



Bharat Heavy Electricals Limited

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(A Government of India Undertaking)
ELECTRONICS SYSTEMS DIVISION
Plot No. 98, Electronic City, Hosur Road,
BANGALORE - 560 100 (INDIA)

Website : <http://www.bhel.com>, <http://www.bheledn.com>

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NOTICE INVITING TENDER
FOR
ON BOARD CONNECTORISATION
FOR CSL-P71-IPMS

NIT NO. :
DABG/ESD/CSL/P71-IPMS/31700033/
CONNECT/NIT-21/RS
DATE: 12/07/2017

Due Date: 02/08/2017, Time 14.00 Hrs
Date & Time of Opening: 02/08/2017, 14.30 Hrs.



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Ref: NIT No. : DABG/ESD/CSL/P71-IPMS/31700033/CONNECT/
NIT-21/RS Date: 12/07/2017

Sealed Tenders are invited from eligible bidders satisfying the qualifying requirements mentioned in this tender document for On Board Connectorisation Works for Integrated Platform Management System (IPMS) for Indigenous Aircraft Carrier at Cochin Shipyard Limited, Kochi.

Due Date: 02/08/2017, Time: 14.00 Hrs
Date & Time of Opening: 02/08/2017, 14.30 Hrs.

For and on behalf of Bharat Heavy Electricals Limited

Rajesh. S
Sr.Engineer – DABG
BHEL-Electronics Systems Division
Bangalore



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Part-I: Section 1: Instruction to Bidders (Part-A)

1. Notice Inviting Tender :

Sealed Tenders are invited from eligible bidders satisfying the qualifying requirements mentioned below for On Board Connectorisation Works for Integrated Platform Management System (IPMS) for P71 Indigenous Aircraft Carrier at Cochin Shipyard Limited, Kochi. This tender document can be downloaded from BHEL's Websites: <http://www.bhel.com>, <http://www.bheledn.com> or from Government of India's Tender Website: <http://tenders.gov.in>. The cost of this tender document is Rs. 2,000/- (Rupees Two Thousand Only). No hard copies of this tender document will be sold. Bidders should download the tender document from the above mentioned websites. The cost of the tender document should be paid by the bidders by a separate Demand Draft in favour of Bharat Heavy Electricals Limited, payable at Bangalore along with the Techno-Commercial Bid. Response should be only by "Sealed Envelopes" and not by e-mail or fax. The entire connectorisation job should be completed within 08 (Eight) Months from date of placement of Work Order / Letter of Intent.

2. Qualifying Requirements :

The bidders should satisfy the following qualifying requirements:

- 2.1 The bidders should have successfully executed similar jobs on board Naval Ships in the past 3 years. Documentary evidence to this effect should be produced.
- 2.2 The bidders should have had an average annual turnover of Rs. 1,00,00,000/- (Rupees One Crore Only) in the past 3 years. Copies of bidders' audited annual reports for the past three years (2016-17, 2015-16 & 2014-15) should be enclosed with the bid.
- 2.3 The bidder shall confirm in the techno-commercial bid that he has provided the solvency certificate along with price bid and that the value of the solvency certificate is not less than his offer price and the bidder shall furnish the original solvency certificate along with price bid.
- 2.4 The Bidder should give a confirmation that he is conversant with the working conditions, rules and regulations of working on-board a naval Ship in Cochin Shipyard Limited, Kochi.
- 2.5 Bidders not satisfying requirements are not eligible to bid for this tender, and such bids will be rejected.

3. Procedure for Submission of Sealed Bids :

The Bidders must submit their bids as required in two parts in separate sealed envelopes prominently superscribed as Part-I: Techno-Commercial Bid and Part-II : Price Bid also indicating on each of the envelope the NIT No. & Date and Due Date & Time



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(A) Part-I : Technical & Commercial (Techno-Commercial) Bid (Envelope-I)

The complete tender document (except Price Bid : Part-II) consisting of General conditions of Contract, Technical specifications & Special Conditions of Contract (Part-I) issued by BHEL shall be enclosed in Part I Technical Bid in a sealed envelope. All schedules, data sheets and details called for in the specification shall also be submitted along with technical bid, including offer *without prices* letter duly signed and stamped. The EMD amount DD is to be put along with Part-I : Techno-Commercial Bid. The sealed envelope containing these will be superscribed with the NIT No. & Date, Due Date and Time and marked as "Envelope I : Part-I : Techno-commercial Bid". This envelope should contain documents mentioned in Sl. Nos. 2.1 to 2.2 above. The Bidder should sign and stamp each page of this tender document (including various blank forms like Form 11,12,13,14, etc.) for having accepted all the terms and conditions.

(B) Part-II Price Bid (Envelope-II)

The price bid as per BHEL Tender Document should be submitted in a separate sealed envelope and will be superscribed with the NIT No. & Date, Due Date and Time and marked as "Envelope II : Part-II : Price Bid"

These two separate envelopes, i.e. Envelope-I & Envelope-II shall together be enclosed in a third envelope and this sealed envelope shall be superscribed with NIT No. & Date, Due Date and Time. It should be superscribed on the third envelope that it contains:

- (a) Techno-Commercial Envelope
- (b) Price Bid Envelope

The Sealed Bid should be submitted to the address indicated below in this NIT. Bidders may please note that no bids should be sent by fax or e-mail.

4. Due Date & Time & Address where bids should be sent :

- (a) Sealed Bids must be dropped in the tender box available at the following address :

Bharat Heavy Electricals Limited
Electronics Systems Division
Plot No. : 98, Electronic City, Hosur Road
BANGALORE 560100



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(b) Alternatively, the sealed bids can also be sent by post / courier to the following address :

**Bharat Heavy Electricals Limited
Electronics Systems Division
Plot No. : 98, Electronic City, Hosur Road
BANGALORE 560100**

**Kind Attn. : Shri Sarat Chandra Babu K
SDGM / DABG – Coml & Mktg
Tel: +91-80-25146126**

OR

**Shri G.L. Biswas
Manager / DABG-Engg
Tel: +91-80-25146117**

(c) Due Date : 02/08/2017 (Wednesday), Time : 14.00 Hrs
Date & Time of Opening: 02/08/2017 (Wednesday), 14.30 Hrs.

(d) The bids should reach the address at Clause 4(b) above latest by 14.00 Hrs on 02nd August 2017 (Wednesday). The sealed bids can also be dropped in the tender box kept at the address indicated in Clause 4(a) above before the due date & time. Techno-Commercial bids shall be opened at 14.30 Hrs. on the same day at the above address in presence of authorised representatives of the bidders. Price Bids of the techno-commercially accepted bids will be opened on a subsequent date to be intimated later.

(e) The bidder's representative desiring to attend the tender opening should carry an authorisation by the bidder on the bidder's letterhead to attend the bid opening.

(f) Bids not accompanied with full Earnest Money Deposit as prescribed will be rejected. Bids received after the due date and time shall be rejected. The price bids will be opened on a later date, after scrutinising the techno-commercial bids. This date will be intimated subsequently.

5. Tender Synopsis :

BHEL is presently executing IPMS (Integrated Platform Management System) supplies for Cochin Shipyard Limited, Kochi for their P71 Indigenous Aircraft Carrier. The present tender is for On-Board Connectorisation for this IPMS on board this ship. The location where work has to be carried out is Cochin Shipyard Limited, Perumanoor P.O, Kochi, KERALA 682 015



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6. **Earnest Money Deposit (EMD):** EMD Amount of Rs. 1,80,021/- (Rupees One Lakh Eighty Thousand and Twenty One Only) is payable at the time of submission of the bid. Bids received without EMD amount shall be rejected. EMD should be paid by Demand Draft (DD) / Pay Order only payable at Bangalore in favour of "Bharat Heavy Electricals Limited". EMD in no other form shall be accepted. EMD of unsuccessful bidders will be refunded by BHEL within a reasonable time after bid opening date. The EMD amount shall not carry any interest.
7. BHEL reserves the right to accept or reject any or all tenders without assigning any reason whatsoever.
8. BHEL takes no responsibility for any loss / delay of documents or correspondences sent by courier / post.
9. Unsolicited rebate / discount shall NOT be accepted after bid opening. 10
10. The Bidders are required to fill in various forms and sign and affix their office stamp on these forms annexed elsewhere in this document.
11. **Pre-Bid Clarifications :** The bidders may send in their requests for pre-bid clarifications by filling in Form-9 annexed elsewhere in this document (the form should be typed on the bidder's letterhead) and sending the same to :

Shri G.L. Biswas
Manager / DABG-Engg
Bharat Heavy Electricals Limited
Electronics Systems Division, 98, Electronic City
Hosur Road, BANGALORE 560100
Tel : +91-80-25146117, Fax : +91-80-28520135
E-Mail : gourango@bheledn.co.in

Disclaimer: It may please be noted that BHEL is not responsible for any delays in post / courier / non-receipt of fax / e-mail etc. It shall be the responsibility of the bidder to ensure that he gets the clarification he wants.

12. **Essential Criteria :**
For the convenience of the bidders, the essential criteria to be satisfied by all bidders (these are also mentioned elsewhere in this tender document) are given below:
 - a. The bidders should have successfully executed similar jobs on board Naval Ships in the past 3 years. Documentary evidence to this effect should be produced. The Bidders should provide work completion certificates.



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- b. The bidders should have had an average annual turnover of Rs. 1,00,00,000/- (Rupees One Crore Only) in the past 3 years. Copies of bidders' audited annual reports for the past three years should be enclosed with the bid.
- c. The bidder shall confirm in the techno-commercial bid that he has provided the solvency certificate along with price bid and that the value is not less than his offer price and shall furnish the original solvency certificate along with price bid.
- d. The Bidder should give a confirmation that he is conversant with the working conditions, rules and regulations of working on-board naval ships in Cochin Shipyard Limited, Kochi.
- e. Earnest Money Deposit (EMD) : EMD Amount of Rs. 1,80,021/- (Rupees One Lakh Eighty Thousand and Twenty One Only) is payable at the time of submission of the bid only by Demand Draft (DD) / Pay Order only payable at Bangalore in favour of "Bharat Heavy Electricals Limited". Bids received without EMD amount shall be rejected.
- f. Bids should reach the address indicated on or before the due date and time. Late bids shall be rejected.
- g. The Bidders shall furnish copies of their ESI & PF Registration Nos., TIN No. & PAN Card Copies.
- h. The Bidders should furnish their Establishment Certificates and Labour License Copies.
- i. The Bidders should furnish Solvency Certificate from their banker.
- j. The Bidders should furnish the No Deviation Certificate as per format given elsewhere in this tender.
- k. The Bidders should agree to the payment terms stipulated in this tender.
- l. The Bidders are advised to go through this tender document carefully and satisfy themselves fully and accept all the terms and conditions unequivocally and unconditionally.
- m. The Bidders should enclose a separate Demand Draft (DD) in favour of "Bharat Heavy Electricals Limited", payable at Bangalore for an amount of Rs. 2,000/- (Rupees Two Thousand Only) towards cost of this tender document along with their Techno-Commercial Bid. Bids without this DD will be rejected.
- n. Bids not meeting one or more of these essential criteria will be rejected.



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Part-I: Section 2: Instruction to Bidders (Part-B)

1. Tenders should be sent to the address indicated elsewhere in this tender document on or before the due date and time by Post / Courier only. No bids should be sent by fax or e-mail. The full name and address of the bidder, name of the work and the date of opening should be indicated on the cover. The local address of the Contractor, the name of the person to whom all the correspondence are to be addressed should be indicated with telephone number (both office and residence), FAX /e-mail address, Mobile phone No. etc..
2. All entries in the tender documents should be in the same ink. Erasures and over writing are not permitted. The bidder concerned with proper indication of the name, designation and address of the person signing should duly sign all cancellations and insertions.
3. Bidders shall fill in all the required particulars in the blank spaces provided for this purpose in the tender documents and also sign each and every page of the tender document including the drawings (wherever applicable) attached there to before submitting tender.
4. Unit rates should be quoted in figures as well as in words in Indian Currency only, i.e. Rupees and Paise with reference to each item and for all the items shown in the attached schedule. . The bidders shall fill amount of each item and the total on each sheet as also the grand total amount of the whole contract.
5. In quoting their rates, the bidders are advised to take into account all factors including any fluctuations in market rates. No claim for enhanced rates will be entertained on this account after acceptance of the order or during the currency of the contract.
6. The rates to be quoted by the bidder shall be firm and shall cover and include all statutory levies arising from Acts, passed by Parliament or by State legislature and rules framed there under. The rates shall further be deemed to include statutory levies arising from such Acts, Central or State, which may come into force, subsequent to submission of tenders. The bidder shall note that no claim for enhancement of rates, on the ground that existing statutory levies have been increased, or that new statutory levies have come into effect after tender, or on any other ground, will be entertained on any account.
7. (a) The rates quoted in the tender shall remain valid for a period of 'SIX MONTHS' from the date of opening of tender.
(b) Bidder shall not increase their quoted rates, once the bidder has submitted his quotation and during execution of the contract in case his tender is accepted.



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8. Quantities shown in the attached schedule are only approximate and are liable to variation.
9. Before tendering, the bidders are advised to acquaint themselves with the site of work and its environment and be well acquainted with the actual working and other prevailing conditions, position of materials and labour. They should be well versed with BHEL General Conditions of Contract, Instructions to bidders, drawings wherever applicable and specifications and all other documents which form part of the agreement to be entered into subsequent to award of work. The bidders shall specially note that it is the bidder's responsibility to provide any item which is not specially mentioned in the specification or drawing, but which is necessary to complete the work.
10. Details and quantities of each item of work shown are be only approximate. They are given as a guide for the purpose of tendering only and are liable to variation and alteration at the discretion of the competent authority. The work under each item as executed shall be measured and priced at the corresponding rates to be quoted by the contractor.
11. Should a bidder find discrepancies or omissions in the drawings wherever applicable / Specifications / Scope of work / Terms & Conditions attached to the tender documents or should be in doubt as to their meaning, he should at once address the issue to the authority inviting the tender for clarifications.
12. Every endeavour is made to avoid any error which can materially affect the basis of the tender but the successful bidder shall take upon himself to provide for the risk of any error which may be subsequently discovered and shall make no subsequent claim on account thereof.
13. The tender must be signed separately and legibly by each partner or member of the bidding firm or in their absence, by the person holding the power of Attorney on behalf of the firm concerned. In the latter case, a copy of the power of attorney duly attested by a Gazetted Officer / Notary must accompany the tender.
14. In case, the date of tender opening falls on Holiday, the tender will be opened on the next working day.
15. Every tender must be accompanied by Earnest Money Deposit. This earnest money will be refunded to the unsuccessful bidders after finalisation of the award of work. In the case of successful bidder, the



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earnest money will be retained as part of the Security Deposit for satisfactory completion of the work. Tenders without Earnest Money Deposit are liable to be rejected. No interest will be paid on the earnest money deposits.

16. The Earnest Money Deposit shall be submitted along with Techno-Commercial bid and may be furnished in the form Pay Order / Demand Draft payable at Bangalore in favour of "Bharat Heavy Electricals Limited".
17. Unless the Contractor whose tender is accepted signs the contract agreement within fifteen days (15 days) of the date of the order directing him to do so, the amount of Earnest Money already deposited by him may be forfeited and acceptance of his tender withdrawn.
18. If, after opening of tenders, a bidder revokes his tender or increases his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instructions, the Earnest Money Deposited by him will be forfeited and acceptance of his tender withdrawn. If only a part of the work included in the tender had been awarded to the bidder, the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.
19. BHARAT HEAVY ELECTRICALS LIMITED reserves the right to reject any or all the tenders received or accept any tender or part thereof without assigning any reason thereof. In the case of acceptance of a part of tender, the time for completion may also be reduced to the extent considered appropriate by the accepting authority.
20. Conditional and unsigned tenders, tenders containing vague rates and amounts, tenders which are incomplete or otherwise considered defective, tenders which are not in accordance with the tender conditions laid down and tenders not submitted in the prescribed forms are liable to be rejected.
21. The contractors who are not on the approved list of contractors of this organisation must submit the following testimonials simultaneously with their tenders. These testimonials shall be signed by the person (s) issuing the same indicating their name, designation and full address.
 - i. A certificate to establish that the bidder is an independent contractor working on his own.
 - ii. At least 2 certificates from responsible officers of Government or firms of repute, regarding the bidder's capacity to undertake and carryout the work tendered for / similar work satisfactorily.
 - iii. A certificate from a Bank of standing or magistrate regarding the bidder's financial position.



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Note: (a) Copies of testimonials unless attested by a Gazetted Officer will not be accepted.

(b) Non – submission of the above testimonials simultaneously with the tenders may result in the tenders being rejected.

22. The tenders should be accompanied by a list of contracts already held by the Contractor at the time of submitting the tender (if applicable) and giving the following particulars:
- (a) Name of work, value and address.
 - (b) The balance work remaining to be done on the same.
24. Tenders submitted by post should be sent by “Registered Post with Acknowledgement due”. These should be posted with due consideration for any delay in postal delivery. Tenders received after the due date of opening of tenders are liable to be rejected. Tenders can also be sent by courier, but not by e-mail or fax.
25. The Contractor’s responsibility under this contract shall commence from the date of receipt of the order or acceptance of his tender.
26. BHARAT HEAVY ELECTRICALS LIMITED will not be bound by any power of Attorney granted by the bidder or by changes in the composition of the firm made subsequent to the execution of the contract. They may however, recognise such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
27. If the bidder deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage. Further the bidder will be liable for any damage caused.
28. Words imparting the singular number shall be deemed to include the plural number and vice-versa where the context so requires.
29. The General and Special Conditions of Contract are complementary to each other and where they are in conflict, the Special Conditions shall prevail.
30. The expenses for completing the stamping the agreement shall be paid by the contractor.
31. Unless and otherwise stated all tendered work includes supply, erection, testing and commissioning of equipment as agreed to in the contract.



