

List of amendments to the tender for pre-bid tie-up of cryogenic ASU
Enq. No. 180/CTC/ASU/ENQ Dated: 01.06.2024

Page no of tender document	Document Title	Clause	Amendment
12/140	Annexure PQC	-	Annexure is revised
35/140	Annexure TD	-	Annexure is revised
96/140	Annexure BOQ	-	Annexure is revised
File	BOQ_38220	-	Spread sheet is revised
5/140	Terms and definitions	4	'BIDDER' or 'SUPPLIER' shall mean the Sole Bidder who shall submit or who have submitted the Bid.
5-11/140	Terms and definitions	-	(i) Term CODES deleted and replaced with the term REGULATIONS (ii) Sub clause (o) and (p) under MECHANICAL COMPLETION deleted
11/140	Terms and definitions	38	TOTAL LSTK PRICE / TOTAL CONTRACT PRICE/ CONTRACT PRICE redefined
16/140	Technical specification	3.1 (g)	Suitable air filtration unit to arrest dust up to 5 microns with 99% efficiency
17/140	Technical specification	3.2 to 3.4	Product quantity requirement as well as storage capacity requirement is revised
17/140	Technical specification	3.2	Parameters for gaseous O2/N2 production to be demonstrated under normal as well as design mode of operation
17/140	Technical specification	3.3	Note added
18/140	Technical specification	4	The compressors and refrigeration unit shall be housed in a suitable building with material handling facilities. Additional clause regarding meeting the turndown requirement added
19/140	Technical specification	4 .2	Point no 8
19/140	Technical specification	4.3	Point no 4
21/140	Technical specification	4.6	Point no 2
21/140	Technical specification	4.9	Point no 1, Additional points added,
-	Technical specification	-	New clause added on ELECTRICAL EQUIPMENT
22/140	Technical specification	4.10, 4.11,4.12	Re-numbered as 4.11, 4.12, 4.13 respectively

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Page no of tender document	Document Title	Clause	Amendment
23/140	Technical specification	6	Additional points added under note
25/140	Technical specification	9	Table row header amended
26-27/140	Technical specification	11.A	Sub clause D1, D4, D5 and C7 amended
28/140	Technical specification	11.B	O&M deleted from scope of supply
29/140	Technical specification	12	Point no 1 and 2 amended and cost of power and water during construction phase indicated
30/140	Technical specification	14	Point no 1 and no 2 amended Sub clauses e, i and j deleted Note removed
31/140	Technical specification	15	Point no 1 amended to include availability
31/140	Technical specification	16	Point no 2 deleted
32-33/140	Technical specification	19.1	Point no 8,12,13,14,16 amended. Point no 5 deleted
33/140	Technical specification	19.2	Point no 9 & 10 removed. Point on civil load data included.
38/140	Commercial terms part-1	4	Amendment made to milestone completion dates
43/140	Commercial terms part-1	12	Paragraph 2 amended
45/140	Commercial terms part-1	13	Paragraph 4 under tax indemnity amended
46/140	Commercial terms part-1	14	Terms under the clause amended
48/140	Commercial terms part-1	15	Terms under the clause amended
55/140	Commercial terms part-1	18	Cover-1 - Sub-clause (ii),(iv) and (v) in the table amended
59/140	Commercial terms part-1	21	Evaluation criteria amended
61/140	Commercial terms part-1	25	Amended with latest GOI guideline
62/140	Commercial terms part-1	27	Additional terms added to the clause
74/140	Commercial terms part-2	1	Construction power and water cost included. Utilities will be made available 1 month prior to the end of Mechanical Completion period, instead of 3

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77/140	Commercial terms part-2	3	Clause added - Any taxes to be paid by the purchaser directly to the authorities will be set off against the contract price quoted by the bidder
84/140	Commercial terms part-2	6	Additional condition for payment term loading included under note
85/140	Commercial terms part-2	8	Clause for latent defects included
88/140	Commercial terms part-2	11	Amendments made
	Annexure MSP		Added annexure indicating the list of spares to be quoted.
	Annexure BG - EMD		New annexure added
	Annexure MII		Amended with latest GOI guideline

Note: Page Nos. mentioned in the above table refers to the page nos. in the tender document published while floating the tender. Amended tender documents are attached herewith.



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DEFINITION OF TERMS AND INTERPRETATION

In the CONTRACT, unless the context otherwise requires, the following expressions shall have the following meanings. The singular shall include the plural and the plural include the singular except where the context otherwise requires and the words 'he', 'him', and 'his' shall be taken to mean 'she', 'her' and 'hers' where appropriate.

