BHARAT HEAVY ELECTRICALS LTD.

(TRANSMISSION BUSINESS GROUP)

TERMS AND CONDITIONS FOR INDIGENOUS TENDER ENQUIRY

This Format is to be submitted in original duly signed by bidder. Deviation, if any, is to be brought out clearly in Schedule of Commercial Deviation giving clause-wise deviation. Any condition / clarification / deviation mentioned elsewhere may not be accepted.

Sr. No.	Standard Terms & Conditions	Enquiry No.- 256E027 Dated- 17.05.2016 Due on – 03.06.2016
1.	**INSTRUCTION TO BIDDERS:** a) Quotations are invited for the items mentioned in the enquiry. b) **The tenders are invited and evaluated online through e-Procurement System. The bidder shall submit his response through bid submission to the tender on e-Procurement platform at https://bheleps.buyjunction.in.** **Foreign and indigenous vendors participating through open tenders/limited tender (Through E-procurement system) will necessarily have to buy Class-III digital certificates (DSCs) issued by certifying agencies in India.** **Procedure of getting obtaining DCSs can be down loaded from Important Links on link http://www.bhel.com/tender/tender_home.php or may be obtain from concern executive through email request.** Successful bidder shall be responsible for completion of the contract in all respects. Techno commercial offers shall be opened through the E-Procurement portal. However this tender may be finalized through online Reverse Auction. Bidders are request to quote their most competitive prices through the online e-procurement portal / system. In case of any difficulty in operating the E-Tendering System, please call up our developer's Help Desk m Junction Services Ltd. at 033-6601 1717 or BHEL representative. Please ensure the submission of your most competitive offer before the due date in the E-Tendering Portal to avoid last minute hustle. **c)** The same shall be opened at 02.30 PM on the same day. Tenders received late may be rejected. Bids shall be submitted as per E-procurement system. Any other mode of submission of offer against aforesaid enquiry will not be entertained d) For any technical clarification please contact : **Shri Shyam Vihari, Dy. Manager (TBEM)** **BHARAT HEAVY ELECTRICALS LIMITED** **TRANSMISSION BUSINESS GROUP** **TOWER A, 5TH FLOOR, ADVANT NAVIS IT BUSINESS PARK,** **PLOT NO-7, SECTOR-142, EXPRESSWAY NOIDA,** **NOIDA-201305,**	

DISTT- GAUTAM BUDH NAGAR, UP, INDIA
Phone : 0120 – 6748544
E-mail : svihari@bhel.in

For any Commercial clarification, please contact:

SH. S.C. SHIVHARE, SR. MGR.(TBMM)
BHARAT HEAVY ELECTRICALS LIMITED
TRANSMISSION BUSINESS GROUP
TOWER A, 5TH FLOOR, ADVANT NAVIS IT BUSINESS PARK,
PLOT NO-7, SECTOR-142, EXPRESSWAY NOIDA,
NOIDA-201305,
DISTT- GAUTAM BUDH NAGAR, UP, INDIA
Phone : 0120-6748473 / 0120-6748471
Email: shashirai@bhel.in / scshivhare@bhel.in / a.kumar@bhel.in

e) Price bid should contain only rates / prices, otherwise bid shall be liable for rejection.

f) Price bid submitted along with the bid shall remain valid up to validity of offer. Unsolicited Supplementary / Revised price bid submitted during validity period of offer, unless asked by BHEL, shall not be considered. Withdrawal of quotation by the bidder, at any stage after its opening, may entail blacklisting of vendor.

g) Enquiry condition for where the scope against this tender includes Installation and Commissioning of the equipment / material:

There will be separate contract awarded for Supply portion and Site execution portion. For Supply portion Commercial Terms and Conditions mentioned herein shall be applicable & for Site execution portion Terms and Conditions for Installation services shall be applicable. However, any breach in either of the contracts shall be deemed as the breach of other contract also.

2. PRICES:

A. The prices to be quoted are on **FIRM** basis

B. The prices shall be on domestic basis.

C. The prices are to be quoted on Ex-works basis. The break-up of prices shall be as under : -

a) **Ex-works Price**: Ex-Works price including packing & forwarding Charges.

b) **Excise Duty**: Extra as applicable to be quoted as percentage in both un-price bid and price bid.

c) **Sales Tax**: ST / VAT / CST (against C form) as applicable to be quoted extra as percentage in un-priced and price bid. In case of inter-state sale-in-transit supplier/vendor will have to provide E1/E2 form.

d) **Entry tax / Octroi Charges**: Any Entry tax / Octroi applicable at destination /

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	destination state shall be paid extra on proof of such payment. e) **Freight & Insurance**: Freight and Transit Insurance for door delivery up to destination/site is to be quoted. Note: The purchase order shall be placed on Ex-works basis. **"BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance 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.** **In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue."** **Further to above clause, please refer attached Annexure II for Terms & Conditions Of Reverse Auction Page 1 & 2)**	
3.	**TERMS OF PAYMENT:** 100% payment along with taxes, duties, Freight & Insurance within 60 days (45 days for MSE Vendor) from the date of receipt of complete invoice **in TBG, BHEL** with following documents in 3 sets (Original + 2 copies). • LR duly endorsed in the name of Customer by BHEL-Site • Material Receipt certificate issued by Site as per attached format • Excise invoice (where ED re-imbursement is required) • Packing List (Case-wise) • Copy of Performance Bank Guarantee • Transit insurance Certificate from insurance Comp or intimation of Transit Insurance duly endorsed by insurance Comp. • MICC issued by BHEL • Guarantee Certificate	
4.	**INTEREST LIABILITY:** In case of any delay in payment due to any reason, BHEL shall not pay any interest on delayed payment.	