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32. After completion of the job, the contractor has to furnish actual drawings of work done in consultation with BHEL.
33. Should a bidder have a relative, or in the case of the bidder being a firm or Company, any of its shareholder's relative employed in a Gazetted Capacity in Bharat Heavy Electricals Limited, the authority inviting tenders shall be informed of this fact at the time of submission of the tender, failing which tender may be disqualified or if such a fact subsequently come to light, the relevant provisions of the General Conditions of Contract will apply.
34. These 'INSTRUCTIONS TO BIDDERS' & 'GENERAL CONDITIONS OF CONTRACT OF BHEL' shall be deemed to form an integral part of the contract agreement for the work to be entered into. In cases of variation between the two in any matter, the conditions in the 'THE INSTRUCTIONS TO BIDDERS' shall prevail.
35. The Contractor shall comply with the provision of Employees Provident Fund and Miscellaneous Provisions Act 1952 and rules, regulations and other orders issued there under. He, as an employer, shall be liable to pay employer's contribution/deductions towards PF under the PF Act in respect of all labour employed by him, for the execution of the contract in accordance with the provisions of the Employees Provident Funds and Miscellaneous Provisions Act, 1952 as amended from time to time. The Bidder should certify that he is complying with the provisions of this act.
36. The Contractor should certify that he is complying with the provisions of the Employees State Insurance Act.
37. If any action is brought in by P.F. Commissioner/ESI authorities on BHEL for the work done by the Contractor for his Labourers regarding PF/ESI amount due, short remittances, non-remittances etc., the Contractor shall defend the case on behalf of BHEL and/or reimburse BHEL the expenses so incurred.
38. If applicable, the Contractor shall apply and obtain license under Contract labour (R&A) Act 1970 and comply with the relevant provisions of this Act in respect of the labour employed by him for executing this contract.
39. If applicable, the Contractor shall insure all his Labourers and materials. Any claim by his employees for the damages shall be settled by the contractor even action is against BHEL or to reimburse the legal expenses incurred by BHEL.



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40. Any action brought in by anybody on BHEL regarding patent, right etc., used by contractor in execution of work shall be defended by the contractor and /or reimburse to BHEL the cost of the same.
41. Contractor shall produce necessary records, documents, explanation whenever he is called upon to do, by any Government. Agencies like ESI, PF, VIGILANCE etc.,
42. **TERMS OF PAYMENT:**
- 75% of total basic contract value plus 100% Taxes will be paid on completion of the entire work and certification by BHEL.
 - Balance 25 % (Retention Amount) of the basic contract value will be paid on expiry of warranty period and certification of "No Claim" from BHEL.
 - The following documents are required for release of payment by BHEL:
 - Invoice (4 Ink Signed Originals)
 - Work Completion Certificate by BHEL (including measurement certification) (4 Ink Signed Originals)
 - Payment can be released within 30 days after all the required documents submitted by the vendor are found to be in order.

42. SECURITY DEPOSIT

- The successful bidder shall deposit the Security deposit before start of the work. The rate of Security deposit will be 5% of the Contract value.
- Security deposit may be furnished in any one of the following forms:
 - Cash (as permissible under the extant Income Tax Act)
 - Local Cheques of scheduled banks (subject to realization)/Pay Order /DD/Electronic Fund Transfer in favour of BHEL
 - Bank Guarantee from scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
 - Fixed Deposit receipt issued by Scheduled banks/Public Financial Institutions as defined in the companies Act (FDR should be in the name of the contractor, a/c BHEL)
 - Securities available from Indian Post Offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of the contractor furnishing the security and duly endorsed/hypothecated/pledged, as applicable, in favour of BHEL)
- EMD of the successful bidder shall be converted and adjusted against the security.
- The Security deposit shall not carry any interest.



Bharat Heavy Electricals Limited

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(A Government of India Undertaking)
ELECTRONICS SYSTEMS DIVISION
Plot No. 98, Electronic City, Hosur Road,
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Website : <http://www.bhel.com>, <http://www.bheledn.com>

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(e) The Security Deposit will be refunded after one month after the contractor's final payment has been released. The contractor has to submit a request for refund of security deposit. If security deposit is furnished in the form of Bank Guarantee, the Original Bank Guarantee can be returned to the contractor after the same has expired, on a specific request from the contractor.

43. CLEANING OF SITE:

After completion of the work, the contractor shall remove all debris, take away left over materials, machine, equipment, stores, etc. and make the area neat and clean. The cost of this work shall be included in the quoted rate.

44. COMPLETION OF WORK AND MEASUREMENT

On completion of the work, measurements will be taken jointly by the contractor and BHEL, and this measurement certification should be attached for claiming payment from BHEL.

45. EXTRA ITEMS

No extra items of work shall be carried out by the contractor other than those authorized to do so in writing by the BHEL.

46. SUPPLY OF MATERIALS BY CONTACTOR

The work is for a completed job including labour and supply of all except those otherwise specified in the bid document. All materials supplied by the contractor according to the contract conditions shall be subject to inspection and passing by the Engineer or his representatives from time to time, the contractor shall provide all facilities for such inspection free cost, BHEL officers connected with the contract shall have the power at any time to inspect and examine any stores or materials intended to be used in or on the work, whether on the site or at any factory or workshop or other place the same are laying and the contractor shall give necessary facilities for such inspection and examination.

The contractor shall submit necessary Test Certificate / Calibration Certificate for the critical items wherever necessary.

48. INTERRUPTION TO WORKS:

In quoting the rates / prices the contractor should take in to account the fact that due to the design or other stipulations at site, or the necessity to follow a particular drawings, or the connected work or other reasons, interruptions are likely to be encountered on any account.

49. WARRANTY:

The job should have a warranty / guarantee of being free from deficiencies for a period of 6 (Six) months from the date of completion of the work as certified by BHEL.

Section 3 : General Conditions of Contract

CHAPTER -1

1. GENERAL INSTRUCTION TO TENDERERS

1.1. DESPATCH INSTRUCTION

- i) The General Conditions of Contract form part of the Tender specifications. **All pages of the tender documents shall be duly signed, stamped and submitted along with the offer in token of complete acceptance thereof.** The information furnished shall be complete by itself. The tenderer is required to furnish all the details and other documents as required in the following pages
- ii) Tenderers are advised to study all the tender documents carefully. Any submission of tender by the tenderer shall be deemed to have been done after careful study and examination of the tender documents and with the full understanding of the implications thereof. Should the tenderers have any doubt about the meaning of any portion of the Tender Specification or find discrepancies or omissions in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, the scope of work etc., he shall at once, contact the authority inviting the tender well in time (so as not to affect last date of submission) for clarification before the submission of the tender. Tenderer's request for clarifications shall be with reference to Sections and Clause numbers given in the tender documents. The specifications and terms and conditions shall be deemed to have been accepted by the tenderer in his offer. Non compliance with any of the requirements and instructions of the tender enquiry may result in the rejection of the tender.
- iii) Integrity pact (IP) shall be applicable for all tenders / contracts if indicated in NIT. This integrity pact shall be issued as part of the Tender documents and shall be returned by the bidder along with Techno-commercial bid duly filled, signed and stamped by the authorized signatory who signs the bid. Only those vendors / bidders who have entered into such an IP with BHEL shall be considered qualified to participate in the bidding. Entering into this pact shall be a preliminary qualification.

1.2. SUBMISSION OF TENDERS

- 1.2.1 The tenderers must submit their tenders to Officer inviting tender as per instructions in the NIT
- 1.2.2 Tenders submitted by post shall be sent by 'REGISTERED POST ACKNOWLEDGEMENT DUE / by COURIER' and shall be posted with due allowance for any postal/courier delays. BHEL takes no responsibility for delay, loss or non-receipt of tenders sent by post/courier. **The tenders received after the specified time of their submission are treated as 'Late Tenders' and shall not be considered under any circumstances.** Offers received by Fax/Email/Internet shall be considered as per terms of NIT.
- 1.2.3 Tenders shall be opened by authorised Officer of BHEL at his office at the time and date as specified in the NIT, in the presence of such of those tenderers or their authorised representatives who may be present

- 1.2.4 Tenderers whose bids are found techno commercially qualified shall be informed the date and time of opening of the Price Bids and such Tenderers may depute their representatives to witness the opening of the price bids. BHEL's decision in this regard shall be final and binding.
- 1.2.5 Before submission of Offer, the tenderers are advised to inspect the site of work and the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour, means of transport and access to Site, accommodation, etc. No claim will be entertained later on the grounds of lack of knowledge of any of these conditions.
- 1.3. LANGUAGE**
- 1.3.1 The tenderer shall quote the rates in English language and international numerals. These rates shall be entered in figures as well as in words. For the purpose of the tenders, the metric system of units shall be used.
- 1.3.2 All entries in the tender shall either be typed or written legibly in ink. Erasing and over-writing is not permitted and may render such tenders liable for rejection. All cancellations and insertions shall be duly attested by the tenderer.
- 1.4 PRICE DISCREPANCY:**
- 1.4.1 **Conventional (Manual) Price Bid opening :** In the case of price bid opening without resorting to Reverse Auction, if there are differences between the rates given by the tenderer in words and figures or in amount worked out by him, the following procedure for evaluation and award shall be followed:
- i) When there is a difference between the rates in figures and in words, the rates which corresponds to the amounts worked out by the contractor, shall be taken as correct
 - ii) When the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figure or in words, then the rate quoted by the contractor in words shall be taken as correct
 - iii) When the rate quoted by the contractor in figures and words tallies but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount.
 - iv) In case of lumpsum price, if there is any difference between the amount in figures and in words, the amount quoted by the bidder in words shall be taken as correct.
 - v) In case of omission in quoting any rate for one or more items, the evaluation shall be done considering the highest quoted rate obtained against the respective items by other tenderers for the subject tender. If the tenderer becomes L-1, the notional rates for the omission items shall be the lowest rates quoted for the respective items by the other tenderers against the respective omission items for the subject job and the 'Total quoted price (loaded for omissions)' shall be arrived at. However the overall price remaining the same as quoted originally, the rates for all the items in the 'Total quoted price (loaded for omissions)' shall be reduced item wise in proportion to the ratio of 'Original' total price and the 'Total quoted price (loaded for omissions)'".
- 1.4.2 **Reverse Auction:** In case of Reverse Auction, the successful bidder shall undertake to execute the work as per overall price offered by him during the Reverse Auction process. In case of omission of rates, the procedure shall be as per 'Guidelines for Reverse Auction' enclosed.
- 1.5. QUALIFICATION OF TENDERERS**
- i) Only tenderers who have previous experience in the work of the nature and description detailed in the Notice Inviting Tender and/or tender specification are expected to quote for this work duly detailing their experience along with offer.

- ii) Offers from tenderers who do not have proven and established experience in the field shall not be considered
- iii) Offers from tenderers who are under suspension (banned) by any Unit/Region/Division of BHEL shall not be considered.
- iv) Offers from tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt of India shall not be considered.

1.6. EVALUATION OF BIDS

- i) Technical Bids submitted by the tenderer will be opened first and evaluated for fulfilling the Pre Qualification criteria and other conditions in NIT/Tender documents, based on documentary evidences submitted along with the offer
- ii) In case the same qualifying experience is claimed by more than one agency, then the agency who has executed the work as per documentary evidence submitted shall only be qualified. Scope of qualifying work should be totally with the agency who has executed and in case it is only labour+consumables without T&P, then the responsibility of execution is assigned to the first agency and not to the agency who has executed only as labour supply contractor. Further, BHEL reserves the right to ask for further proofs including submission of TDS certificates for the said job
- iii) In case the qualifying experience is claimed by private organizations based on Work Order and completion certificates from another private organization, BHEL reserves the right to ask for further proofs including submission of TDS certificates for the said job
- iv) Assessing Bidder Capacity for executing the current tender shall be as per Notice Inviting Tender
- v) Price Bids of shortlisted bidders shall only be opened either through the conventional price bid opening or through electronic Reverse Auction, at the discretion of BHEL
- vi) Price Bids of unqualified bidders shall not be opened. Reasons for rejection shall be intimated in due course after issue of LOI/LOA to successful bidder and receipt of unqualified acceptance from the successful bidder
- vii) Bidders are advised to also refer to clause no 2.9.4 regarding evaluation of their performance in ongoing projects for the current tender

1.7. DATA TO BE ENCLOSED

Full information shall be given by the tenderer in respect of the following. Non-submission of this information may lead to rejection of the offer.

- i) **INCOME TAX PERMANENT ACCOUNT NUMBER**
Certified copies of Permanent Account Numbers as allotted by Income Tax Department for the Company/Firm/Individual Partners, etc. shall be furnished along with tender.
- ii) **ORGANIZATION CHART**
The organization chart of the tenderer's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.
- iii) An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor
- iv) **IN CASE OF INDIVIDUAL TENDERER:**
His / her full name, address and place & nature of business.

v) **IN CASE OF PARTNERSHIP FIRM**

The names of all the partners and their addresses, A copy of the partnership deed/instrument of partnership duly certified by the Notary Public shall be enclosed.

vi) **IN CASE OF COMPANIES:**

- a. Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished).
- b. Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.

1.8 **AUTHORISATION AND ATTESTATION**

Tenders shall be signed by a person duly authorized/empowered to do so. An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor shall be submitted along with the tenders

1.9 **EARNEST MONEY DEPOSIT**

1.9.1 Every tender must be accompanied by the prescribed amount of Earnest Money Deposit (EMD) in the manner described herein.

- i) EMD shall be furnished along with the offer in full as per the amount indicated in the Special Conditions of Contract / NIT
- ii) EMD is to be paid in cash (as permissible under Income Tax Act), Pay order or Demand Draft in favour of 'Bharat Heavy Electricals Limited' and payable at Regional HQ issuing the tender.
- iii) No other form of EMD remittance shall be acceptable to BHEL
- iv) Bidder may opt to deposit "One Time EMD" of Rs. 2.0 lakhs (Rupees Two lakhs only) with BHEL:ESD:BANGALORE issuing the tender, which will enable them to participate in all the future tender enquiries in respect of Erection and Commissioning services issued from the respective office. Interested bidders may clearly send their consent for converting the present EMD into a "One Time EMD" in their offer.
 - Note : The 'One Time EMD' cannot be withdrawn by the tenderers within 3 years from the date of deposit, under any circumstances. The Tenderer who wishes to withdraw after three years will not be allowed to submit 'One Time EMD' again.
- v) Bidders who have already deposited such "One Time EMD" of Rs. 2.00 lakh are exempted from submission of EMD for this tender. However a copy of 'One Time EMD' certificate issued by BHEL Regional HQ issuing the tender shall be enclosed along with the offer.

1.9.2 EMD by the bidder will be forfeited as per Tender Documents if

- i) After opening the tender, the bidder revokes his tender within the validity period or increases his earlier quoted rates.
- ii) The bidder does not commence the work within the period as per LOI/Contract. In case the LOI / contract is silent in this regard then within 15 days after award of contract.

1.9.3 EMD shall not carry any interest.

1.9.4 In the case of unsuccessful bidders, the Earnest Money will be refunded to them within a reasonable time after acceptance of award by successful tenderer.

1.10 SECURITY DEPOSIT

1.10.1 Upon acceptance of Tender, the successful Tenderer should deposit the required amount of Security Deposit for satisfactory completion of work, as per the rates given below:

The total amount of Security Deposit will be 5% of the contract value. EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security Deposit.

1.10.2 The security Deposit should be furnished before start of the work by the contractor.

1.10.3 Security Deposit may be furnished in any one of the following forms

- i) Cash (as permissible under the Income Tax Act)
- ii) Pay Order / Demand Draft in favour of BHEL.
- iii) Local cheques of scheduled banks, subject to realization.
- iv) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back).
- v) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format for Security Deposit shall be in the prescribed formats
- vi) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
- vii) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be deposited in any form as prescribed before start of the work and the balance 50% may be recovered from the running bills.
- viii) EMD of the successful bidder can be converted and adjusted against the cash portion of Security Deposit excepting for such bidders who have remitted One Time EMD.

NOTE: Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

1.10.4 The Security Deposit shall not carry any interest.

1.10.5 In case the value of work exceeds / reduces from the awarded / accepted value, the Security Deposit shall be correspondingly enhanced / reduced as given below:

- i) The enhanced part of the Security Deposit shall be immediately deposited by the Contractor or adjusted against payments due to the Contractor.
- ii) There will be no reduction in Security Deposit value in case of variation in contract value upto the lower limit specified in Quantity variation clause. In case of reduction of contract value beyond the lower limit specified in Quantity Variation clause, then the Security Deposit shall be re adjusted in proportion.

iii) In case of reduction, the reduced Contract value shall be certified by BHEL Construction Manager after ascertaining / freezing of BOQ / Drawings from the Design / Engineering Centre. The reduced Security Deposit value can only be considered after taking into account the adequacy of the securities held by BHEL to meet the liabilities of the contractor for the contract, and the performance of the contract in general. **In such cases, the revised value of Security Deposit shall be worked out only after execution of not less than the lower limit of the revised scope of work/contract value as per quantity variation clause, and as certified by Construction Manager. This reduction in value of Security Deposit shall not entitle the contractor to any amendment of Contract and shall be operated at the discretion of BHEL.**

iv) Contract value for the purpose of operating the reduced/increased value of Security Deposit due to Quantity Variation, shall be exclusive of Price Variation Clause, Over Run Compensation and Extra works done on manday rates.

1.10.6 The validity of Bank Guarantees towards Security Deposit shall be initially upto the completion period as stipulated in the Letter of Intent/Award + 3 months, and the same shall be kept valid by proper renewal till the acceptance of Final Bills of the Contractor, by BHEL

1.10.7 BHEL reserves the right of forfeiture of Security Deposit in addition to other claims and penalties in the event of the Contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract. BHEL reserves the right to set off the Security Deposit against any claims of other contracts with BHEL.

1.11 RETURN OF SECURITY DEPOSIT

Security Deposit shall be refunded/Bank Guarantee(s) released to the Contractor after the 'Final Bill' payment after deducting all expenses / other amounts due to BHEL under the contract / other contracts entered into with them by BHEL.

1.12 BANK GUARANTEES

Where ever Bank Guarantees are to be furnished/submitted by the contractor, the following shall be complied with

- i) Bank Guarantees shall be from Scheduled Banks / Public Financial Institutions as defined in the Companies Act.
- ii) The Bank Guarantees shall be as per prescribed formats.
- iii) It is the responsibility of the bidder to get the Bank Guarantees revalidated/extended for the required period (subject to a minimum period of six months), as per the advice of BHEL Site Engineer / Construction Manager. BHEL shall not be liable for issue of any reminders regarding expiry of the Bank Guarantees.
- iv) In case extension/further extensions of any Bank Guarantees are not required, the bidders shall ensure that the same is explicitly endorsed by the Construction Manager and submitted to the Regional HQ issuing the LOI/LOA.
- v) In case the Bank Guarantees are not extended before the expiry date, BHEL reserves the right to invoke the same by informing the concerned Bank in writing, without any advance notice/communication to the concerned bidder.
- vi) Bidders to note that any corrections to Bank Guarantees shall be done by the issuing Bank, only through an amendment in an appropriate non judicial stamp paper.
- vii) The Original Bank Guarantee shall be sent directly by the Bank to BHEL under Registered Post (Acknowledgement Due), addressed to the Subcontracting Department of the respective Region.

1.13 VALIDITY OF OFFER

The rates in the Tender shall be kept open for acceptance for a minimum period of **SIX MONTHS** from latest due date of offer submission (including extension, if any) . In case BHEL (Bharat Heavy Electricals Ltd) calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers.

