (Supply) – Volume- IC
- f) General conditions of contract (Supply) – Volume- IA
- g) Forms and Procedures – Volume-IE

for BHARAT HEAVY ELECTRICALS LTD.

SDGM. Engineer (Purchase)

Agency	Contact details	
BHEL, PSER, Kolkata	Address	BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR – EASTERN REGION 2ND FLOOR, BLOCK-DJ, PLOT- 9/1, SECTOR, SALT LAKE CITY, KOLKATA – 700 091
	Phone no.	033-23398223, 23398220, 23211690
	FAX no.	033-23211660
	E-mail ID	avijitpan@bhel.in , sukhen@bhel.in , ujjwalh@bhel.in

M/s E-PROCUREMENT TECHNOLOGIES LIMITED	For E-PROCUREMENT ASSISTANCE & TRAINING, M/s E-PROCUREMENT TECHNOLOGIES LIMITED HELPDESK PERSONS AS PER FOLLOWING: - 1) Mr. Swapnil Hamilton, Support Executive, Ph: +91 (79)68136849, e-mail ID: swapnil.h@eptl.in 2) Ms. Himanshi Kumari, Support Executive, Ph: +91 (79)68136809, e-mail ID: himanshi.k@eptl.in 3) Mr. Ankur Bhatt, Support Executive, Ph: +91 (79)68136823, e-mail ID: ankur.bhatt@eptl.in 4) Mr. Prashant Rajyaguru, Asst. Manager - Implementation & Support, Ph: +91 (79)68136872 / 08160087732 / 09016859416, e-mail ID: prashant@eptl.in
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Enclosure:

01. Annexure-1: Pre-Qualification Criteria.
02. Annexure-2: Format for No Deviation Certificate.
03. Annexure-3: Format for seeking clarification.
04. Annexure-4: Check List.
05. Annexure-A: Suspension of Business dealings with Suppliers/ Contractors.
06. Annexure-B: Terms & conditions of Reverse Auction.
07. Annexure-C: CA certificate Format.
08. Annexure-E: State wise GST Registration nos.
09. Annexure-CPP-GST/I: State wise GST Registration nos.
10. Integrity Pact Agreement Format (Separate).
11. Other Tender documents as per this NIT.

ANNEXURE – 1

PRE QUALIFICATION CRITERIA

JOB	“SUPPLY OF PERMANENT COLOUR COATED METAL CLADDING FOR COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH”.
TENDER NO	PSER:PUR:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129) Date 21/01/2020
SL NO	CRITERIA
1.0	FINANCIAL CRITERIA :
1.1	BIDDER SHOULD HAVE AVERAGE MINIMUM ANNUAL FINANCIAL TURNOVER OF USD 3.65 MILLION OR EQUIVALENT AMOUNT* DURING THE LAST 3 (THREE) YEARS, ENDING ON 31-03-2019 OR CORRESPONDING FINANCIAL YEAR FOLLOWED BY THE BIDDER AND SHOULD SUBMIT THEIR AUDITED BALANCE SHEET AND PROFIT & LOSS ACCOUNT FOR LAST THREE FINANCIAL YEARS, IN SUPPORT OF THE SAME.
1.2	IN CASE AUDITED BALANCE SHEET AND PROFIT & LOSS ACCOUNT HAS NOT BEEN SUBMITTED FOR ALL 3 YEARS INDICATED ABOVE THEN THE APPLICABLE FINANCIAL AUDITED STATEMENTS SUBMITTED BY THE BIDDERS AGAINST THE REQUISITE THREE YEARS, WILL BE AVERAGED FOR THREE YEARS.
1.3	IF FINANCIAL STATEMENTS ARE NOT REQUIRED TO BE AUDITED STATUTORILY, THEN INSTEAD OF AUDITED FINANCIAL STATEMENTS, FINANCIAL STATEMENTS ARE REQUIRED TO BE CERTIFIED BY CHARTERED ACCOUNTANT.
2.0	TECHNICAL CRITERIA:
2.1	THE BIDDER SHOULD HAVE PREVIOUS EXPERIENCE OF SUPPLYING 45000 SQM OF CLADDING SHEET TO GOVT./ PSU/ REPUTED ORGANISATIONS FOR ANY POWER PLANT/INFRASTRUCTURE PROJECT THROUGH A SINGLE PURCHASE ORDER IN LAST FIVE YEARS AS ON LAST DATE OF BID SUBMISSION. OR THE BIDDER SHOULD HAVE PREVIOUS EXPERIENCE OF SUPPLYING 60000 SQM OF CLADDING SHEET TO GOVT./ PSU/ REPUTED ORGANISATIONS FOR ANY POWER PLANT/INFRASTRUCTURE PROJECT THROUGH TWO SEPARATE PURCHASE ORDERS IN LAST FIVE YEARS AS ON LAST DATE OF BID SUBMISSION. BIDDER SHALL HAVE TO SUBMIT RELEVANT DOCUMENTS IN SUPPORT OF THE SAME
3.0	GENERAL
A	CONSORTIUM BIDDING/JV BIDDING IS NOT ALLOWED.
B	IN CASE THE JOB IS UNDER EXECUTION/ ONGOING JOB, THE VALUE OF EXECUTED PORTION OF THE JOB SHALL AT LEAST CORRESPOND TO THE RESPECTIVE VALUES SPECIFIED ABOVE EVEN IF THE CONTRACT HAS NOT BEEN COMPLETED OR CLOSED.
C	THE VENDOR SHOULD HAVE ACHIEVED THE CRITERIA SPECIFIED IN THE PRE-QUALIFICATION CRITERIA, EVEN IF THE CONTRACT HAS NOT BEEN COMPLETED OR CLOSED.
D	AFTER SATISFACTORY FULFILLMENT OF ALL ABOVE CRITERIA, OFFER SHALL BE CONSIDERED FOR FURTHER EVALUATION & PARTICIPATION AS PER NIT & ALL OTHER TERMS OF TENDER, ALONG WITH ACCEPTANCE/ APPROVAL OF BIDDER BY CUSTOMER.
E	* EQUIVALENT AMOUNT MEANS THAT IT IS CONVERTED AT RATES AS ON THE DATE OF TENDER FLOATING (BANGLADESH BANK RATES - SELLING RATE).

ANNEXURE - 2

FORMAT FOR NO DEVIATION CERTIFICATE (To be submitted in the bidder's letter head)

To,
BHARAT HEAVY ELECTRICALS LIMITED,
Power Sector - Eastern Region,
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
Kolkata – 700 091

SUB	NO DEVIATION CERTIFICATE.	
JOB	“SUPPLY OF PERMANENT COLOUR COATED METAL CLADDING FOR COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH”.	
REF	1.0	TENDER NO. PSER:PUR:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129) Date 21/01/2020
	2.0	ALL OTHER PERTINENT ISSUES TILL DATE.

Dear Sir/Madam,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

Thanking you,

Yours faithfully

(Signature, date & seal of authorized
representative of the bidder)

ANNEXURE - 3**FORMAT FOR SEEKING CLARIFICATION**

JOB	"SUPPLY OF PERMANENT COLOUR COATED METAL CLADDING FOR COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH".
TENDER NO.	PSER:PUR:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129) Date 21/01/2020

SI no	Reference clause of tender document	Existing provision	Bidder's query	BHEL's clarification

12	No Deviation Certificate	Applicable/Not Applicable	YES/NO
13	Declaration confirming knowledge about Site Conditions	Applicable/Not Applicable	YES/NO
14	Declaration for relation in BHEL	Applicable/Not Applicable	YES/NO
15	Non Disclosure Certificate	Applicable/Not Applicable	YES/NO
16	Bank Account Details for E-Payment	Applicable/Not Applicable	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Applicable/Not Applicable	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	Applicable/Not Applicable	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable/Not Applicable	YES/NO
20	Analysis of Unit rates	Applicable/Not Applicable	YES/NO
21	Annexure-D – Exim bank Undertaking.	Applicable/Not Applicable	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED **ABOVE APPLICABLE DOCUMENTS** ARE LIABLE TO BE SUMMARILY REJECTED.

DATE :

AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

ANNEXURE-A

1.0	<u>Suspension of Business dealings with Suppliers/ Contractors</u>
1.1	BHEL reserves the right to take action against Suppliers/ Contractors who fail to perform or indulge in malpractices, by suspending business dealings with them.
1.2	Suspension of business dealings with Suppliers/ Contractors could be in the form of following: -- a) Hold within the unit for specific item(s)/ material category(ies)/ type of work(s) for one year. b) Hold within the unit for all item(s)/ material category(ies)/ type of work(s) for two years c) Banning across BHEL for all items/ material category(ies)/ type of work(s) for three years. The Supplier may be either put on hold or banned, as detailed hereinafter on the basis of one or more of the category wise reasons as enumerated hereunder.
1.3 3.1	Hold within the unit for a specific item(s)/ material category(ies)/ type of work(s) shall be imposed in the following cases, if i) In the last three consecutive supplies of a specific material category, average quality rating, as provided in the supplier performance rating (SPR) as per SEARP, falls below 80% of the quality weightage. This is irrespective of supplies against PO(s) having single/ multiple delivery schedules. Note: Not applicable in cases for erection works of Power Sector Regions, where separate guidelines for evaluation of capacity of bidders is being followed. ii) Two consecutive delays, for reasons of delay attributed to the Supplier, in execution of the contracts where delay occurred is such that a) prescribed maximum LD time limits of the contracts is exceeded or b) delay period has equaled/ exceeded half the original delivery period specified in the contracts whichever among the above is earlier. iii) a) Overall SPR (Supplier Performance Rating) in that particular Unit in line with SEARP falls below 60% of the specific material category. b) Bids of contractors (in PS-MSX portal) shall not be considered (if average score of last six months falls 60% or below as per guidelines for evaluation of capacity of bidders formula).

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

PSER:PUR:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129) Date 21/01/2020 POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, OF 80

फैक्स/Fax :

KOLKATA - 700 091

+91 33 23211960

फोन/Phone : बोर्ड/EPABX : +91 33 23398000, Dir: +91 33 23211690

1.3.2	Hold within the unit for all item(s)/material category(ies)/ type of work(s) shall be put in the following cases, if i) Supplier tampers with tendering procedure affecting ordering process. ii) Supplier has misused BHEL documents/ drawings/ technical information or has breached the confidentiality agreement with BHEL. iii) after placement of order, Supplier fails to execute the contract. iv) within warranty period as per contract, Supplier continues to supply low/ less/ nonperforming equipment/ services, repetitive failures, remains non-responsive. v) Wherever risk purchase clause (amounting to more than 5% of contract value) has been invoked.
1.4	Banning across BHEL shall be imposed in following cases, if
1.4.1	i) After price bid opening but before placement of order, Supplier withdraws his offer or varies it in any manner within the validity period. ii) "Supplier is found to be responsible for submitting fake/ false/ forged documents, certificates, or information or misrepresentation/ wilful suppression of facts, or has resorted to unethical, illegal means or has forged BHEL documents, certificates etc. for securing business, meeting PQR or for enlistment in BHEL or with customers other than BHEL." iii) In spite of warnings, the Supplier persistently violates or circumvents the provisions of labour laws/ regulations/ rules or other statutory requirements. iv) Supplier is found to be involved in cartel formation or in any other act so as to influence the bidding process or influence the price. v) The Supplier has indulged in malpractices or misconduct such as bribery, corruption and fraud, pilferage, coercion etc. vi) The Supplier is found guilty by any court of law for criminal activity/ offences involving moral turpitude in relation to business dealings. vii) Supplier is found to have obtained any internal information/ documentation of BHEL by unauthorized means. viii) The foreign Principals along with the representing Agent shall be banned together if information submitted by them about their precise relationship, commission/ remuneration etc. payable/ receivable and other particulars as asked by BHEL, as per the extant guidelines regarding dealing with Agents of Foreign Suppliers is found false/ incorrect, at any stage.

	ix) Supplier has substituted, damaged, failed to return, or unauthorizedly disposed off free issue materials/ tools etc. of BHEL.
1.4.2	A Supplier can also be banned with the approval of Director (E, R&D) provided a direction to this effect has been received from the administrative ministry of the Government.