1. 'APPROVAL' shall mean and include the written approval by the PURCHASER of a documents, drawing or other particulars in relation to this CONTRACT.
2. 'BATTERY LIMIT' shall mean the outer limits of boundaries of the areas within which the Plants and associated facilities shall be located.
3. 'BID' shall mean the proposal/document that the BIDDER submits in the requested and specified form in the specification in response to this NIT.
4. 'BIDDER' or 'SUPPLIER' shall mean the Sole Bidder who shall submit or who have submitted the Bid.
5. 'COMMERCIAL USE' shall mean that use of the PLANT, which the CONTRACT contemplates or of which it is commercially capable.
6. COMMISSIONING' shall mean the putting into operation of PLANT by CONTRACTOR with the assistance from PURCHASER'S Personnel.
7. 'CONTRACT' shall mean written agreement made between the PURCHASER and the CONTRACTOR for the execution of the WORK, and shall include all Contract Documents set out under Article 1 of each Contract Agreement, including all attachments and Annexure thereto and all documents incorporated reference therein.
8. 'CONTRACTOR' shall mean the successful sole Bidder whose bid has been accepted by the PURCHASER and who has been selected by the PURCHASER for the award of Works and shall include his heirs, legal representatives, successors and permitted assigns.



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9. 'CONTRACT PERIOD' shall mean the time period (as extended by the PURCHASER from time to time wherever appropriate) during which the CONTRACT shall be executed as agreed to between CONTRACTOR and the PURCHASER in the CONTRACT.
10. 'CONTRACTOR'S WORKS' OR 'MANUFACTURER'S WORKS' shall mean the place or places of work used by the CONTRACTOR/SUB-CONTRACTOR or their collaborator (s) for the manufacture of EQUIPMENT or performance of WORKS.
11. 'COST' means the cost properly incurred by the Contractor in carrying out any of his obligations under the Contract, and 'Costs' shall be construed accordingly.
12. 'DEFECT' means any work done or any Material or the Plant or any part of it which does not comply with the CONTRACT.
13. 'DOCUMENT(S)/DOCUMENTATION' means any relevant documents in paper or electronic form, including drawings, technical software, images, designs, manuals or records.
14. 'EFFECTIVE DATE OF CONTRACT' shall mean the calendar date on which Letter of Acceptance (LOA) is issued by PURCHASER.
15. 'EQUIPMENT' OR 'STORES' shall mean the equipment, machinery and structure of any kind which the CONTRACTOR is obliged to design, supply, deliver, unload, store at site, erect, set to work and test under the CONTRACT.
16. 'FINAL COMPLETION' shall mean the completion of guarantee tests and handing over of the PLANTS and facilities to OWNER.
17. 'INITIAL OPERATION' shall mean the first integral operation of the complete EQUIPMENT covered under the CONTRACT with sub-systems and supporting equipment in service or available for service and shall be undertaken as part of COMMISSIONING after completion of start up activities.



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18. 'MANUFACTURER' shall mean a person or firm who is the producer and supplier of material and/ or designer and/or fabricator of equipment to either the PURCHASER, the CONTRACTOR or both under the CONTRACT.
19. 'MATERIALS' means machinery, plant and other items of equipment and materials intended to form part of the PLANT and other things needed for its operation, to be supplied by the CONTRACTOR.
20. "MECHANICAL COMPLETION" shall mean completion of erection to such an extent that the PLANT is ready for commissioning. This shall happen when:
- a. The EQUIPMENT capable of producing to rated capacities are installed, aligned and grouted (wherever applicable) in accordance with drawings, specifications as per finally approved P&I Diagrams after HAZOP Studies and in accordance with all applicable codes, and laws.
 - b. All pressure EQUIPMENT are hydrostatically or pneumatically tested once either in CONTRACTOR'S shop or in the field in accordance with Technical Specifications.
 - c. All Catalyst/adsorbents are charged in the respective reactors.
 - d. All Tower packing & internals are installed.
 - e. Compressor, Pumps, Machinery etc. are cold aligned. Couplings are assembled and guards installed.
 - f. Instruments, control system, instrument cable, safety interlock are installed, inspected and such non-operating checks are made as to ensure operability in the manner required for the process application. Instrument air lines are checked for correct hook up. Air lines are leak tested.
 - g. Relief valves are installed prior to this; they will have been checked by the CONTRACTOR in the CONTRACTOR's shop.
 - h. Piping is hydrostatically or pneumatically tested in accordance with the specifications. Special treatment such as chemical cleaning is done as required by drawing or specifications. Suction screens are installed and test blinds are removed. Spring support anchors and guide are checked for removal of all shipping locks.
 - i. The electric system is installed and tested in accordance with and to the extent required by electrical specifications. All wiring is checked for correct hook up. Motor rotation is checked. All power system protective devices are set.



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- j. Insulation and drying out are completed to the extent necessary to permit start of commissioning and start up.
- k. Pipe support system installed as per drawings.
- l. Painting is completed.
- m. EQUIPMENT /MACHINERY, piping duly marked and labelled.
- n. Safety equipment, systems are installed and checked for operations.
- o. All chemical & lubricants are charged into the system.
- p. PRECOMMISSIONING has been completed.
- q. The PLANT is ready to take feed
- r. All packing and bed support materials are installed.

Liquidation of all punch list applicable for achieving MECHANICAL COMPLETION. Balance items of punch list, if any, shall be liquidated as mutually agreed

Temporary constructions facilities are removed to extent necessary to permit start of commissioning of Plant.