1.14 EXECUTION OF CONTRACT AGREEMENT

The successful tenderer's responsibility under this contract commences from the date of issue of the Letter of Intent by Bharat Heavy Electricals Limited. The Tenderer shall submit an unqualified acceptance to the Letter of Intent/Award within the period stipulated therein.

The successful tenderer shall be required to execute an agreement in the prescribed form, with BHEL, within a reasonable time after the acceptance of the Letter of Intent/Award, and in any case before releasing the first running bill. The contract agreement shall be signed by a person duly authorized/empowered by the tenderer. The expenses for preparation of agreement document shall be borne by BHEL

1.15 REJECTION OF TENDER AND OTHER CONDITIONS

1.15.1 The acceptance of tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever:-

- a. To reject any or all of the tenders.
- b. To split up the work amongst two or more tenderers as per NIT
- c. To award the work in part if specified in NIT
- d. In case of either of the contingencies stated in (b) and (c) above, the time for completion as stipulated in the tender shall be applicable.

1.15.2 Conditional tenders, unsolicited tenders, tenders which are incomplete or not in the form specified or defective or have been materially altered or not in accordance with the tender conditions, specifications etc., are liable to be rejected.

1.15.3 Tenders are liable to be rejected in case of unsatisfactory performance of the tenderer with BHEL, or tenderer under suspension (hold/banning /delisted) by any unit / region / division of BHEL or tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt of India. BHEL reserves the right to reject a bidder in case it is observed that they are overloaded and may not be in a position to execute this job as per the required schedule ____
The decision of BHEL will be final in this regard.

1.15.4 If a tenderer who is a proprietor expires after the submission of his tender or after the acceptance of his tender, BHEL may at their discretion, cancel such tender. If a partner of a firm expires after the submission of tender or after the acceptance of the tender, BHEL may then cancel such tender at their discretion, unless the firm retains its character.

- .15.5 BHEL will not be bound by any Power of Attorney granted by changes in the composition of the firm made subsequent to the execution of the contract. They may, however, recognise such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
- 1.15.6 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract if awarded and forfeit the Earnest Money/Security Deposit/any other money due.
- 1.15.7 Canvassing in any form in connection with the tenders submitted by the Tenderer shall make his offer liable to rejection.
- 1.15.8 In case the Proprietor, Partner or Director of the Company/Firm submitting the Tender, has any relative or relation employed in BHEL, the authority inviting the Tender shall be informed of the fact as per specified format, along with the Offer. Failing to do so, BHEL may, at its sole discretion, reject the tender or cancel the contract and forfeit the Earnest Money/Security Deposit.
- 1.15.9 The successful tenderer should not sub-contract part or complete work detailed in the tender specification undertaken by him without written permission of BHEL's Construction Manager/Site Incharge. The tenderer is solely responsible to BHEL for the work awarded to him.
- 1.15.10 The Tender submitted by a techno commercially qualified tenderer shall become the property of BHEL who shall be under no obligation to return the same to the bidder. However unopened price bids and late tenders shall be returned to the bidders
- 1.15.11 Unsolicited discount received after the due date and time of Bid Submission shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-I party, then the awarded price i.e contract value shall be worked out after considering the discount so offered.
- 1.15.12 BHEL shall not be liable for any expenses incurred by the bidder in the preparation of the tender irrespective of whether the tender is accepted or not.

CHAPTER-2

2.1 **DEFINITION:** The following terms shall have the meaning hereby assigned to them except where the context otherwise requires

- | | |
|-------|---|
| i) | BHEL shall mean Bharat Heavy Electricals Limited (BHEL:ESD:BANGALORE inviting the Tender), a company registered under Indian Companies Act 1956, with its Registered Office at BHEL HOUSE, SIRI FORT, NEW DELHI – 110 049, or ESD-BANGALORE or its Authorised Officers or its Site Engineers or other employees authorised to deal with any matters with which these persons are concerned on its behalf. |
| ii) | “EXECUTIVE DIRECTOR” or ‘GROUP GENERAL MANAGER’ or “GENERAL MANAGER (Incharge)” or “GENERAL MANAGER” shall mean the Officer in Administrative charge of the BHEL-ESD (Electronics Systems Division) / EDN (Electronics Division), BANGALORE . |
| iii) | “COMPETENT AUTHORITY” shall mean Executive Director or Group General Manager or General Manager (Incharge) or General Manager or BHEL Officers who are empowered to act on behalf of the Executive Director or General Manager (Incharge) or General Manager of BHEL. |
| iv) | “ENGINEER” or “ENGINEER IN CHARGE” shall mean an Officer of BHEL as may be duly appointed and authorized by BHEL to act as “Engineer” on his behalf for the purpose of the Contract, to perform the duty set forth in this General Conditions of Contract and other Contract documents. The term also includes ‘CONSTRUCTION MANAGER’ or ‘SITE INCHARGE’ as well as Officers at Site or at BHEL:ESD:BANGALORE. |
| v) | “SITE” shall mean the places or place at which the plants/equipments are to be erected and services are to be performed as per the specification of this Tender. |
| vi) | “CLIENT OF BHEL” or “CUSTOMER” shall mean the project authorities with whom BHEL has entered into a contract for supply of equipments or provision of services. |
| vii) | “CONTRACTOR” shall mean the successful Bidder/Tenderer who is awarded the Contract and shall include the Contractor’s successors, heirs, executors, administrators and permitted assigns. |
| viii) | “CONTRACT” or “CONTRACT DOCUMENT” shall mean and include the Agreement of Work Order, the accepted appendices of Rates, Schedules, Quantities if any, General Conditions of Contract, Special Conditions of Contract, Instructions to the Tenderers, Drawings, Technical Specifications, the Special Specifications if any, the Tender documents, subsequent amendments mutually agreed upon and the Letter of Intent/Acceptance issued by BHEL. Any conditions or terms stipulated by the contractor in the tender documents or subsequent letters shall not form part of the contract unless, specifically accepted in writing by BHEL in the Letter of Intent/Award and incorporated in the agreement. |
| ix) | “GENERAL CONDITIONS OF CONTRACT” shall mean the ‘Instructions to Tenderers’ and ‘General Conditions of Contract’ pertaining to the work for which above tenders have been called for. |
| x) | “TENDER SPECIFICATION” or “TENDER” or “TENDER DOCUMENTS” shall mean General Conditions, Common Conditions, Special Conditions, Price Bid, Rate Schedule, Technical |

	Specifications, Appendices, Annexures, Corrigendums, Amendments, Forms, procedures, Site information, etc and drawings/documents pertaining to the work for which the tenderers are required to submit their offers. Individual specification number will be assigned to each Tender Specification.
xi)	“LETTER OF INTENT” shall mean the intimation by a Letter/Fax/email to the tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the contractor commences from the date of issue of this letter and all terms and conditions of the contract are applicable from this date.
xii)	“COMPLETION TIME” shall mean the period by ‘date/month’ specified in the ‘Letter of Intent/Award’ or date mutually agreed upon for handing over of the intended scope of work, the erected equipment/plant which are found acceptable by the Engineer, being of required standard and conforming to the specifications of the Contract.
xiii)	“PLANT” shall mean and connote the entire assembly of the plant and equipments covered by the contract.
xiv)	“EQUIPMENT” shall mean equipment, machineries, materials, structural, electricals and other components of the plant covered by the contract.
xv)	“TESTS” shall mean and include such test or tests to be carried out on the part of the contractor as are prescribed in the contract or considered necessary by BHEL, in order to ascertain the quality, workmanship, performance and efficiency of the contractor or part thereof.
xvi)	“APPROVED”, “DIRECTED” or “INSTRUCTED” shall mean approved, directed or instructed by BHEL.
xvii)	“WORK or CONTRACT WORK” shall mean and include supply of all categories of labour, specified consumables, tools and tackles and Plants required for complete and satisfactory site transportation, handling, stacking, storing, erecting, testing and commissioning of the equipments to the entire satisfaction of BHEL.
xviii)	“SINGULAR AND PLURALS ETC” words carrying singular number shall also include plural and vice versa, where the context so requires. Words imparting the masculine Gender shall be taken to include the feminine Gender and words imparting persons shall include any Company or Associations or Body of Individuals, whether incorporated or not.
xix)	“HEADING” – The heading in these General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken as instructions thereof or of the contract.
xx)	“MONTH” shall mean calendar month unless otherwise specified in the Tender.
xxi)	Day’ or ‘Days’ unless herein otherwise expressly defined shall mean calendar day or days of twenty four (24) hours each. A week shall mean continuous period of seven (7) days.
xxii)	“COMMISSIONING” shall mean the testing and achieving functional operation of the Equipment with associated system after all initial adjustments, trials, cleaning, re-assembly required at site if any, have been completed and Equipment with associated system is ready for taking into service.

xxiii)	"WRITING" shall include any manuscript type written or hand written or printed statement or electronically transmitted messages, under the signature or seal or transmittal of BHEL.
xxiv)	"TEMPORARY WORK" shall mean all temporary works for every kind required in or for the execution, completion, maintenance of the work.
xxv)	'CONTRACT PRICE' or 'CONTRACT VALUE' shall mean the sum mentioned in the LOI/LOA/Contract Agreement subject to such additions thereto or deductions there from as may be made under provisions hereinafter contained
xxvi)	"COMMENCEMENT DATE" or "START DATE" shall mean the commencement/start of work at Site as per terms defined in the Tenderl
xxvii)	"SHORT CLOSING" or "FORE CLOSING" of Contract shall mean the premature closing of Contract, for reasons not attributable to the contractor and mutually agreed between BHEL and the contractor
xxviii)	"TERMINATION" of Contract shall mean the pre mature closing of contract due to reasons as mentioned in the contract
xxix)	"DE MOBILISATION" shall mean the temporary winding up of Site establishment by Contractor leading to suspension of works temporarily for reasons not attributable to the contractor
xxx)	"RE MOBILISATION" shall mean the resumption of work with all resources required for the work after demobilization.
2.2	<p style="text-align: center;">LAW GOVERNING THE CONTRACT AND COURT JURISDICTION</p> <p>The contract shall be governed by the Law for the time being in force in the Republic of India. The Civil Court having original Civil Jurisdiction at Bangalore shall alone have exclusive jurisdiction in regard to all claims in respect of the Contract. No other Civil Court shall have jurisdiction in case of any dispute, under this contract .</p>
2.3	<p style="text-align: center;">ISSUE OF NOTICE</p> <p>2.3.1 <u>Service of notice on contractor</u> Any notice to be given to the Contractor under the terms of the contract shall be served by sending the same by Registered Post / Speed Post to or leaving the same at the Contractor's last known address of the principal place of business (or in the event of the contractor being a company, to or at its Registered Office). In case of change of address, the notice shall be served at changed address as notified in writing by the Contractor to BHEL. Such posting or leaving of the notice shall be deemed to be good service of such notice and the time mentioned to the condition for doing any act after notice shall be reckoned from the date so mentioned in such notice.</p> <p>2.3.2 <u>Service of notice on BHEL</u> Any notice to be given to BHEL in-charge/Region under the terms of the Contract shall be served by sending the same by post to or leaving the same at BHEL address or changed address as notified in writing by BHEL to the Contractor.</p>
2.4	<p style="text-align: center;">USE OF LAND</p> <p>No land belonging to BHEL or their Customer under temporary possession of BHEL shall be occupied by the contractor without written permission of BHEL.</p>

2.5 COMMENCEMENT OF WORK

- 2.5.1 The contractor shall commence the work as per the time indicated in the Letter of Intent from BHEL and shall proceed with the same with due expedition without delay.
- 2.5.2 If the contractor fails to start the work within stipulated time as per LOI or as intimated by BHEL, then BHEL at its sole discretion will have the right to cancel the contract. The Earnest Money and/or Security Deposit with BHEL will stand forfeited without any further reference to him without prejudice to any and all of BHEL's other rights and remedies in this regard.
- 2.5.3 All the work shall be carried out under the direction and to the satisfaction of BHEL.

2.6 MEASUREMENT OF WORK AND MODE OF PAYMENT:

- 2.6.1 All payments due to the contractors shall be made by e mode only, unless otherwise found operationally difficult for reasons to be recorded in writing.
- 2.6.2 For bill payments: - The Contractor shall present detailed measurement sheets in triplicate, duly indicating all relevant details based on technical documents and connected drawings for work done in line with terms of payment as per contract. The basis of arriving at the quantities shall be relevant documents and drawings released by BHEL. These measurement sheets shall be prepared jointly with BHEL Engineers and signed by both the parties.
- 2.6.3 These measurement sheets will be checked by BHEL Engineer and quantities and percentage eligible for payment under various groups shall be decided by BHEL Engineer. The abstract of quantities and percentage so arrived at based on the terms of payment shall be entered in Measurement Book and signed by both the parties.
- 2.6.4 Based on the above quantities, contractor shall prepare the bills in prescribed format and work out the financial value. These will be entered in Measurement Book and signed by both the parties. Payment shall be made by BHEL after effecting the recoveries due from the contractor.
- 2.6.5 All recoveries due from the contractor shall be effected in full from the corresponding bills unless specific approval from the competent authorities is obtained to the contrary from the concerned in BHEL.
- 2.6.6 Measurement shall be restricted to that portion of work for which it is required to ascertain the financial liability of BHEL under this contract.
- 2.6.7 The measurement shall be taken jointly by persons duly authorized on the part of BHEL and by the Contractor.
- 2.6.8 The Contractor shall bear the expenditure involved if any, in making the measurements and testing of materials to be used/used in the work. The contractor shall, without extra charges, provide all the assistance with appliances and other things necessary for measurement.
- 2.6.9 If at any time due to any reason whatsoever, it becomes necessary to re-measure the work done in full or in part, the expenses towards such re measurements shall be borne by the contractor unless such re measurements are warranted solely for reasons not attributable to contractor.

- 2.6.10 Passing of bills covered by such measurements does not amount to acceptance of the completion of the work measured. Any left out work has to be completed, if pointed out at a later date by BHEL.
- 2.6.11 Final measurement bill shall be prepared in the final bill format prescribed for the purpose based on the certificate issued by BHEL Engineer that entire works as stipulated in tender specification has been completed in all respects to the entire satisfaction of BHEL. Contractor shall give unqualified "No Claim" Certificate. All the tools and tackles loaned to him should be returned in satisfactory condition to BHEL. The abstract of final quantities and financial values shall also be entered in the Measurement Books and signed by both parties to the contract. The Final Bill shall be prepared and paid within a reasonable time after completion of work.
- 2.7 RIGHTS OF BHEL**
 BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the contractor for any compensation.
- 2.7.1 To withdraw any portion of work and/or to restrict/alter quantum of work as indicated in the contract during the progress of work and get it done through other agencies to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergent reasons/ BHEL's obligation to its customer.
- 2.7.2 To terminate the contract or get any part of the work done through other agency or deploy BHEL's own/hired/otherwise arranged resources , at the risk and cost of the contractor after due notice of a period of two weeks by BHEL, in the event of:-
- i) Contractor's continued poor progress
 - ii) Withdrawal from or abandonment of the work before completion of the work
 - iii) Contractor's inability to progress the work for completion as stipulated in the contract
 - iv) Poor quality of work
 - v) Corrupt act of Contractor
 - vi) Insolvency of the Contractor
 - vii) Persistent disregard to the instructions of BHEL
 - viii) Assignment, transfer, sub-letting of contract without BHEL's written permission
 - ix) Non fulfillment of any contractual obligations
 - x) In the opinion of BHEL, the contractor is overloaded and is not in a position to execute the job as per required schedule
- 2.7.3 To meet the expenses including BHEL overheads of 30% & Liquidated damage/penalties arising out of "Risk & Cost" as explained above under Sl.No. 2.7.2. BHEL shall recover the amount from any money due from Contractor, from any money due to the Contractor including Security Deposit or by forfeiting any T&P or material of the contractor under this contract or any other contract of BHEL or by any other means or any combination thereof
- 2.7.4 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 customer are terminated for any reason, as per mutual agreement.
- 2.7.5 To effect recovery from any amounts due to the contractor under this or any other contract or in any other form, the moneys BHEL is statutorily forced to pay to anybody, due to contractor's failure to fulfill any of his obligations. BHEL shall levy overheads of 15% on all such payments.

2.7.6 While every endeavour will be made by BHEL to this end, they cannot guarantee uninterrupted work due to conditions beyond their control. The Contractor will not be normally entitled for any compensation/extra payment on this account unless otherwise specified elsewhere in the contract.

2.7.7 In case the execution of works comes to a complete halt or reaches a stage wherein worthwhile works cannot be executed and there is no possibility of commencement of work for a period of not less than two months, due to reasons not attributable to the contractor and other than Force Majeure conditions, BHEL may consider permitting the contractor to de mobilize forthwith and re mobilize at an agreed future date. Cost of such demobilization/remobilization shall be mutually agreed. ORC in such cases shall not be applicable for the period between the period of demobilization and re mobilisation. The duration of contract/time extension shall accordingly get modified suitably. In case of any conflict, BHEL decision in this regard shall be final and binding on the contractor.

2.7.8 In the unforeseen event of inordinate delay in receipt of materials, drawings, fronts, etc, due to which inordinate discontinuity of work is anticipated, BHEL at its discretion may consider contractor's request to short close the contract, provided that the balance works are minor vis a vis the scope of work envisaged as per the contract. At the point of requesting for short closure, contractor shall establish that he has completed all works possible of completion and he is not able to proceed with the balance works due to constraints beyond his control. In such a case, the estimated value of the unexecuted portion of work as mutually agreed, shall however be reduced from the final contract value. Final Contract value for this purpose shall mean executed contract value plus value of unexecuted portion of work as per rate schedule.

2.7.9 **LIQUIDATED DAMAGES/PENALTY**

If the contractor fails to maintain the required progress of work which results in delay in the completion of the work as per the contractual completion period, BHEL shall have the right to impose Liquidated Damages at the rate of 1% of the contract value, per week of delay or part thereof subject to a maximum of 10% of the contract value. For this purpose, the period of delay shall be the delay attributable to the Contractor for the completion of work as per contract. Contract Value for this purpose, shall be the final executed value exclusive of ORC, Extra Works executed on Manday rate basis, Supplementary/Additional Items and PVC.

2.8 **RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS ETC.**

The following are the responsibilities of the contractor in respect of observance of local laws, employment of personnel, payment of taxes etc. The subcontractor shall fully indemnify BHEL against any claims of whatsoever nature arising due to the failure of the contractor in discharging any of his responsibilities hereunder:

2.8.1 As far as possible, Unskilled Workers shall be engaged from the local areas in which the work is being executed.

2.8.2 The contractor at all times during the continuance of this contract shall, in all his dealings with local labour for the time being employed on or in connection with the work, have due regard to all local festivals and religious and other customs.