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5.	**GUARANTEE:** The equipment / material shall be guaranteed for 18 months from the date of delivery or 12 months from the date of commissioning, whichever is earlier. The defective material / component shall be replaced free of cost at site.	
6.	**PERFORMANCE BANK GUARANTEE:** Supplier shall submit BG within 30 Days of P.O. placement for a value of 2% of Ex-works value of Purchase Order Rev-0 and valid for a period of 18 months + 3 months claim period (i.e. Total 21 months) from the date of last delivery. Further BG shall be released only after ensuring submission of documents as per clause 3.4 of Technical specification (Final Engineering Documentation).	
7.	**FINAL ENGINEERING DOCUMENTATION:** Final Engineering Documentation (clause No. 3.4 of Tech Spec No. TB-385-618-002-765-BHUJ Rev 00 for 765 kV GI Structure as called in the specification is to be submitted within 3 months from the date of dispatch of material. Bank Guarantee pertaining to Purchase Order shall be released only after certification of documents submission as per Clause No. 3.4 of Tech Spec No. of Tech Spec No. TB-385-618-002-765- BHUJ Rev 00 for 765 kV GI Structure	
8.	**INSPECTION:** BHEL / customer / Third party shall inspect equipment / material before despatch. Stage inspection during manufacturing may also be carried out. Material to be despatched only after getting Despatch Clearance from BHEL. Supplier shall send inspection call on prescribed format only, with an advance notice of 15 days. Vendor shall forward all inspection and test reports for issue of MICC by BHEL. Road Permit Form request should also be given along with Inspection call.	
9.	**DESPATCH DOCUMENTS:** Following despatch documents are to be immediately sent to purchaser on despatch: • Copy of LR • Packing List (Case-wise) • Insurance Certificate • Guarantee Certificate	
10.	**DELIVERY REQUIREMENT: <u>30.09.2016</u>:** However, vendor has to quote their best possible delivery plan in activity schedule to meet the tender delivery requirement. In case, BHEL's delivery requirement is not met by vendor(s), then a chance may be given to all such vendors to review their quoted delivery schedule in line with BHEL's delivery requirement. However, if vendor fails to meet the requisite delivery plan, then BHEL reserves the right not to consider the offer of such vendor(s). Time for conduction of type test, if required, is to be separately indicated. Note: LR date or Invoice date whichever is later shall be considered as delivery date.	

Sr. No.	Standard Terms & Conditions	Enquiry No.- 256E027 Dated- 17.05.2016 Due on – 03.06.2016
11.	**DELAYED DELIVERY:** In case of delay in execution of order beyond the lot wise contractual delivery, an amount of ½ % of total Ex-Works Value of Delayed Lot per week or part there-of subject to maximum of 10% Ex-Works Value of Delayed Lot will be levied.	
12.	**VALIDITY:** The offer shall be valid for 120 days from the due date of opening.	
13.	**QUANTITY VARIATION:** **+/- 30 %** **As per Clause No. 1.3 of** Tech Spec No. TB-385-618-002-765- BHUJ Rev 00 for 765 kV GI Structure	
14.	**ACCEPTANCE / REJECTION OF TENDER:** BHEL reserves the right to reject in full or part, any or all tender without assigning any reason thereof. BHEL also reserves right to vary the quantities mentioned in the tender.	
15.	**EVALUATION:** Comparative statement shall be prepared based on total quantity basis unless otherwise indicated in the enquiry. Evaluation of offers shall be done on the basis of delivered cost to BHEL.	
16.	**DEVIATION:** The bids having deviation(s) w.r.t. tender are liable for rejection. However, BHEL, at its discretion, may load the prices for evaluation of offer as per Loading Criteria for identified deviations mentioned in clause No. 25.	
17.	**ARBITRATION:** All cases of disputes emanating from and relating to this contract shall be referred to the sole arbitration of Unit Head / GM, BHEL or any other person nominated by him(including an employee of BHEL, even though he had to deal with the matter relating to this contract in any manner) to act as sole arbitrator. The arbitration shall be in accordance with 'The Arbitration and Conciliation Act 1996' and the rules there under as amended from time to time. The arbitrator shall give a reasoned award. The decision of the arbitrator shall be final & binding upon both the parties. The venue of arbitration shall be Delhi.	
18.	**LEGAL SETTLEMENT:** Subject to clause 17 hereinabove this contract shall be subject to exclusive jurisdiction of courts at Delhi.	
19.	**SUBCONTRACTING :** In case further subcontracting of BHEL order or part thereof is envisaged by supplier, the same can be done after written permission is obtained from BHEL. However it shall not absolve the supplier of the responsibility of fulfilling BHEL purchase order requirements.	
20.	**RISK PURCHASE :** In case the successful bidder fails to supply or fails to comply with the terms & conditions of the purchase order, BHEL reserves the right to source such material/ component /	