Note: Above shall be applicable along with [Guidelines for “Suspension of Business dealings with Suppliers/ Contractors”](http://www.bhel.com) available in BHEL website <http://www.bhel.com>. These shall form part of tender documents.

Annexure -B

Terms & Conditions of Reverse Auction

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Process Compliance form **(Annexure-III of Business Rule Document of Reverse Auction – shall be shared to bidders along with intimation of RA schedule)** before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, GST and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, **(as per Annexure-IV of Business Rule Document of Reverse Auction)** as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.

12. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the 'Business Rules of Reverse Auction', which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) will not be allowed to participate in further RA process provided minimum three bidders are left after removal of H1 bidder. In case of tie for H1 bid (identical online sealed bids), 15 minutes' additional time shall be provided and all the participating bidders shall be informed by mail/message on bidding screen to enable bidders submit revised online sealed bids so as to break the tie.
16. In case H1 bidder happen to be MSE and was removed from further bidding but is within L1 + 15% band, then this bid shall also be considered and to be processed in line with 'Public Procurement Policy for Micro & Small Enterprises (MSEs) order, 2012'.

Annexure -C**Certificate by Chartered Accountant on letter head**

This is to to Certify that M/S

.....
,
(hereinafter referred to as 'company') having its registered office at
..... is registered under MSMED Act 2006, (Entrepreneur
Memorandum No (Part-II) dtd:.....,
Category:..... (Micro/Small)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost **excluding land and building and the items specified by the Ministry of Small Scale Industries vide its** notification No.S.O.1722(E) dated October 5, 2006 : Rs.....Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and **furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act,** 2006:
Rs.....Lacs

(Strike off whichever is not applicable)

The above investment of Rs.....Lacs is within permissible limit of Rs.....Lacs forMicro / Small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category {Micro/ Small} (Strike off which is not applicable) and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name-

Membership number-

Seal of Chartered Accountant

State wise GST Registration nos. –ANNEXURE-D		
Sl. No.	State / UT	GST Reg. No.
1	Andhra Pradesh	37AAACB4146P7Z8
2	Assam	18AAACB4146P1ZE
3	Bihar	10AAACB4146P1ZU
4	Chandigarh	04AAACB4146P1ZN
5	Chattishgarh	22AAACB4146P1ZP
6	Daman & Diu	25AAACB4146P1ZJ
7	Delhi	07AAACB4146P1ZH
8	Gujarat	24AAACB4146P1ZL
9	Haryana	06AAACB4146P1ZJ
10	HP	02AAACB4146P1ZR
11	Jharkhand	20AAACB4146P5ZP
12	Karnataka	29AAACB4146P1ZB
13	Kerala	32AAACB4146P1ZO
14	Maharashtra	27AAACB4146P1ZF
15	MP	23AAACB4146P1ZN
16	Punjab	03AAACB4146P2ZO
17	Rajasthan	08AAACB4146P1ZF
18	Tamil Nadu	33AAACB4146P2ZL
19	Telangana	36AAACB4146P1ZG
20	Tripura	16AAACB4146P1ZI
21	UP	09AAACB4146P2ZC
22	Uttarakhand	05AAACB4146P1ZL
23	West Bangal	19AAACB4146P1ZC
24	Mizoram	15AAACB4146P1ZK
25	Orissa	21AAACB4146P1ZR
26	Arunachal Pradesh	12AAACB4146P1ZQ

[Annexure- CPP-GST/I](#)

Please arrange to submit this filled-up format along with Tender

Name of the Company	
Address of Company*	
Company Registration Number*	
Name of Partners / Directors	
ALL THE STATES WHERE BIDDER HAS A PLACE OF BUSINESS*	
ALL ADDRESS OF VENDOR MENTIONING THEIR PIN AS PER THE LATEST GST REGISTRATION*	
GSTN OF ALL THE ABOVE NOTED PLACES OF VENDOR*	
Bidder Type: Indian/ Foreign*	
City*	
State*	
Country*	
Postal Code*	
PAN/TAN Number*	
Company's Establishment Year	
Company's Nature of Business*	
Company's Legal Status* {limited /undertaking/joint venture/partnership/other}	
Company Category* {micro unit as per MSME/small unit as per MSME/medium unit as per MSME/Ancillary unit/project affected person of this company/ssi/ other}	
Enter Company's Contact Person Details	
Title(Mr. / Mrs. / Ms. / Dr. / Shri)*	
Contact Name*	
Date Of Birth*	

Correspondence Email*	
(Correspondence Email ID can be same	
as your Login ID. All the mail	
correspondence	
will be sent only to the Correspondence	
Email ID.)	
Designation	
Phone*	
Fax*	
Mobile*	

PRICE SCHEDULE (UNPRICED)- VOLUME-III

PLEASE REFER

E-PROCUREMENT PORTAL <https://bhel.abcprocure.com> PRICE SCHEDULE - VOLUME-III

AND FOR

PRICE SCHEDULE (PRICED)- VOLUME-III

PLEASE REFER

E-PROCUREMENT PORTAL <https://bhel.abcprocure.com>

SUPPLY OF PERMANENT COLOUR COATED METAL CLADDING FOR COAL & LIME SHEDS TO 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH

PRICE SCHEDULE-R0

SL NO.	Item Description	UOM	QUANTITY	RATE (IN USD)	AMOUNT(IN USD)
A	B	C	D	E	F=DXE
1	Design, Drawing & Supply of trapezoidal profile External sheet of Permanent colour coated metal cladding minimum 0.75 mm bare metal thickness of of grade SS340-Class 4 as per ASTM A792M / grade G350 as per AS 1397, with hot dipped galvanized with a minimum zinc coating weight of 275 gsm total both sides including pre-treatment by "chemical conversion" of the zinc coating to a non-metallic surface with corrosion inhibiting and adhesion additives, nominal 8 micron thick anti-corrosive pigmented epoxy primer on both sides, nominal 70 micron thick TF epoxy barrier coat with special flexibilizer compounds applied on both sides and baked to a hard corrosion resistant finish, nominal 40 micron thick urethane exterior coating on outer face & 20 micron stoving polyester decorative finish on inner exposed face of the sheet. Design of profile sheet shall be done as per requirement of technical specification & input structure drawing. Supply of flushing/ flat materials will also under the scope of supplier , if required. But payment will not be made for the above. Payment will be made for profile sheet only as per SCC.	SQM	294000	TO BE FILLED ONLINE REFER E- TENDER	REFER ONLINE TENDER
2	Transit Insurance (Amount)	By BHEL			
3	Total Cost to BHEL at site including the all Taxes,Custom clearnace, Transportation etc. in USD in Figure	TO BE FILLED ONLINE REFER E-TENDER			
	Total Cost to BHEL at site including the all Taxes,Custom clearnace, Transportation etc. in USD in Words				
	Note:				
a	Discounts offer by the vendor in price shall not be entertained by BHEL. (Ref. Cl. 18. GCC).				
b	Bidder must quote all the price elements mentioned in price bid. If any element left blank shall be construed as the price is included in Total Cost to BHEL at site excluding all creditable taxes, if applicable .				
c	If scope will split among the bidders as per clause No.2.7 of SCC then supply of Containers will also be Splitting in same ratio as mentioned in clause No. 2.7 of SCC.Decision of BHEL in this regard shall be be final and binding to the bidders				
d	BHEL reserve the right to rationalize the rates, quoted by L-1 bidder against unit rate/ optional items with respect to item-wise lowest rates (amongst participating bidders), before placement of order.				
e	Bidder's quoted rate/price shall remain firm for offer validity period.				
f	Any Modification in Price schedule in any way by bidder is not acceptable & shall be considered as tampering of tender document.				
g	Bidder to note that total F.O.R. site price at Maitree Project Site,Bangladesh including all the taxes,custom clearance,transportation etc but excluding transit insurance (In USD) above shall be considered for evaluation & awarding. As such Total price should be complete in all respect for the full scope defined and considering all terms and conditions.				
h	The total quantity variation shall be limited to (+)/(-) 30 % of the total contract value derived on the basis of the Order Quantities.VENDOR HAVE TO MAINTAIN OVERALL L1 STATUS IN CASE OF QUANTITY VARIATION. Payment shall be made on Pro-rata basis against each item.				
i	MDCC will be provided to supplier as per BHEL's requirement..Stagggered payment shall be possible against each consignment as per terms & conditions of the contract.				

PSER:PMX:374(IV):094 (ENQ:19:PP:0015:PUR:129) Date 21/01/2020

SIGNATURE OF THE BIDDER WITH SEAL & DATE

32 OF 80

Technical Specifications

FOR THE PURCHASE OF

Metal Cladding sheet
for Coal & Lime shed

For Maitree Project



BHARAT HEAVY ELECTRICALS LTD

Technical and Quality Specifications

Materials shall be manufactured as per specifications (mentioned below)

Metal cladding

Permanently colour coated sheet of approved shade and colour using galvanised trapezoidal profile mild steel sheet of minimum 0.75mm BMT(bare metal thickness i.e. metal thickness excluding thickness for coating and galvanizing) of grade SS340-Class 4 as per ASTM A792M / grade G350 as per AS 1397

External weathering profile: trapezoidal profile min. 0.75 mm thick

The sheeting unit shall be a multilayer, protected metal system consisting of a trapezoidal galvanized steel substrate, heavy epoxy base coat and a high build weather coat of polyurethane as follows:

Substrate

Hot-dipped galvanized steel substrate, with a minimum zinc coating weight of 275 g/m² total both sides. The steel substrate shall be min. 0.75 mm thick.

Pre-treatment

After cleaning, a "chemical conversion" of the zinc coating to a non-metallic surface with corrosion inhibiting and adhesion additives shall be applied.

Primer

Nominal 8-micron thick anti-corrosive pigmented epoxy primer applied to both sides of the sheet.

Epoxy barrier coat

Nominal 70-micron thick TF Epoxy Barrier coat with special flexibilizer compounds applied to both sides of the sheet and baked to a hard corrosion resistant finish.

External weather coat

Nominal 40 micron thick urethane exterior coating on outer exposed face of the sheet pigmented in one of the standard colours of the manufacturer's colour range.

Internal decorative coat of the interior profiled liner

Nominal 20 micron stoving polyester decorative finish on inner exposed face of the sheet

Salient Points to be addressed by Vendors:

1. The Maitree specification calls for usage of prescribed International Standards. Hence the base metal sheet shall be conforming to EN10346 or equivalent International standards.
2. Bidder has to give a cross section sketch of trapezoidal sheet as per specification.
3. Model steel arrangement for various details such as vertical, horizontal, corner, overlapping and suggested arrangement etc. has to be shown.
4. The required screw size and quantity of screws per sheet has to be mentioned including a Drawing by vendor or supplier.

5. Bidder should ensure the supply of plain sheet, ridge piece/Flushing materials as per same specification .
6. Bidder has to provide profile and fixing details of Trapezoidal sheet for Engg. Approval
7. Other than the above, vendor can follow specification given in Section C1-Specific Technical Requirement for other aspects.
8. Vendor should facilitate site by supplying suitable sizes of trapezoidal sheets with proper overlap.
9. Outside Color-RAL5012 (Light Blue). Inside Color-RAL9002 (Grey White). Color Subjected to approval from customer.
10. Structural Arrangement drgs are given along with indent.