- 2.8.3 The contractor shall comply with all applicable State and Central Laws, Statutory Rules, Regulations etc. such as Payment of Wages Act, Minimum Wages Act, Workmen Compensation Act, Employer's Liability Act, Industrial Disputes Act, Employers Provident Act, Employees State Insurance Scheme, Contract Labour (Regulation and Abolition) Act 1970, Payment of Bonus & Gratuity Act and other Acts, Rules and Regulations for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at Site. The Contractor shall also give to the local Governing Body, Police and other relevant Authorities all such notices as may be required by the Law.
- 2.8.4 The contractor shall obtain independent License under the Contract Labour (Regulations and Abolition Act, 1970) as required from the concerned Authorities based on the certificate (Form-V) issued by the Principal Employer/Customer
- 2.8.5 The contractor shall pay all taxes, fees, license charges, deposits, duties, tolls, royalties, commission or other charges which may be leviable on account of his operations in executing the contract.
- 2.8.6 While BHEL would pay the inspection fees and Registration fees of Boiler/Electrical Inspectorate, all other arrangements for site visits periodically by the Inspectorate to site, Inspection certificate etc. will have to be made by contractor. However, BHEL will not make any payment to the Inspectorate in connection with contractor's Welders/Electricians qualification tests etc.
- 2.8.7 Contractor shall be responsible for provision of Health and Sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act), Safety precautions etc. as may be required for safe and satisfactory execution of contract.
- 2.8.8 The contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.
- 2.8.9 The contractor shall be responsible for the proper behavior and observance of all regulations by the staff employed by him.
- 2.8.10 The contractor shall ensure that no damage is caused to any person/property of other parties working at site. If any such damage is caused, it is responsibility of the contractor to make good the losses or compensate for the same.
- 2.8.11 All the properties/equipments/components of BHEL/their Client loaned with or without deposit to the contractor in connection with the contract shall remain properties of BHEL/their Client.
- 2.8.12 The contractor shall use such properties for the purpose of execution of this contract. All such properties/equipments/components shall be deemed to be in good condition when received by the contractor unless he notifies within 48 hours to the contrary. The contractor shall return them in good condition as and when required by BHEL/their Client. In case of non-return, loss, damage, repairs etc, the cost thereof as may be fixed by BHEL Engineer will be recovered from the contractor
- 2.8.13 In case the contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon if the item rates are not mentioned in existing contract

- 2.8.14 Any delay in completion of works/or non achievement of periodical targets due to the reasons attributable to the contractor, the same may have to be compensated by the contractor either by increasing manpower and resources or by working extra hours and/or by working more than one shift. All these are to be carried out by the contractor at no extra cost.
- 2.8.15 The contractor shall arrange, coordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.
- 2.8.16 All safety rules and codes applied by the Client/BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment/material and works to be performed by him and shall maintain all light, fencing guards, slings etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards. Due precautions shall be taken against fire hazards and atmospheric conditions. Suitable number of Clerical staff, watch and ward, store keepers to take care of equipment/materials and construction tools and tackles shall be posted at site by the contractor till the completion of work under this contract.
- The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per prescribed standards and practices.
- Contractor has to ensure the implementation of Health, Safety and Environment (HSE) requirements as per directions given by BHEL/Customer. The contractor has to assist in HSE audit by BHEL/Customer and submit compliance Report. The contractor has to generate and submit record/reports as per HSE plan/activities as per instruction of BHEL/Customer
- 2.8.17 The contractor will be directly responsible for payment of wages to his workmen. A pay roll sheet giving all the payments given to the workers and duly signed by the contractor's representative should be furnished to BHEL site for record purpose, if so called for.
- 2.8.18 In case of any class of work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.
- 2.8.19 Also, no idle charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour and Tools & Plants being rendered idle due to any reason at any time.
- 2.8.20 The contractor shall take all reasonable care to protect the materials and work till such time the plant/equipment has been taken over by BHEL or their Client whichever is earlier.
- 2.8.21 The contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly

2.8.22 The contractor shall keep the area of work clean and shall remove the debris etc. while executing day-to-day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The contractor will also demolish all the hutments, sheds, offices, etc. constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the Engineer and the expenses recovered from the contractor.

2.8.23 The contractor shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The contractor shall be responsible to ensure that the quality, assembly and workmanship conform to the dimensions and clearance given in the drawings and/ or as per the instructions of the Engineer.

2.8.24 The Contractor to note that some of BHEL's T&Ps/MMDs may not be insured. The Contractor will take necessary precautions and due care to protect the same while in his custody from any damage/ loss till the same is handed over back to BHEL. In case the damage / loss is due to carelessness/ negligence on the part of the contractor, the Contractor is liable to get them repair/ replaced immediately and in case of his failure to do so within a reasonable time, BHEL will reserve the right to recover the loss from the contractor.

2.9 PROGRESS MONITORING, MONTHLY REVIEW AND PERFORMANCE EVALUATION

2.9.1 A detailed plan/programme for completion of the contractual scope of work as per the time schedule given in the contract shall be jointly agreed between BHEL and Contractor, before commencement of work. The above programme shall be supported by monthwise deployment of resources viz Manpower, T&P, Consumables, etc. Progress will be reviewed periodically (Daily/Weekly/Monthly) vis a vis this jointly agreed programme. The Contractor shall submit periodical progress reports (Daily/Weekly/Monthly) and other reports/information including manpower, consumables, T&P mobilization etc as desired by BHEL.

2.9.2 Monthly progress review between BHEL and Contractor shall be based on the agreed programme as above, availability of inputs/fronts etc, and constraints if any, as per prescribed formats. Manpower, T&P and consumable reports as per prescribed formats shall be submitted by contractor every month. Release of RA Bills shall be contingent upon certification by BHEL Site Engineer of the availability of the above prescribed formats duly filled in and signed.

2.9.3 The burden of proof that the causes leading to any shortfall is not due to any reasons attributable to the contractor is on the contractor himself. The monthly progress review shall record shortfalls attributable to (i) Contractor, (ii) Force Majeure Conditions, and (iii) BHEL

2.9.4 Quarterly 'Evaluation of Contractor Performance' shall be assessed as per prescribed formats and shall form the basis for 'Annual/Overall Performance Evaluation' of the Contractor. These shall also be used for Evaluation of Bids for future tenders.

2.10 TIME OF COMPLETION

2.10.1 The time schedule shall be as prescribed in the Contract. The time for completion shall be reckoned from the date of commencement of work at Site as certified by BHEL Engineers

2.10.2 The entire work shall be completed by the contractor within the time schedule or within such extended periods of time as may be allowed by BHEL under clause 2.11

2.11 EXTENSION OF TIME FOR COMPLETION

- 2.11.1 If the completion of work as detailed in the scope of work gets delayed beyond the contract period, the contractor shall request for an extension of the contract and BHEL at its discretion may extend the Contract.
- 2.11.2 Based on the monthly reviews jointly signed, the works balance at the end of original contract period less the backlog attributable to the contractor shall be quantified, and the number of days of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', the contractor is bound to complete the portion of backlog attributable to the contractor. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.
- 2.11.3 However if any 'Time extension' is granted to the contractor to facilitate continuation of work and completion of contract, due to backlog attributable to the contractor alone, then it shall be without prejudice to the rights of BHEL to impose penalty/LD for the delays attributable to the contractor, in addition to any other actions BHEL may wish to take at the risk and cost of contractor.
- 2.11.4 A joint programme shall be drawn for the balance amount of work to be completed during the period of 'Time Extension', along with matching resources (with weightages) to be deployed by the contractor as per specified format. Review of the programme and record of shortfall shall be done every month of the 'Time extension' period in the same manner as is done for the regular contract period.
- 2.11.5 During the period of 'Time extension', contractor shall maintain their resources as per mutually agreed program
- 2.11.6 At the end of total work completion as certified by BHEL Engineer, and upon analysis of the total delay, the portion of time extensions attributable to (i) Contractor, (ii) Force majeure conditions, and (iii) BHEL, shall be worked out and shall be considered to be exhausted in the same order. The total period of time extensions shall be the sum of (i), (ii) and (iii) above and shall be equal to period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/levied for the portion of time extensions attributable to contractor and recoverable from the dues payable to the contractor.

2.12 OVERRUN COMPENSATION

Not Applicable

2.19 STRIKES & LOCKOUT

2.19.1 The contractor will be fully responsible for all disputes and other issues connected with his labour. In the event of the contractor's labour resorting to strike or the Contractor resorting to lockout and if the strike or lockout declared is not settled within a period of one month, BHEL shall have the right to get the work executed through any other agencies and the cost so incurred by BHEL shall be deducted from the Contractor's bills.

2.19.2 For all purposes whatsoever, the employees of the contractor shall not be deemed to be in the employment of BHEL

2.20 FORCE MAJEURE

The following shall amount to Force Majeure:-

2.20.1 Acts of God, act of any Government, War, Sabotage, Riots, Civil commotion, Police action, Revolution, Flood, Fire, Cyclones, Earth quake and Epidemic and other similar causes over which the contractor has no control.

2.20.2 If the contractor suffers delay in the due execution of the contractual obligation due to delays caused by force majeure as defined above, the agreed time of completion of the job covered by this contract or the obligations of the contractor shall be extended by a period of time equal to period of delay, provided that on the occurrence of any such contingency, the contractor immediately reports to BHEL in writing the causes of delay and the contractor shall not be eligible for any compensation.

2.21 ARBITRATION & RECONCILIATION

2.21.1 In case amicable settlement is not reached in the event of any dispute or difference arising out of the execution of the Contract or the respective rights and liabilities of the parties or in relation to interpretation of any provision by the Contractor in any manner touching upon the Contract, such dispute or difference shall (except as to any matters, the decision of which is specifically provided for therein) be referred to the sole arbitration of the arbitrator appointed by BHEL/In charge(Region).

The award of the Arbitrator shall be binding upon the parties to the dispute

Subject as aforesaid, the provisions of Arbitration and Reconciliation Act 1996 (India) or statutory modifications or re enactments thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. The venue of the arbitration shall be the place from which the contract is issued or such other place as the Arbitrator at his discretion may determine

2.25	<p>CLOSING OF CONTRACTS The Contract shall be considered completed and closed upon completion of all contractual obligations and settlement of Final Bill or completion of Guarantee period whichever is later. Upon closing of Contract, BHEL shall issue a completion certificate as per standard format, based on specific request of Contractor.</p>
2.26	<p>REVERSE AUCTION: BHEL reserves the right to go for Reverse Auction for Price Bid Opening by BHEL appointed service provider, instead of opening the submitted sealed price bid in the conventional way. The Business Rules for Reverse Auction shall be as per BHEL guidelines issued from time to time.</p>
2.27	<p>SUSPENSION OF BUSINESS DEALINGS BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.</p>
2.28	<p>OTHER ISSUES</p> <p>2.28.1 Value of Non judicial Stamp Paper for Bank Guarantees and for Contract Agreement shall be not less than Rs 100/- unless otherwise required under relevant statutes.</p> <p>2.28.2 In case of any conflict between the General Conditions of Contract and Special Conditions of Contract, provisions contained in the Special Conditions of Contract shall prevail.</p> <p>2.28.3 Unless otherwise specified in NIT, offers from consortium/JVs shall not be considered.</p> <p>2.28.4 BHEL may not insist for signing of Contract Agreements in respect of low value and short time period contracts like providing services for Hot water flushing, Chemical Cleaning, Transportation, etc</p>



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Part-I : Section 4 : Special Conditions of Contract

(A)General :

1. The intent of this specification is to provide services for execution of project according to most modern and proven techniques and codes. The omission of specific reference to any method, equipment or material necessary for the proper and efficient services towards installation of the plant shall not relieve the contractor of the responsibility of providing such services / facilities to complete the work or portion of work awarded to him. The quoted / accepted rates / price shall deem to be inclusive of all such contingencies.
2. The contractor shall carry out the work in accordance with standard practices / codes /instructions /drawings/ documents / specification/ supplied by BHEL from time to time or BHEL's Instructions.
3. The work shall conform to dimensions and tolerances given in various drawings and documents. If any portion of work is found to be defective in workmanship, not conforming to drawings or other stipulations, the contractor shall dismantle and re do the work duly replacing the defective materials at his cost failing which the job will be carried out by BHEL by engaging other agencies / departmentally and recoveries will be effected from contractor's bills towards expenditure incurred including BHEL's usual overhead charges.
4. Following shall be the responsibility of contractor and have to be provided within finally accepted rates / prices :
 - (a) Provision of all types of labour, supervisors, engineers, watch and ward as required , tools & tackles, calibrated inspection, measuring and test equipment otherwise required for the work and consumables for execution of the works.
 - (b) Proper out-turn as per BHEL plan and commitment.
 - (c) Completion of work as per BHEL Schedule.
 - (d) Good quality and accurate workmanship for proper performance of equipment.
 - (e) Repair, rectification and modification in electrical circuits/wiring involving removal of connections & redoing as per modification.



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5. **Housekeeping:** The contractor is supposed to carry out housekeeping of work area on regular basis to keep the work place neat and tidy. The scrap generated during execution activities is to be dumped at designated area.
6. **BHEL-** is ISO 9001, ISO 14001 & OHSAS 18001 certified Company. Quality of work to customer's satisfaction and system requirements is the essence of these certifications. The contractor in all respects will organize his work, systems, environment, process control documentation, tools, plant, inspection, measuring and testing equipments etc. The contractor shall also comply with applicable legislation and regulations (State / Central) with regards to Health, safety and environmental aspects for minimizing risk arising from occupational health, safety hazards, controlling pollution and wastage and he will be responsible for Health, Safety & Environment management at site for the activities to be carried out by him.
7. **Contractor shall ensure availability of the following :**
 - a) Medicines for normal ailments
 - b) First Aid Kit
 - c) Sufficient number of Fire fighting equipment in the area of working
8. **The contractor shall comply with following towards Social Accountability**
 - (a) The contractor shall not employ any employee less than 15 years of age in pursuant to ILO convention. If any child labour were found to have been engaged, the Contractor shall be levied with expenses of bearing his education expenditure which will include stipend to substantiate appropriate education or employ any other member of family enabling to bear the child education expenditure.
 - (b) The contractor shall not engage Forced / Bonded Labour and shall abide by abolition of Bonded Labour System (Abolition) Act, 1976.
 - (c) The contractor shall maintain Health & safety requirement as stipulated in the Contract and Contract Labour (Regulation & Abolition) Act, 1970.
 - (d) The Contractor shall abide by UN convention with respect to Human Rights and shall be liable for Discrimination / Corporal punishment for failure in meeting with relevant requirements.
 - (e) The Contractor shall abide by the requirement of Contract Labour (Regulation & Abolition) Act, 1970 for working hours.
 - (f) The Contractor shall abide by the Statutory requirement of Minimum Wages Act 1948 and payment of Wages Act 1936.



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(g) The Contractor shall arrange potable drinking water to his employees & workers.

(B) Consumables and Tools & Tackles :

1. It shall be the responsibility of the contractor to plan the activities and store sufficient quantity of consumables. Non availability of any consumable materials cannot be considered as reason for not attaining the required progress or for additional claim.
2. The contractor should arrange all types of tools and tackles required for carrying out the work and the rates quoted are inclusive of these. Contractor shall ensure deployment of reliable and calibrated IMTEs (Inspection measuring and Test equipment). The IMTEs shall have test / calibration certificates from authorised / Govt. approved / accredited agencies traceable to National / International standards. Each IMTE shall have a label indicating calibration status i.e. date of calibration, calibration agency and due date for calibration.

(C) Manpower :

1. The contractor shall deploy all the skilled workmen like electricians, instrument technicians, etc. for the job. Only fully trained and competent men with previous experience on the job shall be employed. They shall hold valid certificates wherever necessary. BHEL reserves the right to decide on the suitability of the workers and other personnel who will be deployed by the contractor. BHEL reserves the right to ask for removal of any employee workman of the contractor at any time, if they find him unsuitable and the contractor shall forthwith remove him.
2. The adequate supervisory staff, including qualified Engineers, shall be deployed by the contractor to ensure proper out-turn of work and discipline on the part of the labour put on the job by the contractor and in general see that the works are carried out in a safe and proper manner and in proper coordination with other labour and staff deployed directly by BHEL's customer.
3. The contractor's supervisory staff shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. The contractor shall be responsible to ensure that assembly and workmanship conform to the dimensions and tolerances given in the drawings / documents/ instructions given by BHEL.
4. It is the responsibility of the contractor to engage his workmen in shifts or on overtime basis for achieving the targets set by BHEL and also during the period of testing of equipment. The contractor's finally accepted rates / prices shall include all these contingencies.



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5. If the contractor or his workmen or employees shall break, deface, injure or destroy any part of the ship on which the work is being carried out, the contractor shall make the same good at his own expense or in default, BHEL may cause the same to be made good by other workmen or by other means and deduct the expenses (of which BHEL's decision is final) from any money due to the contractor.

(D) Progress Reporting :

1. Week-wise manpower deployment plan is to be submitted by the contractor. This is only to assess the capability as well as understanding of the contractor to execute the work.
It shall be the contractor's responsibility to deploy the required manpower, for timely and successful completion of the job, to any extent over and above those indicated in the above deployment plan (including those which are not covered in the plan submitted) without any compensation on this account.
2. The contractor shall furnish a detailed work progress plan at the time of acceptance of the order. Further, the contractor shall submit compulsorily weekly reports to BHEL for information of the work in progress. The progress report shall indicate the manpower deployed, progress achieved against planned, with reasons indicating delays, if any, and shall give the remedial actions which the contractor intends to take to make good the slippage or lost time, so that further works again proceed as per the original program and the slippages do not accumulate and effect the overall program.

(E) Drawings & Documents :

1. The detailed drawings, specifications available with BHEL for this job will form part of this tender specification. These documents will be made available to the contractor during execution of work at site. The contractor will also ensure availability of all drawings / documents at work place.
2. The contractor shall maintain a record of all drawings and documents available with him. The contractor shall ensure use of pertinent drawings / data / documents and removal of obsolete ones from work place and returning to BHEL.
3. The data furnished in this tender specification are only approximate and for guidance. However, the change in the design and in the quantity may occur as is usual in any such large scale of work.



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4. Should any error or ambiguity be discovered in the specification or information the contractor shall forthwith bring the same to the notice of BHEL before commencement of work. BHEL's interpretation in such cases shall be final and binding on the contractor.
5. Deviation from design dimensions should not exceed permissible limit. The contractor shall not correct or alter any dimension / details, without specific approval of BHEL.

