Bharat Heavy Electricals Ltd.,
Electronics Division,
Mysore Road, Bangalore – 560 026

Tender Document for CCTV System for DVC Mejia, DVC KTPS, DVC Bokaro, DVC Raghunathpur and DVC Durgapur projects

TENDER REFERENCE DOC	NKR0000351
TENDER DOCUMENT AVAILABLE FROM	Refer E-Procurement System
LAST DATE AND TIME FOR SUBMISSION OF TENDER	Refer E-Procurement System
DATE AND TIME FOR TENDER OPENING	Refer E-Procurement System
SUBMISSION OF TENDER	Bidder to submit offer in E-procurement website : https://bhel.abcprocure.com

This Tender Document Contains documents as per below index:

INDEX

SL No.	DESCRIPTION	PAGE No.
1	INDEX SHEET	**01 TO 01**
2	RFQ	**02 TO 02**
3	GENERAL COMMERCIAL CONDITIONS FOR CONTRACT WITH RELEVANT ANNEXURES. (GCC)	**03 TO 10**
4	INSTRUCTIONS TO BIDDERS (ITB)	**11 TO 41**
5	SPECIAL COMMERCIAL CONDITIONS OF CONTRACT (SCC)	**42 TO 45**
6	PQR CRITERIA AND TECHNICAL SPECIFICATION	**46 TO 71**

Contact Person at BHEL:	PADMANABHA M - DGM/PURCHASE(CE-MM-PR) Ph: 080-26998838 Email - padmanabha@bhel.in
	NILMANI KUMAR , Sr.ENGINEER/PURCHASE(CE-MM-PR) Ph: 080-26998663, Email - nilmanikumar@bhel.in

REQUEST FOR QUOTATION

BHARAT HEAVY ELECTRICALS LIMITED
Electronics Division
PB No. 2606, Mysore Road Bangalore - 560026
INDIA

RFQ NUMBER: NKR0000351
RFQ DATE: Refer E-Procurement System
RFQ DUE DATE: Refer E-Procurement System
e-Tender - Applicable

(for all correspondence)
Purchase Executive : Nilmani Kumar
Phone :080- 26998663
E-mail: nilmanikumar@bhel.in

Sl No.	Material Code	Description	Qty	Unit
1	PR0900000137	IP CCTV System - IP BASED CLOSE CIRCUIT TELEVISION INCLUDING ITEMS LIKE CAMERA, LENSESAND ACCESSORIES as per specification CE/416/CCTV/DVC-DeNox for DVC Mejia TPS Unit 7&8 2X500MW project	1	Set
2	PR0900000137	IP CCTV System - IP BASED CLOSE CIRCUIT TELEVISION INCLUDING ITEMS LIKE CAMERA, LENSESAND ACCESSORIES as per specification CE/416/CCTV/DVC-DeNox for DVC KTPS Unit 1&2 2X500MW project	1	Set
3	PR0900000137	IP CCTV System - IP BASED CLOSE CIRCUIT TELEVISION INCLUDING ITEMS LIKE CAMERA, LENSESAND ACCESSORIES as per specification CE/416/CCTV/DVC-DeNox for DVC Bokaro 'A' TPS 1X500MW project	1	Set
4	PR0900000137	IP CCTV System - IP BASED CLOSE CIRCUIT TELEVISION INCLUDING ITEMS LIKE CAMERA, LENSESAND ACCESSORIES as per specification CE/416/CCTV/DVC-DeNox for DVC Raghunathpur Unit 1&2 2X600MW project	1	Set
5	PR0900000137	IP CCTV System - IP BASED CLOSE CIRCUIT TELEVISION INCLUDING ITEMS LIKE CAMERA, LENSESAND ACCESSORIES as per specification CE/416/CCTV/DVC-DeNox for DVC Durgapur TPS Unit 1&2 2X500MW project	1	Set
6	E&C-Charge	E&C-Charge for DVC Mejia TPS Unit 7&8 2X500MW project	1	Lumpsum
7	E&C-Charge	E&C-Charge for DVC KTPS Unit 1&2 2X500MW project	1	Lumpsum
8	E&C-Charge	E&C-Charge for DVC Bokaro 'A' TPS 1X500MW project	1	Lumpsum
9	E&C-Charge	E&C-Charge for DVC Raghunathpur Unit 1&2 2X600MW project	1	Lumpsum
10	E&C-Charge	E&C-Charge for DVC Durgapur TPS Unit 1&2 2X500MW project	1	Lumpsum

i). This is only RFQ not an order.
ii). In all correspondence quote RFQ No. & due date.
iii). Quotation should remain valid for a minimum peiod of 90 days from due date.

ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd.,
(A Government of India undertaking)
Electronics Division
PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 002- Rev 02

GENERAL COMMERCIAL CONDITIONS FOR CONTRACT

These 'General Commercial Conditions for Contract for Purchase' herein after referred to as GCC apply to all enquiries, tenders, requests for quotations, orders, contracts and agreements concerning the supply of goods and the rendering of related services (hereinafter referred to as "deliveries") to Bharat Heavy Electricals Limited and any of its units, regions or divisions (hereinafter referred to as "BHEL" or the Purchaser) or its projects/ customers.

Any deviations from or additions to these GCC require BHEL's express written consent. The general terms of business or sale of the vendor shall not apply to BHEL. Acceptance, receipt of shipments or services or effecting payment shall not mean that the general terms of business or sale of the vendor have been accepted.

Orders, agreements and amendments thereto shall be binding if made or confirmed by BHEL in writing. Only the Purchasing department of BHEL is authorized to issue the Purchase Order or any amendment thereof.

Definitions: Throughout these conditions and in the specifications, the following terms shall have the meanings assigned to them, unless the subject matter or the context requires otherwise.

a) 'The Purchaser' means Bharat Heavy Electricals Limited, Electronics division, Mysore road, Bangalore 560 026, a Unit of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the Companies Act having its registered office at BHEL House, Siri Fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.
b) 'The vendor' means the person, firm, company or organization on whom the Purchase Order is placed and shall be deemed to include the vendor's successors, representative heirs, executors and administrator as the case may be. It may also be referred to as Seller, Contractor or Supplier.
c) 'Contract' shall mean and include the Purchase Order incorporating various agreements, viz. tender/ RFQ, offer, letter of intent/acceptance/ award, the General Conditions of Contract and Special Conditions of Contract for Purchase, Specifications, Inspection/ Quality Plan, Schedule of Prices and Quantities, Drawings, if any enclosed or to be provided by BHEL or his authorized nominee and the samples or patterns if any to be provided under the provisions of the contract.
d) 'Parties to the Contract' shall mean the 'The Vendor' and the Purchaser as named in the main body of the Purchase Order.

Order of Precedence:

In case of any inconsistency or contradiction between any of the documents, the order of precedence shall be Purchase Order, LOI / LOA, Special Conditions of Contract and General Conditions of Contract for commercial conditions; and specific agreement on technical conditions, RFQ/offer and specification for Technical Conditions.

Interpretation:

In the contract, except where the context requires otherwise:

a) words indicating one gender include all genders;
b) words indicating the singular also include the plural and words indicating the plural also include the singular;

c) provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing, and
d) "Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

Applicable Conditions:

1. Price Basis: All prices shall be firm until the purchase order is executed / completed in all respects. No price variations / escalation shall be permitted.

2. Ordering and confirmation of Order:Vendor shall send the order acceptance on their company letter head/ through e-mail within a week from the date of receipt of Purchase Order or such other period as specified/ agreed by BHEL. BHEL reserves the right to revoke the order placed if the order confirmation differs from the original order placed. The acceptance of goods/services/supplies by BHEL as well as payments made in this regard shall not imply acceptance of any deviations.
   The purchase order will be deemed to have been accepted if no communication to the contrary is received within one week (or the time limit as specified/agreed by BHEL) from the date of receipt of the purchase order.

3. Documentation:After receipt of Purchase Order, vendor should submit necessary documents(if & as applicable) like drawings specified, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report , O & M Manuals and/or any other relevant documents as per Specification/Purchase Order, as and when required by BHEL/Customer.
   At any stage within the contract period, the vendor shall notify of any error, fault or other defect found in BHEL's documents /specifications or any other items for reference. If and to the extent that (taking account of cost and time) any vendor exercising due care would have discovered the error, fault or other defect when examining the documents/specifications before submitting the tender, the time for completion shall not be extended. However if errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the vendor's documents, they shall be corrected at his cost, notwithstanding any consent or approval.

4. Penalty:
   a. For delay in documentation: In the event of delay in submission of complete set of specified documents ((like drawings, bill of materials, datasheets, catalogues, quality plan etc. as called in tender specifications including soft copies wherever applicable) in required sets beyond two(02) weeks (or as agreed/indicated in the SCC/Purchase Order) from the date of receipt of Purchase Order(by email), penalty at 0.5% (half percent) per week or part thereof, limited to a maximum of 5% (five percent) of the basic material value of the Purchase Order will be applicable.

      Penalty for delayed documentation if applicable, shall be deducted at the time of first supply payment. If penalty is applicable for duration of less than a week, penalty @ 0.5% (half percent) of the basic material value will be deducted. GST as applicable will be recovered along with penalty amount.

   b. For delay in delivery: In the event of delay in agreed contractual delivery as per Purchase Order, penalty @ 0.5 % (half percent) per week or part thereof but limited to a max of 10% (ten percent) value of undelivered portion (basic material cost) will be applicable. Delivery will commence from the date of issue of Manufacturing clearance along with approved document. The date for which Inspection call is issued by vendor along with test certificates / test reports /Certificate of Conformance / calibration reports, as proof of completion of manufacturing will be treated as date of deemed delivery for penalty calculation. In the absence of furnishing such document indicated above as proof of completion of manufacturing along with inspection call, actual date of inspection will be considered as date of deemed delivery and BHEL will not be responsible for delay in actual date of inspection.

Penalty for delayed delivery if applicable, shall be deducted at the time of first supply payment. If penalty is applicable for duration of less than a week, penalty @ 0.5% (half percent) of the basic material value will be deducted. GST as applicable will be recovered along with penalty amount.

5. Contract variations (Increase or decrease in the scope of supply): BHEL may vary the contracted scope as per requirements at site. If vendor is of the opinion that the variation has an effect on the agreed price or delivery period, BHEL shall be informed of this immediately in writing along with technical details. Where unit rates are available in the Contract, the same shall be the basis for such additional work. Vendor shall not perform additional work before BHEL has issued written instructions/ amendment to the Purchase Order to that effect. The work which the vendor should have or could have anticipated in terms of delivering the service(s) and functionality (i.e.) as described in this agreement, or which is considered to be the result of an attributable error on the vendor's part, shall not be considered additional work.

6. Inspection: Prior written notice of at least 10 days shall be given along with internal test certificates/COC and applicable test certificates. Materials will be inspected by BHEL-EDN-QS/CQS or BHEL nominated Third Party Inspection Agency (TPIA) or BHEL authorized Inspection Agency or Customer / Consultant or jointly by BHEL & Customer / consultant. All tests have to be conducted as applicable in line with approved Quality plan or QA Checklist or Purchase specification and original reports shall be furnished to BHEL-EDN, Bangalore for verification/acceptance for issue of dispatch clearance. BHEL reserves the right for conducting repeat test, if required.
   All costs related to inspections & re-inspections shall be borne by vendor. Whether the Contract provides for tests on the premises of the vendor or any of his Sub-contractor/s, vendor shall be responsible to provide such assistance, labour, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such other special tests shall be borne by BHEL only if specifically agreed to in the purchase order.

7. Transit Insurance: Transit insurance coverage between vendor's works and project site shall be to the account of BHEL, unless specifically agreed otherwise. However, vendor shall send intimation directly to insurance agency (as mentioned in dispatch instructions issued by BHEL) through fax/courier/e-mail, immediately on dispatch of goods for covering insurance. A copy of such intimation sent by vendor to insurance agency shall be given to BHEL along with dispatch documents. Dispatch documents will be treated as incomplete without such intimation copy. BHEL shall not be responsible for sending intimations to insurance agency on behalf of the vendor.

8. Mode of dispatch:
   Indigenous Scope: By road on Door Delivery Consignee Copy attached basis through your approved transporter (unless otherwise indicated in Dispatch Instructions), only on receipt of Despatch Clearance from BHEL.
   Imported Scope: By Air/Sea through BHEL approved Freight Forwarder/supplier approved Consolidator respectively as per agreed contractual terms, only on receipt of Dispatch Clearance from BHEL.

9. Changes in Statutory levies:
   If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the execution of Contract, which was or will be assessed on the bidder in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction there from, as the case may be. However, these adjustments would be restricted to direct transactions between BHEL and the bidder /agent of foreign bidder (if applicable). These adjustments shall not be applicable on procurement of raw materials, intermediary components etc. by the bidder /agent.

10. Availing duty/tax exemption benefits by bidder, wherever applicable: BHEL shall issue the required Certificate/s, as per relevant policies of the Govt. of India, to facilitate the bidders to avail any such benefits under the Contract. In case of failure of the bidders to receive the benefits partly or fully from the Govt. of India and/or in case of any delay in receipt of such benefits, BHEL shall neither be liable nor responsible in any manner whatsoever.

11. Taxes against sub-vendor dispatches: All taxes/levies, as applicable in respect of all components, equipments and material to be despatched directly from the sub-vendor's works to Site irrespective of the fact whether such taxes and levies are assessable and chargeable on Vendor or the BHEL, shall be to the vendor's account and no separate claim in this regard will be entertained by BHEL.

12. High Sea Sales (HSS): Customs clearance of the consignment landed on Indian Sea/Air ports will be done by BHEL based on the original HSS documents provided by vendors.
    Any delay in submission of complete/correct HSS documents to BHEL may incur demurrage charges. All demurrage charges on account of incomplete /incorrect HSS documents submission by vendor will be to vendor's account and all such charges will be recovered from any of the available vendor bills with BHEL.

13. Packaging and dispatch:The Seller shall package the goods safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by Sea/ Air / Rail/ Road to its destination suitably protected against loss, damage, corrosion in transit and the effect of tropical salt laden atmosphere. The packages shall be provided with fixtures/ hooks and sling marks as may be required for easy and safe handling. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols / instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.
    The packing, shipping, storage and processing of the goods must comply with the prevailing legislation and regulations concerning safety, the environment and working conditions. Any Imported/Physical Exports items packed with raw/ solid wood packing material should be treated as per ISPM – 15 (fumigation) and accompanied by Phytosanitory/ Fumigation certificate. If safety information sheets (MSDS – Material Safety Data Sheet) exist for an item or the packaging, vendor must provide this information without fail along with the consignment.
    Each package must be marked with Consignee name, Purchase order number, Package number, Gross weight and net weight, dimensions (LxBxH) and Seller's name. Packing list of goods inside each package with PO item number and quantity must also be fixed securely outside the box to indicate the contents of each box. Total number of packages in the consignment must also be indicated in the packing list.
    Separate packing & identification of items should be as follows.
    1. Main Scope - All items must be tagged with part no. & item description.
    2. Commissioning accessories/spares - All items must be tagged with part no. & item description.
    3. Mandatory spares - All items must be tagged with part no. & item description.
    Nevertheless, vendor shall adhere to dispatch & packing instructions issued by BHEL at the time of dispatch.

14. Assignment of Rights & Obligations; Subcontracting: Vendor is not permitted to subcontract the delivery or any part thereof to third party or to assign the rights and obligations resulting from this agreement in whole or in part to third parties without prior written permission from BHEL. Any permission or approval given by the BHEL shall, however, not absolve the vendor of the responsibility of his obligations under the Contract.

15. Progress report: Vendor shall render such report as to the progress of work and in such form as may be called for by the concerned purchase officer from time to time. The submission and acceptance of such reports shall not prejudice the rights of BHEL in any manner.

16. Non-disclosure and Information Obligations: Vendor shall provide with all necessary information pertaining to the goods as it could be of importance to BHEL. Vendor shall not reveal any specified confidential information that may be divulged by BHEL to Vendor's employees not involved with the tender/ contract & its execution and delivery or to third parties, unless BHEL has agreed to this in writing beforehand. Vendor shall not be entitled to use the BHEL name in advertisements and other commercial publications without prior written permission from BHEL.