RATES AND MEASUREMENT

- i. **Rates:-**Rates shall be unit rate for complete item described in “Schedule of Items” and shall include all wastage.
- ii. **Measurement: -** Sheetting work in roof & sides shall be measured in Sq.M. for net area of the work done. Profiled sheetting shall be measured flat and not girthed. Opening less than 0.40 Sqm shall not be deducted. No payment shall be made for laps, flashings etc. in sheetting works. However, **supply of screw & accessories for fixing of Cladding sheets are excluded from the scope of works.**

RAW MATERIAL(COIL) SOURCE RESTRICTIONS:

This tender specification calls for special requirement of steel substrate and coating, our end customer has approved the following coil manufacturers. Bidders are requested to source the coil from below already approved coil manufactures only”:

SL	Coil Manufacturer	Status of Approval by Customer
	M/s Replasa- Astrain Spain	Approved
	M/s Centria- USA	Approved
	*M/s Vorteq Global	Approved on Condition
	M/s United Metal Coating LLC, Dubai, UAE	Approved

* Bidders opting to source coil from the Manufacturer under SI No. 3 (M/s Vorteq Global) have to collect and submit the following documents for final approval from end customer: 1)Sub supplier questionnaire, 2) manufacturing catalogue, 3) relevant credentials of description, specification quantity etc., 4) specific conformation for compliance of above specification. However, offers of such bidders will be considered for technical evaluation and on qualifying, further consideration will be based on availability of end customer approval before price bid opening.

Tender will be evaluated as single package on cost to BHEL for arriving L1.

**** Bidder to submit the Mfg. Quality plan to BHEL, within 10 days after the placement of PO, for approval.**

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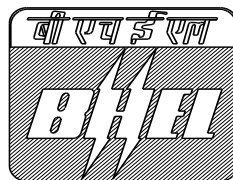
BANGLADESH-INDIA FRIENDSHIP POWER
COMPANY (PVT.) LIMITED

2x660MW MAITREE STPP, RAMPAL
BANGLADESH

VOLUME – II B
TECHNICAL SPECIFICATIONS
COVER SHED
FOR COAL & LIME STOCK YARD

SPECIFICATION NO.
IS-4-TS-702-100-C005- R0

SECTION – C1
SPECIFIC TECHNICAL REQUIREMENT



Bharat Heavy Electricals Limited
Industrial Systems Group
IISc, Post
Malleswaram
Bangalore-560012

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- 1.0 General
- 2.0 Civil Design Criteria
 - 2.1 Codes and standards
 - 2.2.2 Architecture
 - 2.2.3 Design loads
 - 2.2.4 Deflections
 - 2.2.5 Settlements
 - 2.2.6 Stability
 - 2.2.7 Miscellaneous metal works
 - 2.2.8 Drainage systems
 - 2.2.8(a) Load Combinations
- 2.3 System/Building details
 - 2.3.1 Coal & Lime Cover Shed
- 3.0 Materials:
 - 3.1 Structural steel
 - 3.2 Cladding Sheet: Roof And Wall Cladding
 - 3.3 Painting

1.0 General

This document covers the general description of structural framing system, applicable design codes and standards, specific design criteria, design loads and combinations, design methodology and characteristics of construction materials to be adopted for the structures of the plant for Coal, Ash, Lime, and Gypsum handling system.

2.0 Civil Design Criteria

2.1 Codes and standards

The engineering and execution of all the civil works shall be based on the latest editions and revisions of the applicable codes as mentioned in this document.

Design codes BS EN 1992 (Euro code 2) and BS EN 1993 (Euro code 3) shall be followed for concrete and steel structures respectively. The codes for loads, load combinations and other systems are provided in respective clauses.

2.2 Design loads

The following design loads shall be considered for the design of buildings and structures:

- **Dead load**

Dead load is defined as the weight of all permanent construction including walls, foundations, floors, roofs, ceilings, partitions, stairways, and fixed service equipment and shall be calculated according to BS EN 1991-1-1.

The gravity weight of soil overburden shall be considered as dead load.

- **Live load**

Live load is defined as the weight superimposed by the use and occupancy of the building or other structure, but not permanently attached to it. For industrial design, live load can be defined as the load produced by personnel, moveable equipment, tools, and other items placed on the structure, but not permanently attached to it. Design shall be done for the actual plant live loads or the live loads specified in according to BS EN 1991-1-1.

Roof Live for design of shed shall be considered as 75 kg/M².

Dust load for design of shed shall be as 50kg/m²

Unless specified otherwise, or required due to erection, operation and maintenance the minimum live load values for floors and roofs given in Table below shall be considered

Minimum requirements for live loads [kN/m²]

	Slabs and secondary supports	Gratings ²⁾	Main girders	Supports, e.g. columns, walls, brackets, etc.	Foundations
1. Reinforced concrete structures					
1.1 at road level in areas used by large vehicles	15	5	15	10	10
	SLW 30 ³⁾		SLW 30 ³⁾		
In areas of major assembly work at their access roads	SLW 60 ³⁾		SLW 60 ³⁾		
1.2 Machinery floor for storage of heavy machine parts	30	10	20	20	20
1.3 Heavy intermediate floor slabs	10	5	10	7,5	7,5
1.4 Medium intermediate floor slabs	7,5	5	7,5	5	5
1.5 Light intermediate floor slabs	5	5	5	5	5
1.6 Roofs	1,5		1,5	1,5	0,75
2. Steel structures					
2.1 Heavy platforms	15	10	15	10	10
2.2 Medium platforms	5	5	5	5	5
2.3 Platforms and walkways in Conveyor galleries	5	5	5	5	5
2.4 Light platforms and walkways	2,5	2,5	2,5	2,5	2,5
2.4 Roofs	1,5		1,5		0,75

1) Figures in kN/m²

2) The loads shown are used for determining the load for structural analysis but not for dimensioning the gratings

3) Truck loads according to DIN 1072

Areas designated for different loadings on the same floor shall be clearly and permanently marked.

- **Crane/hoist load**

Crane/hoist loads shall be considered as live loads. The vertical and horizontal loads from cranes/hoists shall be as per the supplier's loading data. In the absence of specific

information, the following minimum horizontal loads shall be considered at the location of each wheel:

- transverse surge = 20 % of static wheel load
- longitudinal surge = 10 % of static wheel load.

- **Product load**

The load shall be defined as the gravity load imposed by liquid, solid, or viscous materials in vessels, tanks, equipment or piping during operation. All buildings with RCC roof and suitable/sufficient space shall be designed for solar installation of solar photovoltaic panels on roof tops for renewable energy purpose.

- **Test load**

The test load shall be defined as the gravity load imposed by any method necessary to test vessels, tanks, cranes, equipment or piping.

- **Thermal load**

Thermal loads shall be defined as forces caused by changes in temperature (ambient temperatures see Section B0). The primary source of thermal loads in an industrial plant is the expansion or contraction of vessels and piping. Another source of thermal loads in a structure is the expansion or contraction of the entire structure or individual structural components.

Average maximum annual variation in temperature shall be considered as 20 dec to calculate thermal loads.

- **Truck load**

Structures accessible to trucks shall be designed to withstand the gravity, lateral and impact effects of truck loading. Truck loading shall be SLW 60 or equivalent as per relevant standards or codes.

- **Soil load**

Soil loads shall consist of lateral earth pressures. Active and passive and at rest coefficients for lateral pressures shall be obtained from the project soils report. The weight of soil shall be considered as dead load.

- **Hydrostatic load and buoyancy**

Hydrostatic load is the load due to water pressure. The design of structures shall include hydrostatic loads when applicable. The buoyancy load is equal to the weight of the volume of displaced water.

- **Wind load**

The wind load calculation for the buildings and structures shall be as per Bangladesh National Building Code -2012, Part 6, Chapter 2.4.

Basic wind Speed, V, shall be taken as 73 m/s, Three-second gust at 10 m above ground in exposure C, having a return period of 50 years.

- **Earthquake load**

All buildings, structures and foundations shall be designed and adopt necessary earthquake design criteria.

The Project site is exposed to seismic conditions. The area is in Seismic Zone 1 as determined by the Bangladesh National Building Code (BNBC-2012).

For Site specific data refer annexure-1, which shall be used for designs.

- **Dynamic loads**

Each structure shall be designed to withstand the effects of vibration and impact to which it may be subjected. Each structure and foundation supporting a compressor, turbine, pump or other machinery having significant dynamic unbalance shall be designed to resist the peak loads specified by the manufacturer. Vibration amplitudes of the supporting structure or foundation shall be kept within acceptable limits for dynamic forces that occur during normal machine operation. In the case of a tall and slender structure, there may be a need to investigate the dynamic effects of wind gusts.

In the dynamic analysis, the following codes are to be considered: DIN 4024, ISO 1940-1 and ISO-10816. The vibration amplitudes & velocities, if not specified by the manufacturer, shall follow ISO-10816.

- **Impact loads**

When a structure, structural component or connection is subjected to moving or vibrating loads which do not warrant a dynamic analysis, the following impact loads shall be considered:

Elevator machinery	100% machinery weight
Shaft or motor driven machinery	50% machinery weight
Reciprocating machinery	20% machinery weight
Overhead travelling crane	Crane load shall be considered as live load, when applying this load the following impact load shall be considered as per BS 6399:PART 1 EN 1991 or equivalent.
Vertical force	25% of maximum wheel loads for cab operated crane. 10% of maximum wheel loads for pendent operating crane.
Lateral force	20% of the weight of the trolley and lifted load (but exclusive of other parts of the crane).
Longitudinal force	10% of maximum wheel loads.
Truck loads	Impact effects of truck loading shall be considered according to BS EN 1991-1-7 6399: PART 1 or equivalent.
Vertical force	20% of lifted loads

2.3 Deflections

The maximum allowable deflections under the serviceability loads shall be as given below, if not other requirements due to functionality of the structures shall be followed, e.g. for transfer points and trestles of conveyor belt:

a) Structural steel

Cantilevers	L/180
Beams carrying plaster	L/360 or 20 mm, whichever is less
Other beams (except purlins and sheeting rails)	L/200
Top of columns (single floor)	H/300
Top of columns in each floor (more than one floor)	H/300
Crane gantry girders	
Vertical	L/600
Horizontal	L/500
(where L: span/H: Height)	
Purlins and sheeting rails	L/200

b) Concrete structures

L/500 or 20 mm (whichever is less)

2.4 Settlements

Settlements have to be calculated according to BS EN 1997-1 or equivalent and to be monitored.

The following requirements for settlements shall be applied:

- Max. settlement 25 mm,
- Max. differential settlement 1/500 rad.

2.5 Stability

All ground stability analysis should be based on data given in the soil investigation report.

Ground stability of structures has to be calculated according to BS EN 1997 -1 or equivalent.

Embankment stability analysis shall be calculated according to BS 6031 or equivalent.

Stability of masonry wall shall be checked according to BS 5628 or equivalent.

The structures shall be designed and checked using a factor of safety of 1.50 for stability against overturning and sliding under the permanent loads and 1.2 under the temporary loads.

For Buoyancy the structures shall be designed to fulfill the purpose and follow BNBC.

2.6 Miscellaneous metal works

Stairways

Main stairways shall be min. 1250 mm wide.

Riser max. 180, Tread min. 260, and Local stairway shall be min. 1200 wide. The number of steps between flights shall be limited to 12.

Head clearance min. 3000 mm for air conditioned buildings, and min. 3500mm for non-conditioned buildings.

Head clearance of toilets shall be designed as per good engineering practice and applicable regulations.

The requirements of the specific local codes of procedures and the Local Authority requirements have to be respected by the Contractor.

Steel ladders other than companion way ladders

Rung: round bars of 20 mm diameter

Rise: 250 mm

Width: 400 mm

Safety cages shall be provided if height exceeds 2.5 m and the ladder design shall comply with BS 5395: Part 3.

Handrails

GI Handrails shall be min. 1100mm high. Design to follow BS 5395: Part 3/BS 4592-0:2006+A1:2012 or equivalent.

Gratings

Gratings shall be hot-dip galvanized and comply with BS 4592: Part 1 & 2 or equivalent. As per BS 4592: Part 1 & 2 and BS EN ISO 1461 average coating mass on gratings shall be 610 gm/sqm.

Chequered plates

Chequered plates shall be minimum 6 mm thick mild steel.

2.7 Drainage systems

General

The drainage systems will consist of open reinforced concrete drains for stormwater and surface drainage and piping for other drainage systems and reinforced concrete culverts/hume pipes for street crossings. In general, drainage systems shall be designed in accordance with BS 6367 or equivalent, the Bangladesh National Building Code 2012 and all relevant Local Authority requirements.