(F) Income Tax , GST:

1. Income tax & surcharge, if any at prevailing rates shall be deducted on gross invoice value from the bills unless Exemption Certificate from appropriate Income Tax Authority is furnished.
2. Price quoted shall be exclusive of GST. The GST, as legally leviable & payable by the contractor under the provision of applicable law/act, shall be paid by BHEL as per contractor's bill. However, contractor shall have to submit proof of tax deposited by them immediately (within 10 days' time after receipt of payment). The contractor shall furnish proof of Tax registration covering the services covered under this contract.
3. The Contractor shall get his organization registered with the concerned Tax authorities within 15 days of award of this contract, if already not registered. The delay on this account and delay in commencement of work shall be to contractor's account and no extension of time shall be allowed on this account. The Tax registration for this contractor shall be forwarded to BHEL within 10 days from the date of work order. In case the contractor is already registered for Taxes with the Govt authorities he must quote his registration no, while submitting their tender.
4. The Contractor has to make his own arrangement at his cost for completing the formalities, if required, with the Tax authorities, for bringing their materials, plants, and equipment at site for the execution of the work under this contract.

(G) LIQUIDATED DAMAGES & PENALTIES

1. Liquidated Damages (LD) :

For delay in completion of work attributable to the contractor, the LD shall be applicable at the rate of 1 % of the contract value per week of delay or part thereof limited to a ceiling of 10 % of the contract value (excluding the safety penalty if any levied).



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2. Penalties:

(a) If the contractor fails in providing safe working environment as per the safety rules of CSL or continues to work even after being instructed to stop the work by the Engineer in charge / Safety co-ordinator, the contractor shall be penalized at the rate of Rs. 25,000/ per day or part thereof till the instructions are complied with and so certified by the Engineer in charge.

(b) If the contractor does not take all safety precautions or fails to comply with the safety rules as prescribed by the owner or under the applicable law for the safety of the plant and equipment, the contractor shall be responsible for payment of penalty to CSL / BHEL as per the following schedule:

(i) Fatal injury or accident causing death.

Penalty @ 10% of contract value or Rs. 5,00,000/- per person, whichever is less.

(ii) Major injuries or accident causing 25% or more permanent disablement to workmen or employees.

Penalty @ 2.5 % of contract value or Rs.1,00,000/- per person which ever is less.

If any worker of the contractor is found working without safety equipment like safety helmet, safety shoes, safety belts etc., BHEL shall have the right to penalize the contractor for Rs. 200/- per person per day and such worker shall be sent out of the work place and shall not be allowed to work on that day.

(H) TIME SCHEDULE:

1. The contractor is required to commence the work within 15 (Fifteen) days from the date of issue of letter of intent / Work Order unless BHEL decides to fix any other later date. However, the actual date of start of work, to fix up zero date of the contract, will be certified by BHEL Engineer after adequate mobilisation of manpower and T&Ps by the contractor.

2. Entire work as detailed in the tender specifications shall be completed within 08 (Eight) Months from the date of Work Order / Letter of Intent (whichever is earlier). Time is the essence of this contract.

(I) OTHER STATUTORY REQUIREMENTS:

1. Police Verification of Employees: The contractor should produce and submit both to BHEL & CSL, verification of character and antecedents of their employees / workers through Kochi Police, as this is a requirement of CSL Shipyard.



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2. The contractor shall compulsorily abide by the following acts :
- (a) Contract Labour (Regulation & Abolition Act) 1970
 - (b) Minimum Wages Act.
 - (c) Bonus Act
 - (d) Compliance of Factories Act and Safety Regulations
 - (e) Employees' Provident Fund and Miscellaneous Provisions Act, 1952
 - (f) Employees' State Insurance Act.
 - (g) Child Labour (Protection and Resolution) Act 1986
 - (h) Bombay Shops and Establishments Act 1948
 - (i) Industrial Dispute Act 1947
 - (j) Partnership Act 1932
 - (k) Environment Protection Act 1932

(J) LABOUR

The Contractor shall employ labour in sufficient numbers either directly or through sub-contractors to maintain the required date of progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-charge. The contractor shall not employ in connection with the works any person who has not completed his eighteen years of age.

The Contractor shall furnish to the Engineer-in-charge at the intervals specified by him, a distribution return of the number and description by trades of the workpeople employed on the works. The Contractor shall also submit on the 4th and 19th or every month to the Engineer-in-charge a true statement showing in respect of the second half of the preceding month and the first half the current month (i) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them and (ii) the number of female workers who have been allowed maternity benefits as provided in the maternity benefit Act, 1961 or Rules made there under and the amount paid to them.

The Contractor shall pay to labour employed by him either directly or through sub-contractors wages not less than fair wages as defined in the Contractor's Labour Regulations.

The Contractor shall in respect of labour employed by him either directly or through sub-contractors comply with or cause to be complied with contractor's labour Regulations in regard to all matters provided therein.



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The Contractor shall comply with the provisions of the payment of wages Act, 1936, Minimum Wages Act, 1948, Workmen's Compensation Act 1923, Industrial Disputes Act, 1947, Maternity Benefit Act 1961, or any modifications thereof or any other law relating there to and rules made there under from time to time.

The Contractor shall be liable to pay his contribution and the employees contribution of the State Insurance Scheme in respect of all labour employed by him for the execution of the contract, in accordance with the provision of "The Employees, State Insurance Act, 1948," as amended from time to time. The Contractor shall apply to the ESI Authorities, get himself registered with them and obtain a code Number. He shall pay the remittances towards PF under his Code Number only.

The Engineer-in-charge shall on a report having been made by an Inspecting Officer as defined in the Contractor's Labour Regulations have the power to required for making good the loss suffered by a worker or workers by reason of non fulfilment of the conditions of the contract for the benefit of workers, non-payment for wages or of deductions made from his or their wages which are not justified by the terms of the Contract of non observance of the said Contractor's Labour Regulations.

The Contractor shall indemnify the BHEL against any payment to be made under and for observance of the Regulations aforesaid without prejudice to his right to claim indemnity from these sub-contractors.

In the event of the Contractor committing a default or breach of any of the provisions of the aforesaid contractor's Labor Regulations, as amended from time to time or furnishing any information or submitting or filling any from /Register /Slip under the provisions of these Regulations which is materially incorrect then on the report of the Inspecting Officers as defined in the Contractors Labor Regulations, the Contractor shall without prejudice to any other liability pay to the BHEL a sum not exceeding Rs. 50/- as liquidated damages may be enhanced to Rs. 50/- per day for each day of default subject to a maximum percent of the estimated cost of works put to tender. The Contractor shall defend the case by himself any action brought in by such Government Agencies for non-compliance of any Labor Regulations and/or reimburse the expenses incurred by BHEL in this regard.

The Engineer-in-charge shall deduct such amount from bills or security deposit of the Contractor and credit the same to the welfare fund constituted under Regulations. The decisions of the Engineer-in-charge in this respect shall be final and binding.



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MODEL RULES FOR LABOUR WELFARE:

The Contractor shall at his own expense comply with or cause to be complied with model Rules for labor Welfare as appended to these conditions or rules framed by Government from time to time for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works. In case the Contractor fails to make arrangements as aforesaid the Engineer-in-charge shall be entitled do so and recover the cost thereof from the contractor.

(K) SAFETY CODE

RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF SAFETY OF MEN, EQUIPMENT, MATERIAL AND ENVIRONMENT

1. Before commencing the work, contractor submit a "SAFETY PLAN" to the authorized BHEL Official. The 'Safety Plan' shall indicate in detail the measure that would be taken by the contractor to ensure safety of men, equipment, material and environment during execution of the work. The plan shall take care to satisfy all requirements specified hereunder. The contractor shall submit safety plan along with his offer. During negotiations before placing of work order and during execution of the contractor BHEL shall have right to review and suggest modification in the Safety Plan. Contractor shall abide by BHEL decision in this respect.
2. The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per direction of BHEL or its authorized officials to prevent loss of human lives, injuries to personnel engaged, and damage to property and environment.
3. The contractor shall provide to its work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorized BHEL officials:-
 - (i) Safety Helmets conforming to IS – 2925: 1984.
 - (ii) Safety Belts conforming to IS – 3521: 1983.
 - (iii) Safety Shoes conforming to IS – 1989: 1978.
 - (iv) Eye and Face Protection devices conforming to IS – 8520: 1977 and IS – 8940: 1978.
 - (v) Hand and body protection devices conforming to:
 - IS – 2573: 1975
 - IS – 6994: 1973
 - IS – 8807: 1978
 - IS – 8519: 1977.

All tools, tackles, lifting appliances, material handling equipment scaffolds, cradles, safety nets, ladders, equipments etc. used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from



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time to time as instructed by authorized BHEL official who shall have the right to ban the use of any item.

All electrical equipment, connections and wiring for constructions power, its Distribution and use shall conform to the requirement of India Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works. All electrical appliances including portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed.

The Contractor shall not use any hand – lamp energized by electric power with supply voltage of more than 24 Volts. For work in confined spaces, lighting shall be arranged with power source of not more than 24 Volts.

The contractor shall adopt all fire safely measures as laid down in the “Code for Fire Safety at Construction sites” issued by the Safety Department of the Construction management (HQ) of BHEL and as per directions of the authorized BHEL official. A copy of the above referred “Code of Fire Safety at Construction Sites” shall be made available by BHEL to the contractor for reference, on demand by the contractor, during tendering stage itself.

Where it becomes necessary to provide and/or store petroleum Products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provisions and/or storage in accordance with the rules and regulations laid down in the relevant government acts, such as Petroleum Act, Petroleum and Carbides of Calcium manual of the chief controller of Explosives, Govt. of India. etc., Prior approval of the authorized BHEL official at the site shall also be taken by the contractor in all such matters.

The contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working when natural daylight may not be adequate for clear visibility.

The contractor shall be held responsible for any violation of statutory regulations local, state or central and BHEL instructions, that may enrage safety of men, equipment, material and environment in his scope of work or another contractor’s or agency’s. cost of damages if any, to life and property arising out of such violation of statutory regulations and BHEL instructions shall be borne by the contractor.

In case of a fatal or disabling injury accident to any person at construction sites due to lapses by the contractor, the victim and/or his/her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL has



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the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.

In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover cost of such damages from payments due to the contractor after holding an appropriate enquiry.

In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have right to recover cost of such delay from payments due to the contractor, after notifying the contractor suitably and giving him opportunity to present his case.

If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given a reasonable opportunity to do so; provide necessary safety devices and equipment or to carry out instructions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorized BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than seven days indicating the steps that would be taken by BHEL.

The contractor shall submit report of all accidents, fires and property damage, dangerous occurrence to the authorized BHEL official immediately after such occurrence, but in any case not later than twelve hours of the occurrence. Such reports shall be furnished in the manner prescribed by the contractor to the authorized BHEL official from time to time as prescribed.

Before commencing the work, the contractor shall appoint/nominate a responsible officer to supervise implementation of all safety measures and liaison with his counterpart of BHEL.

If Safety record of the contractor in execution of the awarded job is to the satisfaction of Safety Department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job.

(L) ARBITRATION:

Except where otherwise provide for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions herein. Before mentioned and as to any other question, claim, right, matter or thing whatever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution or failure to



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execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Executive Director/General Manager of BHEL and if the Executive Director/General Manager willing to act as such Arbitrator. There will be no unwillingness to abide by the directions of the sole Arbitrator so appointed. The Arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, such Executive Director/General Manager as aforesaid at the time of such transfer vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. It is also a term of this contract that no person other than a person appointed by such Executive Director/General Manager or an employee appointed as arbitrator shall give reasons for the award.

Subject as aforesaid the provision of the Arbitration Act 1940 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is term of the contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under clause together with the amount or amounts claimed in respect of each such dispute.

The arbitrator (s) may from to time with consent of the parties extend the time, for making and publishing the award.

The work under the contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.

The arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of the first hearing.

The arbitrator shall give a separate speaking award in respect of each or difference referred to him.

The venue of arbitration shall be such place as may be fixed by the arbitrator in his sole discretion.

The award of the arbitrator shall be final, conclusive and binding on all parties to this contract



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(M) INSURANCE:

INSURANCE OF WORKS AGAINST DAMAGE AND LOSS DUE TO FIRE, STRIKE TEMPEST, FLOODS, EARTHQUAKE, RIOT AND AGAINST DAMAGE BY AIRCRAFT

The contractor shall, within one month date of acceptance of the contract, insure the work against loss and damage by fire, tempest, floods, earthquake, riots, strike and against damage by aircraft with an insurance office approved by the accepting officer from the date of acceptance of work or actual commencement of work which ever is earlier. Such insurance shall be effected in the name of BHEL and shall be for the full value of the contract sum. The contractor shall lodge with the BHEL the policies and receipts of the premiums for such insurance and shall maintain such policies in force until the entire completion of the work as certified by the senior Engineer.

If the contractor fails to comply with the terms of this condition the accepting officer may insure the work and may deduct the amount of premiums from any money that may become payable to the contractor or may at his discretion refuse payment of any advance to the contractor until the contractor shall have complied with the terms of this condition.

Such insurance whether effected by the Accepting officer or the Contractor shall not be a limit or bar to the liability and colligation of the contractor to complete the entire work in all respects as certified by the Senior Engineer.

In case of such a loss or damage as aforesaid, the money payable under any such insurance shall be received and may be retained by the B.H.E.L. until the work is finally completed and shall then be credited to the contractor in the final statement of accounts in the event of the contract not having been previously cancelled under these conditions after taking into account the delay in completion, settlement to his workers for damages, damage to BHEL. Property etc.,

(N) HSE & OHSAS Obligations:

OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT MANAGEMENT/ QUALITY ASSURANCE PROGRAMME:

BHEL is certified for ISO 9001. Quality of work to customer's satisfaction and fulfillment of system requirements are the essence of ISO 9001 certification. BHEL has HSE certification (ISO 14001 & OHSAS 18001) and therefore Contractor also shall organise/ plan/ perform all their activities to meet with the applicable requirements of these standards.



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1. HSE (Health, safety & Environment):

Contractor will comply with HSE (Health, safety & Environment) requirements of BHEL. HSE requirements in brief, are given below:-

1.1 Contractor will nominate one of their qualified and experienced employees as Safety Officer, who will be responsible for all HSE related issues of contractors work area. Safety Officer will have authority to stop any activity, in case he observes that the activity is not being carried out in safe manner. He will conduct surprise inspection as well as periodic inspection/drill (at least once in a month) and submit such reports to BHEL. He will conduct periodic meetings with supervisors of different working groups and explain HSE issues and use of PPEs to them. Reports of such meetings will be submitted to BHEL. Contractor will develop suitable work procedures based upon HSE guidelines and OCPs and implement it. Such work procedures will consist of Area of work, T&P Details, Work Procedure, PPE requirements etc. Contractor should highlight the requirement of safety to staff and labour through daily tool box meeting before start of the days' job.

1.2 The contractor shall ensure that proper job specific health check-up is done by medical professional for their employees during initial mobilization and thereafter if there is any change of job.

1.3 Following personnel protective equipments (PPEs), in adequate numbers, will be made available at site & their regular use by all concerned will be ensured :-

- HELMET
- SAFETY GOGGLES & WELDING FACE SHIELDS
- SAFETY BELTS AND PROTECTIVE NET FOR WORKING AT HEIGHT
- SAFETY SHOES
- EAR PLUG
- ANY OTHER SAFETY EQUIPMENT REQUIRED FOR SAFE COMPLETION OF THE WORK

1.4 Providing appropriate First Aid facilities for prompt treatment of injuries and illness at work place. Arranging training to contractor workmen/ employees for giving first aid.

1.5 Arranging ambulance in case of any emergency situation .

1.6 Identification of nearest hospital and health check-up of workmen/employees.

1.7 Providing filtered drinking water at work place in cool container.

1.8 Providing Canteen, Rest Room, Washing facilities to the contracted employees. as per provisions of Contract Labour Regulation Act 1970 (Chapter V).



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1.9 Providing appropriate fire fighting equipment at designated work place and nominate a fire officer/warden adequately trained for his job.

1.10 Identification of nearest fire station and display contact telephone nos. / person's name around work places for cases of emergencies .

1.11 Providing adequate no. of 24 V sources and ensure that no hand lamps are operating at voltage level above 24 Volts.

1.12 Fulfilling safety requirements at all power tapping points.

1.13 Red & White caution tape of proper width(1.5 to 2 inch) to be used for cordoning unsafe area such as open trench, excavation area etc.

1.14 Providing contractors company logo on cloths /uniform/ proper identity cards with photographs, for correct identification of people working at project site .

1.15 High/ Low pressure welders to be identified with separate colour clothings. No welders will be deployed without passing appropriate tests and holding valid welding certificates. Approved welding procedure should be displayed at work place.

1.16 Displaying safe handling procedures for all chemicals such as lube oil, acid, alkali, sealing compounds etc , at work place .

1.17 All scaffolding/ platforms should be made from materials of appropriate quality/grade so that these are safe for use. It should be certified/declared safe for use by an experienced contractor person, before any scaffolding/platform is used.

1.18 All T&Ps/ MMEs should be of reputed brand/appropriate quality & must have valid test/calibration certificates bearing endorsement from competent authority of BHEL.

1.19 Ensure that the regulatory requirement of excessive weight limit (to carry/lift/ move weights beyond prescribed limits) for male and female workers are complied with.

1.20 Safety slogan, Safety/ Caution boards , wherever required to be displayed in consultation with BHEL.

1.21 Take suitable measures for waste management and environment related laws/legislation as a part of normal construction activities. Compliance with the legal requirements on storage/ disposal of paint drums (including the empty ones), Lubricant containers, Chemical Containers, and transportation and storage of hazardous chemicals will be strictly maintained. Ensure proper cleanliness of work place, housekeeping and waste management (including proper waste disposal) on daily basis.



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1.22 It is imperative on the part of the contractor to join and effectively contribute in joint measures such as tree plantation, environment protection, contributing towards social upliftment, conversion of packing woods to school furniture, keeping good relation with local populace etc.

1.23 The contractor shall carry out periodic air and water quality check and illumination level checking in his area of work place and take suitable control measure.

1.24 The Contractor is required to provide proper safety net systems where ever the hazard of fall from height is present as per instruction of BHEL Engineer. The safety nets shall be fire resistant, duly tested and shall be of ISI Mark and the nets shall be located as per site requirements to arrest or to reduce the consequences of a possible fall of persons working at different heights.

1.25 All applicable OCPs (Operational control procedures) will be followed by contractor as per BHEL instructions. This will be done as part of normal scope of work.

2. SAFETY AND CLEANLINESS :

The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per discretion of BHEL or its authorised officials (Site Construction Manager) to prevent loss of human lives, injuries, to personnel engaged and damage to property. Before commencing the work, the contractor shall submit a "Safety Plan" to the above authorised BHEL official and obtain approval on the same. The safety plan shall indicate in detail the measures that would be taken by the contractor to ensure safety of men, equipment, materials and environment during execution of the work. This will also include an organization structure, role and responsibilities of the concerned key personnel, the safety practices that will be followed, PPEs deployed, plan for handling critical activities and emergencies.