17. Cancellation /Termination of contract: BHEL shall have the right to completely or partially terminate the agreement by means of written notice to that effect. Termination of the Contract, for whatever reason, shall be without prejudice to the rights of the parties accrued under the Contract up to the time of termination.
    BHEL shall have the right to cancel/foreclose the Order/ Contract, wholly or in part, in case it is constrained to do so on account of any decline, diminution, curtailment or stoppage of the business.

18. Risk Purchase Clause: In case of failure of supplier, BHEL at its discretion may make purchase of the materials / services not supplied / rendered in time at the RISK & COST of the supplier. Under such situation, the supplier who fails to supply the goods in time shall be wholly liable to make good to BHEL any loss due to risk purchase.
    In case of items demanding services at site like erection and commissioning, vendor should send his servicemen/representatives within 7 days from the service call. In case a vendor fails to attend to the service call, BHEL at its discretion may also make arrangements to attend such service by other parties at the **RISK & COST** of the supplier. Under such situation the supplier who fails to attend the service shall be wholly liable to make good to BHEL any loss due to risk purchase/service including additional handling charges due to the change.

19. Shortages: In the event of shortage on receipt of goods and/or on opening of packages at site, all such shortages, caused by supplier's act or omission, shall be made good at free of cost within a reasonable time that BHEL may allow from such intimation.
    Transit Damages: In the event of receipt of goods in damaged condition or having found them so upon opening of packages at site, supplier shall make good of all such damages within a reasonable time from such intimation by BHEL. In case BHEL raises an insurance claim, the cost of material limited to insurance settled amount less handling charges will be reimbursed to supplier.

20. Remedial work: Notwithstanding any previous test or certification, BHEL may instruct the vendor to remove and replace materials/goods or remove and re-execute works/services which are not in accordance with the purchase order. Similarly BHEL may ask the vendor to supply materials or to execute any services which are urgently required for any safety reasons, whether arising out of or because of an accident, unforeseeable event or otherwise. In such an event, Vendor shall provide such services within a reasonable time as specified by BHEL.

21. Indemnity Clause: Vendor shall comply with all applicable safety regulations and take care for the safety of all persons involved. Vendor is fully responsible for the safety of its personnel or that of his subcontractor's men / property, during execution of the Purchase Order and related services. All statutory payments including PF, ESI or other related charges have to be borne by the vendor. Vendor is fully responsible for ensuring that all legal compliances are followed in course of such employment.

22. Product Information, Drawings and Documents: All specified drawings, technical documents or other technical information received by Vendor from BHEL or vice versa shall not, without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the Disclosing party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are binding only to the extent that they are by reference expressly included in the contract.
    Vendor, as per agreed date/s but not later than the date of delivery, provide free of charge information and drawings which are necessary to permit and enable BHEL to erect, commission, operate and maintain the product. Such information and drawings shall be supplied in as many numbers of copies as may be agreed upon.
    All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the Contract shall continue to be the property of the disclosing party.

23. Intellectual Property Rights, Licenses: If any Patent, design, Trade mark or any other intellectual property rights apply to the delivery (goods/related service) or accompanying documentation shall be the exclusive property of the Vendor and BHEL shall be entitled to the legal use thereof free of charge by means of a non-exclusive, worldwide, perpetual license. All intellectual property rights that arise during the execution of the Purchase Order/ contract for delivery by vendor and/or by its employees or third parties involved by the vendor for performance of the agreement shall belong to BHEL. Vendor shall perform everything necessary to obtain or establish the above mentioned rights. The Vendor guarantees that the delivery does not infringe on any of the intellectual property rights of third parties. The Vendor shall do everything necessary to obtain or establish the alternate acceptable arrangement pending resolution of any (alleged)

claims by third parties. The Vendor shall indemnify BHEL against any (alleged) claims by third parties in this regard and shall reimburse BHEL for any damages suffered as a result thereof.

24. Force Majeure: Notwithstanding anything contained in the purchase order or any other document relevant thereto, neither party shall be liable for any failure or delay in performance to the extent said failures or delays are caused by the "Act of God" and occurring without its fault or negligence, provided that, force majeure will apply only if the failure to perform could not be avoided by the exercise of due care and vendor doing everything reasonably possible to resume its performance.
A party affected by an event of force majeure which may include fire, tempest, floods, earthquake, riot, war, damage by aircraft etc., shall give the other party written notice, with full details as soon as possible and in any event not later than seven (7) calendar days of the occurrence of the cause relied upon. If force majeure applies, dates by which performance obligations are scheduled to be met will be extended for a period of time equal to the time lost due to any delay so caused.

    Notwithstanding above provisions, in an event of Force Majeure, BHEL reserves for itself the right to cancel the order/ contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements for completion of deliveries and other schedules.

25. Warranty:
Wherever required, and so provided in the specifications/ Purchaser Order, the Seller shall ensure that the goods supplied shall comply with the specifications laid down, for materials, workmanship and performance.
Unless otherwise specified in SCC, warranty period shall be applicable for a period of 24 months from the date of delivery of goods or 18 months from the date of commissioning of goods, whichever is earlier.
The warranty period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery. Unless otherwise specifically provided in the Purchase Order, Vendor's liability shall be co terminus with the expiration of the applicable warranty period.

26. Limitation of Liability: Vendor's liability towards this contract is limited to a maximum of 100% of the contract value and consequential damages are excluded. However the limits of liability will have no effect in cases of criminal negligence or wilful misconduct.
The total liability of Vendor for all claims arising out of or relating to the performance or breach of the Contract or use of any Products or Services or any order shall not exceed the total Contract price.

27. Liability during warranty: Vendor shall arrange replacement / repair of all the defective materials / services under its obligation during the warranty period. The rejected goods shall be taken away by vendor and replaced / repaired. In the event of the vendor's failure to comply, BHEL may take appropriate action including disposal of rejections and replenishment by any other sources at the cost and risk of the vendor.
In case, defects attributable to vendor are detected during Warranty period or where the commissioning call is issued within the warranty period, vendor shall be responsible for replacement/ repair of the goods as required by BHEL at vendor's cost even after expiry of warranty period.
Further if the equipment or any part thereof cannot be used by reason of such defect and/or making good of such defect, the warranty period of the equipment or such part, as the case may be, shall be extended by a period equal to the period during which the equipment or such part cannot be used by BHEL because of any of the aforesaid reasons. Upon correction of the defects in the facilities or any part thereof by repair/replacement, such repair/replacement shall have the warranty period for a period of twelve (12) months from the time such replacement/repair of the equipment or any part thereof has been completed.

28. Liability after warranty period: At the end of the warranty, the Vendor's liability ceases except for latent defects. For the purpose of this clause, latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the warranty Period, but later. The Contractor's liability for latent defects warranty for the equipment including spares shall be limited to a period of six months from the end of the warranty period of the respective equipment including spares or first time commissioning, whichever is later but not later than one (01) year from the date of expiry of warranty period.

29. Compliance with Laws: Vendor shall, in performing the contract, comply with all applicable laws. The vendor shall make all remittances, give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the laws in relation to the execution and completion of the contract and for remedying of any defects; and the Contractor shall indemnify and hold BHEL harmless against and from the consequences of any failure to do so.

30. Settlement of Disputes:Except as otherwise specifically provided in the Purchase Order, decision of BHEL shall be binding on the vendor with respect to all questions relating to the interpretation or meaning of the terms and conditions and instructions herein before mentioned and as to the completion of supplies/work/services, other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the contract, instructions, orders or these conditions or otherwise concerning the supply or the execution or failure to execute the order, whether arising during the schedule of supply/work or after the completion or abandonment thereof. Any disputes or differences among the parties shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration. Vendor shall continue to perform the contract, pending settlement of dispute(s).

31. Arbitration Clause in case of Contract with vendors other than Public Sector Enterprise (PSE) or a Government Department:

    ARBITRATION & CONCILIATION

    The parties shall attempt to settle any disputes or difference arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, or in connection with this contract through friendly discussions. In case no amicable settlement can be reached between the parties through such discussions, in respect of any dispute; then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration of an arbitrator appointed by Head of the BHEL–EDN. Such Sole Arbitrator appointed, shall conduct the arbitration in English language.
    The Arbitrator shall pass a reasoned award and the award of the Arbitration shall be final and binding upon the Parties.
    Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be Bangalore.
    The cost of arbitration shall be borne as decided by the Arbitrator upon him entering the reference.
    Subject to the Arbitration Clause as above, the Courts at Bangalore alone shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.
    Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the parties shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and efficiency in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

    Arbitration Clause in case of Contract with a Public Sector Enterprise (PSE) or a Government Department:

    In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either party for Arbitration to the Sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any Party aggrieved by such Award may make further reference for setting aside or revision of the Award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.'

32. Applicable Laws and Jurisdiction of Courts: Prevailing Indian laws both substantive and procedural, including modifications thereto, shall govern the Contract. Subject to the conditions as aforesaid, the competent courts in Bangalore alone shall have jurisdiction to consider over any matters touching upon this contract.

33. General Terms: That any 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.
    That the headings used in this agreement are for convenience of reference only.
    That all notices etc., to be given under the Purchase order shall be in writing, type script or printed and if sent by registered post or by courier service to the address given in this document shall be deemed to have been served on the date when in the ordinary course, they would have been delivered to the addressee.

ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd.,
(A Government of India undertaking)
Electronics Division
PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE:PR:001- Rev 03

INSTRUCTIONS TO BIDDERS

Bidder is requested to read the instructions carefully and submit their quotation taking into consideration of all the points:

A. GENERAL INSTRUCTIONS:

1. Any Purchase Order resulting from this enquiry shall be governed by the Instructions to Bidders (document reference: CE: PR: 001 – Rev 03), General Conditions of Contract (document reference: CE: PR: 002 - Rev 02) and Special Conditions of Contract, if any, of the enquiry.
2. Any deviations from or additions to the "General Conditions of Contract"or "Special Conditions of Contract" require BHEL's express written consent. The general terms of business or sale of the bidder shall not apply to this tender.
3. Regret letter (either through post or by mail or by EPS) indicating reasons for not quoting must be submitted without fail, in case of non-participation in this tender. Supplier shall be liable for removal as a registered vendor of BHEL when the supplier fails to quote against four consecutive tender enquiries for the same item or all enquiries in last two years for the same item, whichever is earlier.
4. Procurement directly from the manufacturers is preferred. However, if the OEM/ Principal insist on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. Agent/Representative authorized by the OEM/Principal in turn cannot further sub authorize any other firm for submitting the offer or for placement of order.

   In case bids are received from the manufacturer/ supplier and his agent, bid received from the agent shall be ignored.
5. Consultant / firm (and any of its affiliates) shall not be eligible to participate in the tender/s for the related goods for the same project if they were engaged for consultancy services for the same project.
6. If an Indian representative/associate/liaison office quotes on behalf of a foreign based bidder, such representative shall furnish the following documents:
   a. Authorization letter to quote and negotiate on behalf of such foreign-based bidder.
   b. Undertaking from such foreign based bidder that such contract will be honored and executed according to agreed scope of supply and commercial terms and conditions.
   c. Undertaking shall be furnished by the Indian representative stating that the co-ordination and smooth execution of the contract and settlement of shortages/damages/replacement/repair of imported scope till the equipment is commissioned and handed over to customer will be the sole responsibility of the Indian representative/associates/agent/liaison office.
   d. Refer **Annexure I** on "Guidelines for Indian Agents".

7. In case of imported scope of supply, customs clearance & customs duty payment will be to BHEL account after the consignment is received at Indian Airport /Seaport. Bidders must provide all original documents required for completing the customs clearance along with the shipment. Warehousing charges due to incomplete or

missing documentation will be to supplier's account. All offers for imported scope of supply by air, must be made from any of the gateway ports (within the country) indicated **(Refer Annexure II).**

8. The offers of the bidders who are on the banned list and also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of the banned firms is available on BHEL website: http://www.bhel.com/vender_registration/vender.php
9. Business dealings with bidders will be suspended if they are found to have indulged in any malpractices/misconduct which are contrary to business ethics like bribery, corruption, fraud, pilferage, cartel formation, submission of fake/false/forged documents, certificates, information to BHEL or if they tamper with tendering procedure affecting the ordering process or fail to execute a contract, or rejection of 3 consecutive supplies or if their firms / works are under strike/lockout for a long period. Bidder may refer "Guidelines for Suspension of Business Dealings with Suppliers/ Contractors" available on www.bhel.com for more details.
10. The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to your notice.
11. Offers to be submitted in English language only.
12. For this procurement, the local content to categorize a supplier as a Class-I local supplier/ Class-II local supplier/ Non-local supplier and purchase preference to Class-I local supplier, is as defined in Public procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent Orders issued by the Nodal Ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of price bid/s against this NIT.

    Any Indian Bidder intending to avail the benefits shall submit the requisite documents as per the aforesaid orders.
13. The Bidder shall mandatorily submit Declaration as mentioned below, under Rule 144(xi) of General Financial Rules, 2017 amendment dt 23.07.2020 issued by Ministry of Finance, Govt. of India. The declaration to be submitted on Company Letter head duly signed and sealed by authorised signatory, for ascertaining the eligibility of offer in the tender.

    "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered."

    (Where applicable, evidence of valid registration by the Competent Authority shall be attached).

    The Competent Authority for the purpose of registration under this Order shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).

    Refer Annexure-X for 'Restrictions under Rule 144(Xi) of General Financial Rules,2017 amendment dt: 23.07.2020'.

B. <u>GUIDELINES FOR PREPARATION OF OFFER:</u>

1. Quotation shall be submitted in Single Part Bid, Two Part Bid or Three Part Bid, as called for in the tender:

- **SINGLE PART BID**: Technical and Commercial Bid with prices along with price summary & filled in BHEL Standard Commercial terms and conditions in a single sealed envelope.

- **TWO PART BID**: Unpriced offer i.e. "Techno-commercial Bid" with filled in BHEL Standard Commercial terms and conditions in a sealed envelope **along with the copy of the "Price Bid"without the prices** should be enclosed in one cover and the cover must be super scribed **"Techno-commercial offer)** and Priced offer i.e. "Price Bid"containing price summary in a separate sealed envelope and must be super scribed **"Price Bid"**.Both these envelopes shall be enclosed in a single sealed envelope superscribed with enquiry number, due date of tender and any other details as called for in the tender document.

- **THREE PART BID**: Pre-qualification Bid (Part-I), Techno Commercial Bid with filled in BHEL Standard Commercial terms and conditions (Part-II), and Price Bid (Part-III). All three envelopes shall be enclosed in a single sealed envelope superscribed with enquiry number, due date of tender and any other details as called for in the tender document.

If any of the offers (Part I, Part II or Part III) are not submitted before the due date and time of submission (or) if any part of the offer is incomplete, the entire offer of the bidder is liable for rejection.

2. Supplier shall ensure to superscribe each envelope with RFQ number, RFQ Date, RFQ Due date and time, Item Description and Project clearly & boldly. Also mention on the envelope whether it is "Techno Commercial Bid" or "Price Bid" or "Pre-Qualification Bid". Please ensure complete address, department name and purchase executive name is mentioned on the envelope (before dropping in the tender box or handing over) so that the tender is available in time for bid opening.
3. BHEL standard Commercial Terms and Conditions (duly filled, signed & stamped) must accompany Technical-Commercial offer without fail and should be submitted in original only.

   The above indicated submission of Offers in "sealed envelope/hard copy" as mentioned in points B.1-B.3 is applicable for tenders that are not floated through E-Procurement System (EPS).

4. Validity: Unless otherwise specified in SCC (special commercial conditions of contract), the offer will be valid for a period of 90 days from the date of part-I bid opening and in case of Negotiation/Counter-offer/Reverse Auction, price validity will apply afresh for a period of _60_ days from the date of according final price by bidder (or) upto original validity period, whichever is later.