Rain run-off

Rainwater runoff shall be determined in accordance with the relevant Bangladesh Standards by considering the maximum rainfall intensity of 95 mm/hr for a one hour rainfall with 50 year return period.

The water shall be collected in a storm water pond located outside the Plant. The Pond is not in scope of BHEL. The Tie-in point of the system will be at the pond

Sizing of ditches and pipes shall be determined by using Manning's formula, using the following Roughness coefficient N for the various types of material:

Type	Roughness efficient N
Concrete pipe	0.014
Plastic pipe	0.013
Vitrified clay pipe	0.013
Smooth concrete channels	0.014

Gradient

Drains shall have the following minimum gradient:

• open ditch for storm water drainage	1/1000
• sanitary sewage drainage pipes	1/150
• oily water drain pipes	1/200
• chemically polluted water drains/pipes	1/250
• other drainage systems	1/400.

However, the sectional shapes have to be determined by the water carrying requirements and must have the most favorable hydraulic qualities so as to remove the drain water in a proper manner without settlements.

Velocity of flow

Minimum velocity 0.80 m/s (to maintain self cleaning)

2.8 Load Combinations

Basic Loads

SL NO	LOAD SYMBOL	LOAD DESCRIPTION
1	DL	Dead Load/Permanent Load
2	LL	Imposed Load/Live Load
3	WL(X , CLW)	Net wind load in 'X' direction with clock wise effect
4	WL(X ,ACLW)	Net wind load in 'X' direction with anti-clock wise effect
5	WL(Z , CLW)	Net wind load in 'Z' direction with clock wise effect
6	WL(Z ,ACLW)	Net wind load in 'Z' direction with anti-clock wise effect
7	SL(X)	Seismic Load In 'X' Direction
8	SL(Z)	Seismic Load In 'Z' Direction
9	TEMP	Temperature load
10	CL	Crane/Monorail self weight
11	CLA	Crane trolley + lifted load near A row
12	CLB	Crane trolley + lifted load near B row
13	CS	Crane surge

The design loading combinations have been taken from BS-EN-1990 2002.

Load combination for buildings without cranes (Ultimate Limit States)

Permanent + Single Variable action (as per eqn. 6.10)

1. $1.35(DL) + 1.5(LL) \pm 1.5 \times 0.6(TEMP)$
2. $1.35(DL) \pm 1.5(WL) \pm 1.5 \times 0.6(TEMP)$

Permanent + Accompanying Variable actions (as per eqn. 6.10a)

3. $1.35(DL) + 1.5 \times \Psi_0(LL) \pm 1.5 \times 0.6(WL) \pm 1.5 \times 0.6(TEMP)$ ($\Psi_0 = 1.0$ for storage areas, 0.7 for others)

Permanent + Leading Variable + Accompanying Variable actions (as per eqn. 6.10b)

4. $1.35 \times 0.85(DL) + 1.5(LL) \pm 1.5 \times 0.6(WL) \pm 1.5 \times 0.6(TEMP)$ (Live Load as Leading variable action)
5. $1.35 \times 0.85(DL) \pm 1.5(WL) + 1.5 \times \Psi_0(LL) \pm 1.5 \times 0.6(TEMP)$ (Wind Load as Leading variable action) ($\Psi_0 = 1.0$ for storage areas, 0.7 for others)

Permanent + Leading Seismic + Accompanying variable action (as per eqn. 6.12a/b)

6. $(DL) \pm (SL) + \Psi_2(LL)$ ($\Psi_2 = 0.3$ for domestic/residential/office areas, 0.8 for storage areas, 0.6 for others)

Load combination for buildings with cranes (Ultimate Limit States)

Permanent + Single Variable action (as per eqn. 6.10)

1. $1.35(DL) + 1.5(LL) \pm 1.5 \times 0.6(TEMP)$
2. $1.35(DL) \pm 1.5(WL) \pm 1.5 \times 0.6(TEMP)$
3. $1.35(DL) + 1.35(CL+CLA/CLB) \pm CS \pm 1.5 \times 0.6(TEMP)$

Permanent + Accompanying Variable actions (as per eqn. 6.10a)

4. $1.35(DL) + 1.5 \times 0.7(LL) \pm 1.5 \times 0.6(WL) + 1.35 \times 1.0(CL+CLA/CLB \pm CS) \pm 1.5 \times 0.6(TEMP)$

Permanent + Leading Variable + Accompanying Variable actions (as per eqn. 6.10b)

5. $1.35 \times 0.85(DL) + 1.5(LL) \pm 1.5 \times 0.6(WL) + 1.35 \times 1.0(CL+CLA/CLB \pm CS) \pm 1.5 \times 0.6(TEMP)$ (*Live Load as Leading variable action*)
6. $1.35 \times 0.85(DL) \pm 1.5(WL) + 1.5 \times 0.7(LL) + 1.35 \times 1.0(CL+CLA/CLB \pm CS) \pm 1.5 \times 0.6(TEMP)$ (*Wind Load as Leading variable action*)

Permanent + Leading Seismic + Accompanying variable action (as per eqn. 6.12a/b)

7. $(DL) \pm (SL) + \Psi_2(LL) + (CL)$ ($\Psi_2 = 0.3$ for domestic/residential/office areas, 0.6 for others)

Note:-

- Temperature load shall be considered only where they are significant (Refer Cl. 2.3.1.2 of EN 1992-1-1) i.e. for buildings having length between expansion joints > 30 m (Refer Cl. 2.3.3 of EN 1992-1-1).

Load combination for buildings without cranes (Serviceability Limit States)

Permanent + Leading Variable + other Variable actions (As per table A1.4)

1. $(DL) + (LL) \pm 0.6(WL) \pm 0.6(TEMP)$ (*Live Load as Leading variable action*)
2. $(DL) \pm (WL) + \Psi_0(LL) \pm 0.6(TEMP)$ (*Wind Load as Leading variable action*) ($\Psi_0 = 1.0$ for storage areas, 0.7 for others)

Load combination for buildings with cranes (Serviceability Limit States)

Characteristic combination

Permanent + Leading Variable + other Variable actions (As per table A1.4)

1. $(DL) + (LL) \pm 0.6(WL) + 1.0(CL+CLA/CLB \pm CS) \pm 0.6(TEMP)$ (*Live Load as Leading variable action*)
2. $(DL) \pm (WL) + 0.7(LL) + 1.0(CL+CLA/CLB \pm CS) \pm 0.6(TEMP)$ (*Wind Load as Leading variable action*)

2.3 SYSTEM / BUILDING:

2.3.1: Covered coal & Lime yard

The coal & lime sheds shall be of structural steel columns and roof trusses with a metal roof and metal sheet siding. Foundations with piled foundations for the steel columns is envisaged, according to the geotechnical investigation.

The profile of the roof shall follow the profile of the handling equipment with clearances mentioned in the drawing. Each coal/lime pile shall be covered separately. Spacing of shed supporting columns shall be considered from 6M to 9M. For **distance between the steel columns**, the height of the roof and width of the shed refer furnished tender drawings. The two cantilevers connected with a joint at the highest point need not be symmetrically depending on the size of coal handling equipment used.

Any collision of the stacking and reclaiming machines with the shed must be safely avoided in any operational case.

The cover shall be suitable to protect the environment from dust pollution from the coal & lime yard during dry season and to protect the coal from heavy rainfalls during monsoon. The coal & lime yard coverage may in no way inhibit the normal operation of the coal yard.

Multiple dozer entries in the transverse side of the shed is envisaged. Opening of minimum size 5 meter in width and 8 meter in height for dozer entry shall be provided. Location of dozer entry will be provided during detail engineering.

Roof sheeting on shed shall be extended till 1M from F.G.L.

Poly carbonate sheet of matching profile of 10% of covered area shall be provided for natural light as per the relevant international standards.

3.0 Materials:

3.1 Structural steel:

All ferrous materials, their dimensions, forms, weights, tolerances, chemical and mechanical properties, shall be the best of their kind, complying with relevant international Standards.

All structural steel material shall be grade S275-JR+AR for Rolled sections & plates upto 20mm thickness, S275-J0+N for plates above 20mm and S275-J2+N for plates used in Gantry girder as per BS EN10025-2.

In the case of structural steel work, care shall be taken that all parts in the assembly fit accurately together and corresponding parts shall preferably be interchangeable.

The Contractor shall submit to the Employer for approval the country of origin and manufacturer of the steel he proposes to supply.

The structural steelwork and testing shall comply with the relevant clauses of BS 4, BS EN 10162, BS 4360 and BS 6323, BS EN 10025-1:2004, BS EN 10130:2006 or equivalent standards.

Each steel part shall be marked with the manufacturer's name or trademark. The steelwork shall be manufactured by a specialist firm approved beforehand by the Employer. As much of the work of manufacturing of the steelwork as is reasonably and technically practicable shall be executed in the manufacturer's works, and facilities for inspection by the Employer shall be provided.

All steelwork before and after manufacturing shall be smooth, undeformed, straight and free of cracks, twist and burrs. All steelwork shall be cut and fabricated to a tolerance of ± 1.5 mm in its length. All plates shall be truly at right angles to the longitudinal axis of the section. No work shall be painted, packed or dispatched from the manufacturer's works until it has been inspected and complies with or has been certified to comply with all the tests and requirements of the standard applicable to the material specified and until it has been inspected and approved.

Tests

The manufacturer's test certificate for all steelwork shall be supplied to the Employer. The certificates shall state the manufacturing process and shall include a test sheet giving the results of the mechanical tests and the chemical composition. The Contractor shall provide free of charge any supplementary tests reasonably required by the Employer. Steel which do not conform to the specified standards shall be rejected at the expense of the Contractor. No steelwork shall be delivered from the manufacturer's works until it has been tested and the results comply with the requirements of the relevant standards.

Materials complying with codes and standards listed below shall be used for the design and construction work.

Unless the materials meet these codes and standards the equivalent ASME/ASTM standard shall be used.

(A)	a.	Structural Steel Built-up Members	DIN EN 10 027-1	all steel brands S235 and S355
			Formerly DIN 17100 and EN 10 025	Formerly St, USt & RSt37-2, St37-3, St52-3 or Fe360B, BFU, BFN, C & D1, and Fe 510
	b.	Structural Steel Hot Rolled	DIN 1024 Series DIN 1025 Series	all steel brands S235 and S355,

		Members		
			DIN 1026 Series DIN 1027 Series DIN 1028 Series	Formerly St, USt & RSt37-2, St37-3 and St52-3; or Fe360B, BFU BFN, C & D1, and Fe 510
			DIN 1029 Series	
(c)		Structural Steel Tubes	DIN EN 10 210-1,2	S235 and S355
(B)	a.	Bolts and Anchor Bolts	DIN ISO 898, DIN 18 800-1	4.6 (fy $\geq$ 240 N/mm ²) 5.6 (fy $\geq$ 300 N/mm ²)
	b.	High Strength Bolts	DIN ISO 898, DIN 18 800-1	8.8 (fy $\geq$ 640 N/mm ²) 10.9 (fy $\geq$ 900 N/mm ²)
	c.	Stud Bolts	DIN 32 500, Part 1 & DIN 18 800-1	4.8 (fy $\geq$ 320 N/mm ²)
			DIN 32 500, Part 3 & DIN 18 800-1	St 37-3 per DIN 17 100, (fy $\geq$ 350 N/mm ²)
(C)		Electrodes for Arc Welding	DIN 1913/ DIN EN 499	

For all above mentioned material standards, the equivalent standards as per BS, ASME/ASTM and SA/IS2062-2006 (Sixth Revision), standards are acceptable for general structural purpose and in the project.

For tubes and hollow sections, proposal for use of steel specification as per IS1161 and IS4923 standards are under acceptance by customer.

Workmanship

Tolerances

Care shall be taken to ensure that the tolerances specified on the drawings or the relevant standards are worked to. The erection tolerance for cleated ends of members connecting steel shall be not greater than 2 mm at each end. No work shall be painted, packed or dispatched from the manufacturer's works until it has been tested and complies with all requirements of the standards.