3. If the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions issued by the authorised BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor.

4. During the course of construction, alternation or repairs, scrap with protruding nail, sharp edge etc and all other debris shall be kept clean from working areas, passage, ways and stairs in and around site.

5. Combustible scrap and debris shall be removed at regular intervals during the course of execution. Safe means shall be provided to facilitate such removal. The combustible scrap should be stored in safe place away from the plant materials to avoid fire accidents. The area shall be chosen in consultation with the Engineer and to be cordoned off.



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6. Contractor shall notify the engineer, of his intention to bring on to site any equipment or any container, with liquid or gaseous fuel or other substance which may create a hazard. The Engineer shall have the right to prescribe the condition under which such equipment or container may be handled and used during the performance of the works and the contractor shall strictly adhere to such instructions. The Engineer shall have the right to inspect any construction tool and to forbid its use, if in his opinion it is unsafe. No claim due to such prohibition will be entertained.

7. Where it is necessary to provide and/or store petroleum products or petroleum mixture & explosives, the contractor shall be responsible for carrying out such provision / storage in accordance with the rules & regulations laid down in the relevant petroleum act, explosive act and petroleum and carbide of calcium manual, published by the chief inspector of explosives of India. All such storage shall have prior approval if necessary from the chief inspector of explosives or any other statutory authority. The contractor shall be responsible for obtaining the same.

8. Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dragged, struck or permitted to strike each other violently.

9 When cylinders are transported by powered vehicle they shall be secured in a vertical position.

10. All workmen of the contractor working on construction area shall wear safety shoes, hand gloves, safety helmets and safety belt as applicable. The contractor shall provide to its workforce and ensure the use of following personnel protective equipment as found necessary and as directed by BHEL;

10.1 Safety Helmets conforming to IS-2965 : 1984

10.2 Safety Belts conforming to IS-3521:1983

10.3 Safety Shoes conforming to IS-1989 : 1978

10.4 Eye and face protection devices conforming to IS – 8620 : 1977 & IS – 8950 : 1978.

10.5 Hand and body protection devices conforming to IS – 2575 : 1975 and IS – 6994 : 1973, IS – 8907 : 1970 & 8619 : 1977

13. The contractor shall insure his workmen against all accidents and the policy shall be presented to BHEL Engineer on demand. Other wise, BHEL will arrange the same and the expenditure towards this will be debited to the contractor. In case of a fatal or disabling injury accident to any person at construction site due to lapses by the contractor, the victim and/or his/her dependants shall be compensated by the contractor as per statutory requirements. However, if considered necessary BHEL shall have the right to impose appropriate financial penalty on contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependence before imposing any such penalty. Appropriate



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enquiry shall be held by BHEL giving opportunity to the contractor for presenting his case. Above safety conditions are not exhaustive but gives an idea for the contractor and contractor shall adhere to all safety precaution given by the Engineer at site.

14. The contractor shall arrange at his cost adequate lighting facilities e.g. flood lighting, hand lamps, area lighting etc. at various levels for safe and proper working operations during night hours at the work spot as well as at the preassembly area.
15. The contractor shall be responsible for provision of all the safety notices and safety equipment as enjoined on him by the application of relevant statutory regulation / provisions and/or as called upon by BHEL from time to time. He shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instruction that may endanger safety of men, equipment and material.
16. The contractor shall provide temporary fencing wherever required as a safety measure against accident and damage to properties. Suitable caution notices shall be displayed where access to any part is found to be unsafe and hazardous.
17. Contractor shall ensure safety of all the workmen, material and equipment either belonging to him or to others working at site. He shall observe safety rules and codes applied by BHEL without exception.
18. It will be the responsibility of the contractor to ensure safe lifting of the equipment, taking due precaution to avoid any accident and damage to other equipment and personnel. All requisite tests and inspection of handling equipment, tools & tackle shall be periodically done by the contractor. Defective equipment shall be removed from service. Any equipment shall not be loaded in excess of its recommended safe working load.
19. The contractor shall provide necessary first aid facilities for all his employees, representatives and workmen at site and BHEL shall have no obligation in this regard. The first aid boxes should be placed at various elevations so as to make them available within the reach and at the quickest possible time. The contractor should conduct periodical first –aid classes to keep his supervisor and Engineers properly trained for attending to any emergency.
20. All the contractor's supervisory personnel and sufficient number of workers shall be trained for fire protection systems. Enough number of such trained personnel must be available during the tenure of contract. Contractor should nominate his supervisor to coordinate and implement the safety measures.



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21. Contractor shall provide enough fire protecting equipment of the types and numbers at his office, stores, temporary structure in labour colony etc. Such fire protection equipment shall be easy and kept open at all times. The fire extinguishers shall be properly refilled and kept ready which should be certified at periodic intervals. The date of changing should be marked on the Cylinders.
22. All other fire safety measures as laid down in the “codes for fire safety at construction site” issued by BHEL shall be followed. Noncompliance of the above requirement under fire protection shall in no way relieve the contractor of any of his responsibility and liabilities to fire accident occurring either to his materials or equipment or those of others.
23. The contractor shall at his cost, remove from vicinity of work at least once each day all combustible waste, scrap, panting materials, rubbish, unused or other materials and deposit them in places specified by BHEL to keep the work site clear and tidy. Use of undercoated canvas paper, corrugated paper, fabricated carton, plastic or other flammable materials shall be restricted to the minimum and promptly removed.
24. The contractor shall not use any hand lamp energized by Electric power with supply voltage of more than 24 volts in confined spaces
25. All portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed. Only electricians licensed by appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works.
26. In case of any delay in completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from the payments due to the contractor, after notifying the contractor suitably.
27. Valve protection caps shall be kept in place and secured.
28. Tarpaulin being inflammable should not be used (instead, only non infusible covering materials shall be used) as protective cover.
29. If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given reasonable opportunity to do so and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instruction regarding safety issued by BHEL, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than 7 days indicating the steps that would be taken by BHEL.



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30. The contractor shall carefully follow the safety requirement of BHEL/ the purchaser with the regard to voltages used in critical areas.
31. The contractor shall use only properly insulated and armored cables which conform to the requirement of Indian Electricity Act and Rules for all wiring, electrical applications at site. BHEL reserves the right to replace any unsafe electrical installations, wiring, cabling etc. at the cost of the contractor. All electrical appliances used in the work shall be in good working condition and shall be properly earthed. No maintenance work shall be carried out on live equipment. The contractor shall maintain adequate number of qualified electricians to maintain his temporary electrical installations.
32. The contractor shall arrange adequate number of persons specifically for clearing any debris and for housekeeping of the erection area including restacking of components in the erection areas.
33. In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover the cost of such damages from the contractor after holding an appropriate enquiry.
34. The contractor shall submit report of all accidents, fires and property damage etc to the Engineer immediately after such occurrence, but in any case not later than 24 hours of the occurrence. Such reports shall be furnished in the manner prescribed by BHEL. In addition periodic reports on safety shall also be submitted by the contractor to BHEL from time to time as prescribed by the Engineer.
35. Before commencing the work, the contractor shall appoint/nominate a responsible person to supervise implementation of all safety measures and liaison with his counterpart of BHEL.
36. Suitable scaffolds shall be provided for workman for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration of work which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made of steel. The steps shall have a minimum width of 45 cm and a maximum rise of 30 cm. Suitable handholds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ horizontal and 1 vertical.
37. Scaffolding or staging more than 3.6 m above the ground floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly bolted, braced or otherwise secured, at least 90 cm above the floor or platform of such scaffolding or staging and extending along the entire length of the out side and ends thereof with only such openings as may be necessary for the delivery of materials. Such



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scaffolding or staging shall be so fastened as to prevent it from swaying, from the building or structure.

38. Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform gangways provided is more than 3.6 m above ground level or floor level, they shall be closely boarded and shall have adequate width which shall not be less than 750 mm and be suitably fenced as described above.
39. Every opening in the floor or a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm.
40. Wherever there are open excavation in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.
41. Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m in the length while the width between side rails in rung ladder shall in no case be less than app. 29.2 cm for ladder upto and including 3 m in length. For longer ladders this width shall be increased at least ¼" for each additional foot of length.
42. A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to Construction.
43. All personnel of the Contactor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal worker shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.
44. Adequate precautions shall be taken to prevent danger for electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.
45. All trenches, four feet or more in depth, shall at all times be supplied with at least one ladder for each 30 m in length or fraction thereof. The ladder shall be extended from bottom of the trench to at least 90 cm above the surface of the ground. Sides of the trenches which are 1.50 m or more in depth shall be stepped back to give suitable slope or securely held by timer bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom.



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Under no circumstances undermining or undercutting shall be done.

- 46. The Contactor shall take all measures at the sites of the work to protect all persons from accidents and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by any persons for injury sustained or death owing to neglect of the above precautions, and to pay any such persons such compensation or which may with the consent of the Contractor be paid to compromise any claim by any such person should such claim proceeding be filed against BHEL. The Contractor hereby agrees to indemnify BHEL against the same.**
- 47. All necessary personnel safety equipment as considered adequate by the Engineer should be kept available for the use of the persons employed in the Site and maintained in a condition suitable for immediate use and the Contactor should take adequate steps to ensure proper use of equipment by those concerned.**
- 48. When the work is being done near any place where there is risk of drowning all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.**
- 49. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safe guards. Hoisting appliance should be provided with such means as will reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations which are already energized, insulting mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductor of electricity.**
- 50. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near the places of work.**
- 51. The contractor shall maintain and ensure necessary safety measures as required for inspection and tests HV test, Pneumatic test, Hydraulic test, Spring test, Bend test etc as applicable, to enable Inspection Agency for performing Inspection. If any test equipment is found not complying with proper safety requirements then the Inspection Agency may withhold inspection, till such time the desired safety requirements are met.**
- 52. All safety precautions shall be taken for welding and cutting operations as per IS-818.**



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53. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent, place at work spot. The persons responsible for compliance of the safety code shall be named therein by the Contractor.
54. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangement made by the contract shall be open to inspection by the Engineer or the Engineer's Representative.
55. Keeping the work area clean/ free from debris, removed scaffoldings, scraps, insulation/sheeting wastage /cut pieces, temporary structures, packing woods etc. will be in the scope of the contractor. Such cleanings has to be done by contractor within quoted rate, on daily basis by an identified group. If such activity is not carried out by contractor / BHEL is not satisfied, then BHEL may get it done by other agency and actual cost along with BHEL overheads will be deducted from contractor's bill. Such decisions of BHEL shall be binding on the contractor.
56. Notwithstanding the above clauses there is nothing to exit the Contractor from the operations of any other Act or Rule in force in area of work in this respect. Provided always that all safety measures apart from those specifically provided in this agreement which are brought to the notice of the Contractor from time to time by the Engineer shall be complied by the Contractor. Provided further that all consequences, damages, or losses arising by reason of any safety code shall be met with by the Contractor.

57. NON COMPLIANCE:

NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND BHEL HAS RIGHT TO IMPOSE FINES ON THE CONTRACTOR AS UNDER for every instance of violation noticed:

Sl. No.	Violation of Safety Norms	Fine in Rs.
1	Not Wearing Safety Helmet	50/-
2	Not wearing Safety Belt	100/-
3	Grinding Without Goggles	50/-
4	Not using 24 V Supply For Internal Work	500/-
5	Electrical Plugs Not used for hand Machine	100/-
6	Not Slings property	200/-
7	Using Damaged Sling	200/-
8	Lifting Cylinders Without Cage	500/-



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9	Not Using Proper Welding Cable With Lot of Joints And Not Insulated Properly	200/-
10	Not Removing Small Scrap	200/-
11	Gas Cutting Without Taking Proper Precaution or Not Using Sheet Below Gas Cutting	200/-
12	Improper Earthing Of Electrical Equipment and T&P	500/-
13	Accident Resulting in Partial Loss in Earning Capacity	25,000/- per victim
14	Fatal Accident/Accidents Resulting in total loss in Earning Capacity	1,00,000/- per victim

Any other non-conformity noticed not listed above will also be fined as deemed fit by BHEL. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the contractor. The amount collected above will be utilized for giving award to the employees who could avoid accident by following safety rules. Also the amount will be spent for purchasing the safety appliances and supporting the safety activity at site.

58. CITATION:-If safety record of the contractor in execution of the awarded job is to the satisfaction of safety department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job.

59. MEMORANDUM OF UNDERSTANDING

After Award Of Work, Contractors Are Required To Enter Into A Memorandum Of Understanding As Given Below:

Memorandum of Understanding

BHEL, Electronics Systems Division, Bangalore is committed to Health, Safety and Environment Policy (HSE Policy).

M/s _____ do hereby also commit to the same

EHS Policy while executing the Contract Number _____

M/s _____ shall ensure that safe work practices not limited to the above are followed by all construction workers and supervisors. Spirit and content therein shall be reached to all workers and supervisors for compliance.

BHEL will be carrying out HSE audits twice a year and M/s _____ shall ensure to close any non-conformity observed/reported within fifteen days.

Signed by authorized representative of

M/s _____

Name:

Place & Date:



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Part-I: Section 5: Technical Requirements

Glossary

IPMS	Integrated Platform Management system
RTU	Remote terminal unit
I/O	Input/Output
STW	Setting to work
HAT	Harbor acceptance test
DM MFC	Deck Mounted Multifunction console
WM MFC	Wall Mounted Multifunction console
SWE	Ethernet Switch enclosure
HWP	Hardwired panel
UPS	Uninterrupted power supply
FO	Fiber-optic
LC	Lucent connector
CB	Connection box
JB	Junction box
EQPT	Equipment
EU	Elaboration unit
EOT	Engine order telegraph
POT	Propulsion order telegraph



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1. General Description

1.1. Intent of specification

- a) The purpose of this document is to detail the work procedure and scope of work for onboard connectorisation of BHEL supplied P71 - IPMS equipment for INDIAN NAVY at M/s. Cochin Shipyard Limited, Cochin.
- b) It is not the intent to specify completely herein all the details of connectorisation, however the connectorisation shall be complete in all respects conforming to high standards which may not have been specifically mentioned, but are essential for satisfactory and trouble free operation of the equipment.
- c) The bidder while quoting shall go through the specifications in detail all the attachments thereof and furnish all documentation as indicated elsewhere in the specification. Deviations from specifications, if any, should be clearly specified. Compliance shall be assumed if not mentioned otherwise.

2. Inputs by BHEL for connectorisation work

2.1. IPMS configuration documents & system line diagrams

These documents give the terminal level connection details for each module.

IPMS cable running sheets definitions document will be given for execution of connectorisation job. These documents give the breakup of different signals going into different cables with their markings. These documents will be given later on award of contract for execution of connectorisation job.

3. Outputs expected from the connectorisation work

- 3.1. All IPMS equipment connected (network, serial links, terminations & Fiber optic LC connection).
- 3.2. Connectorisation of cables at RTUs/console/switches/panels/ sensors and continuity



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Check/FO splicing losses reports available.

3.3. The bidder shall provide necessary assistance during STW (Setting To Work) and also during trials at Harbor (HAT) and Sea (SAT).

4. Exclusions

4.1. Installation of IPMS equipment onboard ship.

4.2. The laying of cables including FO Cable.

5. Free supply of items for connectorisation

5.1. FO LC Connectors as needed for Fiber optic ports of network switches shall be supplied by BHEL.

5.2. RJ45 & D Sub type 9 pin serial connectors shall be supplied by BHEL

5.3. Cable glands & blanking glands of the equipment's shall be supplied by BHEL.

5.4. Shorting links for the terminal blocks to be used inside the panels will be provided by BHEL.

6. Materials scope

6.1. All tools and tackles required for connectorisation shall be arranged by bidder, for example - crimping tool, FO splicing tool etc...

6.2. All the standard consumables like terminal lugs, loose wires, ferrules, etc. as practiced/approved on Naval ship are to be arranged by the bidder.

6.3. All the test instruments needed for verifying the continuity checks/cold checks/FO splicing losses are to be borne by bidder.

6.4. Bidder will arrange for crimping tools of various types to suit all sizes of cables to be installed, soldering irons and



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approved standard quality consumables, contact cleaner, etc.

- 6.5. Cable Glanding with proper grounding to the equipment while making the cables enter the equipment to be ensured as per standard practice in Naval ships

7. Total list of items applicable for connectorisation

The total items being supplied by BHEL to CSL applicable for connectorisation are as follows,

S.No	IPMS Equipment	Total Qty
1	Remote terminal unit (RTU)	65
2	RTU Junction box (JB) (*supplied by CSL)	65
3	Ethernet switch assy.	63
4	Uninterrupted power supply (UPS)	40
5	UPS Junction Box	40
6	Elaboration Units	02
7	Overfill Panels & Flashers (sets)	02
8	TLIS-LDU	11
9	CCTV Camera	37
10	EHM System (DAU (05) + Sensors (45))	45
11	Portable EHM with 10 sensors	08
11	Synchros	25
12	Propulsion JB's	02
13	DA Hardwired Panels	02
14	Deck Mount Console (DMMFC-1 Bay)	08
15	Deck Mount Console (DMMFC-2 Bay)	06
16	Deck Mount Console (DMMFC-3 Bay)	06
17	Wall Mount Mult-func.Console (WMMFC)	11
18	Ship sensors	2364
19	Connection boxes	1605
20	LAN connection points	25
21	Printers Assy. Panels (2 printer/panel)	03
22	Large screen display (LSD)	05
23	FDS- Zonal Indication Panels (ZIP)	09
24	PLS System	170

Table 1 : List of items applicable for connectorisation

The detailed number of connections and type of connections are given in annexure – 1.



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8. Technical requirement for connectorisation

- 8.1. The scope includes connectorisation, Cold checks, FO splicing losses checks, continuity checks and all assistances during various stages of inspections, STW and trials for IPMS equipment supplied by BHEL.**
- 8.2. Preparation of cable dressing, clamping, neatly laying the cables going inside the equipment. Marking of the cables connecting to IPMS equipment connections.**
- 8.3. Connecting up all equipment involving methods of cable terminations like crimping, soldering, connecting using connectors as per annexure-1.**
- 8.4. The connectors i.e RJ45, D Sub type 9 pin connectors, FO LC connectors will be provided by BHEL at the time of connectorisation as a free supply to the connectorisation vendor.**
- 8.5. Each cables having spare cores are to be neatly dressed, grouped with proper ties and neatly placed inside the panels as per standard Naval practice. They should be ready to use as spares if needed. The approximate spare connections are given in Annexure -1 wherein price to be quoted accordingly by the bidder.**
- 8.6. Circular connectors for UPS & PLS are to be soldered as per the connector specifications. The circular connectors will be provided by BHEL and one of the sample connector for UPS & PLS is shown below,**





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Figure 1 : Circular Connectors – Sample for UPS

For UPS, there will be 40 nos of 3 pin connector, 200 nos of 2 pin connector and 40 nos of 16 pin connector.