5. Any of the terms and conditions not acceptable to supplier, shall be explicitly mentioned in the Techno-Commercial Bid. If no deviations are brought out in the offer it will be treated as if all terms and conditions of this enquiry are accepted by the supplier without deviation.
6. Deviation to this specification/item description, if any, shall be brought out clearly indicating "DEVIATION TO BHEL SPECIFICATION" without fail, as a part of Techno-Commercial Bid. If no deviations are brought out in the offer it will be treated as if the entire specification of this enquiry is accepted without deviation.
7. Suppliers shall submit one set of original catalogue, datasheets, bill of materials, dimensional drawings, mounting details and/or any other relevant documents called in purchase specification as part of Technical Bid.
8. "Price Bid" shall be complete in all respects containing price break-up of all components along with all applicable taxes and duties, freight charges (if applicable) etc. Once submitted no modification / addition / deletion will be allowed in the "Price Bid." Bidders are advised to thoroughly check the unit price, total price to avoid any discrepancy.
9. In addition, bidder shall also quote for erection & commissioning charges/erection supervision & commissioning charges (E&C service charges), documentation charges, testing Charges (type & routine),

training charges etc. as applicable along with corresponding tax. The price summary must indicate all the elements clearly.

10. Wherever applicable, bidders should indicate "lumpsum" Erection and Commissioning (or) Erection Supervision and Commissioning charges, as applicable (including To & Fro Fare, Boarding, Lodging, Local Conveyance etc.) for carrying out E&C activity and further handing over to customer. The quotation shall clearly indicate scope of work, likely duration of commissioning, pre-commissioning checklist (if any).
11. Wherever bidders require PAC (Project Authority Certificate)/applicable certificates for import of raw materials, components required for DECC,EPCG Power Projects, Export Projects or other similar projects wherein supplies are eligible for customs duty benefits, lists and quantities of such items and their values (CIF) has to be mentioned in the offer. Prices must be quoted taking into account of such benefits.
12. Prices should be indicated in both figures & words**.** Bid should be free from correction/overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection. Any typographical error, totalling mistakes, currency mistake, multiplication mistake, summing mistakes etc. observed in the price bids will be evaluated as per **Annexure III** "Guidelines for dealing with Discrepancy in Words & Figures – quoted in price bid" and BHEL decision will be final.
13. Documents submitted with the offer shall be signed and stamped in each page by authorized representative of the bidder. However, this requirement is not mandatory for offers uploaded through E-Procurement System (EPS).

C. <u>GUIDELINES FOR OFFER SUBMISSION:</u>

The under-mentioned clauses 1, 2&3 will not be applicable for EPS tenders.

1. Offers / Quotations must be dropped in tender box before 13.00 Hrs. on or before due date mentioned in RFQ.The offers are to be dropped in the proper slot of the Tender Box kept in our reception area with caption "CE, SC&PV, DEFENCE". Tenders are opened on 3 days in a week (Monday/Wednesday/Friday). Tender must be deposited in the slot corresponding to the day (Monday - Box no.4/Wednesday - Box no. 6 /Friday - Box no.8) while depositing the offer.

2. E-Mail/ Internet/EDI offers received in time shall be considered only when such offers are complete in all respects. In case of offers received through E-mail, please send the offer to the email ID specified in the SCC document of the tender.

3. Offers of Vendors who already have a valid Technical/Commercial MOU with BHEL-EDN for the items of the RFQ shall mention the relevant MOU reference no. and give only such other details not covered in the MOU.

4. In cases where tender documents are bulky, or due to some reasons tender documents are required to be submitted by hand or through posts/couriers, the offers are to be handed over either of the two purchase officers whose names are mentioned in the SCC document of tender RFQ.
5. Tenders will be opened on due date, time and venue as indicated in the RFQ in the presence of bidders at the venue indicated in the RFQ. For EPS tenders, e-mail notifications will be automatically generated and forwarded to registered e-mail ID/s of bidders during opening of tenders.
6. Bidder will be solely responsible:
   a. For submission of offers before due date and time. Offers submitted after due date and time will be treated as "Late offers" and will be rejected.

   b. For submission of offers in the correct compartment of the tender box based on the day of due date (Monday/Wednesday/Friday). Please check before dropping your offer in the correct tender box.

c. For depositing offers in proper sealed condition in the tender box. If the bidder drops the tender in the wrong tender box (or) if the tender document is handed over to the wrong person, BHEL will not be responsible for any such delays.

d. For offers received through email etc., suppliers are fully responsible for lack of secrecy on information and ensuring timely receipt of such offers in the tender box before due date & time (This clause will not be applicable for EPS tenders).

The above indicated submission of Offers as mentioned in points 6.a-6.d is applicable for tenders that are not floated through EPS.

e. In case of e-tender, all required documents should be uploaded before due date and time. Availability of power, internet connections, system/software requirements etc. will be the sole responsibility of the bidder. Wherever assistance is needed for submission of e-tenders, help-line numbers as available in the web-site of service provider of BHEL may be contacted.

Purchase Executive/ BHEL shall not be responsible for any of the activities relating to submission of offer.

D. <u>PROCESSING OF OFFERS RECEIVED:</u>

1. Any discount/ revised offer submitted by the supplier on its own shall be accepted provided it is received on or before the due date and time of offer submission (i.e. Part-I bid). The discount shall be applied on pro-rata basis to all items unless specified otherwise by the bidder.
2. Changes in offers or Revised offers given after Part-I bid opening shall not be considered as a part of the original offer unless such changes/revisions are requested by BHEL. In case of withdrawal of any Technical/Commercial deviation(s) by the bidder before opening of price bids/conducting the Reverse Auction, revision of price/impact bid will not be accepted.
3. In case there is no change in the technical scope and/ or specifications and/ or commercial terms & conditions, the supplier will not be allowed to change any of their bids after Technical bids are opened (after the due date and time of tender opening).
4. In case of changes in scope and/ or technical specifications and/ or commercial terms & conditions by BHEL and it accounts for price implications from bidders, all techno-commercially acceptable bidders shall be asked by BHEL (after freezing the scope, technical specifications and commercial terms & conditions) to submit the impact of such changes on their price bid. Impact price will be applicable only for changes in technical specification / commercial conditions by BHEL. The impact price must be submitted on or before the cut-off date specified by BHEL and the original price bid and the price impact bid will be opened together at the time of price bid opening.
5. Un-opened bids (including price bids) will be returned to the respective bidders after release of Purchase order. Regarding Offers for EPS tenders that get rejected on PQC/ techno-commercial grounds, the bids for the subsequent parts will not be opened i.e., both technical bid and price bid (Parts-II & III)will not be opened in case of rejection on PQC ground and price bid (Part-II/Part-III, as applicable) will not be opened in case of rejection on techno-commercial ground.
6. After receipt of Purchase Order, supplier should submit required documents viz.,specified drawings, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report , O & M Manuals and/or any other relevant documents as per Specification/Purchase Order, as and when required by BHEL/Customer.

7. Any deviation to the terms and conditions not mentioned in the quotation by supplier in response to this enquiry will not be considered, if put forth subsequently or after issue of Purchase Order, unless clarification is sought for by BHEL and agreed upon in the Purchase Order.
8. Evaluation shall be on the basis of delivered cost (i.e. "Total Cost to BHEL").
   "Total Cost to BHEL" shall include total basic cost, packing & forwarding charges, taxes and/or duties(as applicable), freight charges, taxes on Services, customs clearance charges for imported items, any other cost indicated by bidder for execution of the contract and loading factors (for non-compliance to BHEL Standard Commercial Terms & Conditions). Benefits arising out of Nil Import Duty on DEEC, EPCG, DFIA Projects, Physical Exports or such 100% exemptions (statutory benefits), project imports, customer reimbursements of statutory duties (like Basic Customs Duty and cess on customs duty), Input tax credits as applicable will also be taken into account for arriving at the Total cost to BHEL (wherever applicable and as indicated in SCC document of tender).

   For EPS tenders, it shall be noted that the prices (including discounts) vis-a-vis currency quoted in EPS portal only will be considered as Final for the purpose of evaluation of the lowest bidder. Bidder shall ensure to indicate the applicable taxes against each line item in online portal, failing to which the same will be considered as inclusive/NIL.

   In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.
   Incase more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).
   Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

9. For evaluation of offers in foreign currency, the exchange rate (TT selling rate of SBI) shall be taken as under:

Single part bids:	Date of tender opening
Two/three part bids:	Date of Part-I bid opening
Reverse Auction:	Date of Part-I bid opening

   In case of Performance Bank Guarantee (PBG) also, exchange rate will be considered as mentioned above for converting foreign currency to Indian currency and vice versa.

   If the relevant day happens to be a bank holiday, then the exchange rate as on the previous working day of the bank (SBI) shall be taken.
10. Ranking (L-1, L-2 etc.) shall be done only for the techno-commercially acceptable offers.

E. <u>INFORMATION ON PAYMENT TERMS:</u>

1. All payments will be through Electronic Fund transfer (EFT). Vendor has to furnish necessary details as per BHEL standard format **(Refer Annexure IV)** for receiving all payments through NEFT.(Applicable for Indian vendors only).
2. In case of High Sea Sales transaction, customs clearance of the consignment landed on Indian Sea/Air ports will be done by BHEL based on the original HSS documents provided by vendors. All warehousing charges due to delay in submission of complete and or correct HSS documents to BHEL will be to supplier's account only. Such recovery will be made out of any of the available bills **(Refer Annexure V)**.
3. Statutory deductions, if any, will be made and the deduction certificate shall be issued.
   A. In case vendor does not provide PAN details, the TDS deduction shall be at the maximum percentage stipulated as per the provisions of Income Tax Act.

In addition to the above, Foreign vendors shall also submit relevant details of their bankers like Swift Code, Banker's Name &Address etc.

B. TDS deduction as per section 51 of CGST Act,2017 shall be applicable as per Gazette Notification No. 50/2018-Central Tax, Dated: 13th September 2018 and subsequent notification/s, as and when released by Govt. authorities.

4. Incomplete documentation will not be accepted. Delayed submission of invoice / documents may result in corresponding delay in payment. In this connection, request to also refer clause: G about invoicing & payment formalities under GST regime. Applicable documents shall be submitted to the purchaser at the time of execution of supplies/services for availing GST input credits.

F. STANDARD PAYMENT TERMS OF BHEL-EDN:

PURCHASE ORDERS FOR:	**SUPPLY WITH SERVICE(S)**	**SUPPLY ONLY**
INDIGENOUS PROCUREMENT	a. 100% of basic value with taxes and freight will be paid in 45 days from the date of dispatch or 15 days from the date of submission of complete set of documentation, whichever is later. Note: In case PBG is not furnished, only 90% payment will be released against 100% claim without the consent of Vendor. This 10% basic amount withheld towards PBG will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.	b. 100% of PO value with taxes and freight will be paid in 45 days from the date of dispatch or 15 days from the date of submission of complete set of documentation, whichever is later.
IMPORT PROCUREMENT	c. 100% of basic value will be paid against usance draft of 45 days from the date of AWB/BOL on submission of complete set of documents. Note: In case PBG is not furnished, only 90% payment will be released against 100% claim without the consent of Vendor. This 10% basic amount withheld towards PBG will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.	d. 100% of PO value will be paid against usance draft of 45 days from the date of AWB/BOL on submission of complete set of documents.
HIGH-SEA SALES PROCUREMENT	e. 100% of basic value will be paid in 45 days from the date of signing of High Sea Sale agreement or 15 days from the date of submission of complete set of documentation, whichever is later Note: In case PBG is not furnished, only 90% payment will be released against 100% claim without the consent of Vendor. This 10% basic amount withheld towards PBG will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.	f. 100% of basic value will be paid in 45 days from the date of signing of High Sea Sale agreement or 15 days from the date of submission of complete set of documentation, whichever is later.

g. Erection and Commissioning:

Evaluation methodology: Unless and otherwise specified in SCC, E&C charges should not be less than 10% of the main supply value. In case the quoted total E&C value is less than 10% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price proportionally from all items and apportioning towards E&C charges.

Payment term: 100% E&C charges along with tax as applicable, will be paid in 15 days from the date of submission of supplementary invoice/documents against proof of completion of E&C.

h. Erection Supervision and Commissioning:

Evaluation methodology: Unless and otherwise specified in SCC, E&C charges should not be less than 5% of the main supply value. In case the quoted total E&C value is less than 5% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price proportionally from all items and apportioning towards E&C charges.

Payment term: 100% E&C charges along with tax as applicable, will be paid in 15 days from the date of submission of supplementary invoice/documents against proof of completion of E&C.

i. Comprehensive Annual Maintenance Contract:

Evaluation methodology: Unless and otherwise specified in SCC, CAMC will be applicable for a period of 04 years from the date of expiry of warranty period (or) from the date of completion of commissioning of equipment, whichever is later and the total CAMC value should not be less than 20% of the main supply value. In case the quoted total CAMC value is less than 20% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price proportionally from all items and apportioning towards CAMC charges.

Payment terms: 100% CAMC charges along with tax as applicable, will be paid in 15 days from the date of submission of supplementary invoice/documents against proof of completion of CAMC on yearly basis.

j. Terms of Payment for Training: 100% payment will be made in 45 days from the date of completion of Training or 15 days from the date of submission of complete set of invoice along with documentary evidence, whichever is later.

LOADING FACTORS FOR DEVIATION IN PAYMENT TERMS (APPLICABLE FOR IMPORT PROCUREMENT ONLY):

1) For offers received with Sight draft payment term in place of Usance draft, loading applicable will be 1.0% of basic value.

2) For offers received with Letter of Credit payment term with Usance of 45 days, loading applicable will be 2.5% of basic value.
   Additional loading of 2% will be applicable for payment term as Letter of Credit at Sight.

k. Any payment term with credit period of less than 45 days for indigenous supply/HSS and any other variation of payment terms are liable for rejection.

l. Standard payment terms indicated in Clauses: F (a), (b), (c), (d), (e), (f), (g), (h), (i) & (j) will not attract any loading.

Note 1: Basic value of Purchase Order mentioned above will include all components of the purchase order and will exclude only taxes, duties, freight, training charges, E&C and AMC charges (wherever applicable). Wherever the Purchase Order is split into import portion and indigenous portion of supply, minimum % to be quoted for Services, wherever mentioned, will be of both purchase order values put together.

Note 2: In case of multiple packages/units in a power plant, payment of E&C charges will be processed on pro-rata basis.

Note 3: No deviation will be permitted from the duration of Guarantee/Warranty and/or Comprehensive Annual Maintenance Contract period specified in SCC.

G. Terms & Conditions to be complied under GST regime:

1. All invoices to contain BHEL-EDN (buyer) GSTIN number: 29AAACB4146P1ZB. However for CGST +SGST/UGST billing outside the state of Karnataka, invoice has to be generated with BHEL's Nodal Agency GSTIN number. Address of Nodal Agency along with GSTIN number will be provided by BHEL at the time of issuing dispatch clearance.

2. The Bidder shall mention Bidder's GSTIN number in all quotations and Invoices submitted.

3. The Bidder shall also mention HSN (Harmonized System of Nomenclature) / SAC (Services Accounting Code) mandatorily in all quotations and invoices submitted.

4. Invoice submitted should be in the format as specified under GST Laws viz., all details as mentioned in Invoice Rules like GST registration number(GSTIN), invoice number with date of issue, quantity, rate, value, taxes with nomenclature – CGST, SGST, UGST,IGST mentioned separately, HSN Code / SAC Code etc. Invoice should be submitted in original for buyer plus duplicate for credit availment.

5. Payment of GST to Vendor will be made only if it is matching with data uploaded by the Vendor in GST portal.

6. For invoices paid on Reverse charge basis – "Tax payable on reverse charge basis" to be mentioned on the invoice.

7. In case GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount will be recoverable from vendor along with interest levied/ leviable on BHEL.

8. In case vendor delays declaring such invoice in his return and GST credit availed by BHEL is denied or reversed subsequently as per GST law, GST amount paid by BHEL towards such ITC reversal as per GST law will be recoverable from vendor/contractor along with interest levied/ leviable on BHEL.

9. Vendor should intimate BHEL immediately on the same date of invoicing without any delay.

10. In case of discrepancy in the data uploaded by supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note (details to be uploaded in GSTN portal) for the shortages or rejections in the supplies, within the calendar month notified by BHEL.

11. Bidders to note that Rules & Regulations pertaining to E-way bill system are to be strictly adhered to, as and when notified by Govt. authorities.

H. Performance bank guarantee (PBG):

Performance bank guarantee (PBG) will be applicable as called in the tender documents. Unless otherwise specified in the SCC, the PBG against performance of the contract shall be valid for a period of 24 months from the date of dispatch of goods + claim period of 03 months, for a value equal to 10 % of the basic value of the purchase order which will include all components of the purchase order and will exclude only taxes, duties, freight, training charges, E&C and AMC charges (wherever applicable).