Cutting

Cutting may be by shearing, cropping, sawing or machine flame cutting. Hand flame cutting shall be avoided. If rolled products for steel structures under predominantly static loading are cut by flame-cutting or shearing there will generally be no need for a finishing operation if the cut surface is free of defects.

Bolting

The threaded portion of each bolt shall project through the nut by at least one thread. Approved high strength friction grip bolts, preferably the type with indicated load, shall be used where specified and shall be tightened strictly in accordance with the manufacturer's instructions and the relevant regulations. The surfaces in contact shall not be painted and shall be free of oil, dirt, loose rust, burrs and other defects, which would prevent proper seating

of the parts or interfere with the development of friction between them. When connections are made using high strength friction grip bolts the relevant standards shall be observed.

Welding

The execution and testing of welding shall be in accordance with BS EN 1011-1, BS EN 1011-2 or equivalent standards

All welds, unless otherwise stated shall be continuous minimum 6 mm fillet weld and shall be dressed smooth, free of porosity, cracks, holes and finished to match adjacent surfaces. When welding operations are completed, all welding flux shall be removed without delay. Cooling of welds shall not be accelerated by any special measures.

Site welding shall be restricted to the absolute minimum. Site welding is subject to approval by Employer. The examination of welded work and the inspection of welds during and after manufacture shall be carried out by responsible specialist welding engineers. Welding shall be carried out by expert trades men and in strict accordance with the current code of practice.

Erection

The Contractor shall supply all suitable plant, hoisting gears and tackles for the erection of the steelwork and shall provide all temporary baulks, struts, shores, etc.

Steelwork damaged due to inadequate precautions being taken during the storage, transport and erection of the steelwork shall be made good to the satisfaction of the Employer at the Contractor's expense.

All shop connections shall be made by electric welding. All site connections shall be bolted unless otherwise specified in drawings or directed by the Employer.

3.2 Cladding Sheet: Roof and Wall Cladding:

Metal cladding

Trapezoidal profile min. 0.75 mm thick, The sheeting unit shall be a multilayer, protected metal system consisting of a trapezoidal galvanized steel substrate, heavy epoxy base coat and a high build weather coat of polyurethane as follows:

Substrate:

Hot-dipped galvanized steel substrate, with a minimum zinc coating weight of 275 g/m² total both sides. The steel substrate shall be min. 0.75 mm thick.

Pre-treatment:

After cleaning, a "chemical conversion" of the zinc coating to a nonmetallic surface with corrosion inhibiting and adhesion additives shall be applied.

Primer

Nominal 8-micron thick anti-corrosive pigmented epoxy primer applied to both sides of the sheet.

Epoxy barrier coat:

Nominal 70-micron thick TF Epoxy Barrier coat with special flexibilizer compounds applied to both sides of the sheet and baked to a hard corrosion resistant finish.

Weather coat on the exposed surface:

Nominal 40 micron thick urethane exterior coating on outer exposed face of the sheet pigmented in one of the standard colors of the manufacturer's color range.

Internal decorative coat of the interior profiled liner

Nominal 20 micron stoving polyester decorative finish.

Poly carbonate sheet of matching profile shall be provided for natural light as per the relevant international standards.

3.3 PAINTING :

This specification shall be used for the corrosion protection of steel structures, components, pipings and equipment in general which are installed in confined areas (indoors) or outdoors. Surface preparation, as well as protective coatings and coating systems are based on this specification in order to assure that structural parts of different suppliers will get a corrosion protection of similar and high quality.

Coating material shall only be supplied by manufacturers with international experience and their products can be obtained internationally.

Regarding maintenance work (storage), application and supervision of coating work, choice of coating suppliers should be minimized. At any rate, similar parts of structures/components (such as structural steel, containers, piping, etc.) shall only be coated with products of one individual manufacturer.

The materials and equipment used, the methods of application and the quality of work shall at all times be subject to the inspection and approval of the Employer or his Representative. To mitigate crevice corrosion, the designs and construction of structures and equipment shall ensure that no collection of water occurs in crevices which could lead to crevice corrosion.

It is the responsibility of the Contractor to ensure that, for all supplied equipment (including that from sub suppliers):

- The protection system is perfectly suitable for the Site conditions and for the specific purpose.
- The shop paints provide a sufficient protection during transport, storage and erection.
- The shop paints are suitable for handling and erection conditions (slinging, Site welding works etc.) and are compatible with the Site finishing coats
- All necessary precautions are taken in order to prevent damage to paints during storage, handling, welding.
- The necessary repairs are carefully executed as soon as possible.
- The colour RAL number of the finishing coat has been approved by the Employer, including identification code for piping.
- Standardised equipment will be painted according to the manufacturer's standard.
- All corrosion protection and coating on site shall be done in a workshop specifically for the purpose of the application of corrosion protection and coating.

Codes and standards

Applicable standards are:

- ☐ Product data of coating manufacturer
- ☐ DIN 2403 Indication of pipe-lines according to flowing material
- ☐ DIN 4762 Surface roughness
- ☐ ISO 8503 Surface roughness
- ☐ DIN 8201 Part 1-9 tight blasting agents
- ☐ DIN 50976 Corrosion protection, hot dip batch galvanizing of single parts, requirements and testing
- ☐ DIN 55928 Part 1-9 corrosion protection of structural steel work through protective coatings and topcoats
- ☐ ISO 8501 Preparation of steel substrates before application of paints and associated products
- ☐ ISO 12944 Paints and varnishes – corrosion protection of steel structures by protective paint systems
- ☐ RAL Colour card
- ☐ ISO 8501-1 Preparation of steel substrates before application of paints and related products
- ☐ SSPC Vol. 1 and 2 Steel structure painting council

SURFACE PREPARATION AND CLEANING OF SURFACES IN THE SHOP

Prior to blasting, areas have to be cleaned from oil, grease, paint residues, splatters, welding splashes and welding slag using a suitable aqueous degreaser, or solvent for more severe grease contamination. The cleaning should be to provide a “water break free surface”.

Sharp edges have to be rounded off.

Contaminations caused by salts, acids and alkali solutions shall be eliminated by rinsing with water up to a pH value of 6-8. Soluble salt contamination is to be tested using the Weber Reilly test method (or similar approved) and pH is to be tested using universal indicator paper strips prior to continuation with the blasting.

The preparation of substrates shall be carried out on the basis of the specifications of ISO 12944 part 4 and ISO 8501. The preparation of steel before application of paint and related products shall be in line with ISO 11124 for metallic blast cleaning abrasives and ISO 11126 for non-metallic blast cleaning abrasives. No recycled blast grit may be utilised.

After blasting, an anchor profile of 25 - 50 µm shall be achieved. Blasted surfaces have to be provided with a prime coat of the approved coating system immediately within 4 hours of blasting. All blasting and priming must take place outside of the high humidity periods of the day (i.e. maximum relative humidity of 80%).

Cleaning to be performed on site

Steel work protected by shop primer after arrival on site must be cleaned of salt, sand, oil, etc. before the first coat of paint is applied on site. Shop primer damaged during transport must be rectified by blast-cleaning and coating before application of the site coats.

Wood surfaces shall be sanded clean. All nail holes shall be puttied and sanded before priming, , unless the specific coating system allows for coating onto damp concrete, in which case only with approval from the Employer.

If a protective coating of concrete is required, concrete shall be allowed to cure before painting.

Transport and erection damages, as well as damages which result out of additional welding have to be repaired as soon as possible. The damaged areas have to be derusted with rotating or steel brushes, abrasive wheels, and abrasive blasting according to DIN ISO 8501-1.

Cleaning of prime and intermediate coats (if required)

To prevent contamination by mineral oil products, areas with prime and intermediate coat have to be treated with suitable cleaning agent. Cleaning has to be done free of residues, e.g. with alkaline detergents and thorough washing done with fresh water. Rusty spots have to be removed according to required purity. Metallic areas which are provided with temporary corrosion protection have to be cleaned. No oxidation products shall remain on the surface. Further care shall be taken that on hot components, no destructive or reaction products will be released when heating which could injure insulation.

Application procedure

When using the provided coating material, strict adherence to all application instructions given in product data of coating manufacturer is necessary. To obtain

the maximum performance, technical data as well as application instructions for the individual coating material have to be strictly followed.

For a multi-layer coating system each layer has to have a different colour shade in order to clearly identify number of coats applied.

The last finish coat has to be applied in the specified colour shade.

All paintings shall be performed according to ISO 12944. The durability of all paintings shall be “high” which corresponds to 15 years.

The interval between applying the different coats has to follow according to supplier’s precautions. Each layer has to be cleaned and released from spray dust before the next layer will be applied. Prior to applying a further layer, the last one has to be repaired. All coatings have to be applied without retarding.

Following application procedures are allowed:

- ☐ prime coats by airless spray areas like disconnections, angles, corners, etc. which are difficult to be reached can be applied by brush or roller
- ☐ repair of prime coat by brush
- ☐ finish coats
- ☐ at works by airless spray, roller or brush
- ☐ at site by roller or brush or airless spray.

When applying coating systems by roller, rollers have to be of kind and quality which make an appropriate application possible.

Control areas in accordance with the coating supplier’s instructions have to be applied. For this procedure, a schedule for control areas has to be prepared by the Contractor and coating supplier which corresponds with the requirements of the warranty agreement.

Number and performance of the control areas have to be done in accordance with ISO 12944 part 7 and have to be documented in writing.

No application shall take place either in the condition of the relative humidity not within the given limit or in case of poor weather conditions such as fog, dust, rain, snow, hail or when it can be assumed that such conditions of poor weather will arise within 2 hours after application.

Temperature of the coated parts has always to be above 5 °C and 3 K above dew point.

All specified dry film thicknesses (DFT) are minimum thicknesses.

Welding seams executed at site have to be taped with an adhesive tape of about 30-50 mm after surface preparation (blasting or manual derusting) and prior to application in the manufacturing plant and to be coated with stripping coat.

Chequered plates, nap plates, etc. have not to be covered with adhesive tape, but have to be coated with stripping coat in a dry film thickness of at least 150 µm.

Edging lines on steel structure have to be taped prior to application and after blasting in sufficient width or have to be protected with varnish before application.

Thickness of prime coat may be 50 µm maximum.

During repairing works at site on shop-primed structures, it is important that different coats will have different colour shades. Numbers of layers have to be the same as the original coating system to be used.

Application of temporary primer on structures which have to be insulated has to be in accordance with a sufficient corrosion protection for the period of storage respectively erection time.

Coating Systems								
System-No.	Surface location	Temp. °C	Surface preparation	Coating systems	No. of coats	Generic type	Dry film thickness (DFT) per coat µm	Total DFT µm
1	Structural steel works, piping, vessels, tanks INDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Finish	1	Epoxy High Solid	80	80 160
2	Structural steel works, piping, vessels, tanks OUTDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Intermediate	1 – 2	Epoxy High Solid	160	160
				Finish	1	2-Comp.Polyurethane	50	50 290
3	Piping, tanks, etc. INDOOR and OUTDOOR, Insulated	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	50	50
4	Pumps, motors, other equipment OUTDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Intermediate	1	Epoxy High Solid	110	110
				Finish	1	2-Comp.Polyurethane	50	50 240
5	Pumps, motors, other equipment INDOOR	up to 120	SA 2.5	Primer	1	Zinc-Epoxy	80	80
				Finish	2	Epoxy High Solid	50	100 180
6	Piping, reactors OUTDOOR Insulated	> 120	SA 2.5	Primer	1	Zinc Ethysilicate	75	75
7	Stacks OUTDOOR	< 120	SA 2.5	Primer	1	Zinc Ethysilicate	75	75
		< 200		Finish	2	Silicone Acrylic	50	100 175

Coating Systems								
System-No.	Surface location	Temp. °C	Surface preparation	Coating systems	No. of coats	Generic type	Dry film thickness (DFT) per coat µm	Total DFT µm
8	Steel surfaces Uninsulated	200 - 450	SA 2.5	Primer	1	Zinc Ethysilicate	75	75
				Finish	2	Silicone Aluminium	25	50 125
9	Galvanized surfaces	up to 120	Mechanical cleaning from contaminants and zinc salts by means of washing or steam jetting or sweep-blasting with fine sand	When Finish Coat is required, such as sea climate with chloride exposure	1	Epoxy High Solid*	125	125
10	Steel surfaces permanently in contact with water, also river water splash zone	Medium temp. °C up to 60	SA 2.5	Prime and Finish Coat in One	1	Glassflake reinforced High Solid Epoxy	500	500
11	Plant / Cooling water pipes	GRP, or steel lined concrete pipes with cathodic protection and coating according to AWWA C 203						

* Additional 1 x Finish Coat 2-Comp. Polyurethane, 50 µm, when exposed to UV or weathering conditions and colour retention is required.