	equipment/ system from any other agency at the risk and cost to BHEL of the successful bidder.
21.	**ADJUSTMENT OF RECOVERY :** Any amount payable by the supplier under any of the condition of this contract shall be liable to be adjusted against any amount payable to the supplier under any other works / contract awarded to him by any BHEL unit. This is without prejudice to any other action as may be deemed fit by BHEL.
22.	**FORCE MAJEURE CONDITION :** If by reason of war, civil commotion, act of god, Government restrictions, strike, lockout which are not in control of supplier the deliveries are delayed, supplier shall not be held responsible.
23.	**TECHNICAL SPECIFICATION :** Tech Spec No. TB-385-618-002-765- BHUJ R-00 for 765 kV GI Structure GALVANIZATION shall be 900 GMS/SQM and 610 GMS/SQM for BHUL POOL SS (NEW) and BANASKANTHA SS EXT respectively.
24.	**QUALITY PLAN :** For Projects from PGCIL & NTPC, the standard QAP of G.I. Lattice Structures of respective customer would be applicable. For other projects supplier to take confirmation from BHEL regarding applicability of quality plan.
25.	**LOADING CRITERIA FOR DEVIATIONS TAKEN BY BIDDER ON:** **25.1.TERMS OF PAYMENT**: If a bidder asks for payment within specified no. of days from the date of receipt of invoice with complete documents as per "Terms of Payment" at sr. No. 3 above, loading to be done as follows: a) Base rate of SBI (as applicable on the date of techno commercial bid opening) + 6 % shall be considered for loading for the period of relaxation sought by the bidder. b) 60 days - No loading **25.2. DELAYED DELIVERY / PENALITY DUE TO DELAYED DELIVERY**: Loading for not accepting this clause / accepting only on un delivered portion shall be the maximum amount specified in this clause.
26.	**Pre- Qualification Criteria:** i) Vendor should have PGCIL approved valid MQP as on date of **original Technical Bid opening,** if applicable. Vendor has to submit valid MQP if applicable along with approval letter with the offer. ii) Bidder must be a PGCIL approved supplier **as on date of original Technical Bid opening** for 765 kV Class under category of Substation Structure- LATTICE Type. Vendor has to submit documentary proof for the same with the offer. iii) Vendor should follow Technical specification. The offers of such vendors who are not meeting above criteria shall be liable for rejection.
27.	**INTEGRITY PACT :** The Integrity Pact shall be issued as part of the bidding documents and shall be returned by the bidder along with the techno-commercial bid, duly signed by the authorized official of the bidder/ vendor/ contractor and authorized official of BHEL will form part of the Purchase

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	order/ contract. 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. **Name of Independent External monitor to be considered (IEM):** Mrs. Pravin Tripathi IA & AS (Retd.) D-243, Anupam Gardens Lane IB, Neb Sarai, Sainik Farms, New Delhi- 110068 Phone- +91 11 29533206/29531715 Email – pravin.tripathi@gmail.com	
28	**QUANTITY DIVISION FOR AWARD OF CONTRACT:** The contract shall be entered with 02 Vendors with the quantity distribution in the ratio of 60 % and 40 % (for each site) between Original L1 bidder and the bidder who accepts counter offer of L-1 rates in the sequence of L-2, L-3 and so on. In case, no bidder accepts counter offer of L-1 rates, then 100 % quantity shall be awarded to the original L1 bidder.	

ACTIVITY SCHEDULE FOR SUPPLY OF LATTICE STRUCTUR

ENQUIRY NO.256E027 Dated- 17.05.2016 Due on – 03.06.2016

SL. NO.	ACTIVITY	TIME ALLOTED [in weeks]	CUMULATIVE TIME FROM RECEIPT OF INPUTS FROM BHEL [in weeks]	SCOPE
1.	MANUFACTURING OF PROTO			BY SUPPIER
2.	PROTO INSPECTION			BHEL SCOPE
3.	PROTO CORRECTED DRAWINGS SUBMISSION & BOM'S FOR APPROVAL			BY SUPPIER
4.	APPROVAL OF PROTO CORRECTED DRAWINGS & BOM'S			BHEL SCOPE
5.	MASS PRODUCTION			BY SUPPIER
6.	INSPECTION			BHEL SCOPE
7.	ISSUE OF MICC			BHEL SCOPE
8.	DESPATCH			BY SUPPIER

1. Inspection call to be issued 2 weeks in advance.
2. Supplier must ensure the completeness and correctness of the requisite documents before submission for approval. Delay in approval on account of incomplete / inadequate information shall be the responsibility of supplier.
3. Inspection call should be given in the prescribed format only. Inspection calls not in the prescribed format shall not be entertained.
4. Qty to be offered for inspection should be in accordance within Delivery-schedule – lot. BHEL reserves the right not to entertain multiple inspection calls for a Delivery – lot and delay on this account shall be the responsibility of Supplier.

Signature & Seal of

Supplier

Date:

SCHEDULE OF COMMERCIAL DEVIATION

Ref: TBMM/GILS / PGCIL BB,765 kV ENQUIRY NO.-256E027 Dated- 17.05.16

This Format is to be submitted in original duly signed by bidder.

The following are the devitions/variations/exceptions from the Terms and Conditions :-

SL. NO.	CLAUSE NO. OF TERMS AND CONDITIONS	STATEMENT OF DEVIATION

In case, this schedule is not submitted, it will be presumed that the equipment /material to be supplied under this contract is deemed to be in compliance with the Terms and Conditions.