For PLS, there will be 170 nos of 6 pin connectors to be soldered as shown in below picture.

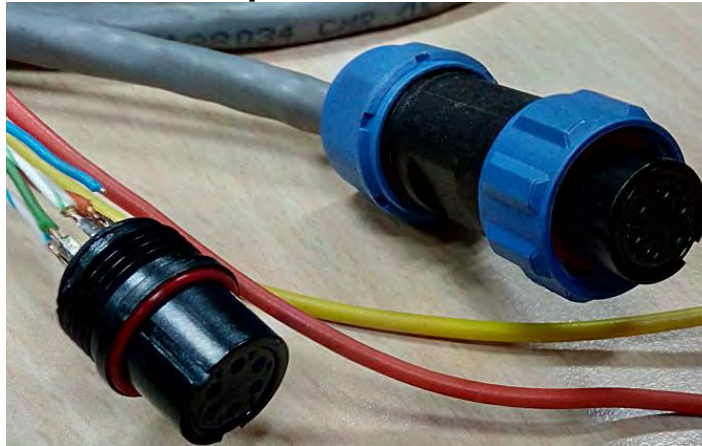


Figure 2 : Circular Connectors – PLS

8.7. About 95% of the connections as given in annexure – 1 will have to be made through terminals (lugs) to be connected to the terminal boards. About 5% of the connections as given in annexure-1 will have to be realized by connector (i.e D type serial connectors, RJ45 Ethernet connectors, FO LC connectors). Fiber optic (FO) connections to the Ethernet switch to be carried out as per standard splicing method.

8.8. The cable gland interface must be executed keeping in mind two factors:

- a. EMI shield
- b. IP protection

To make sure the IP protection, the glands must be properly tightened. Care must be taken so that the following cables shield are not connected to the gland,

- i. Fibre optic
- ii. Large screen display SVGA-DVI

8.9. Metallic cable glands - The metallic glands for all the panels will be provided by BHEL to the bidder and has to be fitted



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along with the cable entry. The size of cable glands ranges from M16 to M40.

The shield connections to the gland must be executed as the below figure. The glands will be supplied by BHEL.

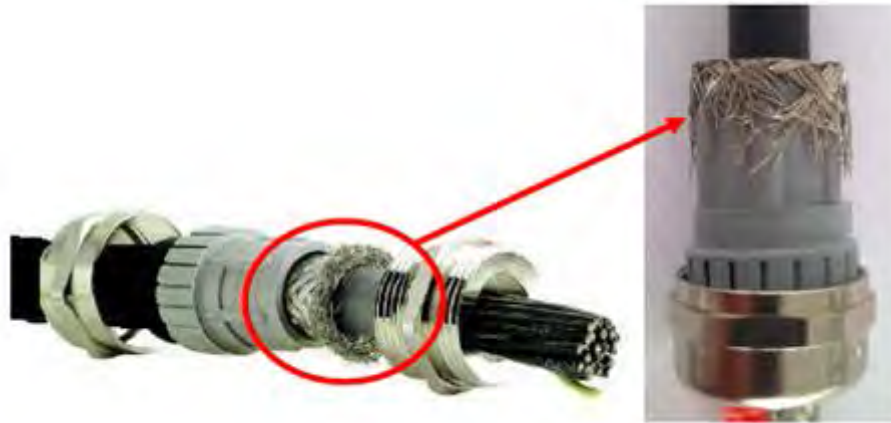


Figure 3 : Cable Gland

Apart from this, there shall be some metallic glands which are to be blanked and the blanking glands supplied by BHEL is to be used for gland blankings. Gland blanking are done by placing metallic circular cap to close the hole in the gland. Bidder to note that there is no need to make any holes in the panel since the holes are already provided in the panels. Sample blank glands are shown below.



Figure 4 : Cable Gland Blank for reference

Bidder to note that there are various plastic glands used in small connection/Junction boxes, PLS interface boxes and ship sensors wherein the cable needs to be simply entered



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& screw terminated without requirement of ground shielding as mentioned above for metallic glands. Bidder at no additional costs shall do the screw terminations which shall be inclusive of entering them through plastic glands as applicable to those equipments.

Hence bidder has to quote only for the metallic glands as listed in the table in annexure 1.

8.10. Earth connections details - All the cabinets of the equipment mentioned in table 1 shall be earth connected through ground studs.

8.11. It should be ensured that the cables used for connectivity are checked for continuity and insulation. The same has to be recorded and submitted as a test report. The same applies to earth connections and cabling of earth to the cabinets.

8.12. Numbered ferrules, labels, sleeves etc. to be provided for easy identification of each termination. Maximum of 50 printed characters which includes signal description and terminal number can be considered for estimation.

8.13. The screw types of connections are to be crimped with lugs. The lugs are to be made of copper material and the quality is to be of the same type which are already being used in the existing naval ships. Any deviation from this are to be pre-approved by BHEL before placing the order. Lugs are to be provided by the bidder for all the screw terminations and price quoted for screw terminations should be inclusive of Lugs.

Some of the lugs are given below for reference,



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Figure 5 : Types of lugs for reference

The screw terminations to be connected to terminal blocks provided inside the panels. The sample terminal block is shown below,



Figure 6 : Terminal Block for reference

8.14. For each cable, there will be approximately 20% of cores which are kept as spares i.e they are unused spares not terminated in the terminals inside the panel. These unused spares are to be neatly dressed, tied up properly and kept inside the panel for future use. The approximate quantity of unused cores are mentioned in the price bid, hence bidder has to quote accordingly for the unused spares.

8.15. The scope of work for connectorisation also includes supervision of the connectorisation job as per drawings submitted along with this specification.

8.16. The shorting links for the terminal blocks are to be inserted directly into the terminals. The shorting links will be provided by BHEL for connecting the same at the panels. Bidder if necessary, may have to cut the shorting links based on number of positions to be shorted. Bidder has to quote accordingly as given in price bid. Sample shorting link



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is shown in the figure below.



Figure 7 : Shorting Links for reference

- 8.17. The support shall be provided by bidder till the final clearance given by BHEL which includes Setting to work (STW), Harbour acceptance test (HAT) and Sea acceptance trials (SAT) activities on the ship.
- 8.18. The bidder shall accommodate for any changes which may be necessary during inspection, STW and trials of the IPMS equipment.
- 8.19. Bidder shall offer all the equipment for various stage of inspection between LOI and completion of job. Bidder should clear points raised during inspections, render necessary assistance to BHEL while STW/rectifying the defects etc. for commissioning of the IPMS system.
- 8.20. Bidder shall appoint a project-in-charge, who will be stationed in CSL to update BHEL on progress of the work during various stages of connectorisation job.
- 8.21. All associated works viz. necessary cutting, connector crimping, soldering, cold checks, etc. shall be done in CSL premises only.
- 8.22. The bidder at no extra cost will do any temporary removal and reconnections of equipment whenever necessitated during normal connectorisation process and also defect rectification arising out of check wire and inspection.



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9. Bidder documentation

As part of technical proposal, bidder has to provide a point wise compliance to each of the clauses of this specification document.

10. Quality Assurance Plan

The bidder shall maintain version controlled documentation on check wire reports for all terminations/connectors including any approved deviation from BHEL in line with the drawing details. Bidder will maintain all documents and records as per ISO 9000 standard.

11. Testing & Inspection

11.1. The bidder has to facilitate inspection from BHEL/Customer at any stage of the execution. The bidder shall inform BHEL at least 3 days in advance for inspection.

11.2. During the execution of work, any ambiguity or lack of information related to any process step as observed by bidder to be resolved in consultation with BHEL.

11.3. The detailed continuity test reports to be made available as and when the equipment connectorisation jobs are being completed including the earth connections.

11.4. The bidder shall check visually, each equipment for completeness & correctness of installation before taking up the connectorisation. Any discrepancy, damage, missing item etc. should be reported before taking up the connectorisation job.

11.5. The progress report in terms of no of connections/type of equipment completed to be furnished by bidder once in a week. The period of sending progress report shall be reviewed further depending on the actual progress of work against the delivery schedule.



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11.6. All the IPMS equipment shall be check wired with documentation and inspection clearance to be obtained by the bidder from BHEL.

12. Place of work

The place of work shall be On board the ship docked at Cochin Shipyard Limited (CSL), Cochin, Kerala.

13. Confidentiality & non-disclosure agreement

The bidder has to enter into a confidentiality and Non-disclosure agreement with BHEL to be eligible for participating in the bid and further execution of the contract / order. Bidder shall maintain top secrecy on all drawings. Under no circumstances bidder shall be allowed to take any of the drawings / confidential documents outside CSL or part with such documents. Indian secrets Act 1923 is strictly applicable to this contract. The format for Non-disclosure agreement is attached as an enclosure to this document.



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14. Annexure 1

14.1. The approximate list of connections are given below

S.No	Equipment	Panel Qty	Screw Terminations (Sq mm)							Addl. Cables (0.5/0.75)	Shorting Links	Unused Spares* (Signal Cables)
			0.5	0.75	1.5	2.5	4	25	35			
1	RTU to RTU JB	65	38714	5927						138	19889	7416
2	Ethernet Switch & Consumers	63										
3	UPS to UPS JB	40		560				0	400			
4	UPS JB to consumers			480	252	400	488	124	300			
5	Elaboration unit	2		4								
6	Overfill panel	2	12		54							
7	TLIS-LDU	11								33		
8	CCTV Camera	37										
9	EHM System (DAU+Sensors)	45								534		
10	Synchros	24								408		
11	Relay Boards (Prop & APMS)	48								784		
12	Propulsion JBs	2								592		
13	DA Panels	2								320		
14	DMMFC-1 Bay	8								240		
15	DMMFC-2 Bay	6								180		
16	DMMFC-3 Bay	6								180		
17	3rd bay Hwired panel in DMFC									1200		
18	WMMFC	11								330		
19	Sensors to RTU JBs	2364								11298		
20	Connection boxes	1605								7794		
21	LAN connection points	25										
22	Printers Assy. Panels	3										
23	Large screen display (LSD)	5										
24	Zonal Indication Panels	9										
25	PLS System	170								1020		
	Contigency		10%	10%	20%	20%	20%	20%	20%	10%	10%	20%
	Gross Total		42599	7668	367	480	586	629	526	27404	21878	8899

Table 2 : Part 1 - List of connections



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***Note: Spares- These are spare cores inside the cables which are unused and are not terminated to the terminal block**

S. No	Equipment	Panel Qty	Connectors								Earth Conn.	Ferrules	Cable Glands	Gland Blanks
			RJ 45	FO LC	Circular Connectors				D-Sub Female 9 pin	D-Sub male 9 pin				
					16 pin (UPS)	2 pin (UPS)	3 Pin (UPS)	6 Pin (PLS)						
1	RTU to RTU JB	65							130	200	65	72414	1571	791
2	Ethernet Switch & Consumers	63	1466	552							63	2018	1296	280
3	UPS to UPS JB	40			40	200	40				40	1240		
4	UPS JB to consumers											2044	1280	
5	Elaboration unit	2		4							2	8		
6	Overfill panel	2									2	66	18	
7	TLIS-LDU	11									11	33	22	
8	CCTV Camera	37									37	0	111	
9	EHM System (DAU+Sensors)	45									45	534	35	
10	Synchros	24									24	408		
11	Relay Boards (Prop & APMS)	48										784		
12	Propulsion JB's	2									2	592	82	
13	DA Panels	2									2	320	24	6
14	DMMFC-1 Bay	8									8	240	64	4
15	DMMFC-2 Bay	6									6	180	30	6
16	DMMFC-3 Bay	6									6	180		
17	3rd bay Hwired panel in DMFC												162	22
												1200		
18	WMMFC	11									11	330	60	12
19	Sensors to RTU JB's	2364										11298		
20	Connection boxes	1605									1605	7794		
21	LAN connection points	25									25	0	75	
22	Printers Assy. Panels	3									3	0	24	
23	Large screen display (LSD)	5									5	0		
24	Zonal Indication Panels	9									9	0	90	
25	PLS System	170						170			170	170		
	Contingency		10%	10%	5%	5%	5%	5%	20%	20%	20%	10%	10%	20%
	Gross Total		1613	612	42	210	42	179	156	240	2569	112038	5438	1345

Table 3 : Part 2 - List of connections



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NIT No.: DABG/ESD/CSL/P71-IPMS/31700033/CONNECT/NIT-21/RS

DATE: 12/07/2017

Section 6: Forms

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, Electronics Systems Division, Electronic City, Banagalore 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. Notice Inviting Tender (NIT) and any Amendments/Clarifications/Errata/Corrigendum, etc
2. Instruction to Tenderers
3. Technical Requirements
4. Special Conditions of Contract
5. General Conditions of Contract
6. Forms and Procedures
7. Price Bid

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:

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 : NIT No.: _____, Date _____, Due on _____ at Time _____

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 also confirm that by signing this form, I agree to all the terms and conditions laid out in the above NIT.

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

POWER OF ATTORNEY for SUBMISSION OF TENDER/SIGNING CONTRACT AGREEMENT

(To be typed on non judicial Stamp Papers of appropriate value as applicable and Notarised)

KNOW ALL MEN BY THESE PRESENTS, that I/We do hereby make, nominate, constitute and appoint Mr , whose signature given below herewith to be true and lawful Attorney of M/s..... hereinafter called 'Company', for submitting Tender/entering into Contract and inter alia, sign, execute all papers and to do necessary lawful acts on behalf of Company with M/s Bharat Heavy Electricals Ltd, Power Sector _____ Region, _____, in connection with
.....
..... vide Tender Specification No : _____, dated _____.

And the Company do hereby agree to ratify and confirm all acts, deeds, things or proceedings as may be lawfully done by the said attorney and by or on behalf of the company and in the name of the company, by virtue of the powers conferred herein and the same shall be binding on the company and shall have full force and effect.

IN WITNESS WHEREOF the common seal of the company has been hereunto affixed in the manner hereinafter appearing on the document.

Dated at _____, this _____ day of _____

Director/CMD/Partner/Proprietor

Signature of Mr.....(Attorney)

Attested by: Director/CMD/Partner/Proprietor

Witness

Notary Public

NO DEVIATION CERTIFICATE

(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 : **No Deviation Certificate**

Ref : 1) NIT/Tender Specification No:,

2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/e-mail issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred NIT/Tender Specification.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions, Integrity Pact (if applicable) and acceptance to Reverse Auctioning process (if applicable).

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

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

DECLARATION CONFIRMING KNOWLEDGE ABOUT SITE CONDITIONS
(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 confirming knowledge about Site conditions

Ref : 1) NIT/Tender Specification No:,

2) All other pertinent issues till date

I/We, _____ hereby declare and confirm that I/we are aware of the Project Site as referred in BHEL Tender Specifications and acquired full knowledge and information about the Site conditions including Wage structure, Industrial Climate, the Law & Order and other conditions prevalent at and around the Site. We further confirm that the above information is true and correct and we shall not raise any claim of any nature due to lack of knowledge of Site conditions.

I/We, hereby offer to carry out work as detailed in above mentioned Tender Specification, in accordance with Terms & Conditions thereof.

Yours faithfully,

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

Date :

Place:

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 Proprieter/Partner(s)/Director(s) employed in BHEL

Tick(✓) any one as applicable:

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

OR

2. The Proprieter, 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 against the Bidder/Contractor.

NON DISCLOSURE CERTIFICATE

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

NON DISCLOSURE CERTIFICATE

I/We understand that BHEL-ESD, Bangalore is committed to Information Security Management System as per their Information Security Policy.

Hence, I/We M/s.....
who are submitting offer for providing services to BHEL-ESD, Bangalore against Tender Specification No: _____,
hereby undertake to comply with the following in line with Information Security Policy of BHEL ESD, Bangalore

- To maintain confidentiality of documents & information which shall be used during the execution of the Contract.
- The documents & information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL-ESD, Bangalore.

I/We also certify that as the project pertains to Defence Services, no information on the contract shall be passed on to anybody who does not need to know about the same. I/We also certify that my/our working place will be secured and there would not be access of any person other than the person/s working for the projects/contracts. I shall take adequate measures to prevent illegal transfer and unauthorized use of the said information/details. I/We also undertake not pass any information/details related to Defence projects /contracts over phone unless the person is personally known to me and working for the defence project/contract.

(Signature, date & seal of Authorized Signatory of the bidder)

BANK ACCOUNT DETAILS FOR E-PAYMENT (To be given on Letter head of the Company /Firm of Bidder, and ENDORSED (SIGNED & STAMPED) BY THE BANK to enable BHEL release payments through Electronic Fund Transfer (EFT/RTGS)

**Electronic Funds Transfer (EFT) OR
Paylink Direct Credit Form**

Please Fill up the form in **CAPITAL LETTERS** only.

TYPE OF REQUEST(Tick one): _____ CREATE _____ CHANGE

BHEL Vendor / Supplier Code:	
Company Name :	
Permanent Account Number(PAN):	
Address	

City: _____	PINCODE _____	STATE _____
-------------	---------------	-------------

Contact Person(s)	
Telephone No:	
Fax No:	
e-mail id:	

1 Bank Name:	
2 Bank Address:	
3 Bank Telephone No:	
4 Bank Account No:	
5 Account Type: Savings/Cash Credit	
6 9 Digit Code Number of Bank and branch appearing on MICR cheque issued by Bank	
7 Bank swift Code(applicable for EFT only)	
8 Bank IFSC code(applicable for RTGS)	
9 Bank IFSC code(applicable for NEFT)	

A blank cancelled cheque is to be enclosed for verification

- A I hereby certify that the particulars given above are true, correct and complete and that I, as a representative for the above named Company, hereby authorise BHEL, ESD/EDN, Bangalore to electronically deposit payments to the designated bank account.
- B If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL / transferring Bank responsible.
- C This authority remains in full force until BHEL, ESD/EDN, Bangalore receives written notification requesting a change or cancellation.
- D I have read the contents of the covering letter and agree to discharge the responsibility expected of me as a participant under ECS / EFT.

Date:

Authorised Signatory:

Designation:

Telephone NO. with STD Code

Company Seal

Bank Certificate

We certify that _____ has an Account No _____ with us and we confirm that the bank details given above are correct as per our records.

Date:

(.....)