1. The BG issued in Indian Rupees by Banks in India is to be executed on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Bank issuing the guarantee.
2. No deviation for the duration and value of PBG will be permitted.
3. PBG shall be from any of the BHEL consortium of bankers **(refer Annexure VI)**.
4. PBGs from nationalized banks are also acceptable.
5. PBG should be sent directly by the bank to the dealing executive mentioned in the purchase order located at the address mentioned in the purchase order.
6. PBG should be in the format specified **(refer Annexure VII)**. No deviation to this format will be allowed. However in case BHEL changes the PBG format, bidder shall honor the same.
7. Bank Guarantee should be enforceable in Bangalore.
8. In Case of Bank Guarantees submitted by Foreign Vendors-

   a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in Bangalore.

   b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)

   b.1 Please note that Bank Guarantee issued by any of the Consortium Banks only will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter-Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It shall be noted that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor.

   b.2 In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at sl.no. b.1 is required to be followed.

   b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time).
9. Expired PBGs will be returned only after expiry of the claim period.
10. PBG shall not be applicable for spares.

I. PROVISONS APPLICABLE FOR MSE VENDORS (MICRO AND SMALL ENTERPRISES) :

Benefits/facilities as applicable for Micro and Small Enterprises (MSEs) shall be available to MSEs registered with Government designated authorities as per the Purchase & Price Preference Policy of the Government subject to them becoming eligible otherwise.

Vendors who qualify as MSE vendors are requested to submit applicable certificates (as specified by the Ministry of Micro, Small and Medium Enterprises) at the time of vendor registration. Vendors have to submit the Udyog Aadhaar/Udyam Registration certificate along with attested copy of a CA certificate (Annexure VIII) applicable for the relevant financial year (latest audited) along with the tender documents in the Part-I bid to avail the applicable benefits.

Date to be reckoned for determining the deemed validity will be the date of bid opening (Part-I in case of two-part bid and three-part bid).

Documents have to be notarized/attested by a Gazetted officer and must be valid as on the date of part I bid opening for the vendors to be eligible for the benefits applicable for MSE vendors. Please note that no benefit shall be applicable if any deficiency in the above required documents are not submitted before the price bid opening/Reverse Auction. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal.

Bidders to however note the documents that shall be furnished in order to establish credentials as MSE vendor should be as per the extant statutory requirements specified by the Ministry of Micro, Small and Medium Enterprises.

PURCHASE PREFERENCE FOR MSE VENDORS:

MSE vendors quoting within a price band of L1 + 15% shall be allowed to supply up to 25% of the requirement against this tender provided

1. The MSE vendor matches the L1 price.
2. L1 price is from a non MSE vendor.
3. L1 price will be offered to the vendor nearest to L1 in terms of price ranking (L2 - nearest to L1). In case of non-acceptance by the MSE vendor (L2), next ranking MSE vendor will be offered who is within the L1 + 15% band (if L3 is also within 15% band).
4. 3% of the 25% will be earmarked for women owned MSEs.
5. 25% of the 25% (i.e., 6.25% of the total enquired quantity) will be earmarked for SC/ST owned MSE firms provided conditions as mentioned in (1) & (2) are fulfilled.
6. In case where no SC/ST category firms are meeting the conditions mentioned in (1) and (2) or have not participated in the tender, the 6.25% of earmarked quantity for SC/ST owned MSE firms will be distributed among the other eligible MSE vendors who have participated in the tender.
7. In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items/quantities on account of reasons like customer contract requirements of supplying one make for a given project or technical reasons like the tendered item being a system etc., then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1. Such information that tendered quantity will not be split shall be indicated in the SCC.

J. INTEGRITY COMMITMENT IN THE TENDER PROCESS, AND EXECUTION OF CONTRACTS:

1. Commitment by BHEL: BHEL commits to take all measures necessary to prevent corruption in connection with the Tender process and execution of the Contract. BHEL will, during the tender process, treat all bidder / suppliers in a transparent and fair manner, and with equity.

2. Commitment by Bidder(s)/ Contractor(s):

   a. The Bidder(s)/ Contractor(s) commit(s) to take all measures to prevent corruption and will not directly or indirectly try to influence any decision or benefit which he is not legally entitled to.
   b. The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding or any actions to restrict competition.

c. The Bidder(s)/ Contractor(s) will not commit any offence under the relevant Acts. The Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain or pass on to others, any information or document provided by BHEL as part of business relationship.
d. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to the relevant guidelines issued from time to time by Government of India/ BHEL.

If the Bidder(s) / Contractor(s), before award or during execution of the Contract commit(s) a transgression of the above or in any other manner such as to put his reliability or credibility in question, BHEL is entitled to disqualify the Bidder(s) / Contractor (s) from the tender process or terminate the contract and/ or take suitable action as deemed fit.

K. <u>Integrity Pact (IP):</u>

a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner.
A panel of independent External Monitors (IEMs) have been appointed to oversee implementation of IP in BHEL.
The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial bid. Only those Bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
b) Please refer Section-8 of the IP for Role and Responsibilities of IEMs (Annexure IX). In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.

Note: No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department."

Annexure

Annexure I

Guidelines for Indian Agents

- **Definition of Indian Agent**: An Indian Agent of foreign prinicipal is an individual, a partnership, an association of persons, a private or pubile company, that carries our specific obligation(s) towards processing of BHEL tender or finalization or execution of BHEL's contract on behalf of the foreign supplier.

In case of yes, vendor to note the following and reply accordingly:

i. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines - which require mandatory submission of an Agency Agreement.

ii. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of Government of India, issued from time to time.

iii. The Agency Agreement should specify the precise relationship between the foreign OEM / foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/ associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier/ Indian agent. Any payment, which the agent or associate receives in India or abroad from the OEM, whether as commission or as a general retainer fee should be brought on record in the Agreement and be made explicit in order to ensure compliance to laws of the country.

iv. Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.

v. Tax deduction at source is applicable to the agency commission paid to the Indian agent as per the prevailing rules.

vi. In the absence of any agency agreement, BHEL shall not deal with any Indian agent (authorized representatives / associate / consultant, or by whatever name called) and shall deal directly with the foreign principal only for all correspondence and business purposes.

vii. The "Guidelines for Indian Agents of Foreign Suppliers" enclosed at annexure –'A' shall apply in all such cases.

viii. The supply and execution of the Purchase Order (including indigenous supplies/ service) shall be in the scope of the OEM/ foreign principal. The OEM/ foreign principal should submit their offer inclusive of all indigenous supplies/ services and evaluation will be based on 'total cost to BHEL'. In case OEM/ foreign principal recommends placement of order(s) towards indigenous portion of supplies/ services on Indian supplier(s)/ agent on their behalf, the credentials/ capacity/ capability of the Indian supplier(s)/ agent to make the supplies/ services shall be checked by BHEL as per the extant guidelines of Supplier Evaluation, Approval & Review Procedure (SEARP), before opening of price bids. In this regard, details may be checked as per Annexure-B (copy enclosed). It will be the responsibility of the OEM/ foreign principal to get acquainted with the evaluation requirements of Indian supplier/ agent as per SEARP available on www.bhel.com.

The responsibility for successful execution of the contract (including indigenous supplies/ services) lies with the OEM/ foreign principal. All bank guarantees to this effect shall be in the scope of the OEM/ foreign principal.

---x---

Vendor's Signature with Seal

Annexure-A

Guidelines for Indian Agents of Foreign Suppliers

1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with BHEL shall apply for registration in the registration form in line with SEARP.

1.1 Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the Principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/ salary/ retainership being paid by the principal to the agent before the placement of order by BHEL.

1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.

2.0 Disclosure of particulars of agents/ representatives in India, if any.

2.1 Tenderers of Foreign nationality shall furnish the following details in their offers:

2.1.1 The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is existing Company and details of the same shall be furnished.

2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.

2.1.3 Confirmation of the Tenderer that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by BHEL in Indian Rupees only.

2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:

2.2.1 The Bidder(s)/ Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.

2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the Tenderer for himself.

2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/ remuneration, if any, reserved for the Tenderer in the quoted price(s), may be paid by BHEL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.

2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.

2.4 Failure to furnish correct and detailed information as called for in paragraph 2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by BHEL. Besides this there would be a penalty of banning business dealings with BHEL or damage or payment of a named sum.

—x—

ANNEXURE - II
LIST OF INTERNATIONAL GATEWAY AIRPORTS

For air based consignment, terms of delivery will be on FCA basis from following listed airports only. Vendors are requested to verify this list for use before submission of offer.

SCHEDULE NO	COUNTRY	CURRENCY CODE	AIRPORT
D01	UK	GBP	LONDON (HEATHROW)
D02	UK	GBP	NEW CASTLE
D03	UK	GBP	OXFORD. CHETLAM
D04	UK	GBP	BRISTOL. WELLINGBOROUGH
D05	UK	GBP	BIRMINGHAM
DO6	UK	GBP	EAST MIDLANDS
D07	UK	GBP	MANCHESTER
D08	UK	GBP	LEEDS
D09	UK	GBP	GLASGOW
D10	FRANCE	EURO	PARIS (ROISSY) & LYON
D11	SWEDEN	EURO	STOCKHOLM
D12	SWEDEN	EURO	GOTHENBERG & MALMO
D13	ITALY	EURO	ROMA, MILAN
D14	ITALY	EURO	TURIN, BOLOGNA, FLORENCE
D15	NETHERLANDS	EURO	AMSTERDAM, ROTTERDAM
D16	AUSTRIA	EURO	VIENNA, LINZ, GRAZ
D17	BELGIUM	EURO	ANTWERP, BRUSSELS
D18	DENMARK	DKK	COPENHAGEN
D19	JAPAN	JPY	TOKYO, OSAKA
D20	SINGAPORE	SGD	SINGAPORE
D21	CANADA	CAD	TORONTO
D22	CANADA	CAD	MONTREAL
D23	USA	USD	NEW YORK, BOSTON
D24	USA	USD	CHICAGO
D25	USA	USD	SAN FRANCISCO, LOS ANGELES
D26	USA	USD	ALANTA, HOUSTON
D27	GERMANY	EURO	MUNICH, KOLN, DUSSELDORF, HANNOVER, HAMBURG, STUTTGART, DAMSTADT, MANIHIEM, NURUMBERG
D28	GERMANY	EURO	FRANKFURT
D29	GERMANY	EURO	BERLIN
D30	SWITZERLAND	SFR	BASLE, ZURICH, GENEVA
D31	SPAIN	EURO	BARCELONA
D32	AUSTRALIA	AUD	SYDNEY
D33	AUSTRALIA	AUD	MELBOURNE
D34	AUSTRALIA	AUD	PERTH
D35	CZECH	EURO	PRAGUE
D36	HONG KONG	HKD	HONG KONG
D37	NEW ZELAND	NZD	AUCKLAND
D38	RUSSIA	USD	MOSCOW
D39	SOUTH KOREA	USD	KIMPO INTERNATIONAL, INCHEON
D40	FINLAND	EURO	HELSINKI
D41	ROMANIA	EURO	BUCHAREST
D42	NORWAY	EURO	OSLO
D43	IRELAND	EURO	DUBLIN
D44	ISRAEL	USD	TEL AVIV
D45	UAE	USD	DUBAI
D46	OMAN	USD	MUSCAT
D47	EGYPT	USD	CAIRO
D48	TAIWAN	USD	TAIPEI
D49	UKRAINE	USD	KIEV
D50	CHINA	USD	SHANGHAI, SHENZHEN
D51	PHILIPINES	USD	MANILA
D52	MALAYSIA	USD	KUALALUMPUR, PE NANG
D53	CYPRUS	USD	LARNACA
D54	SOUTH AFRICA	USD	JOHANNESBERG, DURBAN
D55	SLOVAKIA	EURO	BARTISLOVA
D56	SAUDI ARABIA	SAR	RIYADH
D57	TURKEY	EURO	ISTANBUL
D58	THAILAND	USD	BANGKOK
D59	BRAZIL	USD	SAO PAULO, RIO DE JANEIRO

ANNEXURE – III

DISCREPANCY IN WORDS & FIGURES – QUOTED IN PRICE BID

Following guidelines will be followed in case of discrepancy in words & figures-quoted in price bid:

(a) If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.

(b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

(d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

ANNEXURE - IV

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 IFSC Code(applicable for NEFT)
8 Bank IFSC code(applicable for RTGS) (Indian Financial System Code)

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, 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 / transfering Bank responsible.
C This authority remains in full force until BHEL, 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

Please return completed form **along with a blank cancelled cheque or photocopy** thereof to:
Bharath Heavy Electricals Ltd,
Attn:
Electronics Division, Mysore Road,
BANGALORE - 560 026
In case of any Querry, please call concerned purchase executive.

ANNEXURE - V

PRESENT PROCEDURE FOR SALE IN TRANSIT (HIGH SEA SALES)

In case of High Sea Sales, vendor should submit following documents:

1. **ORIGINAL HIGH SEA SALES AGREEMENT**
   - Sale agreement (on Rs. 200/- non-judicial stamp paper & notarised with 2 witnesses with identity) has to be signed between BHEL and the Party importing material. The date of the sale documents should be in between the date of House Air Way Bill / Bill of Lading and before landing of the goods in Indian origin.
   - Following shall be included in the High Sea Sales Agreement:
     "THE BUYER ALSO UNDERTAKE DISCHARGES, THE OBLIGATION AND FULFILLMENT OF CONDITIONS, IF ANY, ATTACHED TO THE IMPORTATION, ASSESSMENT AND CLEARANCE OF THE GOODS IN TERMS CUSTOMS TARIFF ACT 1975, THE CUSTOMS ACT 1962 & RULES & REGULATIONS MADE THERE UNDER AND OTHER RELEVANT ACTS, ORDERS, NOTIFICATIONS".

2. **ORIGINAL INVOICES: INDIGENOUS RUPEE INVOICE & FOREIGN CURRENCY INVOICE**
   - Prices should be C.I.F., designated airport/seaport basis.
   - I.E.C., C.S.T., K.S.T. Nos. to be mentioned.
   - Description of item (Nomenclature), Unit & Quantity in both the Foreign Currency & the Indigenous Invoice in Rupee shall be exactly as per Purchase Order Description of item, Quantity and Unit. The Indigenous Invoice value shall be exactly as per Purchase Order value.
   - Seller should give Foreign Currency Invoice from the original consignor. The Foreign Currency Invoice value should be at least 2% (two per cent) less than the Indigenous Rupee Invoice value in equivalent foreign currency.

4. **ORIGINAL HOUSE AIR WAY BILL/ BILL OF LADING**
   - The sale agents should duly endorse House Air Way Bill (HAWB) for air shipments or original Bill of Lading (O.B.L.) for sea shipments and Foreign Currency Invoice in favour of BHEL-EDN.

5. **ORIGINAL CARGO ARRIVAL NOTICE FROM FORWARDER.**

6. **ORIGINAL DELIVERY ORDER ISSUED IN NAME OF BHEL-EDN.**

7. **ORIGINAL PACKING LIST.**

8. **A LETTER TO THE COMMISSIONER OF CUSTOMS FOR EFFECTING ABOVE SALE.**

9. **A LETTER TO THE DEPUTY ASSESSOR (OCTROI) FOR EFFECTING ABOVE SALE IN FAVOUR OF BHEL.**

REMARKS: In case vendor needs any clarifications on the above, the same may be sought in writing.