If there is NIL deviation,even then the format to be filled as NIL DEVIATION.

Note : Continuation Sheets of like size and format may be used as per the Bidder's Requirement and shall be annexed to this schedule.

Signature of the authorised representative of

Place : ……

Date : ……

Bidder's name :……

Designation:……..

Company Seal:……

SCHEDULE OF TECHNICAL DEVIATION

Ref: TBMM/GILS / PGCIL BB,765 kV ENQUIRY NO.-256E027 Dated- 17.05.16

This Format is to be submitted in original duly signed by bidder.

The following are the devitions/variations/exceptions from the Terms and Conditions :-

SL. NO.	CLAUSE NO. OF TERMS AND CONDITIONS	STATEMENT OF DEVIATION

In case, this schedule is not submitted, it will be presumed that the equipment /material to be supplied under this contract is deemed to be in compliance with the Terms and Conditions.

If there is NIL deviation,even then the format to be filled as NIL DEVIATION.

Note : Continuation Sheets of like size and format may be used as per the Bidder's Requirement and shall be annexed to this schedule.

Signature of the authorised representative of

Place : ……

Date : ……

Bidder's name :……

Designation:……..

Company Seal:……

SCHEDULE OF PRICE (FOR 765 kV)

PROJECT :- PGCIL BHUJ & BANASKANTHA **Enquiry No.- 256E 027** **Date:- 17.05.2016** **Due on - 03.06.2016**

ITEM:- LATTICE STRUCTURE

SL. NO.	DESCRIPTION OF ITEM (As per Tech Spec. TB-385-618-002-765-BHUJ R-00)	UNIT	QUANTITY	UNIT PRICE EX. WORKS (Rs.)	TOTAL EX. WORKS (Rs.)	UNIT FREIGHT & INSURANCE UP TO SITE (Rs.)	TOTAL FREIGHT & INSURANCE UP TO SITE (Rs.)	ED @.....% OF COL 6 (Rs.)	CST/VAT/ST @.....% OF COL 6 + COL 9 (Rs.) AGAINST FORM "C"	F.O.R. DESTINATION PRICE (Rs.) COL (6+8+9+10)
1	2	3	4	5	6	7	8	9	10	11
A	LATTICE STRUCTURE -GI MILD STEEL -FOR BHUJ POOL SS (NEW)	MT	1215							
B	LATTICE STRUCTURE -GI HIGH TENSILE STEEL -FOR BHUJ POOL SS (NEW)	MT	332							
C	LATTICE STRUCTURE -GI MILD STEEL -FOR BANASKANTHA SS EXTN	MT	669							
D	LATTICE STRUCTURE -GI HIGH TENSILE STEEL -FOR BANASKANTHA SS EXTN	MT	193							
E	TOTAL COST TO BHEL (TOTAL EX-WORKS + TOTAL ED + TOTAL CST + TOTAL F & I)									

NOTE:

1. PLEASE NOTE THAT UNPRICED COPY OF PRICE BID (i.e. WITH ALL PRICES BLANKED) SHALL BE FURNISHED ALONG WITH TECHNO-COMMERCIAL BID.
2. REQUIRED COPIES OF FORMAT BE MADE & DETAILS MAY BE ANNEXED.
3. THE PRICES MUST BE QUOTED IN THE PRESCRIBED UNIT ONLY.
4. SALES TAX RATE AS APPLICABLE FOR SPECIFIED DESTINATION SHALL BE QUOTED. IN CASE OF CST, RATE AGAINST "C" FORM SHALL BE QUOTED.
5. IN CASE OF VARIED ED SLAB RATES, CONFIRM YOUR OPTION FOR "X" OR "Y". (STRIKE OFF WHICH IS NOT APPLICABLE) IF NO OPTION IS MENTIONED "X" SHALL BE TAKEN.
6. THE VENDORS MUST INDICATE THE APPLICABLE TARIFF NOS. UNDER WHICH ED AND / OR CST WOULD BE PAID BY THEM TO THE TAX AUTHORITIES.
7. IF A VENDOR SUBMITS AN OFFER WITH REDUCED ED AND OR CST APPLICABLE THAN NORMALLY PAID ON SUCH ITEMS, THEY SHOULD SUBMIT NECESSARY DOCUMENTARY PROOF FOR THE SAME.

"X" THE MAXIMUM ED SLAB RATE BE CONSIDERED FOR PRICE COMPARISON. IN THE EVENT OF ORDER ED AT ACTUAL BE PAID.

"Y" THE QUOTED ED RATE BE CONSIDERED FOR PRICE COMPARISON. IN THE EVENT OF ORDER ED AT ACTUAL RATE LIMITED TO QUOTED RATE BE PAID.

SIGNATURE & SEAL OF TENDERER

BHARAT HEAVY ELECTRICALS LIMITED
TRANSMISSION BUSINESSS GROUP
MATERIAL RECEIPT CERTIFICATE

a) Site:
b) LR No. with date:
c) Vehicle no.:
d) Date of receipt of material at site:
e) Supplier:
f) Material details (as mentioned below):

S.no.	Item Description	Type of Packages	Unit (MT/KM/ NO.)	Qty as per packing list	Qty Received	Remarks

Other Remarks:

Signature with date: _____

Name & Designation: _____
(With Seal)

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 Compliance form (annexure IV) 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, Service Tax for Services 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, (Annexure VII) 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) may not be allowed to participate in further RA process.