Place:

Signature

FORMAT FOR SEEKING CLARIFICATION

(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 : **Request for Clarification**

Ref : 1) NIT/Tender Specification No:,

2) All other pertinent issues till date

Sl no	Reference clause of Tender Document	Existing provision	Bidder's query	BHEL's clarification
1				
2				
3				
4				
5				
6				

Yours faithfully,

(Signature, date & seal of Authorized Representative of the Bidder)

CAPACITY EVALUATION OF BIDDERS FOR CURRENT TENDER

SL NO.	DESCRIPTION OF WORK (Similar to Tendered Scope)	WORK ORDER REF & DATE	CONTRACT VALUE (Rs. LACS)	CUSTOMER NAME & ADDRESS	CURRENT STATUS OF THE JOB ALONG WITH LATEST MILE STONE COMPLETED	%AGE OF WORK COMPLETE D	VALUE OF BALANCE WORK (Rs. Lacs)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

NOTES:

1. BIDDERS ARE REQUIRED TO FURNISH ALL THE JOBS OF SIMILAR NATURE WHICH THEY ARE EXECUTING (IN PROGRESS) AT THE TIME OF SUBMISSION OF TENDER, AS PER ABOVE FORMAT.

2. BIDDERS HEREBY UNDERTAKE THAT THEY HAVE FURNISHED THE DETAILS SOUGHT AS PER POINT NO. 1 IN TOTALITY AND THAT THE DETAILS FURNISHED IS COMPLETE IN ALL RESPECT.

3. BHEL WILL TAKE APPROPRIATE ACTION AS DEEMED FIT , IN CASE, IT IS FOUND AT A LATER DATE THAT THE CONTRACTOR HAD SUPPRESSED THE FACTS AND HAVE NOT FURNISHED THE CORRECT & COMPLETE INFORMATIONS.

DATE :
PLACE:

Signature

Name, Designation & Seal of Bidder

CONTRACT AGREEMENT

Form-11

BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
Electronics Systems Division
Electronic City, Hosur Road
BANGALORE 560100

CONTRACT AGREEMENT

AGREEMENT NO. _____

NAME OF WORK	
NAME OF THE CONTRACTOR WITH FULL ADDRESS	
VALUE OF WORK AWARDED	
LETTER OF INTENT NO.	
TIME ALLOTTED FOR COMPLETING THE WORK (DATE OF COMPLETION)	

SIGNATURE OF CONTRACTOR

(SIGNATURE OF BHEL OFFICER)

CONTRACT AGREEMENT

THIS AGREEMENT MADE THIS _____ DAY OF _____ between BHARAT HEAVY ELECTRICALS LIMITED (A Government of India Enterprise) a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort New Delhi-110049 (herein after called BHEL) of the ONE PART.

AND

M/S _____ (hereinafter called the `Contractor') of the SECOND PART.

WHEREAS M/s -----state that they have acquired and possess extensive experience in the field of -----

And Whereas in response to an Invitation to Tender No. ----- issued by BHEL for execution of ----- the contractor submitted their offer No.-----dated -----And whereas BHEL has accepted the offer of the Contractor on terms and conditions specified in the Letter of Intent No.-----dated -----read with the references cited therein.

THIS AGREEMENT WITNESSES AND it is hereby agreed by and between the parties as follows:

1. That the contractor shall execute the work of -----and more particularly described in Tender Specification No -----including Drawings and Specifications (hereinafter called the said works) in accordance with and subject to terms and conditions contained in these presents, instructions to Tenderers, General Conditions of Contract, Special Conditions, Annexures, Letter of Intent dated ----- and such other instructions, Drawings, Specifications given to him from time to time by BHEL.
2. The Contractor is required to furnish to BHEL Security deposit in the form of cash/ approved securities/ Bank Guarantee valid upto ----- for a sum of Rs.----- towards satisfactory performance and completion of the Contract.
3. The Contractor has furnished a Bank Guarantee bearing no.-----dated ----- for a sum of Rs.-----executed by ----- in favour of BHEL towards Security Deposit valid upto -----

OR

The Contractor has furnished to BHEL an initial Security Deposit of Rs.-----in the form of cash / approved Securities/ B.G No.----- dated ----- for Rs.-----executed by ----- in favour of BHEL valid upto ----- and has agreed for recovery of the balance security deposit by BHEL @ 10% of the value of work done from each running bill till the entire Security Deposit is recovered.

OR

The contractor has furnished to BHEL an initial Security Deposit of Rs.-----(Rs.-----vide Bank draft No.-----dated -----and by adjusting EMD of Rs.----- submitted vide Bank draft No.----- dt.-----) and has agreed for recovery of balance Security Deposit by BHEL @ 10% of the value of work done from each running bill till the entire security deposit is recovered.

4. The Contractor hereby agrees to extend the validity of the Bank Guarantee for such further period or periods as may be required by BHEL and if the Contractor fails to obtain such extension(s) from the Bank, the Contractor, shall pay forthwith or accept recovery of Rs.----- from the bills in one installment and the contractor further agrees that failure to extend the validity of the Bank Guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute breach of contract. In addition to above, BHEL shall be entitled to take such action as deemed fit and proper for recovering the said sum of Rs.-----

OR

In case the contractor furnishes the bank guarantee at a later date the contractor hereby agrees to extend the validity of bank guarantee for such further period or periods as may be required by BHEL and if the contractor fails to obtain such extension(s) from the bank, the contractor shall pay forthwith or accept recovery of the amount of bank guarantee given in lieu of security deposit from the bills in one installment and the contractor further agrees that failure to extend the validity of bank guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute breach of contract. In addition to above, BHEL shall be entitled to take such action as deemed fit and proper for recovering the said sum.

5. That in consideration of the payments to be made to the Contractor by BHEL in accordance with this Agreement the Contractor hereby covenants and undertakes with BHEL that they shall execute, construct, complete the works in conformity, in all respects, with the terms and conditions specified in this Agreement and the documents governing the same.
6. That the Contractor shall be deemed to have carefully examined this Agreement and the documents governing the same and also to have satisfied himself as to the nature and character of the Works to be executed by him.
7. That the Contractor shall carry out and complete the execution of the said works to the entire satisfaction of the Engineer or such other officer authorised by BHEL, within the agreed time schedule, the time of completion being the essence of the Contract.
8. That BHEL shall, after proper scrutiny of the bills submitted by the Contractor, pay to him during the progress of the said works such sum as determined by BHEL in accordance with this Agreement.
9. That this Agreement shall be deemed to have come into force from ----- the date on which the letter of intent has been issued to the Contractor.
10. That whenever under this contract or otherwise, any sum of money shall be recoverable from or payable by the Contractor, the same may be deducted in the manner as set out in the General Conditions of Contract or other conditions governing this Agreement.
11. That all charges on account of Octroi, Terminal and other taxes including sales tax or other duties on material obtained for execution of the said works shall be borne and paid by the Contractor.
12. That BHEL shall be entitled to deduct from the Contractor's running bills or otherwise Income Tax under Section 194 (C) of the Income Tax Act, 1961.
13. That BHEL shall be further entitled to recover from the running bills of the Contractor or otherwise such sum as may be determined by BHEL from time to time in respect of

consumables supplied by BHEL, hire charges for tools and plants issued (Where applicable) and any other dues owed by the Contractor.

14. That it is hereby agreed by and between the parties that non- exercise, forbearance or omission of any of the powers conferred on BHEL and /or any of its authorities will not in any manner constitute waiver of the conditions hereto contained in these presents and the liability of the Contractor with respect to compensation payable to BHEL or Contractor's obligations shall remain unaffected.

15. It is clearly understood by and between the parties that in the event of any conflict between the Letter of Intent and other documents governing this Agreement, the provisions in the Letter of Intent shall prevail.

16. The following documents

1. Invitation to Tender No-----
and the documents specified therein.

2. Contractor's Offer No-----
dated-----.

3. _____

4. _____

5. _____

6. Letter of Intent No _____ dated _____.

7. _____

shall also form part of and govern this Agreement.

IN WITNESS HEREOF, the parties hereto have respectively set their signatures in the presence of

WITNESS

1.

2.

(CONTRACTOR)
(to be signed by a person holding
a valid Power of Attorney)

WITNESS

1.

2.

(For and on behalf of BHEL)

BANK GUARANTEE FOR SECURITY DEPOSIT

THIS DEED OF GUARANTEE made and executed on the.....day of.....[Year], by the.....[bank name, address] registered under the Companies Act 1956/Nationalized Bank constituted under the Banking companies[acquisition asnd transfer of ndertakings] Act constituted under the State Bank of India Act/Subsidiary Banks Act, having its registered/head office at..... represented herein by its Branch Manager/authorised representative sri..... & Sri.....[Hereinafter called the 'guarantor' Which term shall mean and include its successors and assigns]:

IN FAVOUR OF BHARAT HEAVY ELECTRICALS LIMITED

-----[Buyers' name], a company registered under the companies Act, 1956 having its registered office at BHEL House Siri Fort, New Delhi-110 049. and its Electronics Systems Division at Electronic City, Hosur Road Bangalore-560100 [hereinafter referred to as the 'Company' which term shall include its successors and assigns]:

Whereas the Company has placed an order on. [State the name of the Company/ firm and its address] [hereinafter referred to as the 'Contractor' Which term shall mean and include its liquidators, successors and assign] for the supply of service under order/Contract to be issued by the company.

AND WHEREAS the Contractor has agreed to carryout the Works as detailed and in accordance with the terms set out in the said order/contract.

AND WHEREAS the contract interalia provides that the Contractor shall furnish a Bank Guarantee in favor of the Company By a reputed Bank for a sum of Rs.....(Rupees.....) towards Security Deposit for Service rendered to him and for due and faithful performance of the contract in the manner and form specified therein.

AND WHEREAS the Contractor, M/s.....is a customer of the 'Guarantor' and has approached the 'Guarantor' to furnish on their behalf an irrevocable guarantee for a sum of Rs.....(Rupees.....) in favor of the Company for a period of.....year commencing from.....to..... as Security for the services to be issued by the Company to the Contractor during the currency of this guarantee.

AND WHEREAS the Guarantor has agreed to furnish a guarantee for the said sum of Rs.....(Rupees.....) for a periodyear commencing from.....to..... in favor of the Company subject to the terms and conditions stated below:

NOW THIS DEED WITNESSES THAT IN pursuance of the above said agreement, the Guarantor hereby agrees and covenants With company is as follows:-

1] That during the period this Contract of Guarantee remains effectual, the Guarantor shall be liable in respect of the amount due and owing to the Company in respect of the payments to the extent of Rs.....[in Words] against any loss or damage caused to or suffered by the Company by reasons of any breach of the terms of the said order/contract/Agreement by the contractor.

2] The Guarantor hereby undertakes to pay the amounts due and payable under this guarantee without any demur, merely on demand from the Company intimating that the amount claimed is due by way of loss or damage caused to or suffered or would be caused or suffered by the contractor of any terms contained in the said order/contract. Any such demand made on the guarantor shall be conclusive as regards the amount due and payable by the Guarantor irrespective of the fact whether the Contractor/contractor admits or denies.

3] THE Guarantor further agrees that the Agreement herein contained shall remain in force and effect till all the supplies to be made/Works to be performed/services to be rendered under the said order/contract/agreement are completed to the entire satisfaction of the Company or till the company certified that the terms and conditions of the said order/contract/agreement have been fully and properly carried out by the said contractor and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made on the Guarantor in Writing on or before. [date], the guarantor shall be discharged from all liability under this guarantee thereafter.

4] The guarantor further agrees with the Company that the company shall have the fullest liberty without the consent of the guarantor and without effecting in any manner the obligations of the guarantor hereunder to vary any of the terms of the said order/contract/agreement or extend the time of performance by the said contractor from time to time or refrain from exercising the power exercisable by the company against the said contractor or to forbear or omit to enforce any of the terms and conditions relating to the said order/contract agreement, and the guarantee not be relieved of its liability in whole or in part, by reason of any act, commission or forbearance on the part of the Company

or by reason of any such variation, or extension being granted to the said contractor or by reason of any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving the guarantor.

5] The Guarantor undertakes not to revoke this guarantee during its currency except with the previous consent of the company in writing.

6] Notwithstanding anything herein above contained, the liability of the guarantor under these presents is restricted to RsThe guarantee shall be in force till its expiry on.....Unless a demand is made on the Guarantor with in six months from the date of expiry i.e, on_____ (date), all the liability of the guarantor under this guarantee shall stand fully discharged. The decision of the claimant in regard to breach of contract is final and binding on the Bank.

IN WITNESS whereof, the Guarantor, acting through it authorised representative has executed this deed of Guarantee on the day, month and year first above written.

[Seal of the bank to be affixed]

WITNESS

1.

2.

NOTE: THESE ARE INSTRUCTIONS FOR EXECUTING THE BG.

1. BG/ANY AMENDMENT TO BG SHIOULD BE EXECUTED ON RS.100/ STAMP PAPER.

2. 6 MONTHS CLAIM PERIOD FROM THE DATE OF VALIDITY SHOULD BE GIVEN.

3. The Bank Guarantee Format should be approved by BHEL before the successful bidders gets the same issued by his banker.

FORM for EXTENSION OF VALIDITY OF BANK GUARANTEE

1. To be typed on non judicial Stamp Papers of value as applicable in the State of India from where the BG has been issued or the State of India where the BG shall be operated
2. The non judicial stamp papers shall be purchased in the name of the Party on whose behalf the BG is being issued or the BG issuing Bank

BANK GUARANTEE No:

Date:.....

To

(Write Designation and Address of Officer of BHEL inviting the Tender)

Dear Sir

Sub : Validity of Bank Guarantee No:..... Dated for
..... Rs in favour of yourself, expiry date
....., on account of M/s in respect of
Contract Number....., (herein after called the Original bank Guarantee)

At the request of M/s....., we Bank,
having its branch Office at and having Head office
at, do hereby extend our liability under the above mentioned Bank Guarantee
number..... dated for a further period ofMonths/years
from to expire on

Except as provided above, all other terms and conditions of the Original Bank Guarantee No
..... Dated..... shall remain unaltered and binding on us.

Kindly treat this extension as an integral part of the original Bank Guarantee to which it
would be attached.

Yours faithfully

Signature.....

Name & Designation.....

Power of Attorney/Signing Power No

Seal of Bank

INDEMNITY BOND

(To be executed on a Non Judicial Stamp Paper of the requisite value as per Stamp Duty prevalent in the respective State)

 This Indemnity Bond executed by _____ having their Registered Office at _____ in favour of M/s Bharat Heavy Electricals Limited, a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort, Asiad, New Delhi - 110049 through its Unit at Electronic Systems Division, Electronic City, BANGALORE 560100, Karnataka State

(Hereinafter referred to as the Company)

And whereas the Company has entered into a Contract with M/s _____, the executants of this Deed (hereinafter referred to as the Contractor) as its contractor in respect of the work of _____

AND WHEREAS under the provisions of the contract further stipulates that the Contractor shall indemnify the Company against all claims of whatever nature arising during the course of execution of Contract including defects liability period of _____ Months i.e till _____.

Now this deed witnesseth that in case the Company is made liable by any Authority including Court to pay any claim or compensation etc. in respect of all labourers or other matters at any stage under or relating to the Contract with the Contractor, the Contractor hereby covenants and agrees with the Company that they shall indemnify and reimburse the Company to the extent of such payments and for any fee, including litigation charges, lawyers' fees, etc, penalty or damages claimed against the Company by reason of the Contractor falling to comply with Central/States Laws, Rules etc, or his failure to comply with Contract (including all expenses and charges incurred by the Company).

The Contractor further indemnifies the Company for the amount which the Company may be liable to pay by way of penalty for not making deductions from the Bills of the Contractor towards such amount and depositing the same in the Government Treasury.

INDEMNITY BOND

(To be executed on a Non Judicial Stamp Paper of the requisite value as per Stamp Duty prevalent in the respective State)

The Contractor further agree that the Company shall be entitled to with hold and adjust the Security Deposit and/or with hold and adjust payment of Bills of Contractor pertaining to this Contract against any payment which the Company has made or is required to make for which the Contractor is liable under the Contract and that such amount can be withheld, adjusted by the Company till satisfactory and final settlement of all pending matters and the Contractor hereby gives his consent for the same.

The Contractor further agrees that the terms of indemnity shall survive the termination or completion of this contract.

The contractor further agrees that the liability of the contractor shall be extended on actual basis notwithstanding the limitations of liability clause, in respect of :

1. breach of terms of contract by the contractor
2. breach of laws by the contractor
3. breach of Intellectual property rights by the contractor
4. breach of confidentiality by the contractor

Nothing contained in this deed, shall be construed as absolving or limiting the liability of the Contractor under said Contract between the Company and the Contractor. That this Indemnity Bond is irrevocable and the condition of the bond is that the Contractor shall duly and punctually comply with the terms and the conditions of this deed and contractual provisions to the satisfaction of the Company.

In witness where of M/s _____these presents on the day, month and year first, above written at _____by the hand of its signatory Mr/Mrs./Ms. _____

Signed for and on behalf of
M/s _____

Witness:

- 1
- 2



Bharat Heavy Electricals Limited

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(A Government of India Undertaking)
ELECTRONICS SYSTEMS DIVISION
Plot No. 98, Electronic City, Hosur Road,
BANGALORE - 560 100 (INDIA)

Website : <http://www.bhel.com>, <http://www.bheledn.com>

Phone : +91-80-25146129
Fax : +91-80-28520135
E mail : srajes@bheledn.co.in
Mobile : +91-98456 34534

NIT No.: DABG/ESD/CSL/P71-IPMS/31700033/CONNECT/NIT-21/RS

DATE: 12/07/2017

Part-II: Price Bid



Bharat Heavy Electricals Limited

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(A Government of India Undertaking)
ELECTRONICS SYSTEMS DIVISION
Plot No. 98, Electronic City, Hosur Road,
BANGALORE - 560 100 (INDIA)
Website : <http://www.bhel.com>, <http://www.bheledn.com>

Phone : +91-80-25146129
Fax : +91-80-28520135
E mail : srajesh@bheledn.co.in
Mobile : +91-98456 34534

1.1. Price bid format to be furnished by Bidder,

1.1.1. Part 1 :

S. No	Equipment	Screw Terminations (Sq mm)								Shorting Links	Unused Spares (Signal Cables)
		0.5	0.75	1.5	2.5	4	25	35	Addl. Cables (0.5/0.75)		
1	Total Connections	42599	7668	367	480	586	629	526	27404	21878	8899
2	Price per Connection										
3	Total Price										
4	Grand Total										

Table 4 : Part 1: Price Bid Format to be furnished by Bidder

1.1.2. Part 2 :

S. No	Equipment	Connectors								Earth Conn.	Ferrules	Cable Glands	Gland Blanks
		RJ 45	FO LC	Circular Connectors				D-Sub Female 9 pin	D-Sub male 9 pin				
				16 pin (UPS)	2 pin (UPS)	3 Pin (UPS)	6 Pin (PLS)						
1	Total Connections	1613	612	42	210	42	179	156	240	2569	112038	5438	1345
2	Price per Connection												
3	Total Price												
4	Grand Total												

Table 5 : Part 2: Price Bid Format to be furnished by Bidder