ELECTRONICS DIVISION, BANGALORE

Annexure-VI

BHEL MEMBER BANKS (LIST OF CONSORTIUM BANKS)

Bank Guarantee (BG) shall be issued from the following banks only:

Sl. No.	Nationalised Banks	Sl. No.	Public Sector Banks
1	Allahabad Bank	18	IDBI
2	Andhra Bank		
3	Bank of Baroda	Sl. No.	**Foreign Banks**
4	Canara Bank	19	CITI Bank N.A
5	Corporation Bank	20	Deutsche Bank AG
6	Central Bank	21	The Hongkong and Shanghai Banking Corporation Ltd. (HSBC)
7	Indian Bank	22	Standard Chartered Bank
8	Indian Overseas Bank	23	J P Morgan
9	Oriental Bank of Commerce		
10	Punjab National Bank	**Sl. No.**	**Private Banks**
11	Punjab & Sindh Bank	24	Axis Bank
12	State Bank of India	25	The Federal Bank Limited
13	Syndicate Bank	26	HDFC Bank
14	UCO Bank	27	Kotak Mahindra Bank Ltd
15	Union Bank of India	28	ICICI Bank
16	United Bank of India	29	IndusInd Bank
17	Vijaya Bank	30	Yes Bank

Note:

- All BGs must be issued from BHEL consortium banks listed above.
- This list is subject to changes. Hence vendors are requested to check this list every time before issuing BGs.
- Bank Guarantees issued by Co-operative Banks/Financial Institutions cannot be accepted under any circumstance.

Annexure-VII

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at _____[1] through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) with its registered office at_____[2] hereinafter referred to as the ' Vendor / Contractor / Supplier ', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated .....[3] valued at Rs.....[4] (Rupees ----------)/FC.....(in words.....) for .....[5] (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to .....% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we, ..., (hereinafter referred to as the Bank), having registered/Head office at ..... and inter alia a branch at ..... being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs -- ---------- [6] (Rupees ----------) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

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

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

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

We the .....bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract/satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till

all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

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

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

This Guarantee shall remain in force upto and including..... [7] and shall be extended from time to time for such period as may be desired by Employer.

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

Unless a demand or claim under this guarantee is made on us in writing on or before the .....[8]we shall be discharged from all liabilities under this guarantee thereafter.

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

Notwithstanding anything to the contrary contained hereinabove:

a) The liability of the Bank under this Guarantee shall not exceed..... [6]
b) This Guarantee shall be valid up to .....[7]
c) Unless the Bank is served a written claim or demand on or before _____[8] all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

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

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

[1] *NAME AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited*

[2] *NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.*

[3] *DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE*

[4] *CONTRACT VALUE*

[5] *PROJECT/SUPPLY DETAILS*

[6] *BG AMOUNT IN FIGURES AND WORDS*

[7] *VALIDITY DATE*

[8] *DATE OF EXPIRY OF CLAIM PERIOD*

Annexure – VIII
(Applicable only for MSE suppliers)
Certificate by Chartered Accountant on Letter Head

This is to certify that M/s ....(hereinafter referred to as `Company') having its registered office at ..... is registered under MSMED Act 2006, (Entrepreneur Memorandum No (Part-11 ..... dtd ....., Category: ..... (Micro/Small) (Copy enclosed).

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

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No.S.O.1722 (E) dated October 5, 2006:
   Rs.....Lacs.

2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:
   Rs. .....Lacs.

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

Or

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

Date:

(Signature)

Name:

Membership Number:

Seal of Chartered Accountant

Annexure-IX

INTEGRITY PACT

Between

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

and

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

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for _____ _____ _____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

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

Section 1- Commitments of the Principal

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

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

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

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

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

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

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

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

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

Section 4 - Compensation for Damages

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

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

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

Section 5 - Previous Transgression

5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

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

6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.

6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

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

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

Section 8 - Independent External Monitor(s)

8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.

8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.

8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.

8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.

8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.

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

8.9 IEM should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.

8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

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

8.12 The word `Monitor' would include both singular and plural.

Section 9 - Pact Duration

9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.

9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

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

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

---	---
For & On behalf of the Principal	For & On behalf of the Bidder/ Contractor
(Office Seal)	(Office Seal)
Place----------	
Date----------	
Witness:_____	Witness:_____
(Name & Address) _____	(Name & Address) _____
_____	_____

Annexure-X

Restrictions under Rule 144(xi) of General Financial Rules, 2017 amendment dt: 23.07.2020

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" for the purpose of this Order means :-

a. An entity incorporated, established or registered in such a country; or

b. A subsidiary of an entity incorporated, established or registered in such a country; or

c. An entity substantially controlled through entities incorporated, established or registered in such a country; or

d. An entity whose *beneficial owner* is situated in such a country; or

e. An Indian (or other) agent of such an entity; or

f. A natural person who is a citizen of such a country; or

g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The *beneficial owner* for the purpose of (iii) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation--

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company;

b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd.,
(A Government of India undertaking)
Electronics Division
PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 003- Rev 02

SPECIAL COMMERCIAL CONDITIONS OF CONTRACT

Reference is brought to BHEL's Instructions to Bidders (Document Ref: CE: PR: 001- Rev 03) and General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 02).

These two documents along with Special Conditions of Contract annexed to this RFQ will form an integral part of the contract as and when the RFQ culminates into a Purchase Order / Contract.

RFQ No: _NKR0000351_____ **RFQ Date:** ____Refer e-procurement portal_____

Due Date: _____ Refer e-procurement portal _____

Customer/Project: **DVC Mejia TPS Unit 7&8 2X500MW , DVC KTPS Unit 1&2 2X500MW, DVC Bokaro 'A' TPS 1X500MW, DVC Raghunathpur Unit 1&2 2X600MW and DVC Durgapur TPS Unit 1&2 2X500MW**

Item Description: CCTV System_____

TYPE OF BID: ~~**SINGLE PART BID**~~ **/ TWO PART BID** ~~**/ THREE PART BID**~~

Purchase Executives: Clarifications with regard to the tender shall be addressed to purchase officers whose e-mail IDs are given below:
_____nilmanikumar@bhel.in_____or _____ padmanabha@bhel.in _____

Splitting of tendered quantity to MSE vendors: Items will be procured as a single package and quantity will not be split to MSE vendor

Destination: For Indigenous scope of supply, items are to be directly despatched to BHEL's/customer's project Site Office or Stores located at/**near respective project sites as below –**

DVC Mejia– BANKURA, West Bengal
DVC KTPS - TILAIYA, KODERMA , JHARKHAND
DVC Bokaro - BOKARO, JHARKHAND
DVC Raghunathpur – Raghunathpur, West Bengal
DVC Durgapur – Durgapur - West Bengal

Consignee other details required for dispatch will be issued by BHEL along with Despatch Clearance.

Terms of Delivery:

- **Indigenous scope of supply:**

  Ex-works < station of dispatch > (including Packing & Forwarding charges but excluding Taxes & Duties).

Under-mentioned details shall be provided against indigenous supplies and services:

a. GSTIN (no.) of place of supply: _____

b. HSN (Harmonized System of Nomenclature) code: _____
Applicable tax and Rate: _____&_____

c. SAC (Service Accounting Code) no.:_____
Applicable tax and Rate: _____&_____

d. If service is also involved, GSTIN (no.) of place of supply of service: _____

I. Bidders to mandatorily provide confirmation/compliance for the under-mentioned terms:

SL NO.	TERMS	BHEL ACCEPTABLE TERM	BIDDER'S CONFIRMATION	REMARKS,if any
01	**Reverse Auction**	BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.	**AGREE**	
02	**Delivery Period**	Delivery period will be within __8__ weeks from the date of issue of Manufacturing clearance along with approved document for each project. Delay in contractual delivery will attract Penalty as per GCC Clause no.:04.b Tentative delivery requirement is as below – DVC Mejia TPS Unit 7&8 2X500MW , DVC KTPS Unit 1&2 2X500MW, DVC Bokaro 'A' TPS 1X500MW, and DVC Durgapur TPS Unit 1&2 2X500MW – March 2021 (Earliest delivery of material is required). DVC Raghunathpur Unit 1&2 2X600MW – December 2021 Separate manufacturing clearance will be issued for each project strictly as per project requirement	**AGREE** ……. weeks	
04	**Terms of Payment at the time of material supply**	Refer Clause "**F**" of Instructions to Bidders for BHEL standard Payment terms and loading factors applicable for non-compliance against payment terms: **Indigenous Scope:** a)Supply with Service(s)	**AGREE**	

05	**Declaration of Local content** (Refer Clause 'A' Sl. No. 12 of Instructions to Bidders)	Bidder to furnish the following details: (a) Percentage of local content: _____ (b) Details of the Location(s) at which the local value addition is made: _____ _____		
06	Declaration to be mandatorily submitted by the Bidder, as a compliance to Rule 144(xi) of GFR, 2017 amendment dt 23.07.2020 issued by Ministry of Finance, Govt. of India.	"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered." (Refer Clause 'A' Sl. No. 13 of Instructions to Bidders).		

II. Bidder to note that Deviations shall not be permitted for the below mentioned terms and are deemed to be complied. In case of non-compliance/deviation, offer shall be liable for rejection:

(1) **Submission of documents post PO viz., drawings /data sheet etc. as indicated in Cl: 04 of GCC:** Within __02__ weeks from the date of receipt of Purchase Order. Delay in submission of complete set of specified documents in NIT, will attract Penalty as per GCC Clause no.:04.a.

(2) **Validity:** The offer will be valid for a period of _90_ days from the date of part-I bid opening and in case of Negotiation/ Counter-offer/Reverse Auction, price validity will apply afresh for a period of __ days from the date of according final price by bidder (or) upto original validity period, whichever is later.

(3) **Guarantee/ Warranty:** _18__ months from the date of dispatch of goods or _12___ months from the date of commissioning of goods, whichever is earlier.

(4) **Performance Bank Guarantee (PBG):** PBG will be applicable for a period of _18__ months from the date of dispatch of goods + claim period of 03 months, for a value equal to 10% of the basic value of the purchase order. Refer Clause "H" of Instructions to Bidders. Also note that PBG should be in the format specified in Annexure VII of ITB and no deviation to this format will be allowed.
Note: In case PBG is not furnished, the 10% basic amount will be withheld from the supply invoice. This withheld amount will be paid either against submission of supplementary invoice & Original PBG (or) against supplementary invoice without PBG after expiry of Warranty period.

(5) **Despatch Documents:** Complete set of despatch documents (original + 1 photocopy set) as per Purchase Order shall be forwarded to Purchase Executive/BHEL directly. Depending upon the project/customer demands, despatch documents may include one or more documents from the following: Invoice (02 sets of original), Lorry Receipt (L/R), Packing List, Air Way Bill (AWB)/Bill Of Lading (BOL), Copy of High Sea Sales (HSS) agreement, Country of origin certificate, NIL Short Shipment Certificate, Original Performance

Bank Guarantee (directly from issuing bank to BHEL), insurance intimation letter, POD (Proof of Delivery) on L/R. Packing List shall be detailed giving Each package wise content details & Net & Gross weight of the package.

The precise list of despatch documents needed for the project will be specified in the Purchase Order. One set of Invoice, Packing List and L/R or AWB shall be e-mailed/faxed immediately to BHEL-EDN after despatch.

(6) **Freight Charges (for indigenous scope of supply):** Freight charges shall be to vendor's account. Vendor to quote reasonable lump sum Freight charges separately, with applicable tax in priced offer.

(7) **Evaluation criteria for tendered item/s:** Items will not be split on item-wise lowest offer. Items for all projects shall be evaluated and procured as a single package.

(8) Erection and Commissioning :

In case the quoted total E&C value is less than __15__% of the main supply value, BHEL shall evaluate Bidders Price deducting differential amount from main supply price and apportioning towards E&C charges.

Refer Sl. no. 'g' under Clause 'F' of Instructions to Bidder for Payment term.

(9) Comprehensive Annual Maintenance Contract : Not applicable

(10) Any technical or commercial clarification for this tender can be raised within one week of floating tender. No clarification will be entertained by BHEL after given cutoff period.

(11) Vendor has to attach itemwise break-up price for material in line with offered BOM in price bid

(12) Any additional commercial term or deviation in commercial term, if sought by vendor, should be clearly brought out in Part -1 bidding form special commercial conditions of contract. Any additional commercial term or deviation in commercial term mentioned anywhere else shall be ignored and not be considered for evaluation

(13) Any tender condition does not prohibit any bidder to submit their offer along with clause wise deviation from the specification/commercial terms of tender. Changes, if any, in technical specification / Scope etc shall be informed to participating bidders only.

(14) Evaluation methodology - Bidder's Part - 1 bid only will be opened on due date. Offer of only those bidders who qualify in PART -1 will be considered for price bid opening (Part -2). Schedule of price bid opening will be intimated to bidders qualified in Part 1 bid.

(15) Total price submitted in online e-procurement portal shall be considered for evaluating L1 vendor. For further processing of offer of finalized L1 vendor, in case of mismatch in BOM quantities mentioned in price breakup uploaded / attached with price bid, following method shall be followed:

a. If the quantity mentioned in breakup for any item(s) is less than quantity mentioned in technical specification, bidder shall supply quantity as per technical specification within quoted price. The unit rate of such items shall be re-calculated by dividing sub-total with quantity required as per technical specification.

b. If the quantity mentioned in breakup for any item(s) is more than quantity mentioned in technical specification and bidder is L1 based on their e-procurement portal price, BHEL will use unit rate of such item(s) mentioned in breakup to calculate the sub-total of such item(s) as per quantity mentioned in technical specification/finalised during technical evaluation to meet technical specification.

With this, we hereby confirm that all the terms & conditions as indicated in Instructions to Bidders (Document Ref: CE: PR: 001- Rev 03) & General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 02) are accepted without any deviation.

Vendor's Signature with Seal

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

PROJECTS : 1) MEJIA TPS Unit 7&8 : 2X500 MW
2) KTPS Unit 1&2 : 2X500 MW
3) BOKARO 'A' TPS Unit 1: 1X500 MW
4) RAGHUNATHPUR Unit 1&2 : 2X600 MW
5) DURGAPUR TPS Unit 1&2 : 2X500 MW

CUSTOMER : M/s DVC

EQUIPMENT : IP CCTV SYSTEM FOR SOFA AREA OF BOILER

PREPARED BY:
AMIT KUMAR SHARMA

APPROVED BY
S K KISAN

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

REVISION HISTORY SHEET

REV No.	DATE	NATURE OF CHANGE	REASON	PREPARED BY	REVIEWED BY
00	29-09-2019	FIRST ISSUE	---	AKS	KRS

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

SECTION-A : GENERAL INSTRUCTIONS TO BIDDERS:

Introduction: Bidders are required to submit technical offer for supply, installation and commissioning of IP based CCTV system for five power plants of M/s DVC. All documents against this Tender/Specification shall be submitted in English only.

1. All Bidders must furnish following document for taking up their approval with customer (M/s DVC):

i. Company Profile

ii. List of IP-CCTV system order executed / in hand (especially in power plants, cement plants, petroleum refinery, steel plant, coal mines) in a tabular form mentioning name of project, PO number with date, year of supply, year of full commissioning / handing over, make & model of camera, contact details of user/owner.

iii. Performance certificates / handing over protocols issued by end user for satisfactory working of CCTV system supplied and commissioned.

iv. Unpriced Copies of Purchase order

The credential documents submitted by bidder (as listed above) shall be forwarded as such to customer (M/s DVC) for approval. Technical offer of only such bidders who are approved by M/s DVC will be evaluated for further consideration in the tender. Hence bidders are advised to submit their complete and comprehensive credentials.

2. Makes of IP camera mentioned in later section of this specification are M/s DVC approved makes. However, bidder can quote either approved makes or any other IP camera makes which is meeting PQR criteria. If offered unapproved makes of camera are not approved by customer, then bidder will be given an opportunity to change the make of camera only within customer approved makes of camera along with other associated hardware/software without any price implication.

3. If required during evaluation of Technical offers/bids, bidder should be present at BHEL Electronic Division, Bangalore, for discussions on 3 day's notice. Further in the event of ordering, Bidder shall accompany BHEL representative for discussions with customer / consultant at their works for approval of the system documents.

4. This specification does not prohibit any bidder to submit their offer along with clause wise deviation from the specification. Changes in technical specification / Scope / approved makes etc shall be informed to Participating bidders only.

5. All bidders, irrespective of their existing approval with BHEL / other units of BHEL / DVC, should submit all documents called in this specification.

6. Consolidated Pre-Bid queries must be sought by Bidders through email within 07days from floating the tender. Clarification sought within 5 days from due date of bid submission may not be entertained and replied.