Annexure - III

Certificate by Chartered Accountant on letter head

This is 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 on date..... 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

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

Date:

(Signature)

Name -

Membership number -

Seal of Chartered Accountant

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.

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 IPC/ PC 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 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.

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 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 Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).

6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

6.3 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 /Sub-contractors

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.

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.

8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.

8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC 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.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as 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.

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	For & On behalf of the Bidder/ Contractor
(Office Seal)	(Office Seal)

Place----------

Date----------

Witness: _____	Witness: _____
(Name & Address) _____	(Name & Address)_____
_____	_____

BHARAT HEAVY ELECTRICALS LIMITED
TRANSMISSION BUSINESS ENGINEERING MANAGEMENT
TRANSMISSION BUSINESS GROUP, INDUSTRY SECTOR, NOIDA

DOCUMENT No.	TB 385 618 002 765 - BHUJ	Rev 00	Prepared	Checked	Approved
TYPE OF DOC.	TECHNICAL SPECFICATION	NAME	SV	BVG	PLK
TITLE: SPECIFICATION FOR 765KV G I STRUCTURES (LATTICE TYPE)		SIGN	Shyam		
		DATE	29/04/16	29/4/16	29/4/16
		GROUP	TBEM		
		W.O. No			

CUSTOMER	*POWERGRID CORPORATION OF INDIA LIMITED.*
PROJECT	765/400/220kV BHUJ POOL (NEW) S/S AND EXTENSION OF 765kV BANASKNATHA S/S

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Rev	Date	Altered	Checked	Approved				
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SECTION - 1

SCOPE, SPECIFIC TECHNICAL REQUIREMENTS & QUANTITIES

1.1 SCOPE

The scope of this specification is to specify all details required by a supplier for preparation of shop drawings, fabrication, proto assembly, galvanising and supply of galvanized steel structures for 765/400/220kV Bhuj Pool (New) S/S and Extension of 765kV Banaskantha S/S being executed by BHEL on turnkey basis. The Employer/Customer is POWERGRID Corporation of India Limited.

The detailed scope of work is preparation of shop drawings, fabrication, proto assembly, galvanizing and supply of all towers., beams, lighting/lightning masts, equipment supporting structures (lattice type), platform ladders, chequered plates, base plates, stiffener plates, fixtures for supporting and operating mechanism boxes, control cabinets and other such items required to complete the job excluding all fixtures, such as nuts, bolts, step bolts and washers. The structure assembly drawings shall be provided by BHEL in PDF format/ hard copies after award of work. Preparation of AUTOCAD drawings for any structure, if required, is in the scope of bidder.

Submission of 1 set of shop drawings (AUTOCAD) for reference is also in the scope of the bidder.

1.2 SPECIFIC TECHNICAL REQUIREMENTS

The specific technical requirements shall be as per Standard Technical Specification (Refer Section 2).

1.3 QUANTITIES

The quantities indicated are tentative & it may change to the order of +/- 30% during detailed engineering at contract stage.

S. No.	Description	Quantity in MT
1	Preparation of shop drawings based on fabrication drawings provided by BHEL, fabrication, proto assembly, submission of proto corrected drawings/BOMs, mass fabrication, galvanising, inspection and supply of ***lattice type galvanized*** **Mild Steel** structures.	**BHUJ – 1215MT** (Zinc coating **900** gms/sqm) **BANASKANTHA – 669MT** (Zinc coating **610** gms/sqm)
2	Preparation of shop drawings based on fabrication drawings provided by BHEL, fabrication, proto assembly, submission of proto corrected drawings/BOMs, mass fabrication, galvanising, inspection and supply of ***lattice type galvanized*** **High Tensile** steel structures.	**BHUJ – 332MT** (Zinc coating **900** gms/sqm) **BANASKANTHA – 193MT** (Zinc coating **610** gms/sqm)

SECTION – 2

STANDARD SPECIFICATION

2.0 GENERAL

This section covers the standard technical specification for GI Structures.

2.1 STEEL MATERIAL

Steel materials shall conform to IS: 2062-2011 (Hot rolled Low, Medium and High Tensile structural steel) with **Yield Stress E250 for mild steel and Yield Stress E350 for High Tensile steel.**

Replacing MS/HT section with higher section or replacing MS section with HT section of same size due to non-availability of particular section shall not require BHEL/Employer's approval and this shall be done without additional financial implication to BHEL/Employer.

Steel shall not be pitted and should be free from scales and rust. If the rolled section and plates are bent or distorted, bend or distortion shall normally be removed by the cold treatment. Straightening under hot stage shall be resorted to only under specific permission from BHEL. If any rolling defects viz., laminations, cracks etc. are discovered in the steel during the processing, it is to be rejected.

TOLERANCE:

The dimensional and weight tolerances for rolled shapes shall be in accordance with IS:1852-1985.

No rolled or fabricated member shall deviate from straightness by more than 1/1000 of the axial length or 10mm which ever is smaller.

2.2 FABRICATION

GENERAL:

All the workmanship and finish shall be of the best quality and shall conform to the best approved method of fabrication. All materials shall be finished straight and shall be machined true and square where so specified. All holes and edges shall be free of burrs. Shearing and chipping shall be neatly and accurately done and all portions of work exposed to view shall be neatly finished. Material at the shops shall be kept clean and protected from weather.