21. 'LETTER OF AWARD (LOA)'/ NOTICE OF AWARD (NOA) /'LETTER OF INTENT (LOI' shall mean the official notice issued by the PURCHASER notifying the CONTRACTOR that his bid has been accepted, subject to such conditions as may have been stated therein as agreed on between CONTRACTOR and PURCHASER and that the CONTRACTOR is required to sign the CONTRACT Agreement and LETTER OF AWARD / NOTICE OF AWARD / LETTER OF INTENT shall constitute legally binding contract between the PURCHASER and CONTRACTOR.
22. 'NOTICE IN WRITING', 'WRITTEN NOTICE' shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post/ Speed Post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post, it would have been delivered. Fax with Post copy confirmation.
23. 'OTHER CONTRACTOR/OTHERS' shall mean any person(s) having a contract with the PURCHASER to design, supply, erect, set to work, or do any other thing to or in connection with any other plant and shall include their, heirs, legal representatives, successors and permitted assigns.



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24. 'OWNER' shall mean CIL- **BHEL JV** (M/s Bharat Coal Gasification and Chemicals Limited) having its registered office at Sambalpur, Odisha.
25. 'PURCHASER' shall mean BHEL having its registered office at Siri Fort, New Delhi - 110049.
26. 'PERFORMANCE & GUARANTEE TESTS RUN (PGTR)' shall mean all operational checks and tests required to determine and demonstrate capacity, efficiency and operating characteristics and proving guarantees as specified in the CONTRACT documents.
27. 'PLANT' shall mean the process unit(s) as defined in the technical specification for ASU
28. 'PRELIMINARY ACCEPTANCE' shall mean that following milestones have been achieved
- (i) MECHANICAL COMPLETION has occurred,
 - (ii) PRECOMMISSIONING and COMMISSIONING of the PLANT have been accomplished
 - (iii) The Sustained plant operation has been established
 - (iv) PGTR has been conducted and accepted by PURCHASER
 - (v) All statutory approvals in the scope of Contractor, required to operate and maintain the PLANT have been obtained
 - (vi) PURCHASER has received all documents required hereunder to start up, operate and maintain the PLANT
 - (vii) PURCHASER has received all operations, maintenance, and spare parts manuals and instruction book necessary to operate and maintain the PLANT in a safe, efficient and effective manner
 - (viii) all special tools and spare parts purchased by CONTRACTOR as provided herein have been delivered to PURCHASER; and
 - (ix) CONTRACTOR has completed the training program of PURCHASERS personnel as required under this CONTRACT
 - (x) All demonstration runs have successfully completed



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29. "PRE-COMMISSIONING" shall mean preparation of PLANT so that it is capable of operating on a continuous basis at or near rated capacity for carrying out COMMISSIONING activities.
30. 'PROJECT' shall mean the Project specified in the Technical specification.
31. 'PROJECT MANAGER' shall mean the person designated by the PURCHASER and shall include those who are expressly authorised by the PURCHASER to act for and on his behalf for operation of this CONTRACT.
32. 'REGULATIONS' shall mean
- All relevant Indian Acts, and Rules and Regulations made there under;
 - Indian Employees Provident Fund Act,
 - Pollution Control norms of INDIA
 - Contract Labour
 - Minimum Wages Act
 - Any other labour laws of INDIA applicable during execution of contract.
 - Any other codes/standards specified in the contract documents
33. 'SITE' shall mean and include the land and other places on, into or through which the EQUIPMENT and related facilities shall be erected and any adjacent land, paths, streets or reservoirs which may be allocated or used by the PURCHASER or CONTRACTOR in the performance of the CONTRACT.
34. 'SPECIFICATION' shall mean collectively all the terms and stipulations in Conditions of the CONTRACT, the Technical Specifications, schedules, detailed descriptions, statement of Technical Data, performance characteristics, standards & codes etc., and subsequent addenda issued thereto before the date of closing of bid and all written agreements made or to be made pertaining to the method and manner of performing the Work or to the quantities and the qualities of the materials to be furnished under this CONTRACT.
35. 'START UP' shall mean bringing the equipment covered under the CONTRACT from an inactive condition, when construction is essentially complete, to the state ready for initial operation. The start-up shall include preliminary inspection and checkout of EQUIPMENT and supporting sub-systems; perform calibration and corrective action and chemical cleaning of the plant/system/equipment covered under the CONTRACT.
36. 'SUB-CONTRACTOR' shall mean any person or persons, or firm(s) including his/their, heirs, legal representatives, successors and permitted assigns selected by the



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CONTRACTOR with prior written approval of the PURCHASER for undertaking any part of the Works under the CONTRACT or to whom any part of the CONTRACT is sublet by the CONTRACTOR with the consent in writing of the PURCHASER.

37. 'TOTAL LSTK PRICE / TOTAL CONTRACT PRICE/ CONTRACT PRICE' shall comprise of the price of material/supplies, services (including E&C), spares, packing and forwarding along with requisite insurance coverage, inclusive of duties and taxes excluding GST.
38. 'WORK' OR 'WORKS' means the design, engineering and other services to be provided by the Contractor including, but not limited to, the provision and construction of the PLANT and any Temporary Works and the subsequent dismantling or removal of the Temporary Works when no longer required, and any other works to be carried out by the CONTRACTOR in accordance with the CONTRACT.
39. 'NOTICE INVITING TENDER (NIT)/ INVITATION TO BID (ITB)/ BIDDING DOCUMENT' means Tender as originally issued and any Addendum / Amendment(s) issued thereafter.