7. Makes of all items mentioned later in this specification are BHEL approved makes. However, Bidder can offer any other makes. All makes will be accepted subject to approval by customer.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

SECTION-B: Pre-Qualification Requirements (PQR)

a) Bidder must have a proven experience of supplying and fully commissioning at-least one IP-CCTV system in a large industrial set up like power plants, cement plant, petroleum refinery, steel plant, coal mines, Oil & Gas industry or other industry of similar type.
Following documents must be submitted for meeting this qualifying requirement:
   i) Unpriced Purchase Order (PO) or LOI Copies issued in name of bidder.
   ii) Signed Bill of Material as part of PO or user approved datasheet having BOM or other user signed document from which camera make/model and VMS make can be ascertained.
   iii) Commissioning or handing-over protocol signed by user/owner of the project, for ascertaining that the complete CCTV as per PO has been commissioned and handed over by bidder.

b) The **offered combination of camera and video management software** make shall have at least **six month's satisfactory operation record** as on techno-commercial bid submission due date of this tender in an IP CCTV system installed in a large industrial like power plants, cement plant, petroleum refinery, steel plant, coal mines, Oil & Gas industry or other industry of similar type.
Performance certificate issued by user/owner of project should be submitted. If make of camera and VMS are not mentioned in performance certificate, then other supporting documents (signed by user) to be submitted to ascertain the make of camera & VMS in the referred project.

c) If bidder is based outside India, they shall have authorized representatives in India for support related to documentation, technical support, troubleshooting, Erection, Commissioning and other co-ordination work. Bidder should submit details of Indian representative.

All PQR criteria mentioned above are to be met by bidder in order to qualify for being considered for evaluation of their technical offer.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

SECTION- C : TECHNICAL SPECIFICATION

1.00.00 INTENT OF SPECIFICATION

1.01.01 This specification is intended to cover the design, manufacture, assembly, Inspection and testing at Bidder's works; delivery including packaging applicable for the items and all accessories specified later in the scope of supply and as required for safe and trouble free operation of IP CLOSE CIRCUIT TELEVISION (CCTV) SYSTEM

1.01.02 All systems covered herein shall be for the permanent phase of the project and shall include but not be limited to design, supply, installation, erection, commissioning and handing over to M/s DVC the complete system in each project site.

1.01.03 It is not the intent to completely specify all details of design and construction herein. Nevertheless, the system shall conform to high standard of engineering, design and workmanship in all respects and shall be capable of performing satisfactorily in continuous commercial operation under the prevailing environmental condition of the project site.

1.01.04 ABBREVIATIONS

BOQ	- Bill of Quantities
CCB	- Central Control Building
CCTV	- Close Circuit Tele Vision
CCR	- Central Control Room
DCS	- Distributed Control System
LED	- Light Emitting Diode
LOI	- Letter Of Intent
MTTR	- Mean Time To Repair
UCR	- Utilities Control Room
UHF	- Ultra High Frequency
UPS	- Uninterruptible Power Supplies

1.02.00 SCOPE OF WORK AND EXCLUSIONS

GENERAL

1.02.01 The scope of work in this document specifies the technical & contractual requirements for the design, supply, erection, testing and commissioning of CCTV System and all accessories.

1.02.02 Bidder shall be fully responsible for compliance of the system to be supplied in line with the requirements of this specification.

1.02.03 Provisions included in the specification will not be limitative to the scope of work and bidder shall be responsible for supply, installation, erection, commissioning and handing over of complete system.

1.02.04 Bidder shall provide supply/services for any further activities which will improve the quality & performance of the system offered.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

1.02.05 **SCOPE OF SUPPLY:** This system is for the Boiler area of the power Plant. The scope of supply in this specification includes Design, fabrication, manufacture and assembly, inspection, shop testing at manufactures works, supply, transportation to site of the entire CCTV System, as specified in this tender document, **on as required basis**, except for items whose quantity is specified later in Bill of Material.

1.02.06 **SCOPE OF SERVICE:**

The scope of service for the system being procured is to be given **on as required basis.** Following service, as minimum, shall be provided by Bidder for equipment & systems supplied under this specification:-

a) Carrying out detail engineering, preparation and submission of all drawings as specified elsewhere in this specification including preparation and submission of area wise bill of materials, layout and erection drawings showing location of all system equipment and components, cable schedule, cable tray/rack and conduit routing.
b) Inspection and testing at Bidder's works as per the approved Quality Assurance Plan.
c) Packing and forwarding of all equipment in suitable packing for each project. The bidder shall be responsible for safe storage of the items inside the packages against weather. It shall be bidder's responsibility to take materials out of the packages for erection and commissioning of the systems.
d) E&C of the CCTV system shall involve deploying labour (skilled and unskilled), supervisory personnel, engineer and also erection tools and tackles, testing equipment, consumables & hardware, transport and storage for timely and efficient execution of the contract work.
e) The complete erection, installation and commissioning of the complete CCTV system will be in bidder scope of services which will include, but not limited, to supply & storage, fixing of camera using suitable camera mount as per site requirement, all type of cable laying/termination, laying of conduits/ cable trays/JBs, digging (2-3ft) & filling back for underground cable laying, civil works, installation and commissioning of all items of CCTV supplied under CCTV system on as required basis.
f) In case of ordering, Bidder will visit Site after ordering to finalise the grouping of cameras and preparation of cable schedule. The cable schedule along with survey report for camera grouping should be submitted along with datasheet.
g) Bidder will, during the time of detail engineering and installation of the quoted system, interact and coordinate with any other agency regarding collection/retrieval of inputs/information/data and all such works shall be under the scope of this Bidder. If necessary, Bidder shall contact the purchaser for clarifications before submission of their Bid.
h) Training to be provided to DVC/BHEL's personnel for maintenance.
i) Establish the specified interfaces and demonstrate operation.
j) Site modification and preparation of "as-built" documentation".
k) Securing certification from relevant authorities, wherever applicable.
l) Project management and scheduling including micro-planning in specific work area and reporting progress periodically.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

m) Bidder has to provide the services required for completeness and correctness of the system irrespective of whether it is mentioned in the specification or not.

n) The complete erection and commissioning of CCTV system shall be done as per availability of fronts in the project and would have to be done spreading over a period of approximately 6 months from delivery of the materials at site. The erection and commissioning would therefore require multiple visit to site for survey, planning, cable schedule preparation, laying of cables, camera mounting, sever installation and commissioning and camera commissioning and bidders should include the same in their offer for E&C.

o) Redundant 240 VAC UPS feeder from main plant UPS shall be provided at Central Control room for CCTV System. Further distribution and conversion to other voltage level for complete CCTV System shall be suitably done by bidder.

1.02.07 **EXCLUSIONS from scope of services: NIL**

1.03.00 PERFORMANCE GUARANTEE

The Systems / Equipment to be supplied under this specification shall meet the guaranteed performance specified in the enclosed data sheet, specification sheet and technical attachment sheet when operating at the rated / specified conditions. The acceptance of the System / Equipment shall be subject to satisfying these parameters during FAT at Bidder's works and at site installation in complete commissioned condition.

1.04.00 Technical specification of Accessories: Detailed technical specification of CCTV system is provided at Annexure-I. However, the technical specification of accessories are mentioned below:

LED Backlit Monitor:

Viewable size min	As per BOM
Max resolution	1920 x 1080 Pixels.
Contrast ratio	1000:1
Brightness	250 cd /m^2.
Viewing angle	160V / 170H Typical (@ 10:1 CR)
Interface	VGA & DVI D
Power supply	100 to 240 VAC; 50/60Hz.
Other features	Height adjustable stand, pivot, tilt and swivel provisions to be present.

Full Function Keyboard:

Interface	USB 1.1/2.0 Complaint.*(USB extender device for length upto 150 ft to be provided)*
Power	USB interface.
System requirements	Windows 7 or above, Vista, XP, 2000, 2003 Server
Keypad jog dial	Required

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

Alarm I/O Device:

Input ports	As required
Output ports	As required
Interface	RJ-45, 10/100 mbps Ethernet.
Mounting kit	DIN Rail or Rack Mount.
Compatibility	Should seamlessly integrate with proposed VMS

Network Switch: As per functional requirement of the CCTV system offered and meeting environmental conditions mentioned below:

L2 Distribution and Router: operating temp upto 45Deg C 90% RH

Field (edge) switches at camera end: upto 70Deg C 85% RH

The number of port (Cu and FO) in each switch and quantity of the switch shall be decided by bidder and are to be supplied on as required basis. 20% spare ports of each type shall be available in switches.

Cat 5e UTP Patch Cable: UTP Patch Cable – 3 Meters Length minimum

Cat 5e UTP, 4 Pair Stranded Copper Cable with RJ 45 Connectors.
1000 Mbps – 3 Meters Length.
Stranded, Unshielded 24 AWG
Polycarbonate Plug & Gold over Nickel Contacts
Confirming to EIA/TIA 568B
UL/ETL Verified.

Single Mode Fiber Patch Cable

Fiber Patch Cable - 3 Meters Length

SC-LC or **SC-SC** Duplex(refer BOM), 9/125 microns Single Mode with plastic molded plug type connector. Standard 2.5mm Ceramic ferrule.
Confirming to EIA/TIA 568

Cat5e Patch Panel:

Powder coated steel in 24 port configuration
Should support port identification numbers on the front of the panel.
IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools
The Cat-5e transmission performance should be in compliance with the ANSI/TIA/EIA 568C.2 standard
RoHS Compliant
50 µinches gold on plug contact area , Phosphor bronze with nickel plated IDC Contact

Light Interface Unit (LIU) 24 port:

LIU– 24 Port Rack mount loaded with SC SM Simplex Couplers. Cable entry for six nos. shall be considered for this LIU.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

19” Rack Mountable Cabinet
LIU Box Powder Coated Aluminum alloy, Cable grommets should be FR Grade Nylon. Flame retardant plastic.
SC Simplex SM Couplers compatibility to optical fiber 9/125 µm.
Operating temperature of coupler up to 80°C.
LIU qualifies as per ISO/IEC. Couplers – UL listed. RoHS Complaint.

Light Interface Unit (LIU)12 port:

LIU – 12 Port Rack mount loaded with SC SM Simplex Couplers.

19” Rack Mountable Cabinet
LIU Box Powder Coated Aluminum alloy, Cable grommets should be FR Grade Nylon. Flame retardant plastic.
SC Simplex SM Couplers compatibility to optical fiber 9/125 µm.
Operating temperature of coupler up to 80°C.
LIU qualifies as per ISO/IEC. Couplers – UL listed. RoHS Complaint.

Industrial Panel:

Floor standing Panel (Frame)	Basic frame consists of separate height; width and depth channels made from 2mm thick sheet steel and then welded together using a solid steel corner block to provide exceptional rigidity.
Front door	2mm thick single front door, with partial glass Fitted with Nitrile gasket.
Rear door	2mm thick dual rear door with complete steel.
Rear panel	2mm thick, rear panel screw fixed
Side panel	1.6mm thick, panel screw fixed
Top panel	1.6mm thick panel with cable entry facility, fan mounting option. Top Canopy.
Bottom panel	1.6mm thick panel with 3 part gland plate for cable entry
19” rails	Adjustable 19” rails at the front and rear to mount 19” equipment.
Base frame	3mm thick, base frame to rest the cabinet on the floor
Baffle plate	3mm thick, baffle plate / mounting plate to mount the industrial equipment.
Load bearing capacity	Load rating of 1000Kgs
Ingress protection	IP 32
Dimensions • Width • Height • Depth	800 width in mm 2067 height in mm 800 depth in mm (The above dimension are tentative and shall be finalized during detailed engineering)
Material	Steel

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

Powder coating	Folded end covers / Side Covers Exterior & Interior- Grey White RAL:9002 semi glossy Folded End Covers (Interior and Exterior)- Blue RAL:5012 Semi Glossy (Paint shade are indicative and shall be finalized during detailed engineering)
Accessories • 1U fan tray • Cooling fans • Equipment shelf • Cable manager • Earth continuity kit • Earthing bar	 1.2mm thick tray with 4 fans position (as required) 230v AC, 50 Hz, 90 cfm 1.2mm thick, 1U, 100kg load bearing capacity 1U cable manager for horizontal cable routings Full length vertical managers for vertical cable routings Cables for connecting equipment to main earthing point Vertical and horizontal copper bars for earthing.

Industrial Wall Mount Enclosure:
Industrial Wall Mount Enclosure for housing Edge switch, LIU and Power distribution arrangement to call stations / loudspeaker.

Wall mount rack	Overall structural construction of 1.2mm thickness
Front door	1.2mm thick, front glass door with lock
Rear panel	1.2mm thick, rear wall mounted section hinged to the front section with a pair of 19” rails
Top panel	1.2mm thick panel with cable entry facility, fan mounting option and vents at the front.
Bottom panel	1.2mm thick panel with cable entry facility
19” rails	Adjustable 19” rails at the front to mount 19” equipment.
Load bearing capacity	Load rating of 20Kgs
Dimensions • Width • Height • Depth	 600 width in mm 12U / 6U 500 depth in mm (400mm + 100mm)
Material	Steel
Powder coating	Light grey (RAL 7035)

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

Accessories • 1U fan tray • Cooling fans • Cantilever shelf • Cable manager • Earth continuity kit	1.2mm thick tray with 2 fans position (as required) 230v AC, 50 Hz, 90 cfm. 1.2mm thick, 1U, 20kg load bearing capacity 1U cable manager for horizontal cable routings Cables for connecting equipment to main earthing point

Mini UPS:

Mini UPS with 30 minutes battery backup for around 10 cameras with 1-2 network switch and media converters.

	Input voltage : 140 – 270 VAC Frequency 47 – 53HZ.
	Output : 1 KVA Rated voltage: 230V AC 50HZ. Power factor : >= 0.7 Overall efficiency >= 85 % Automatic switch over time :< 5 millisecond or better. With overload, short circuit, over & under voltage protections. Battery : SMF

Junction Box

a) Material- min 4mm thick FRP or CRCA
b) Type- Screwed at four corners of door, door gasket shall be synthetic rubber
c) Mounting clamps and accessories: Mounting plate of 2mm thick mild steel to be Provided inside JB, mounting clamps suitable for mounting on walls, columns, structures etc. shall be provided. The brackets, bolts, nuts, screws, glands, SS handle and Lugs required for erection shall be of SS304, included in Bidders scope of supply. M6 earthing to be provided.
d) Protection Type : IP55 of indoor and IP65 for outdoor
e) Grounding: To be provided
f) Colour: To be decided during detailed engineering.

HDPE pipe

The HDPE pipe shall be used for laying OFC and STP cables in outdoor environment. HDPE pipe shall be permanently lubricated type with ISI marked. The internal diameter of the HDPE pipe shall be suitably selected so that 50% free space is maintained during cable drawing. The pipe shall conform to DOT standard GR/CDS-08/02 Nov. 2004 with latest

SPECIAL FITTINGS

All rigid conduit fittings shall conform to requirements of IS: 2667, 1976. Galvanised steel fittings shall be used with steel conduit. All flexible

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

conduit fittings shall be liquid tight, galvanized steel. The end fitting shall be compatible with the flexible conduit supplied.

1.05.00 DOCUMENTATION

1.05.00.01 Details of documentation to be supplied as part of the System shall be submitted to DVC/BHEL for approval prior to execution of the contract.
1.05.00.02 Each documentation deliverable shall be an integral part of Bidder's Project schedule and shall be identified by date for delivery.
1.05.00.03 Bidder shall supply final approved sets of documentation in soft copies on DVD.

1.05.01.00 **ENGINEERING DESIGN DOCUMENTATION**

Technical Bid shall contain following documents:

SL. NO.	DOCUMENT TYPE
1	Data sheets / catalogs of all items
2.	BOM with make & model
3.	Proposed System schematic diagram.
4.	Write up on architecture and operation of proposed system
5.	Sizing calculation of mini UPS and video storage.
6.	Deviation list. If no deviation, then NIL deviation declaration
7	System Integrators participating on behalf of OEM of cameras and VMS must submit Manufacturer Authorisation Letter (MAF) from camera OEM and VMS OEM confirming all of the following: a. OEM's authorization to participate in this tender on their behalf b. That the bidder is their trained system integrator c. That OEM will give all Technical support / troubleshooting assistance during commissioning and operation of the CCTV system. d. That the quoted products are brand new, are not in End of Life list product and support for supply of Spare camera as well as spare parts for 5 years from the date of supply. e. That OEM will continue their technical Support for commissioning, supply of spare / spare part and repair through their other authorized system integrator (SI), if BHEL terminates the contract with present SI or their tie up with present SI ceases till complete commissioning.
8	Clause wise technical compliance indicating each parameter value of w.r.t specification. *A printout of this specification may be taken and "COMPLIED" to be mentioned against each clause with signature and seal on each page. Any deviation should be marked up at relevant clause. Alternatively, bidder can submit clause wise deviation list.*
9	All documents as mentioned in Pre-Qualification Requirement section of this specification.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

AS-BUILT DRAWINGS

Upon completion of the final acceptance of the System by DVC/BHEL, all construction drawings shall be updated by Bidder to an as-built status to reflect the equipment and System configurations as actually installed.