The fabrication of galvanized steel structures shall be carried out generally in accordance with IS: 802 part. II, IS: 800-1984. All materials shall be completely shop fabricated. Normally, butt splices shall be used. The components constituting the joint shall have a total strength greater than the heavier of the members connected. Lap splices may be used for connecting members of unequal sizes. The inside angle of lap splice shall be grounded at

the heel to fit the fillet of the outside angle. The splices shall develop full strength of the members connected through bolts. Butt as well as lap splices shall be made as close to the main panel points as possible.

Joints shall be so designed and detailed as to avoid eccentricity as far as possible. However, where joints are such that the elimination of gusset plates would result into eccentric joints, gusset plates and spacer plates may be used in conformity with modern practices. The thickness of gusset plates shall not be less than 6mm. Where a gusset plate is required to transmit stress; its thickness shall not be less than the thickness of the thickest plate plus 2mm.

The use of filler in the connections shall be avoided as far as possible. The diagonal members in tension may be connected entirely to the gusset plate where necessary to avoid the use of fillers. Each diagonal shall be in one piece without splices or center gussets, and it shall be connected at the point of intersection by one or more bolts.

The gap between the ends of two connected members in butt joints shall not be more than 6 mm and less than 4mm.

The switchyard structure members shall be accurately fabricated to bolt together easily at site without any undue strain on them or the bolts.

Drain holes shall be provided at all points where pockets or depressions are likely to hold water.

STRAIGHTENING:

For rolled steel material, if straightening or flattening is necessary, it shall be done by methods that will not injure the materials.

CUTTING:

Cutting may be effected by chopping, cropping, sawing or machine flame cutting. Sheared or cropped edges shall be dressed to a neat workmanlike finish and shall be free from distortion and burrs.

PUNCHING AND DRILLING**:**

Holes in members may be punched full size through material not over 12mm thick. Holes must be cleaned of burrs and ragged edges. Drilled holes shall be preferred. Holes made by drilling shall also be cleaned of burrs and ragged edges. Where several parts are to be drilled, they shall be first assembled, tightly clamped together and drilled through.

Punched holes must be square with plates and the walls of the holes shall be parallel. The following maximum allowance in accuracy of punched holes is permissible:

i) Holes must be perfectly circular and no tolerance in this respect is permissible.

ii) The maximum allowable difference in diameter of the holes on the two sides of plates or angle is 0.8 mm, i.e. the allowable taper in punched holes should not exceed 0.8 mm in diameter.

iii) Holes must be square with the plates. Holes at angle or slant shall not be permitted.

The minimum spacing of bolts and edge distances shall be as given below:

Bolt Diameter	Minimum Bolt Spacing	Maximum edge distance	
		Hole center To rolled Edge	Hole center to cut/ flame edge
(mm)	(mm)	(mm)	(mm)
16	40	20	23

WELDING:

The work shall be done as per approved fabrication drawings, qualified welding procedure specifications (WPS) and by qualified welders. Procedure qualification records (PQR) shall be maintained. Electrodes for shielded arc manual welds shall comply with the requirements of IS: 814 - 1991. All welds shall be free from defects like blow holes, slag inclusions, lack of penetration, under cutting, cracks etc. All welds shall be cleaned of all slag or flux before galvanizing.

MARKING OF MEMBERS FOR IDENTIFICATION.

All members shall be marked for identification during erection. This mark shall correspond to distinguishing marks on approved erection drawings and shall be legibly painted and stamped on. The erection mark shall be stamped with a metal dye with figures at least 16 mm high and to such optimum depth as to be clearly visible, even after a member is galvanized. All erection marks shall be on outer surface of all sections and near one end, but clear of bolt holes. Marking shall be so stamped that they are easily discernible when sorting out members. The stamped marking shall be encircled boldly by a distinguishable paint to facilitate easy location.

Erection marks on like pieces shall be in identical locations. Members having lengths of 3.0 M or more shall have the erection mark at both ends.

PROTOTYPE ASSEMBLY:

Towers, beams, equipment structures, etc. shall be trial assembled at shop before galvanizing i.e. prototype assembly keeping in view the actual site condition prior to dispatch to erection site. The prototype assembly of each structure shall be got approved from BHEL/Customer as directed. Necessary match marks shall be made on each components before dismantling the

prototype assembly and galvanizing. Any error shall be rectified at the expense of the contractor.
No extra charge on account of erecting the assemblies or getting them inspected will be permissible. It is however to be mentioned that the responsibility for proper fitting of various members for the erection of the structure in the field will rest with the supplier and any discrepancy found at the time of erection will have to be rectified by the contractor at his cost.

2.3 GALVANISING:

All structural steel works and single pipe supports shall be hot dip galvanized after fabrication. Galvanizing of each member shall be carried out in one complete immersion and double dipping shall not be permitted.

Zinc required for galvanizing will have to be arranged for by the Contractor. Purity of zinc to be used for galvanizing shall be 99.5% as per IS:209-1992.

All burrs and irregular edges shall be ground smooth before galvanizing.

After all shop work is complete, all structural materials shall be punched with the Erection Mark and be hot dip galvanized. Before galvanizing the steel section shall thoroughly be cleaned of any paint, grease, rust, scale, acid/ alkali or such other foreign matters as are likely to interfere with the galvanizing process or with the quality and durability of the zinc coating. Pickling shall be carefully done and shall be proper.