TITLE: **2X660 MW MAITREE STPP,
RAMPAL, BANGLADESH**

PROJECT INFORMATION

SPECIFICATION NO. IS-4-TS-702-100-C005
R0- VOLUME - II B

SECTION - B

REV.NO. 0

SHEET 1 OF 2

**BANGLADESH-INDIA FRIENDSHIP POWER
COMPANY (PVT.) LIMITED**

**2x660MW MAITREE STPP, RAMPAL
BANGLADESH**

VOLUME – II B

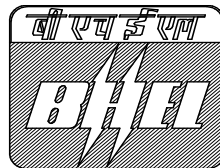
TECHNICAL SPECIFICATIONS

COVER SHED

FOR COAL & LIME STOCK YARD

**SPECIFICATION NO.
IS-TS-702-100-C005 R0**

**SECTION - B
*PROJECT INFORMATION***



**Bharat Heavy Electricals Limited
Industrial Systems Group
IISc, Post
Malleswaram
Bangalore-560012**



TITLE: **2X660 MW MAITREE STPP,
RAMPAL, BANGLADESH**

SPECIFICATION NO. IS-4-TS-702-100-C005
R0- VOLUME - II B

SECTION - B

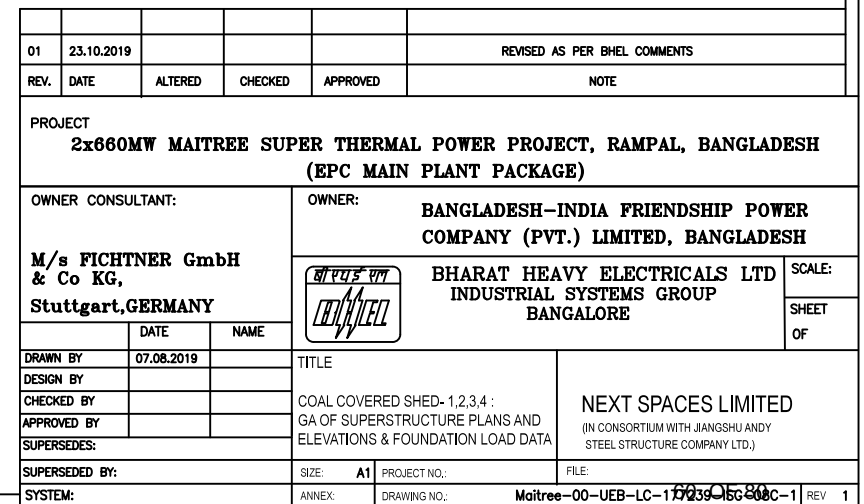
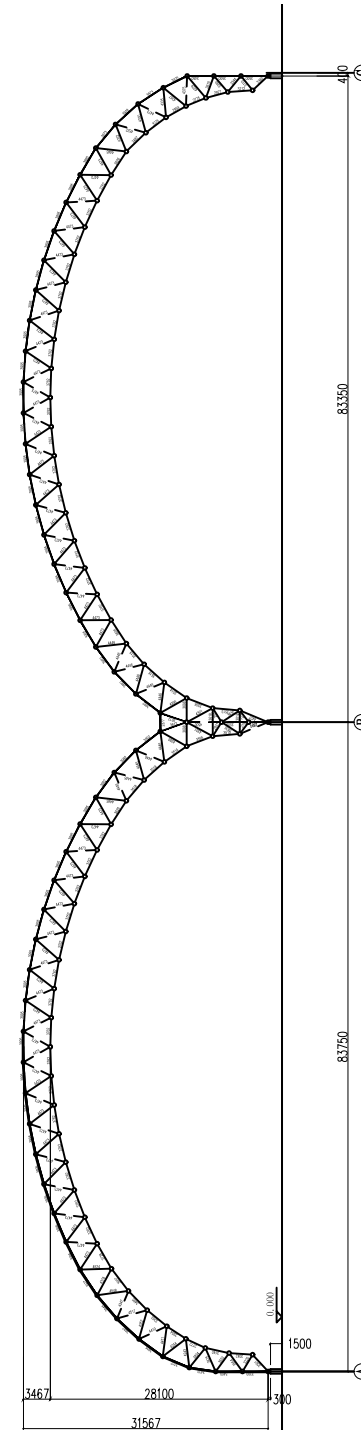
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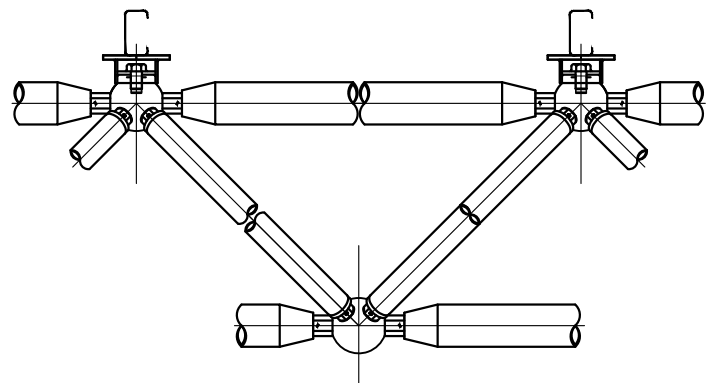
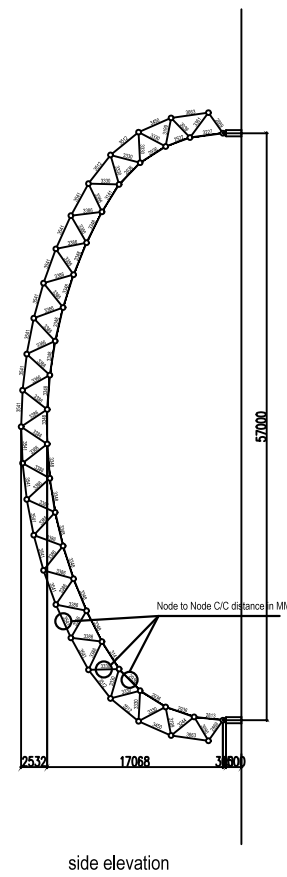
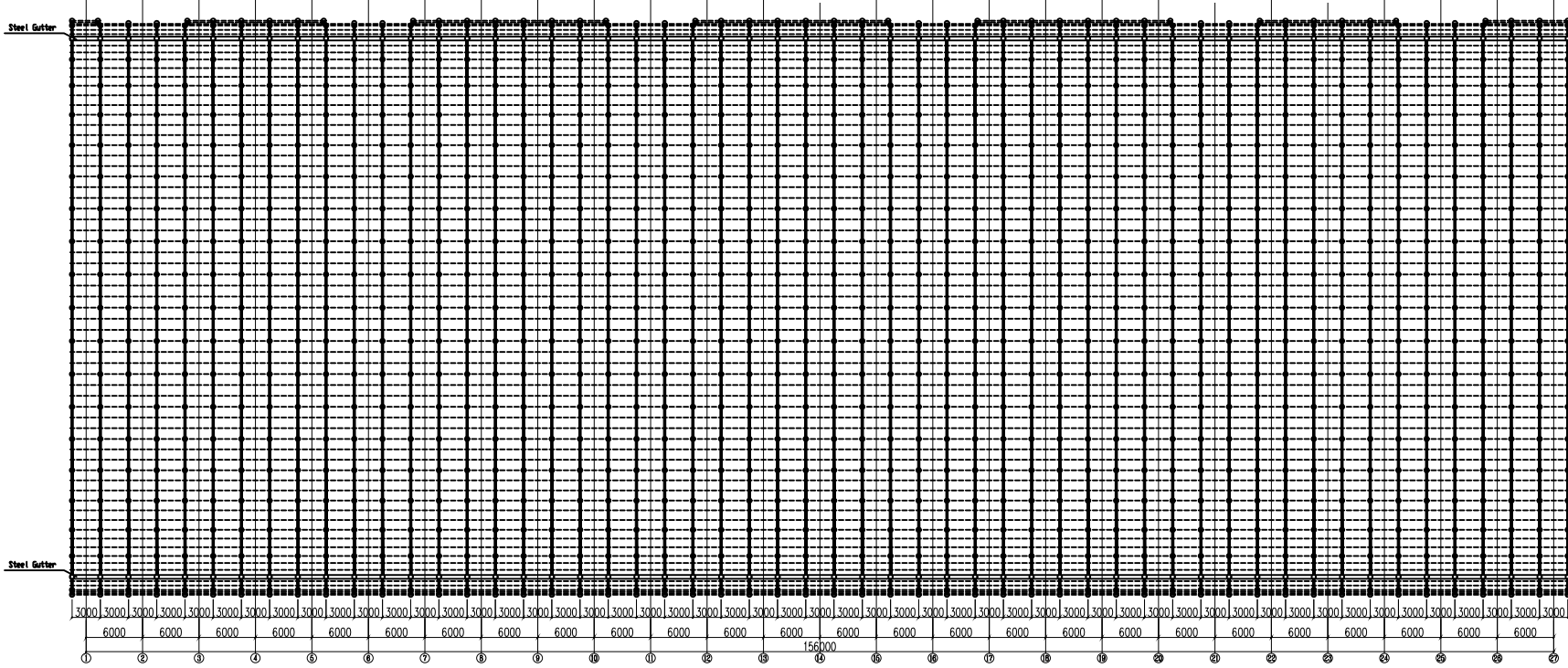
SHEET 2 OF 2

PROJECT INFORMATION

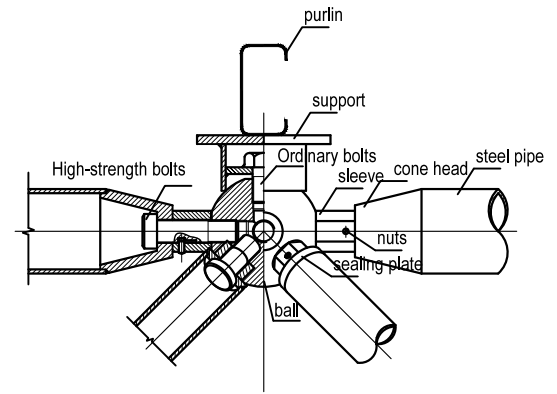
PROJECT INFORMATION

1.	Owner	BANGLADESH-INDIA (PVT.) LIMITED, FRIEND SHIP POWER COMPANY
2.	Project	2 x 660 MW MAITREE KHULNA-STPP
3.	No of Units	2
4.	Consultant	FICHTNER
5.	Location	The site is located approximately 14 km northeast of the Mongla Port and 14 km northwest of the Sundarbans, is infringed by the Passur and Moidara Rivers to the west and south east respectively. The project requires an area of approximately 500 acres.
6.	District	The site is located in Rampal Upazila of the Bagherat District in the Rajnagar Union
7.	Nearest Railway station	Khulna
8.	Nearest Airport	Jessore
9.	Nearest Seaport	Mongla
10.	Accessibility	Currently, the Site is accessible by boat and road.