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Pre-Qualification Criteria (PQC) for cryogenic ASU

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ANNEXURE – PQC

1. Technical Criteria

- a. The prospective BIDDER must be an Original Equipment Manufacturer (OEM) possessing proven technology for Air Separation Unit (ASU) with Design, Engineering, Manufacturing & testing capabilities.
- b. The prospective BIDDER should be able to provide non-infringing technology solutions.
- c. The prospective BIDDER should have designed and installed cryogenic ASU plant of either 1000TPD oxygen capacity or 1500 TPD Nitrogen capacity in the last 10 years. The ASU supplied should be operational/ should have operated successfully for a minimum period of two years for the said capacity with a minimum availability of 98%. The referred plant should have been executed on Lump Sum Turnkey/Licensing, Engineering, Procurement and Construction/ Engineering, Procurement and Construction (LSTK/LEPC/EPC) basis. BIDDER must submit necessary documents indicating the capacity and availability from the end customer as a proof.

2. Financial Criteria

2.1 BIDDER should have got and executed ASU order of following value in the past ten years

- a. Not less than of ₹400 Crore (excluding GST) or 48 million USD, against one work order/ purchase order

OR

- b. Not less than of ₹200 Crore (excluding GST) or 24 million USD, against each of two work order/ purchase order

OR

- c. Not less than of ₹133 Crore (excluding GST) or 16 million USD, against each of three work order/ purchase order

(BIDDER must submit Work order(s)/ Purchase order(s) copy(ies))

2.2 For verification purpose all submitted documents shall be self-attested and stamped by the BIDDER.



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2.3 Work/purchase order copies as well as documentary proof for capacity and availability certificate must be from the end user/customer of the gaseous oxygen/oxygen & nitrogen plant. In case of foreign plant references, the documents must be in English language or a certified translated copy of the same in English language is to be enclosed. The name and contact details with email ID of the designated official at the end user/ customer side is to be furnished.

2.4 Indigenous supplier should submit audited copies of annual reports (Balance Sheet, Profit & Loss statement) for the last 3 years or from the date of incorporation whichever is less and GST certificate. Foreign supplier should submit the latest reports from reputed third party business rating agencies like Dun & Bradstreet, Credit reform etc.

2.5 All documents in support of Technical and Financial PQC furnished by the BIDDERS shall be verified and certified by any of the below mentioned independent third party inspection agency or their Indian subsidiaries. All charges of the Third party for verification and certification shall be borne by the BIDDER. However, the PURCHASER reserves the right to accept/reject the documents furnished.

- a. Société Générale de Surveillance(SGS)
- b. Gulf Lloyds Industrial Services (India) Pvt. Ltd.(GLISPL)
- c. International Certification Services(ICS)
- d. Bureau Veritas
- e. DNVGL
- f. TUV Rheinland
- g. TUV SUD
- h. TUV Nord Group
- i. Intertek India Pvt. Ltd.
- j. Moody International
- k. RINA India Pvt. Ltd.
- l. Competent Inspectorate and Consultants LLP
- m. ABS Industrial Verification (India) Pvt. Ltd.
- n. KBS Certification Services Ltd.
- o. Carbon Check India Pvt. Ltd.
- p. Lloyd's Register
- q. RITES

Note:

1. PURCHASER reserves the right to verify the information provided through suitable means viz. e-mail, telephonically, video calling or visit of PURCHASER team as per discretion of PURCHASER. Supplier shall also agree to facilitate the visit of PURCHASER team to his customer's premises, if considered necessary by PURCHASER. Travel, boarding and lodging expenditure for such visits shall be borne by PURCHASER.



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Technical Specification
for
Cryogenic Air Separation Unit (ASU)

for the proposed
Coal to Ammonium Nitrate (2000 TPD) Project
at
Bandhabal, Jharsuguda district, Odisha (India)



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1.0 INTRODUCTION

Coal is the important source of primary fuel in India with abundant reserve of more than 340 Billion tons. 80% of the coal produced domestically is being used for thermal power generation. With the development of renewable energy, diversification of coal for its sustainable use is inevitable. Coal gasification, a well-known process that converts solid carbonaceous material into synthetic gas is one of the solution for sustainable use of coal. Syngas so generated from the coal can be used to produce several value added chemicals such as methanol, dimethyl ether, ammonia etc. Hydrogen produced from syngas will also help in meeting the energy needs of the country. Government of India is targeting to set-up Coal Gasification Projects for 100 million MT of Coal Gasification by 2030 through the National Coal Gasification Mission, for producing various chemicals, iron ore reduction, power applications, etc. Also, the Coal Ministry has issued mission document for Hydrogen production through Coal Gasification. Budget FY 22-23 has also announced 4 pilot projects for coal gasification and conversion into chemicals.