Minimum weight of zinc coating shall be 610gms/sqm. However, higher coating may be provided as per requirement.

The galvanized surface shall consist of a continuous and uniformly thick coating of zinc, firmly adhering to the surface of steel. The finished surface shall be clean and smooth and shall be free from defects like discolored patches, bare spots, unevenness of coating, spelter which is loosely attached to the steel, globules, spiky deposits, blistered surface flaking or peeling off, etc. The presence of any of these defects noticed on visual or microscopic inspection shall render the material liable to rejection.

There shall be no flaking or loosening when struck squarely with a chisel faced hammer. The galvanized steel member shall withstand minimum four one minute dips in copper sulphate solution as per IS: 2633 - 1986.

When the steel section is removed from the galvanizing kettle excess spelter shall be removed by 'bumping'. The processes known as 'wiping' or 'scrapping' shall not be used for this purpose.

Defects in certain members indicating presence of impurities in the galvanizing bath in quantities larger than that permitted by the specification, or lack of quality control in any manner in the galvanizing plant shall render the entire production in the relevant shift liable to rejection.

All the galvanized structural steel members and accessories shall be treated with sodium dichromate or an approved equivalent solution after galvanizing, so as to prevent white storage stains.

If the galvanizing of any member is damaged, BHEL shall be shown of the extent of damage and if so directed the galvanizing may have to be redone in the similar manner as stated above at no extra cost.

Contractor shall also furnish sufficient quantity of appropriate paint, free of cost, for repairing galvanized surfaces damaged in transit, and minor modifications done at site during erection.

Galvanizing tests shall be made from time to time on as many samples as may be considered necessary. The supplier shall supply all samples and equipment and carry out the tests without any extra cost.

2.4 INSPECTION OF MATERIALS

GENERAL:

Contractor shall give notice to BHEL in advance for inspection of materials. All rejected material shall be promptly removed from the shop and replaced with new material for BHEL approval/ inspection. The fact that certain material has been accepted at Contractor's shop shall not invalidate final rejection at site by BHEL if it fails to be in proper condition or has fabrication inaccuracies which prevents proper assembly. No materials shall be painted, galvanized or dispatched to site without the inspection and approval by BHEL unless such inspection is waived off in writing by BHEL.

Shop inspection by BHEL, for submission of test certificates and acceptance there of by BHEL shall not relieve contractor from the responsibility of furnishing material conforming to the requirements of these specifications, nor shall it invalidate any claim which BHEL may make because of defective or unsatisfactory material and workmanship.

Contractor shall provide all the testing and inspection services and facilities for shop work. For fabrication work carried out in the field the standard of supervision and quality control shall be maintained as in shop fabricated work. The inspection and testing shall be conducted in a manner satisfactory to BHEL.

The inspection and tests shall be as given below and the minimum requirement shall be as per quality plan attached. The final Quality plan shall be decided between Supplier, BHEL and Customer/ Owner.

MATERIAL TESTING

If mill test reports are not available for any steel materials the same shall be got tested by the contractor and demonstrate conformity with the relevant specification to the full satisfaction of BHEL. The cost of such tests shall be borne by the contractor.

DIMENSIONS AND WORKMANSHIP:

The Structural Steel members shall be inspected at all stages of fabrication and assembly to verify that dimensions, tolerances, alignment and surface

finish, are in accordance with the requirements shown in Contractor's approved shop drawings.

INSPECTION OF TEST FAILURE:

In the event of any failure of structural steel members to meet an inspection or test requirement, contractor shall inform BHEL and must obtain permission from the BHEL before repair is undertaken. The quality control procedures to be allowed to ensure satisfactory repair shall be subject to approval by BHEL.

2.5 PACKING TRANSPORTATION AND DELIVERY

After completion of final inspection and marking, the fabricated galvanized structural items shall be packed and loaded for transportation.

Packing must be adequate to protect items against bending and any mechanical injuries and damage to galvanized film during loading and unloading. As far as possible, like member should be bundled together and tied.

Proper lifting devices shall be used for loading at shop and unloading at site in order to protect items against bending, mechanical injuries and damage to galvanized film.

Loading, transporting and unloading shall be done in compliance with transportation rules.

Slender and projected parts shall be braced properly with additional spacer steel bars, spacer wood etc, before loading for transportation, to protect against bending or any other damages during transportation.

If certain parts cannot be transported in the lengths stipulated in the design drawing, the position and type of additional splice joints shall be got approved from BHEL.

Items must be carefully loaded and tied up properly to prevent bending, falling etc. during transportation.

The small parts such as plates, gussets, cleats etc. shall be securely tied with the wire, and packed in double gunny bags and cased as per the actual requirements..

As far as possible the delivery of fabricated galvanized structural steel shall be as per the order stipulated by BHEL and to suit the erection sequence.

Contractor shall make good/ replace at his own cost any damage occurred during loading, transporting, unloading and stacking of fabricated galvanized steel structures as directed by BHEL. No extra payment on this account shall be entertained under any circumstances.