1.06.00.00 TESTING

1.06.01.00 FACTORY ACCEPTANCE TEST (FAT)

1.06.01.01 Factory Acceptance Test procedure shall be prepared by Bidder along with Quality Assurance Plan. The document shall be subject to DVC/BHEL's approval.

1.06.01.02 All items that are offered in the BOM shall be duly tested by manufacturer at their factory and test certificate of same shall be furnished to BHEL / DVC for review and approval.

1.06.01.03 The entire CCTV system items (as called in BOM) shall be made available at bidder's work for inspection (FAT) which will include complete integrated test for checking that the equipment offered is meeting the design standards and functional requirements mentioned in this specification. As a minimum, BOM verification, physical verification, integrated test shall be performed on true sample of items selected by BHEL shall be part of FAT. BHEL reserves right to check power ON functionality of entire active components of CCTV system BOM. QAP and FAT procedure shall be subject to DVC/BHEL approval.

1.06.01.04 One month prior to the FAT, Bidder shall submit a test procedure and QAP to BHEL for approval.

1.06.01.05 DVC/BHEL's representative may, at DVC/BHEL's sole discretion, attend the FAT. In this event, Bidder shall ensure all tests are carried out in the presence of DVC/BHEL's personnel. If DVC/BHEL declines to attend the FAT, Bidder shall carry out these tests and submit the results to DVC/BHEL for review.

1.06.01.06 Factory Acceptance Tests (FATs) result shall be documented and the test results shall be submitted to DVC/BHEL prior to clearance by DVC/BHEL for dispatch.

1.07.01.01 **COMMISSIONING**

1.07.01.01 Bidder is responsible for delivering a fully functional equipment that meets all the requirements of the Specification and applicable standards.

1.07.01.02 The Commissioning processes will demonstrate the above to DVC/BHEL, before handing over of the System.

1.09.01.03 System Commissioning shall comprise of a number of different activities culminating in the acceptance of the operational System by DVC/BHEL. These activities are detailed in the following sections.

1.07.01.04 Bidder shall provide all necessary test equipment required to carry out the Commissioning and acceptance testing.

1.08.01.00 CLEANING, PROTECTION AND PAINTING

1.08.01.01 All equipment shall be shipped in properly cleaned condition. All the equipment shall be thoroughly cleaned to remove mill scales, rust etc. and properly painted with anti rust primer, where applicable

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

1.08.01.02 Some of the equipment and accessories, after arrival at site, are likely to be in storage for long periods before they are taken up for erection. Bidder may provide adequate protection for preventing damage due to corrosion, dust / dirt ingress, ageing etc.

1.08.01.03 Plugs shall be provided at cable entry holes/adapters to avoid entry of dust and foreign particles. Paper cap will not be acceptable.

1.09.00 IDENTIFICATION, MARKING, PACKING AND STORING

1.09.01 Each equipment shall be individually packed, tagged & protected.

1.09.02 Inscription on equipment (labels) shall be in English.

1.09.03 Packing must be such to protect all goods from possible impacts and foreign matters; moreover, it must limit the influence of both the climate and the environment, and be suitable for the kind of shipping provided for.

1.09.04 In packing the equipment and accessories, all necessary precautions will have to be taken to avoid any damage during transport and delivery.

1.09.05 All items supplied shall be packed for long term storage under the climatic conditions prevailing at the site in a weather proof container. Small items shall be packed in sealed transparent plastic bags with desiccator packs as necessary. Each item shall be clearly marked with its description, purpose and plant designation code as applicable. When more than one item is packed in a single case a general description of the contents is to be shown on the outside of each case and a detailed list enclosed. All cases and other packages must be suitably marked and numbered for identification purposes.

1.10.00 SHIPMENT

1.10.01 Bidder shall be responsible for ensuring that all equipment are carefully and/or suitably packed for shipment, so that they arrive at site in good condition and remain so during storage at site. Before dispatch, all exposed surface shall be protected by applying anti rust primer (two coats) and suitable cover shall be provided for the equipment to be supplied.

1.10.02 Bidder will be responsible for all damages due to improper packing of the goods for shipment and shall replace all such damaged items without cost implication to BHEL

1.11.00 DISCREPANCIES

In case of discrepancies between the technical requirements and other applicable Engineering Standards, Materials System Specifications, Standard Drawings, or industry standards, codes, and forms shall be resolved in writing by Bidder before bid submission. **Bidder is also advised to discuss on any clarification required before submitting their offer to avoid any ambiguity/dispute later on.** In case of any discrepancy in specification / parameter mentioned in this purchase specification, the stringent between the two shall be considered and offered.

It shall be the responsibility of Bidder to determine and comply with the statutory regulation (i.e. city, state, national, provincial, etc. codes or ordinances) which will apply in the location where the item is to be installed. Mandatory regulations cannot be superseded by this specification.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

List of approved makes of CCTV system components:

CCTV cameras and joystick
M/S BOSCH
M/S PELCO
SERVER AND WORK STATION, KEYBOARD & MOUSE
IBM/LENOVO
HP/COMPAQ
DELL
SIEMENS FUJITSU
MINI UPS
HITACHI HIREL (GANDHINAGAR)
APC (BANGALORE)
EMERSON/TATA LIEBERT (MUMBAI)
APLAB (India)
DB POWER (PUNE / SATARA)
DELTA (GURGAON)
NETWORK SWITCH
CISCO
BROCADE (FOUNDARY)
HIRSHMANN (GERMANY)
GARRET (USA)
NETGEAR
JUNIPER (USA)
ALLIED TELESYS
42U PANEL / WALL MOUNTABLE PANELS
PYROTECH (UDAIPUR)
RITTAL (BANGALORE)
PENTAIR TECHNICAL PRODUCTS INDIA PVT LTS (HOFFMAN)- BANGALORE
IL (KOTA)
SCHNEIDER ELECTRIC (BANGALORE)
FO cable:
Birla Erricson
Aksh Fibre
Finolex (Pune / Goa)
Corning Cable System, USA
HFCL, Goa
R&M, Switzerland
D-Link
Molex, UK
Power cable
M/S ADVANCE CABLES TECHNOLOGIES, BANGALORE
M/S APAR INDUSTRIES, BANGALORE

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

M/S CMI Ltd, FARIDABAD
M/S CORDS CABLES, RAJASTHAN
M/S DELTON CABLES,FARIDABAD
M/S ELKAY TELELINKS LTD FARIDABAD, HARYANA
M/S GEMSCAB INDUSTRIES LTD, BHIWADI
M/S GOVIND CABLE INDUSTRIES, GHAZIABAD
M/S GOYOLENE FIBRES ,MUMBAI
M/S GUPTA POWER INFRASTRUCTURE LTD. BHUBANESWAR
M/S KEC INTERNATIONAL LTD, BANGALORE
M/S KEI INDUSTRIES LTD ,CHENNAI
M/S MANSFIELD CABLES COMPANY LTD. NOIDA,
M/S PARAMOUNT CABLES,ALWAR
M/S POLYCAB,DAMAN
M/S RAVIN CABLES, PUNE
M/S RJ INDUSTRIAL CORPORATION, UTTRAKHAND
M/s SBEE CABLES, BANGALORE
M/S SPECIAL CABLES LTD, NEW DELHI
M/S SPM POWER & TELECOM PVT LTD, HYDERABAD
M/s SRIRAM CABLES LTD, NEW DELHI
M/S SURAJCABLES, DELHI
M/S SUYOG ELECTRICALS LTD. BARODA
M/S T C COMMUNICATION PVT. LTD, NEW DELHI
M/S TEMPSENS INSTRUMENTS PVT LTD, UDAIPUR
M/S THERMO CABLES, HYDERABAD
M/S TORRENT CABLES, NADIAD
M/S UDEY PYRO CABLES, VADODARA
M/S ULTRACAB (INDIA) PVT LTD, GUJARAT
CAT 5e UTP CABLE / PATCH CABLE/PATCH PANEL/LIU:
AMP / DIGILINK / D-LINK / SYSTEMAX
COMPUTER TABLE / CHAIR
ADARSHA CONTROL / COSMOS MEDIA / FEATHERLITE / GAUTIER / GODREJ / HARMONY / LAMPERTZ / OTS OFFICE / PAN OFFICE / PYROTECH
SINGLE MODE FIBER PATCH CABLE / SC PIGTAIL SIMPLEX
Avaya / Belden /D-Link / Digilink / Tyco
SINGLE MODE MEDIA CONVERTER
Avaya / Belden /D-Link / Digilink / Tyco/ CTC Union
1. For all other items whose make are not mentioned above, the offered make shall be reputed and must have been supplied & commissioned earlier. 2. Camera and Joystick should be of same make. If make of offered VMS is not same as camera, then letter of from both camera & VMS OEMs to be submitted for compatibility of VMS & camera/joystick. 3. Bidders offering unapproved makes of camera shall submit filled up form at Annexure-II from camera OEM. Non submission of filled up form may result in rejection.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

ANNEXURE-I

1.00.00 DESIGN AND TECHNICAL REQUIREMENTS

1.01.00 The CCTV system shall be able to provide surveillance of SOFA area of boiler. The exact mounting locations of camera shall be decided during commissioning.

The CCTV system shall be designed as a standalone IP based network architecture. System shall use video signals from cameras, process the video signals for viewing on monitors at different locations and simultaneously record all the video streams using MPEG4 or better compression technique. Joystick and mouse-keyboard controllers shall be used for Pan, Tilt, Zoom and other functions of desired cameras.

1.02.00 The complete system for each boiler shall have 8nos of PTZ Cameras, camera management cum database servers or OWS (for management of cameras and storage of video of all camera for 21 days), Monitors, key board, joysticks, set of network switches (L2/L3) to control and integrate the system. There are total 5 projects (location) and each power generating unit has a boiler.

~~1.03.00 The CCTV system for each project shall be linked to existing analog CCTV system in these projects~~.

1.04.00 The camera management cum database servers or OWS shall offer both video stream management, video stream storage management. These shall also manage and store configuration information/database for the whole system. Recording frame rate & resolution in respect of individual camera shall be programmable. It shall be possible to view and record at different resolutions and frame rates and this shall be individually programmable on every camera. It shall be possible to take back-up of system configuration and database on removable media i.e CD/DVD etc. and restoring the same if required.

1.05.00 System shall ensure that once recorded, video cannot be altered.

1.06.00 Camera server shall be provided with sufficient storage space to store recordings of all cameras at 25 FPS, 4CIF for a period of 21 days or more using necessary compression techniques. All recordings shall have camera ID, Location, Date and time of recording. Bidder to submit sizing calculation of video for each zone.

1.09.00 Video Management software shall allow the clients seamless operation of all cameras. Software shall allow the client applications to interact with all the camera/database servers or OWS simultaneously and allow simultaneous display of live video/recorded video regardless of the zone in which the client is connected.

1.10.00 It shall be possible to view, record, search and replay simultaneously without affecting performance of the system.

1.11.00 The system operation would be of covering the complete view of the areas with pan / tilt, zoom, propositioning of the cameras and with programmability to monitor any camera on any monitor either manually or automatically in a defined switching. The offered components like camera, switches, JB etc which are to be mounted in SOFA area of the boiler shall be suitable for installation and continuous operation in boiler area of Thermal power plant whether the aspects are indicated in this specification or not. The system supplied shall be complete in all respects for safe and reliable performance.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

1.12.00 The system shall be able to accept potential free contacts from other system and use the same for predefined actions (like zoom/pan/tilt of cameras, bringing out pre-defined views on predefined monitors etc.) This feature shall be mainly used for linking fire related signals. This functionality can also be provided as a part of camera or through separate network compatible alarm system.

2.00.00 DETAILED DESCRIPTION OF THE SYSTEM COMPONENTS:

2.01.00 **Application Software for Video Monitoring, Recording & Management.**

2.01.01 The application software shall be used to display, store, control & manage the entire surveillance system. The software shall be capable of handling 20 % additional cameras over and above the number of cameras specified in each zone.

2.01.02 It shall be possible to control all cameras i.e PTZ , auto/manual focus, selection of presets, video tour selection etc. The software shall support flexible 1/2/4 windows split screen display mode or scroll mode on the display monitors for live video.

2.01.03 It shall be possible to define priority based camera control rights for each camera or a group of cameras. The users shall be defined on a hierarchical basis with a minimum of three levels. A higher priority user can take control of camera being controlled by a lower priority user. In addition the user shall have facility to request access of any camera and if the existing situation permits the user shall be to control the camera.

2.01.04 The software shall be programmable with at least 50 sequences that can run independently of each other in either forward or reverse direction. The sequences shall support simultaneous switching on multiple image panes or monitors. The sequences shall also support camera prepositions for each camera on each sequence step.

2.01.05 The system administrator shall have rights to add/delete/configure users with rights. It shall be possible to view the rights of each user or the cameras which can be viewed/controlled by each user. It shall also be possible to add/delete cameras, configure cameras, assign priorities to users, configure alarm monitors etc. It shall also be possible to configure user groups with different rights and assign users to user groups. The system shall support unified log-in through out the system and it shall be possible for any user to log-in from any location/client and access cameras/recordings and other features as permissible depending on his rights assigned to his log-in.

2.01.06 The system shall have different recording modes i.e continuous, manual, programmed, event activated etc. on date, time camera wise. It shall be possible to configure each mode using user friendly tools. It shall be possible to search and replay the recorded video date, time, camera, event wise.

2.01.07 The system shall include on screen display for time-date, camera number/camera ID, and status information. The system shall have provision for logging through printer output port, which shall provide permanent record of system status showing time and date of changes such as: incoming alarms, acknowledgement of alarms, loading of sequences, user log-on to key board, transfer of system tables and sequence, video loss messages, and a power up reset message, thus hard copy of the system's configuration tables and sequences can be obtained.

2.01.08 The system shall have alarm interface capability. When an alarm occurs in the Security or Control System Server, the live video output of the camera associated with that alarm shall be switched directly to a predefined monitor/monitors. The user shall be able to acknowledge

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

the alarm to clear the monitor using the numeric keypad or mouse. Cameras that are directed to such pre-defined monitors will not be removed from the queue unless explicitly cleared by the operator. It shall be possible to create a queue of such pre-defined monitors to manage multiple alarm views simultaneously. The system shall maintain a single alarm stack for the complete system, which shall include events received from other system, or events detected by video analytics, network loss, video loss etc. It shall be possible to assign priorities to alarms. System shall maintain audit trail for alarms and actions taken by users in response to alarm shall be recorded and made available for audit.

2.01.09 The software for clients shall preferably work on a browser based system .This will allow any authorized user to display any video (live/recorded) of any camera on the monitor with associated controls. It shall be possible to play back recorded video at different speeds i.e 1/4X to 16 X. The system shall support multiple live video on single monitor in different configurations like 1,2,4 etc.

2.01.10 It shall be possible to retrieve recorded video without much delay for any date/time interval.

2.01.12 The system shall be interfaced to LVS display system of each unit. All the related hardware and software shall be provided by the Bidder. The unit level system shall be connected to at least one no monitor, one no. key board and requisite number of servers and cameras. The system shall also have the following provisions.

Software shall also provide the ability to monitor system status events. Systems alarms, switching functions, sequence events, keyboard actions, and video loss information.

2.01.13 The system shall be able to provide complete system diagnostics.

2.01.14 Not used

2.01.15 The software shall support video loss and network loss alarm feature.

2.01.16 It is a requirement that all user actions on the system Operator Station be recorded in a log file along with the Security System or Control System's actions. User actions include: Interventions such as manual recording and configuration setting changes

Cameras viewed / Video replayed / Video exported / Cameras pan/tilt/zoomed and preset switching

This log must also contain a history of the status of the system components. It shall list the status of all cameras, servers and other system components including when they were disabled or failed. This log shall be maintained for a minimum period of 21 days.