PURCHASER is pursuing the business in coal gasification through its in-house developed pressurized fluidized bed gasification (PFBG) technology for "Coal-to-Chemicals" applications. The synthesis gas produced from the coal gasifier will be used as a precursor for manufacturing value added products like methanol, ammonia/hydrogen etc. PURCHASER has already demonstrated the PFBG technology through the 6.2 MW combined cycle demonstration plant at Trichy developed in early 1990. PURCHASER has also designed and demonstrated a 0.25 TPD Coal to Methanol pilot plant, converting high ash Indian coals to methanol through the gasification route.

PURCHASER has now signed an MoU with M/s Coal India Limited for setting-up 2000TPD Coal to Ammonium Nitrate Project at Bandhabal, Jharsuguda District, Odisha State. For execution of this proposed project, a JV company (Bharat Coal Gasification and Chemicals Limited) has been formed with 51:49 equity holding by CIL and BHEL respectively. The gasification Island for this project is being awarded to PURCHASER on a nomination basis and tenders for the other islands/ packages are underway. The project commencement is expected by Q4 FY24-25, immediately after the DFR preparation by PMC.

As ASU is the one of the major system for any gasification project, PURCHASER is looking for competitive techno commercial offer on an end to end basis from reputed suppliers having proven experience in this field.



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2.0 INTENT OF SPECIFICATION

PURCHASER shall enter into MOU with successful bidder with a condition that the work will be awarded to successful bidder at the time of project commencement. The intent of this specification is to elaborate the scope of ASU supplier for the proposed Coal to Ammonium Nitrate (2000TPD) Project. The ASU supplier shall be responsible for design, engineering, supply, erection, testing, pre-commissioning, commissioning, trial runs operation, operator training, demonstration of guarantees, supply of spares and handing over, all on turnkey basis as required & complete in all respect.

This specification specifies the requirement of Design, Engineering, Manufacturing, Assembling, Inspection, testing at manufacturer's works and Delivery of properly packed and painted ASU with all accessories as specified in the scope of work and as required for the safe and trouble-free operation of equipment to be installed at site.

3.0 DESCRIPTION OF PRODUCT/SYSTEM REQUIREMENT

3.1 Brief of the system requirement

ASU based on cryogenic process cycle consisting of main air compressor, precooling, purification, booster air compressor and rectification columns. The process to include internal compression for the required oxygen and nitrogen products and external compression, if required. Supplier shall use the state of the art technology with greatest energy efficiency so as to reduce the power consumption to a minimum. Final process cycle adopted must minimize capital cost, minimize energy usage, maximize product recovery, and allow maximum operating flexibility. The required ASU to be designed considering plant life of 25 years.

The air separation process should include below major steps: -

- Compression
- Pre cooling
- Purification
- Cooling to liquid air temperature
- Separation into components by low temperature distillation
- Re-warming of Separated components
- Storage
- Vaporization



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The ASU should comprise the following main equipment groups:

- a. Main Air Compressor (MAC) for compressing the required air flow to the required process pressure in the rectification system.
- b. Inlet silencers and fresh air filters shall be provided at the suction of the compressor. The filter construction shall have suitable provision to prevent water ingress into filter/silencer due to rains and also provide a bird screen.
- c. Air Precooling System for cooling the air from MAC
- d. Molecular Sieve Station (Air Purification Unit) for water, CO₂ and hydrocarbon removal to make the air suitable for cryogenic air separation plant. This will be a two train system, one will be under adsorption and another will be under regeneration.
- e. Booster air compressor for compressing the air further
- f. The main air compressor and booster air compressor to be driven through condensing type steam turbine.
- g. Suitable air filtration unit to arrest dust up to 5 microns with 99% efficiency.
- h. Moisture Separator to be provided to remove max. free moisture from the cooled air.
- i. Cold Boxes containing all cryogenic equipment and heat exchangers for cooling. The inside of the cold box shall be sufficiently insulated to prevent ingress of heat. The cold box shall be internally provided with ladders, platforms and access doors at various levels for accessibility for maintenance. Bidder to specify number of exchangers and its various locations inside the cold box along with its specification
- j. Suitable access doors for maintenance of the equipment inside the cold box shall be provided. All valves requiring manual operation shall have handles outside the cold box.
- k. Rectification columns for the separation of oxygen and nitrogen. The trays/structural packing provided inside the column shall be suitable for efficient separation of product gas/liquid & to achieve the required purity in the entire turndown range.
- l. The column shall be equipped with all necessary instrumentation and control for level, liquid transfers, pressure differential, temperature indication etc.
- m. Expansion Turbine for providing the required cold of the cryogenic process. Suitable access doors shall be provided for expansion turbine
- n. Back-up system for Oxygen and Nitrogen consisting of storage tanks, pumps and vaporizers
- o. Suitable handling equipment

Note: The above listed equipment groups are not exhaustive and other items/ systems required for the efficient functioning of the ASU and meeting the desired end product requirements are also to be included in the techno commercial offer and supplied.