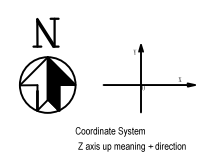
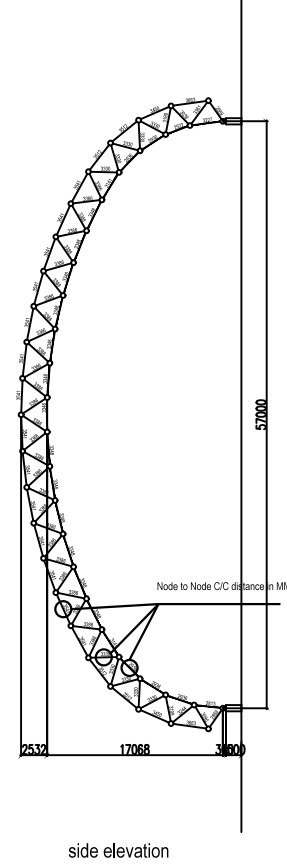
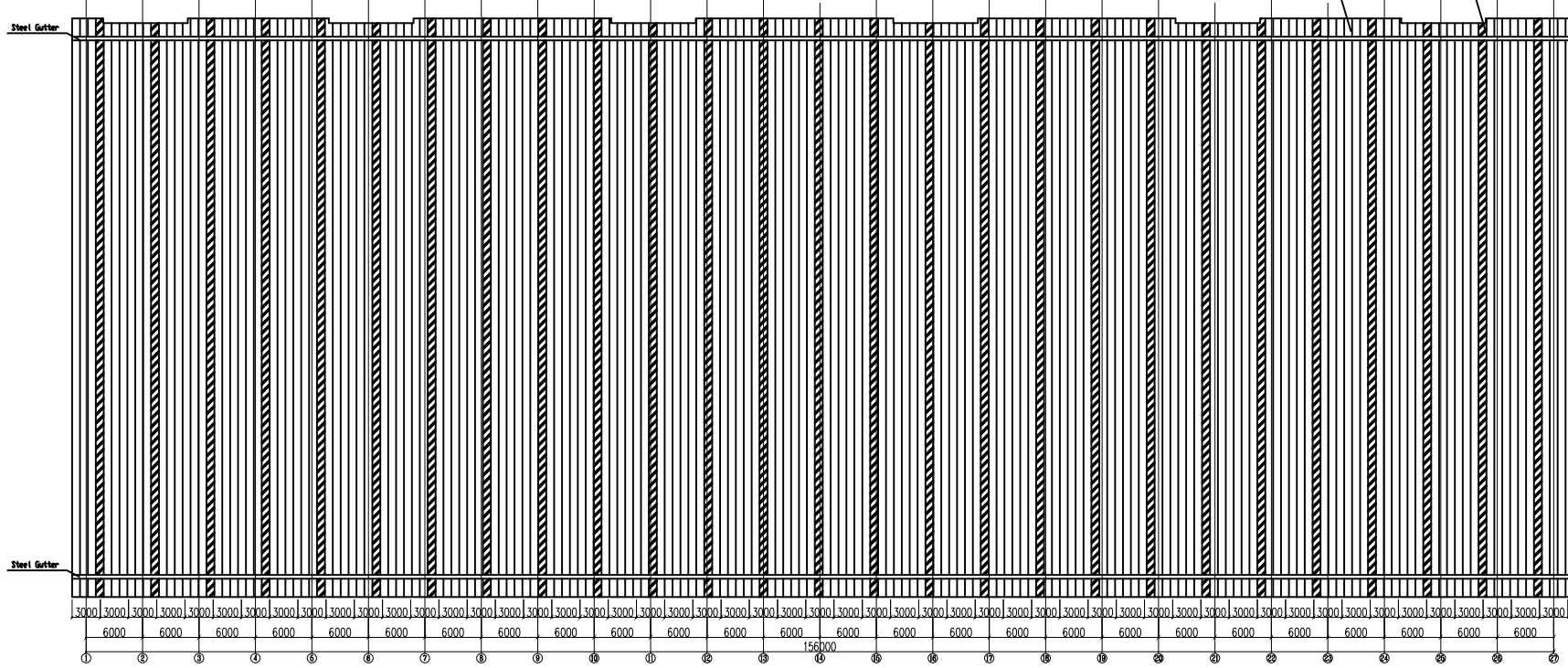
SPACE FRAME CONNECTIONS



BALL NODE-PURLIN

- Legend:
- Purlin Hanger
 - Steel Gutter
 - Main Purlin: C200x100x4 Q355B @3000
 - Secondary Purlin: C160x60x20x2.5 Q355B @1200

ROOF PURLIN LAYOUT



ROOF PANEL/SHEETING LAYOUT WITH SKYLIGHT SYSTEM

01	04.10.2019				REVISED AS PER BHEL COMMENTS
REV.	DATE	ALTERED	CHECKED	APPROVED	NOTE
PROJECT 2x660MW MAITREE SUPER THERMAL POWER PROJECT, RAMPAL, BANGLADESH (EPC MAIN PLANT PACKAGE)					
OWNER CONSULTANT:			OWNER:		
M/s FICHTNER GmbH & Co KG, Stuttgart,GERMANY			BANGLADESH-INDIA FRIENDSHIP POWER COMPANY (PVT.) LIMITED, BANGLADESH		
					SCALE:
			BHARAT HEAVY ELECTRICALS LTD INDUSTRIAL SYSTEMS GROUP BANGALORE		SHEET OF
	DATE	NAME			
DRAWN BY	13.08.2019		TITLE		
DESIGN BY			LIME STOCK COVERED SHED : GA OF SUPERSTRUCTURE PLANS AND ELEVATIONS & FOUNDATION LOAD DATA		
CHECKED BY					
APPROVED BY					
SUPERSEDES:					
SUPERSEDED BY:			NEXT SPACES LIMITED (IN CONSORTIUM WITH JIANGSHU ANDY STEEL STRUCTURE COMPANY LTD.)		
SYSTEM:			SIZE: A1	PROJECT NO.:	FILE:
			ANNEX:	DRAWING NO.:	Maitree-00-UEB-LC-177390-ISO-093
			REV 1		

PART – A: GENERAL CONDITIONS OF CONTRACT (GCC)
Volume - IA

Sl. No.	BHEL STANDARD TERMS	Supplier confirmation	Deviation
01	Our requirement is for <u>use BHEL MAITREE SITE 2X660 MW MAITREE STPP, RAMPAL, BAGERHAT, BANGLADESH</u> <u>Offers are invited to submit in two-parts.</u> <u>Part-I : TECHNICAL-CUM-COMMERCIAL AND UN PRICED BID :</u> Consisting of complete technical details, catalogues, drawings and all commercial terms. (Money values shall not be indicated i.e; un price bid). Following formats are to be filled and submitted in a single cover super scribing as Technical - cum - Commercial and Un Priced Bid, Tender Enquiry No. and Due Date. (i) Technical Specification (Catalogues to be enclosed if any) (ii) BHEL Standard Terms & Conditions (iii) No deviation certificate (Part-D) (iv) Un Price Bid <u>Part-II : PRICE BID</u> Price to be indicated in the format enclosed. (Any preconditions for price will not be accepted and the tender will be rejected). The Technical-Cum-Commercial offer will be opened first, discussed, finalized and only then the price bid of technically acceptable offers will be opened. Tenders will be received up to 15.00 Hours on the said due date. <u>If the vendor submits offer i.e. Technical & Price bid together in single envelope, the offer will be liable for rejection.</u>		
02	If any vendor sought to quote through their agents "They have to inform to BHEL in advance, before opening date. Otherwise the offer will be treated as Unsolicited Offer and same will not be opened".		
03	BHEL keeps its right to reject / load any offer which is having deviations to BHEL Specifications, Standard Terms & Conditions. All the bidders shall submit their offers only by filling the original BHEL tender documents. No other offer will be entertained. In case of Technical-Cum-Commercial bid, copy of the price bid has to be used to indicate commercial terms without price.		
04	Tender shall be strictly in accordance with the tender specifications.		
05	No revision in rates shall be entertained after opening of the tenders.		
06	<u>Warranty /GUARANTEE (As per cl 38.0 of SCC)</u> The material supplied will be covered under 12 MONTHS guarantee. Defects if any found within this period shall be replaced by supplier free of cost within one month notice.		

Sl. No.	BHEL STANDARD TERMS	Supplier confirmation	Deviation
07	a. SECURITY DEPOSIT BANK GAURANTEE: NOT APPLICABLE b. PERFORMANCE BOND/ PERFORMANCE BANK GUARANTEE (PBG): NOT APPLICABLE		
07	Terms of payment : AS PER SCC VOLUME-IC, R-0 CL. NO.-32.0		
08	TERMINATION OF CONTRACT If at any time during the currency of the order, BHEL comes to conclusion that the tenderer is not discharging his obligations according to the terms of this contract, then BHEL will be at liberty to terminate the contract after giving 07 days' NOTICE BY Regd. A.D. post and the tenderer shall comply with the requirement of such notice.		
09	Liquidated Damage (LD) : It is to be clearly understood among the parties to the contract that the delivery of the goods specified in the purchase order should be made within the time limit prescribed. If the party fails to deliver the stores or any part thereof within the period fixed for delivering the quantity of materials, purchase may without any prejudice to the right of the bidder, make liable to an LD shall be 0.5% of basic value of undelivered portion per week of delay or part thereof subject to a maximum of 10% of the total Contract value(i.e. excluding elements of taxes) For this purpose, the period of delay shall be the delay attributable to the Fabricator for the completion of job as per contract. Contract value for this purpose, shall be the final executed value exclusive of Extra Works, Supplementary/Additional Items and PVC (if any). In case of LD recovery, the applicable GST shall be recoverable from the supplier.		
10	Inspection : BHEL reserves the right to inspect the type, routine and acceptance tests on one sample for each type as per applicable standards. The sample shall be drawn at the rate of one per type and size for every lot offered for inspection. Inspection call has to be raised with a minimum seven days' notice.		
11	TAXES & DUTIES : AS PER SPECIAL CONDITIONS OF CONTRACT (SUPPLY)- VOLUME-IC, R-0 CL. NO.- 28.0		
12	The quotation should be valid at least for a period of 180 days from the tender due date of submission for placement of order (extended, if any). Price Variation Clause will not be entertained.		
13	Transit Insurance(As per clause no-15.0 of sCC) Transit insurance charge is to be borne by BHEL. BHEL shall arrange comprehensive MCE insurance policy. The vendor shall be responsible for timely intimation of dispatch particulars to the underwriter and BHEL, failing which the vendor shall be held responsible for the, loss/damage/theft/ of materials during transit. Vendor shall intimate dispatch particulars to the underwriter at the address as mentioned in the PART B before dispatch of the material with copy to BHEL Site office.		

Sl. No.	BHEL STANDARD TERMS	Supplier confirmation	
14	Force Majeure : This force majeure is herein defined as any cause which is beyond the control of the tenderer which they would not have foreseen or with a reasonable amount of diligence could not have foreseen and which subsequently affect the performance of the contract such as SRCC (strike riot and civil commotion), earthquake, flood, acts of god, acts of any government, domestic or foreign including but not limited to war. The tenderer shall not be liable for delay in performing his obligation resulting from any force majeure clause as referred to and/or defined above. The date of completion will be subject to hereinafter provided be extended by a reasonable time even though such cause may occur after tenderer's performance of his obligation has been delayed for other causes.		
15 15.1 15.1.1	Arbitration & Conciliation Arbitration: Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause 15.2 herein below or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, commence arbitration in respect of such Dispute by issuance of a notice in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice'). The Notice shall contain the particulars of all claims to be referred to arbitration in sufficient detail and shall also indicate the monetary amount of such claim. The arbitration shall be conducted by a sole arbitrator to be appointed by the Head of the BHEL Power Sector Region issuing the Contract within 60 days of receipt of the complete Notice. The language of arbitration shall be English.		
	The Arbitrator shall pass a reasoned award. Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder as in force from time to time shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Kolkata (the place from where the contract is Issued). The Contract shall be governed by and be construed as per provisions of the laws of India. Subject to this provision 15.1.1 regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.		
15.1.2 15.1.3 15.1.4	In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable: In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018 as amended from time to time. The cost of arbitration shall initially be borne equally by the Parties subject to the final allocation thereof as per the award/order passed by the Arbitrator. Notwithstanding the existence of any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner unless the dispute inter-alia relates to cancellation, termination or short-closure of the Contract by BHEL.		