2.02.00 **Cameras:**

2.02.01 All the cameras shall be colour, suitable for day and night surveillance and network compatible. Further all the cameras shall be high speed integrated PTZ dome type. The cameras shall be rugged, full performance color cameras. These cameras shall provide high resolution and high sensitivity suitable for operation in boiler area of power plant, both in natural and artificial sighted areas. Detailed technical specification is given below.

Image Device	1/2.8-1/3" Progressive scan CMOS
Lens	4.45-4.7 /89-94.0 mm focal length
Optical Zoom	20x or better

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

Digital Zoom	12x or better
Number of Pixels/ Effective resolution	1920X1080 (Full HD)/2 MP at 25/30 IPS
Video compression	H.264 Main Profile/High profile
Sensitivity(at 6dB)	Colour mode 0.6 lux , B/W mode 0.04lux @30IRE, F1.6
Horizontal Angle of view	55.4 deg(wide)- 3.5 deg (Tele) minimum
Focus	Auto with Manual Override
Iris Range	F1.6-F2.9
Iris Control	Auto with Manual Override
Back Light Compensation	Required
White Balance	Automatic with mode selection options
Electronic Shutter	1/50 to 1/10000 Auto
S/N Ratio	>50dB
Audio	Full Duplex or 2-way
Automatic Gain Compensation	Up to 18 dB
Power Supply	As per manufacturer's standard to be arranged by bidder
Gain Control	Auto/Off
Day/Night selection	Auto On-Off
IR cut-filter	Yes
Protocols	IPV4/IPV6,RTP, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/V3, ICMP, ARP, SMTP, SNTP,SNMP or equivalent
Security	Password protection
Auto Resume after Power Failure	Yes
Multiple Streams Operating resolution	H.264 /H.264 & H.264/Motion JPEG Primary stream – 1920X1080 at 25/30 FPS & other minimum 720X576 at 25/30FPS
Analytics	Motion detection & Tamper alarm
PoE supply IEEE 802.3af compliant or better	Yes
Rate Control	VBR/CBR
Other Features	On screen Menu display, contour correction and contrast compensation control
	Automatic Picture Enhancement to give a balanced picture where there is too much/too little light
	Synchronization selection for line lock and free running
	Minimum 2 Alarm I/Ps & 1 alarm output
PTZ Specifications	
Pan	360 Deg Continuous
Tilt	90 deg
Manual Tilt Speed	0.1 deg/sec to 45 deg/sec
Manual Pan Speed	0.1 deg/sec to 80 deg/sec
Preset Positions	Minimum 256
Preset Pan Speed	280 deg/sec min

Preset Tilt Speed	160 deg/sec min

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

2.03.00 Camera Housing& Mount

2.03.01 All the cameras and accessories are to be housed in Weather Proof IP 65 environmental housing made of aluminum and Sun shroud. The housing, with heater and blower installed, shall provide protection for camera/lens assemblies in the ambient temperature range of - 0 deg. C to 50 deg. C.

2.03.02 The camera mount should be of the same make as that of camera and suitable for the model no. offered as specified by the manufacturer and should be an integrated unit

2.03.03 **Keyboard & Joystick**

Keyboard shall have full function used for system control and programming for selection of various Network switches, camera/database servers, camera functions including pan, tilt and zoom lens controls and shall be ergonomically designed. Joystick shall be provided for achieving all control functions.

2.03.04 **Work Station**

For hardware specification please refer specification of operator work stations is provided at later section of this specification. However RAM and hard disk/storage memory shall be sized to meet functional requirement as stipulated in this section.

2.04.00 Network Switch:

All the network switches shall be of high quality and shall be sized to meet the functional requirements as specified. All the network switches shall be provided with twenty percent (20%) spare ports. The location of placing network switches shall be decided during detail engineering and shall be subject to approval of employer. Distribution switch shall be suitable for operation upto 45Deg C if placed in AC room near OWS. Field switches which will be mounted at outdoor locations should be suitable for operation upto 70Deg C.

3.00.00 CABLES:

3.01.00 All Cables being supplied shall be armoured FRLS PVC sheathed cables for use in CCTV and shall conform to latest edition of Indian/International standards. Fiber optic cables are to be provided wherever required. The remaining cables can be as per CCTV supplier's standard. All the cables and the hardware required for powering the system are also in the scope of Bidder. All cables required for interfacing alarm contact inputs (to be provided by employer) to CCTV system are also in scope of Bidder.

FIBER OPTIC CABLE

Optic Fiber cable shall be 4/8/12 core, galvanised corrugated steel taped armoured, fully water blocked with dielectric central member for outdoor/ indoor application so as to prevent any physical damage. The cable shall have multiple single-mode or multimode fibre on as required basis so as to avoid the usage of any repeaters. The core and cladding diameter shall be 9 +/- 1 micrometer and 125 +/- 1 micrometer respectively. The outer sheath shall have Flame Retardant, UV resistant properties and are to be identified with the manufacturer's name, year of manufacturer, progressive automatic sequential on-line marking of length in meters at every meter on outer sheath.

COPYRIGHT AND CONFIDENTIAL
The information contained in this document is the property of *BHARAT HEAVY ELECTRICALS LIMITED*
This must not be used directly or indirectly, in any manner detrimental to the interest of the company

The cable core shall have suitable characteristics and strengthening for prevention of damage during pulling viz. Steel central member, Loose buffer tube design, 4 fibers per buffer tube (minimum), Interstices and buffer tubes duly filled with Thixotropic jelly etc. The cable shall be suitable for a maximum tensile force of 2000 N during installation, and once installed, a tensile force of 1000 N minimum. The compressive strength of cable shall be 3000 N minimum& crush resistance 4000 N minimum. The operating temperature shall be –20 deg. C to 70 deg.C

All testing of the fiber optic cable being supplied shall be as per the relevant IEC, EIA and other international standards. Bidder to ensure that minimum 100% cores are kept as spares in all types of optical fibre cables. Cables shall be suitable for laying in conduits. Spliced / Repaired cables are not acceptable. Penetration of water resistance and impact resistance shall be as per IEC standard

4.00.00 Server and Workstations- Following is minimum configuration to be offered, However, Bidder shall offer configuration as required by their offered system.

Sl. No.	Features	Servers	Operator workstations
1.	Processor	64 bit/32 bit (Dual CPU for Station LAN Server)	64 bit/32 bit
2.	Memory	2 GB RAM upgradable to 4 GB	1 GB RAM upgradable to 4 GB
3.	Hard Disk	3 x 1 TB Ultra wide SAS, Hot swappable	1 TB ultra wide SCSI
4.	Monitor (color)	Min 20” TFT Flat Monitor with non-interfaced refresh rate min. 75 Hz.	Min 20” TFT Flat Monitor with non-interfaced refresh rate min. 75 Hz.
5.	RAID	SAS-channels, hardware RAID level 5 implemented	
6.	Redundant hot swappable power-supply	1set	
7.	Removable bulk storage drive (DVD DAT)	500 GB (minimum)	
8.	Removable Bulk Storage Media for above.	16x or higher	
9.	DVD R/W		32x or higher
11.	Keyboard	ASCII	ASCII
12.	Pointing Device	Optical Mouse	Optical Mouse
13.	Additional general purpose software	Comprehensive disk maintenance utility for disk clean sweep/ crash guad/antivirus etc.	

Annexure-I

			Projects with 16nos of camera per project				
Sl. No.	**ITEM**	**UoM**	**Mejia 2x500MW**	**Koderma 2x500MW**	**Raghu'pur 2x500MW**	**Durgapur 2x500MW**	**TOTAL QTY**
1	VMS software of adequate capacity including 10% spare capacity	LOT	1	1	1	1	4
2a	OWS/server/NVR suitable for **18nos** (incl 2 spare) of cameras	SET	1	1	1	1	4
2b	OWS/server/NVR suitable for **10nos** (incl 2 spare) of cameras	SET					
2c	Monitor min 32" TFT	Nos	1	1	1	1	4
2d	Keyboard, mouse and Joystick	Nos	1	1	1	1	4
2e	Mini UPS suitable for 30min backup to Server/OWS/NVR offered	Set	1	1	1	1	4
3	LVS connection: OWS without monitor (with Keyboard, Joystick, license, table & chair) OR Any other solution for LVS connection	SET	1	1	1	1	4
4	PTZ Dome Color Camera with suitable mount &	NOS	16	16	16	16	64
5	Network Switch						
5a	L2 Distribution Switch with suitable no of each types of ports required with 20% spare ports of each type	Lot	1	1	1	1	4
5b	Edge Switch with suitable no of each types of ports on as required basis with 20% spare ports of each type	Lot	1	1	1	1	4
6	Cat6 shielded Twisted Pair Cable (STP)	Lot	1	1	1	1	4
7	4F Single Mode Armoured OFC Cable	Lot	1	1	1	1	4
8	3C 1.5sqmm Armoured Power Cable	Lot	1	1	1	1	4
9	Armoured signal cable for alarm connection						
10	Pair of Single Mode Industrial grade Media Converters -10/100 MBPS suitable for approx 500mtrs distance for connecting cameras to switch	Lot	1	1	1	1	4
11	GI conduits with couplers and connectors to lay both	Lot	1	1	1	1	4
12	Industrial Panel	LOT	1	1	1	1	4
13	Industrial Wall Mount Enclosure or JB of IP65 rating for mounting network switches, media converter,	LOT	1	1	1	1	4
14	Anti-Virus Software, for all the server/OWS	SET	1	1	1	1	4
15	Miscellaneous items						
a	Fiber optic accessories like Fiber Patch Cable, LIUs, Pigtails etc required for completion of the	LOT	1	1	1	1	4
b	Cat-6 cable accessories like UTP Patch Cable, patch panel, etc for termination of all CAT5e cables.	LOT	1	1	1	1	4
c	Electrical items such as TBs, MCBs, cable coverings, cable managers, RJ45 connectors, etc.	LOT	1	1	1	1	4
d	Mechanical items such as G/C channels, DIN Rail, JBs, cable glands, lugs, mounting accessories for	LOT	1	1	1	1	4
16	Alarm I/O module	LOT	1	1	1	1	4
17	Computer table and chair for placing OWS with monitor	LOT	1	1	1	1	4
18	Any other item mentioned in technical specification or required for completion of CCTV system but not covered in the BOM.	LOT	1	1	1	1	4
19	Suitable Packing for each project for storing CCTV	LOT	1	1	1	1	4
20	Erection, Installation, commissioning and handing over of complete CCTV system package on as required basis.	LOT	1	1	1	1	4

		Project with 8nos of camera per project		
Sl. No.	**ITEM**	**UoM**	**Bokaro 1x500MW**	**TOTAL QTY**
1	VMS software of adequate capacity including 10% spare capacity	LOT	1	1
2a	OWS/server/NVR suitable for **18nos** (incl 2 spare) of cameras	SET		
2b	OWS/server/NVR suitable for **10nos** (incl 2 spare) of cameras	SET	1	1
2c	Monitor min 32" TFT	Nos	1	1
2d	Keyboard, mouse and Joystick	Nos	1	1
2e	Mini UPS suitable for 30min backup to Server/OWS/NVR offered	Set	1	1
3	LVS connection: OWS without monitor (with Keyboard, Joystick, license, table & chair) OR Any other solution for LVS connection	SET	1	1
4	PTZ Dome Color Camera with suitable mount & power supply	NOS	8	8
5	Network Switch			
5a	L2 Distribution Switch with suitable no of each types of ports required with 20% spare ports of each type	Lot	1	1
5b	Edge Switch with suitable no of each types of ports on as required basis with 20% spare ports of each type	Lot	1	1
6	Cat6 shielded Twisted Pair Cable (STP)	Lot	1	1
7	4F Single Mode Armoured OFC Cable	Lot	1	1
8	3C 1.5sqmm Armoured Power Cable	Lot	1	1
9	Armoured signal cable for alarm connection			
10	Pair of Single Mode Industrial grade Media Converters -10/100 MBPS suitable for approx 500mtrs distance for connecting cameras to switch	Lot	1	1
11	GI conduits with couplers and connectors to lay both CAT6 and OFC in	Lot	1	1
12	Industrial Panel	LOT	1	1
13	Industrial Wall Mount Enclosure or JB of IP65 rating for mounting network switches, media converter, MCBs, TBs etc at camera end	LOT	1	1
14	Anti-Virus Software, for all the server/OWS	SET	1	1
15	Miscellaneous items	LOT	1	
a	Fiber optic accessories like Fiber Patch Cable, LIUs, Pigtails etc required for completion of the splicing and termination of FOC			1
b	Cat-6 cable accessories like UTP Patch Cable, patch panel, etc for termination of all CAT5e cables.			1
c	Electrical items such as TBs, MCBs, cable coverings, cable managers, RJ45 connectors, etc.			1
d	Mechanical items such as G/C channels, DIN Rail, JBs, cable glands, lugs, mounting accessories for camera/JB/enclosure etc			1
16	Alarm I/O module	LOT	1	1
17	Computer table and chair for placing OWS with monitor	LOT	1	1
18	Any other item mentioned in technical specification or required for completion of CCTV system but not covered in the BOM.	LOT	1	1
19	Suitable Packing for each project for storing CCTV components	LOT	1	1
20	Erection, Installation, commissioning and handing over of complete CCTV system package on as required basis.	LOT	1	1

DAMODAR VALLEY CORPORATION
ELECTRICITY DEPARTMENT
DVC TOWERS, VIP Road, Kolkata-54

Doc No/EDCON/QC &I/Kol/Sub-Vendor Pro/ 01 Date: 19.09.19

Requirement for approval of vendor/sub-supplier under DR category:

Name of vendor/sub-supplier is to be proposed by EPC (Main) contractor along with the following documents:-

1) About vendor/sub-supplier to be proposed-
   a) Proposed sub-supplier/vendor's name and works, factories, branch addresses, total organizational strength (Engineering, Manufacturing, Quality, Commercial, service after sales & others)
   b) Nature of Company: Whether it is a Proprietary/Partnership/Private Limited/Public Limited.
   c) Brief specification of the items for which approval is requested.
   d) Details of manufacturing license for the product for which approval is asked for. Indicate approval/certification by any National/International standards/agencies if applicable.
   e) Indicate details of foreign collaborations if any.
   f) Contact person details along with Telephone Nos., Fax Nos., E-mail ID.

4) Record of past supply by the sub-supplier/vendor for the same type of materials for which approval is asked to any Govt/Govt. Under takings/PSUs/ Reputed Private Company within last Seven years. Records must be of such type:-
   a) Copy of Purchase Order issued from Govt./Govt Undertakings/PSUs / Reputed Private Co.
   b) Copy of performance certificate issued by any Govt./Govt Undertakings/PSUs/Reputed Private Co.
   c) Other documents like approved Engineering Documents, approved MQP, MDCC, Inspection Reports etc. as required for justification towards sub-vendor approval.

5) Type test report for the same type of materials for which approval is asked for from any Govt. Govt. approved Laboratory/ other reputed Institutions within last five years (or as per the NIT Requirements) – if required.

6) Financial capability: (i) Net Worth (ii) Annual Turnover & Profit for last three years (iii) Limit of credit facility available from bank with documentary evidence

7) Whether the sub-supplier/vendor has the following in-house facility (Enclose Documentary evidence) or otherwise (Detail to be provided):
   a) Design:
   b) Research & Development:
   c) Manufacturing/Production:
   d) Quality Control/Inspection:
   e) Testing Lab/Testing facilities:
   f) If in-house testing / quality control facilities are not available, indicate source of testing / quality control with relevant details.
8) Compliance of Statuary / regulatory / pollution norms wherever applicable with documentary evidence.
9) Other documents if needed during reviewing the submission.

Note:

1) DVC may visit the factory/works/office of the sub-supplier/vendor to verify the above submitted details. The documents asked to verify the above information have to be provided by the sub-supplier/vendor duly reviewed by main supplier to DVC.
2) If the Legal documents like Certificate of Incorporation/ Manufacturing license, Statutory Documents etc. cannot be verified from the original then the Notarization for the same will be required.