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3.2. End Product Requirements (Continuous)

Product		Quantity (in TPD)	Quantity (in Nm ³ /hr)	Purity (in Wt%)	Pressure (in Kg/cm ² (g))
Gaseous Oxygen	Normal	1200	35000	≥ 99.5	31.6
	Design	1320	38500		
LP Gaseous Nitrogen	Normal	540	18000	≤ 5 ppm O ₂	9.0
	Design	594	19800		
MP Gaseous Nitrogen	Normal	1030	34300	≤ 5 ppm O ₂	36.0
	Design	1135	37800		

NOTE:

1. Turndown requirement for the ASU is 50% of normal flow.
2. Compressors are to be steam turbine driven (Condensing type turbine) with steam parameters – **107 kg/cm²(g) and 515°C**
3. **Minimum 98%** plant availability to be ensured
4. Parameters for gaseous O₂/N₂ production to be demonstrated under normal as well as design mode of operation

3.3 Back-up system

Product		Quantity (in TPD)	Purity (in Wt%)	Pressure (in Kg/cm ² (g))	Remarks
Liquid Oxygen	Design	35	≥ 99.5	Suitable for transfer to storage tank. Required liquid Nitrogen/Oxygen transfer pumps to be supplied	Storage tank capacity indicated below
Liquid Nitrogen	Design	40	≤ 5 ppm O ₂		

NOTE:

1. Back-up system parameters shall be demonstrated under the design mode of operation.



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3.3.1 Vaporizers and Pumps for Back-Up

	Vapourizers		Pumps	
	Capacity (in Nm ³ /hr)	Op.Pressure (in Kg/cm ² (g))	Capacity (in Nm ³ /hr)	Discharge Pressure (in Kg/cm ² (g))
Liquid Oxygen	35000	31.6	35000	31.6
Liquid Nitrogen	34300	36	34300	36

3.4 Storage Tank details

Product	Storage Capacity in Tons
Liquid Oxygen	1320
Liquid Nitrogen	1600

4. GENERAL REQUIREMENTS OF VARIOUS SUB-SYSTEMS (NOT EXHAUSTIVE)

- The plant shall be designed to operate in the specified capacity range with optimum energy consumption. This shall be achieved by automatic capacity control with manual over ride facilities. Venting of air or product shall not be resorted to up to specified turndown operation of the plant.
- Adequate redundancy to be considered for all necessary equipment for continuous operation of the ASU Plant with availability of more than 98%.
- All couplings, gears and exposed rotating parts shall be provided with adequate guards. Drive belts, if any, shall be anti-static type.
- Each machinery module shall have its own local panel, as applicable.
- The compressors and refrigeration unit shall be housed in a suitable building with material handling facilities. Compressor shed/ building shall have suitable material handling facilities (EOT crane of adequate capacity) for maintenance.
- Since the ASU is to be installed in an ammonia manufacturing facility, suitable material of construction and machineries may have to be considered, as there may be possibility of ammonia traces in the ambient air
- Turndown requirement is not to be demonstrated by the way of storing excess production in storage tanks.

4.1 Refrigeration Unit

- The refrigeration unit shall have fully automatic operation. The turn down of the unit shall synchronize with the air separation unit turn down.
- The refrigeration unit shall be designed as per applicable International Standards



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- The refrigeration compressor shall be reciprocating /centrifugal/ screw type depending upon the operating condition/duty requirements.
- The refrigeration unit shall 1 Working and 1 Standby compressors
- The refrigeration plant shall be of independent skid mounted modular construction comprising of condensing unit, evaporator/chiller.
- Internal refrigeration unit that generates chilled water with the use of cold from waste nitrogen, to cool the process air is also acceptable. In such a case, all pumps for circulation shall have 100 % installed standby.

4.2 Air Purification Unit

- The purification unit shall be twin bed desiccant system of heat-reactivated type. Waste nitrogen gases from cold box may be considered for heat reactivation of the desiccant bed after heat up in reactivation heater.
- The desiccant shall be activated alumina and molecular sieve designed to remove moisture, carbon dioxide, hydrocarbons, and other gases/compounds as dictated by process requirements.
- The quantities required for activated alumina and molecular sieve shall be calculated based on their respective dynamic adsorption capacities corresponding to inlet air temperature. Over and above this, a 10% margin shall be added to quantity of each adsorbent. Supplier shall ensure desiccant manufacturer's recommendation for dynamic adsorption capacity.
- Desiccant shall be supported in the vessel on stainless steel wire mesh adequately supported on carbon steel grid. Filling & discharge nozzles shall be provided on the vessels.
- Sizing of vessels shall take into account the attrition of desiccant due to compression, consequent bed inactivity and ageing.
- Regeneration heater shall be sized for at least 20% excess heat duty. Heater shall be designed and located so as to enable the servicing of the same without disturbing piping networks.
- Heater shall have safety valve and thyristorised temperature control. The heater shall also be provided with safety features to cut off the heater in case of high skin temperature of heating elements and low flow of regeneration gas.
- The filtration efficiency of air purification unit shall be 99% for particles size 5 microns & above.
- Required gas analysers to measure the impurities in the purified air and moisture analyser to be provided.