15.2	Conciliation: If at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee (IEC) to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators. Notes: 1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators. 2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure available www.bhel.com. The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC. The Contractor hereby agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Procedure to this GCC from time to time and confirms that it shall be bound by such amended or modified provisions of the Procedure with effect from the date as intimated by BHEL to it. No Interest payable to Contractor Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.		
15.3			
16	Jurisdiction : All disputes or differences arising under out of or in connection with the purchase order shall be subject to the exclusive jurisdiction of court at Kolkata.		

17	Rights of BHEL: (A) To withdraw any portion of work/supply and/or to restrict / alter the quantum of work/supply as indicated in the contract during the progress of work/supply and get it done through other agency and/or to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergency reasons / BHEL's obligation to its customer. (B) To terminate the contract or withdraw portion of work/supply and get it done through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases: i) Contractor/Supplier's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor/supplier including unexecuted portion of work/supply does not appear to be executable within balance available (#) period considering its performance of execution. ii) Withdrawal from or abandonment of the work by contractor before completion of the work as per contract. iii) Non-completion of work/Non-supply by the Contractor / Supplier within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the contractor/supplier. iv) Termination of Contract on account of any other reason (s) attributable to Contractor/Supplier. v) Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of contract or part thereof by BHEL. vi) Non-compliance to any contractual condition or any other default attributable to Contractor/Supplier. (#) In-case inputs from BHEL/Customer are likely to be delayed or are actually delayed, this delay may also be taken into account while considering balance period available for execution of Contract. (C) Risk & Cost Amount against Balance Work: Risk & Cost amount against balance work shall be calculated as follows: $\text{Risk \& Cost Amount} = [(A-B) + (A \times H/100)]$ Where, A= Value of Balance scope of Work/Supply (*) as per rates of new contract B= Value of Balance scope of Work/Supply (*) as per rates of old contract being paid to the contractor / supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any. H = Overhead Factor to be taken as 5 In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero). (*) Balance scope of work / supply (in case of termination of contract): Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work / Supply for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities. Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities. Substitute / extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute / extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions. However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose. NOTE: In-case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work / supply' for calculating Risk & Cost amount.		
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Sl. No.	BHEL STANDARD TERMS	Supplier confirmation	Deviation
	(D) LD against delay in executed work / supply in case of Termination of Contract : LD against delay in executed work / supply shall be calculated in line with LD clause as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence), for the delay attributable to contractor / supplier. For this purpose, contract value shall be taken as Executed Value of work / supply for the purpose of limiting the maximum LD value. Method for calculation of "LD against delay in executed work / supply" is given below. i) Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor / supplier = T1 ii) Let the value of executed work / supply till the time of termination of contract = X iii) Let the Total Executable Value of work / supply for which inputs/fronTS were made available to contractor / supplier and were planned for execution till termination of contract = Y iv) Delay in executed work / supply attributable to contractor/supplier i.e. $T2 = [1 - (X/Y)] \times T1$ v) LD shall be calculated in line with LD clause [as per GCC/SCC/TCC/Special note/any other annexure of tender document (in compliance with order of precedence)] of the Contract for the delay attributable to contractor / supplier taking "X" as Contract Value and "T2" as period of delay attributable to contractor/ supplier. (E) Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor Following sequence shall be applicable for recoveries from contractor / supplier on whom risk & cost has been invoked, after informing the contractor / supplier of the total proposed recovery : a) Dues available in the form of Bills payable to contractor / supplier, SD, BGs against the same contract. b) Demand notice for deposit of balance recovery amount shall be sent to contractor/ supplier, if funds are insufficient to effect complete recovery against dues indicated in (a) above. c) If contractor / supplier fails to deposit the balance amount to be recovered within the period as prescribed in demand notice, following action shall be taken for balance recovery: i) Dues payable to contractor / supplier against other contracts in the same Region / Unit shall be considered for recovery. ii) If recovery cannot be made out of dues payable to the contractor / supplier as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor / supplier. iii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor / supplier.		
18	DISCOUNTS Discounts offered by the vendor in price shall not be entertained by BHEL. The vendor should factor in his discount in the price offer only. In spite of the same, if a discount is offered by the bidder, the same shall not be considered for evaluation of the offer, but purchase order shall be issued on bidder's final discounted price.		
	LOADING FACTORS FOR DEVIATION TO BHEL STANDARD TERMS & CONDITIONS		
19	Penalty Clause : Non acceptance of LD Clause will attract maximum 10% loading on the offer and accordingly proportionate percentage will be loaded for accepting less percentage of LD clause. Example : If the supplier has accepted for maximum 5% LD clause, then balance 5% will be loaded.		
20	For all other Terms & Conditions, if the offer is not conforming to the same, BHEL at its discretion shall load the same and the loading pattern shall be intimated to the bidders before price bid opening. However BHEL reserves the right to cancel a bid in case of non - acceptance of any terms and conditions finally arrived before price bid opening.		
21	The offers not complying the above Terms & Conditions may not be accepted.		

INTEGRITY PACT**Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions:

अभिजीत पान / AVIJIT PAN

उप महाप्रबंधक (क्रय) / Dy. General Manager (PUR)

बी. एच. ई. एल./ पी.एस.ई.आर / BHEL / PSER

डी जे - 9/1, सॉल्ट लेक / DJ-9/1, SALT LAKE

कोलकाता-700 091/ KOLKATA-700 091

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/ Bid Security.

- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to

Avijit Pan

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demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors

- 6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors:
- 6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 - Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.


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डी जे - 9/1, सॉल्ट लेक / DJ-9/1, SALT LAKE

- 8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.9 IEM should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.
- 8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.12 The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

- 9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.
- 9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.


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डी जे - 9/1, सॉल्ट लेक / DJ-9/1, SALT LAKE

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- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.



For & On behalf of the Principal

अभिजीत पान / AVIJIT PAN
 उप महाप्रबंधक (क्रय) / Dy. General Manager (PUR)
 (Office Seal) / पी.एस.ई.आर / BHEL / PSER
 डी जे - 9/1, सॉल्ट लेक / DJ-9/1, SALT LAKE
 कोलकाता-700 091 / KOLKATA-700 091

For & On behalf of the Bidder/

Contractor

(Office Seal)

Place-----

Date-----

Witness: _____

उज्ज्वल बाजलादार / Ujjwal Howlader
 (Name & Address) / पी.एस.ई.आर / Sr. Engineer (PUR)
 बी. एच. ई. एल. / पी.एस.ई.आर / BHEL PSER
 डी.जे-9/1, सॉल्ट लेक / DJ-9/1, Salt Lake
 कोलकाता-700 091 / Kolkata-700 091

Witness: _____

(Name & Address) _____

FORMS & PROCEDURES

Form No: F-01 (Rev 00)

OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER (To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

Offer Reference No:.....

Date:.....

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : Submission of Offer against Tender Specification No:

I/We hereby offer to carry out the work detailed in the Tender Specification issued by Bharat Heavy Electricals Limited, Power Sector-....., in accordance with the terms and conditions thereof.

I/We have carefully perused the following listed documents connected with the above work and agree to abide by the same.

1. Amendments/Clarifications/Corrigenda/Errata/etc issued in respect of the Tender documents by BHEL
2. Notice Inviting Tender (NIT)
3. Price Bid
4. Technical Conditions of Contract
5. Special Conditions of Contract
6. General Conditions of Contract
7. Forms and Procedures

Should our Offer be accepted by BHEL for Award, I/we further agree to furnish 'Security Deposit' for the work as provided for in the Tender Conditions within the stipulated time as may be indicated by BHEL.

I/We further agree to execute all the works referred to in the said Tender documents upon the terms and conditions contained or referred to therein and as detailed in the appendices annexed thereto.

I/We have deposited/depositing herewith the requisite Earnest Money Deposit (EMD) as per details furnished in the Check List.

Authorised Representative of Bidder

Signature :

Name :

Address :

Place:

Date:

FORMS & PROCEDURES

Form No: F-02 (Rev 00)

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration by Authorised Signatory**

Ref : 1) NIT/Tender Specification No:
2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above Tender Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned tender and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized
Signatory of the Bidder)

Date:

Enclosed : Power of Attorney

FORMS & PROCEDURES

Form No: F-05 (Rev 00)

DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration for relation in BHEL**

Ref : 1) NIT/Tender Specification No:,

I/We hereby submit the following information pertaining to relation/relatives of Proprietor/Partner(s)/Director(s) employed in BHEL

Tick(✓) any one as applicable:

1. The Proprietor, Partner(s), Director(s) of our Company/Firm DO NOT have any relation or relatives employed in BHEL

OR

2. The Proprietor, Partner(s), or Director(s) of our Company/Firm HAVE relation/relatives employed in BHEL and their particulars are as below:

(i)

(ii)

Signature of the Authorised Signatory

Note:

1. Attach separate sheet, if necessary.
2. If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable action against the Bidder/Contractor.

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of the Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at BHEL House, Siri Fort, Asiad, New Delhi – 110049 through its Unit at Bharat Heavy Electricals Limited, Power Sector Eastern Region, BHEL Bhawan, Plot No 9/1, DJ Block, Sector-II, Salt lake City, Kolkata – 700091 having awarded to (Name of the Vendor / Contractor / Supplier) having its registered office at _____¹ hereinafter referred to as the 'Contractor/Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated² valued at Rs.....² (Rupees -----)for <Nature of Work>³ (hereinafter called the 'Contract') and the Contractor having agreed to provide a Contract Performance Guarantee, equivalent to% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we,, (hereinafter referred to as the Bank), having registered/Head office at and inter alia a branch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer a maximum amount Rs ----- (Rupees -----)⁴ without any demur, immediately on a demand from the Employer, .

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor/ Supplier in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the contractors/supplier shall have no claim against us for making such payment.

We thebank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Contractor/Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor/Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force upto and including.....⁵ and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Contractor/Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the⁶ (3 months more than the present date of validity of Bank Guarantee) we shall be discharged from all liabilities under this guarantee thereafter.

We, BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed.....⁷
- b) This Guarantee shall be valid up to⁸
- c) Unless the Bank is served a written claim or demand on or before⁹ (3 months more than the present date of validity of Bank Guarantee) all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

Any claim or dispute arising under the terms of this document shall only be enforced or settled in the courts of at Kolkata only.

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

¹ NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.

² DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

³ PROJECT/SUPPLY DETAILS

⁴ BG AMOUNT IN FIGURES AND WORDS

⁵ VALIDITY DATE

⁶ DATE OF EXPIRY OF CLAIM PERIOD

⁷ BG AMOUNT IN FIGURES AND WORDS.

⁸ VALIDITY DATE

⁹ DATE OF EXPIRY OF CLAIM PERIOD

Note:

1. Units are advised that expiry of claim period may be kept 2/3 months after validity date.

2. In Case of Bank Guarantees submitted by Foreign Vendors-

- a. **From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.

- b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)**
- b.1** In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank (BHEL's Consortium Bank). It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
- b.2** **In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank** (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.
- b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). In case, of Foreign Vendors, the BG Format provided to them should clearly specify the same.
- b.4** The BG should clearly specify that the demand or other document can be presented in electronic form.

List of Consortium Banks *			
	Nationalised Banks		Nationalised Banks
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		Public Sector Banks
3	Bank of Baroda	20	IDBI
4	Canara Bank		Foreign banks
5	Corporation bank	21	CITI Bank N.A
6	Central bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Limited
8	Indian Oversea Bank	24	Standard Chartered Bank
9	Oriental bank of Commerce	25	J P Morgan
10	Punjab National Bank		
11	Punjab & Sindh Bank		Private banks
12	State Bank of India	26	Axis Bank
13	State Bank of Hyderabad	27	The Federal Bank Limited
14	Syndicate Bank	28	HDFC
15	State Bank of Travancore	29	Kotak Mahindra Bank
16	UCO Bank	30	ICICI
17	Union Bank of India	31	Indusind Bank
18	United Bank of India	32	Yes Bank

* wef 22.03.2016