2.6 APPLICABLE STANDARDS

Unless otherwise specified, materials, and workmanship shall conform to the following standards (**latest**):-

1.	IS : 209 - 1992	-	Zinc Ingot.
2.	IS : 228 - 1959	-	Method of chemical analysis of pig iron, cast iron, plain carbon and low alloy steel.
3.	IS : 406 - 1964	-	Methods of analysis of zinc (Spelter).
4.	IS : 800 - 1984	-	Code of practice for general construction.
5.	IS : 802 - Part1 - 1977 - Part1/Sec.2/1992 - Part2 - 1978 - Part3 – 1978	-	Code of Practice for use of structural in over head Transmission line towers.
6.	IS : 806 - 1968	-	Code of practice for use of steel tubes in general building construction.
7.	IS : 808 - 1989	-	Dimensions for hot rolled steel beam, column, channel and angle sections.
8.	IS : 814 - 1991	-	Covered electrodes for manual metal arc welding of carbon and carbon manganese steel.
9.	IS : 816 - 1969	-	Code of Practice for use of metal arc welding for general construction in mild steel.
10.	IS : 817 - 1966	-	Code of practice for training & testing of Metal Arc welders.
11.	IS : 1161 - 1979	-	Steel tubes for structural purposes.
12.	IS : 1599 - 1985	-	Method of bend test
13.	IS : 1608 - 1972	-	Method of tensile testing of steel products.
14.	IS : 1852 - 1985	-	Rolling and cutting tolerances for hot rolled steel products.
15.	IS : 1978 - 1982	-	Line pipe

16.	IS : 2062 - 2011	-	Hot rolled Low, Medium and High Tensile structural steel.
17.	IS : 2074 - 1992	-	Ready Mixed Paint, air drying red oxide zinc, chrome, priming.
18.	IS : 2629 - 1985	-	Recommended practice for hot dipped galvanising on Iron & Steel.
19	IS : 2633 - 1986	-	Methods for testing uniformity of coating on zinc coated articles.
20.	IS : 3502 - 1981	-	Steel chequered plates.
21.	IS : 4759 - 1984	-	Hot dip zinc coating on structural steel and other allied products.
22.	IS : 6745 - 1972	-	Method for determination of mass of zinc coating on zinc coated iron and steel articles.

SECTION - 3

PROJECT DETAILS AND GENERAL SPECIFICATIONS

3.0 GENERAL

This section stipulates the General Technical Requirements under the contract and will form an integral part of the Technical Specification.

The provisions under this section are intended to supplement general requirements for the materials, equipment and services covered under other sections and is not exclusive. However in case of conflict between the requirements specified in this section and requirements specified under other sections, the requirements specified under respective sections shall hold good.

3.1 SITE INFORMATION

SL.NO.	DESCRIPTION	
3.2.1	**PROJECT INFORMATION**	
	a) Customer	POWERGRID Corporation of India Limited
	b) Project	765/400/220kV Bhuj Pool (New) S/S and Extn of 765kV Banaskantha S/S
	c) Project location	**Bhuj:** on Loria – Nakhtarna State Road & about 40km from Bhuj, Distt. - Kutch (Gujrat) **Banaskantha**: Village – Mudetha, Near **Bhildi**, Distt – Banaskantha (Gujrat)
	d) Transport facilities Nearest Railway Station/Gauge Distance from Railway Station	"Bhuj" for 765/400/220kV Bhuj Pool (New) S/S "Palanpur" for Extension of 765kV Banaskantha S/S
	e) Access roads	"Loria – Nakhtarna State Road" for 765/400/220kV Bhuj Pool (New) S/S "Bhildi to Mudetha" for Extension of 765kV Banaskantha S/S

3.2 STANDARDS

All materials shall comply in all respect with the requirement of the latest edition of the relevant codes as listed in Section 2.

3.3 UNIT

Metric (System International) units of measurements shall be used in all drawings.

3.4 DRAWINGS, BILL OF MATERIALS AND CDs

After approval of proto type assembly of structures, the drawings shall be updated as per proto and marked "PROTO CORRECTED". The following set of proto corrected fabrication drawings/Bill of materials shall be submitted for approval.

i)	Proto Corrected Fabrication Drawings	: 4 sets
ii)	Bill of Materials	: 4 sets

After final approval of proto corrected fabrication drawings/Bill of Materials following sets of fabrication drawings/shop drawings/bill of materials/CDs shall be submitted for distribution:

i)	Proto Corrected Fabrication Drawings	: 1 set
ii)	Shop Drawings	: 1 set
ii)	Bill Of Materials	: 1 set
iii)	CDs	: 2 sets

3.5 ERRORS

Any error in fabrication work preventing proper assembly and fitting up of parts in the field, shall be classified as defective workmanship. All changes incurred by BHEL either directly or indirectly because of this shall be deducted from the amount due to the contractor.

3.6 PURCHASE ORDER NUMBER

The P.O No. shall be mentioned on all documents and drawings.

SECTION – 5

MANUFACTURING QUALITY PLAN

5.1 The minimum inspection and test requirements for lattice structures shall be as per attached quality plans.

SECTION-6

CHECK LIST FOR INFORMATION TO BE FURNISHED WITH OFFER
RETURN THIS CHECKLIST AS PART OF THE OFFER DULY SIGNED

The offer may not be considered if the following information and this Checklist are not enclosed with the Offer.

BHEL ENQUIRY. NO:
BIDDER: OFFER REFERENCE:

6.1 Deviations Tick YES NO

If yes,

S. No.	Deviation	Clause No.
1		
2		
3		
4		

(Signature & Seal of Bidder)