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4.3 Turbo Expander

- Turbo expander shall have variable flow nozzle to account for temperature control & turn down.
- A local panel containing speed indicator, bearing return oil temperature indicator and alarms for over speed, low seal gas pressure etc. shall be provided. Vibration probes shall be provided.
- The lube oil system shall comprise of SS oil reservoir of adequate capacity, oil pump (1 Working+ 1 Standby), oil cooler, SS piping, duplex filters, oil pressure and return oil temperature gauge, pre-alarm and trip for low oil pressure.
- A warehouse spare rotor assembly for the turbo expander shall be considered under the list of spares. The expansion turbine shall be housed adjacent to the cold box and expeditious replacement of the rotor shall be possible.

4.4 Distillation Column(s)

- Number of columns, their sizes and sizing of condenser re-boiler with respect to the required product mix shall be based on proven proprietary design of the supplier.
- The column shall have adequate no. of trays or packing designed to achieve the specified purity and turndown.
- The material of the column shell and internals shall be austenitic SS or Aluminium alloy. The material of construction of condenser re-boiler shall be Aluminium alloy
- Supporting arrangement of bottom column shall be adequately designed to reduce transfer of cold from column.

4.5 Cold Box

- Cold box consisting of main exchanger, distillation column, condenser reboiler, expansion turbine shall be supplied as a single unit.
- The material for piping inside the cold box shall be austenitic SS or Aluminium alloy. For trays and plate fin exchangers, Aluminum alloy material shall be used.
- Cold box shall be maintained at slight positive pressure by continuous purging of dry nitrogen. Cold box shall be insulated from inside, with expanded perlite. Cold box structure, outer skin shall be of carbon steel construction.
- Adequate access in the form of tight shut doors, ladders, platforms etc. shall be provided outside the cold box.
- All valves requiring manual operation shall have their hand wheels brought out of cold box with proper identification.
- Similarly, all indicating instruments shall have their indicating dial brought out of the cold box.



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- All controls, control valves and other equipment requiring periodic maintenance shall have adequate access for the same.
- The skin temperature of the cold box cladding shall not go below 5 ° C less than ambient temperature.
- The various liquid drains from the cold box shall vented at adequate height where the liquids are vaporized by means of dry air. Vent piping shall be of SS.

4.6 Vaporisers

- Vaporiser shall have temperature controlled shutdown valve to guard against accidental flow of liquid to gas outlet.
- Suitable Steam bath vaporiser tank shall be provided.

4.7 Liquid Storage Tanks

- Double wall tank shall be designed to ensure that Evaporation loss is not more than 0.35%.
- The tanks shall be double wall construction type, constructed of austenitic SS inner shell contained within a carbon steel outer shell. The space between the shells shall be filled with non-inflammable insulation (perlite powder) material and maintained under vacuum.
- The storage tank shall be complete with all accessories, auxiliaries (e.g., pressurisation coil etc.) and safety features including double safety valves etc.
- Facility for liquid nitrogen injection from storage tank to distillation column shall be provided.
- Also facility for loading and unloading of liquid into or from a road tanker (for liquid nitrogen) shall be provided.
- Storage tanks shall have level transmitters with alarms, pressure gauge, temperature gauge, vacuum gauge for annular space vacuum measurement, as a minimum.
- The tank shall fully meet the statutory requirement of the Chief Controller of Explosives (CCOE)/Petroleum Explosive Safety Organisation (PESO)/ Static and Mobile Pressure Vessels (SMPV), Govt. of India.

4.8 Deriming Heater

- The deriming heater shall be electrically operated & shall have adequate safety & control instrumentation.



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4.9 Instrumentation & Controls

- Major systems/modules such as air compressors, turbo expander and refrigeration plant shall have its independent panel, if necessitated by the safety considerations
- Main control panel shall be located in the control building. This panel shall have all indications, controls, alarms and trips. Provision to repeat selected parameters to a centralized control system shall be included. In addition, this main panel shall receive all the indications, alarms and trip signals from various local panels, where provided.
- The plant shall be capable of fully automatic operation once started. The control and monitoring of the plant shall be from the control room unless otherwise specified control system shall include all safety features comprising of interlocks, alarms, trips etc for all sub packages. Provision should be made to communicate and data exchange between ASU to Main Plant DCS.
- All critical instrumentation and controls shall be as per SIL-3 Assessment and HAZOP recommendation. The implementation of SIL requirements and verification shall be in accordance with IEC 61508 & 61511. (Standards for panels to be included)
- The DCS system shall be designed for operation, control and monitoring with built-in Annunciation system. There shall be provision to monitor and control the ASU system from Purchaser's DCS using serial link/OPC. The system shall have self-diagnosis features and shall be redundant in processor, memory, power supply and communication interfaces. DCS shall be provided with minimum 2 nos. of work stations for operation, control and 1 no for Engineering functions along with printers and furniture for Work stations and printers. Systems shall be designed with 20% installed pre-wired spare capacity for all I/O type cards of each category Controller & communication network loading shall not exceed more than 60%.
- DCS supplied should be from reputed makes (such as Siemens/ABB/Valmet) /proprietary, meeting the operational/availability requirements specified.

4.10 Electrical Equipment

- Continuous duty LT motors shall be Efficiency class-IE3, conforming to IS 12615 or IEC:60034-30. Motors and LPB located in hazardous areas shall have flame proof enclosures conforming to IS:2148.
- 415V switchboard (PMCC/MCC) shall be TOTAL TYPE TESTED (TTA) design as per IEC 61439-1/2. Type Test Certificates for short circuit withstand of 50kA for 1 sec along with ACB mounted in the Switchboards shall be provided. LV Switchboards shall comply with IEC 60947 and Internal Arc Containment test as per IEC 61641. MCC shall be with two incomers and one bus-coupler and outgoing feeders. All feeders of



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415 V switchboards shall be provided with MCCBs except feeder rated more than 400A/75kw, for which ACB shall be provided. All outgoing feeders shall be draw-out type and ACBs shall be electrically operated- EDO type. All low voltage switchboards shall be provided with 10% spare outgoing feeders or minimum 1 No. of each rating & type (fully wired) and with all the components. For interfacing with DCS/PLC system, separate marshalling panel (with 20% spare terminals) shall be provided on each bus section in the switchboard in the same panel line up.

- Auxiliary Supply Power Board, UPS DB, DCDB, etc., shall be single front, floor mounted non-draw out type and 10% spare outgoing feeders or minimum 1 No. of each rating & Type (fully wired) and with all the components

4.11 Piping

- Wherever, liquid nitrogen is in contact with piping, the material of construction of piping shall be austenitic SS.
- Piping material class, line designation, insulation thickness etc. shall be clearly shown by the Supplier in the Piping & Instrumentation drawing (P&ID).

4.12 Protection and Painting

- Surface preparation and painting shall be done as per approved painting scheme.
- Stainless steel surfaces, both inside and outside, shall be pickled and passivated.
- Machined and bearing surfaces shall be protected with varnish or thick coat of grease.

4.13 Packaging and Identification

- All packaging shall be done in such a manner as to reduce the volume. The equipment may be dismantled into major components, suitable for shipment and shall be properly packed to provide adequate protection during shipment. All assemblies shall be properly match marked for site erection.
- Attachments, spare parts of the equipment and small items shall be packed separately in wooden-cases. Each item shall be appropriately tagged with identification of main equipment, item denomination and reference number of the respective assembly drawing.
- Detailed packing list in water-proof envelope shall be inserted in the package together with equipment.
- Each equipment shall have an identification plate giving salient equipment data, make, year of manufacture, equipment number, name of manufacturer etc.
- Supplier shall furnish procedure for prolonged storage of supplied equipment/ material at site



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5. SITE DESCRIPTION & AMBIENT CONDITIONS

Coal for the project will be sourced from Lakhanpur coal mine, which is part of the IB Valley coal mines, owned by M/s Mahanadi Coalfields Limited (a subsidiary of M/s Coal India Limited).

Location : Lakhanpur, Jharsuguda district, Odisha State, India

Coordinates : Latitude 21°46'0"N Longitude 83°46'0"E

Ambient Pressure : 0.99 bar

Dry Bulb temperature : Minimum 10 °C; Maximum 41 °C; 35°C (Design point)

Relative Humidity : Minimum 21 %; Maximum 99.5 %; 74 % (Design point)

Wind velocity : As per IS:875 (part -3) 1987 – 44 m/s

Seismic Data : As per IS 1893 Part 1 (2002) – Zone III

6. CODES, STANDARDS AND REGULATIONS

- Design, manufacturing and inspection of the ASU shall be based on international standards accepted in India
- OSHA safety regulations, PESO regulations as well as all valid statutory regulations applicable at all stages of project life cycle shall be complied with.
- Compliance with all relevant requirements of static and mobile pressure vessel (SMPV) rules of CCOE.
- Compliance with applicable national or overseas codes and standards as well as any statutory regulations in existence for a specific item
- Ease of operation and maintenance including any necessary measures for ensuring safety of personnel and equipment as well as a conducive working environment. The layout of ASU and storage system shall be in accordance with local & statutory regulations and have adequate access for regular operation & maintenance.
- The latest edition of following codes and standards shall be adopted for design, engineering for the Air Separation Unit.
 - Pressure Vessels -ASME Sec.VIII Div. I & ASME Sec.IX
 - Heat Exchangers -TEMA 'C' and ASME Sec.VIII
 - Air cooled exchanger -ASME Sec.VIII Div.I, API 661
 - Piping, valves, fittings -ANSI.B 31.3, ANSI-B 16.5
 - Centrifugal Air compressor -API 672
 - Main Heat Exchanger (with Cold Box) - ALPEMA/Other Equivalent Standard

Note:

1. Supplier shall ensure compliance with all Central, State & Local Govt. regulations, laws and requirements applicable to the work and seek & obtain approvals/ clearances from such statutory bodies/ agencies, as required. Purchaser's role will be limited to only providing



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authorization in favour of supplier for which all the necessary paper work will be done by supplier.

2. In case the bidder intends to use other equivalent Design Code for pressure vessel design, the verification strength design calculation as per ASME Section VIII Div. I shall be submitted in support of selected thicknesses of various pressure parts.

3. In the event of any conflict between this specification, data sheets, statutory regulations, related standards, codes etc., the following order of priority shall govern:

- a) Statutory Regulations*
- b) Data Sheets*
- c) Standard Specification*
- d) Codes and Standards*

7. SAFETY

- All safety features comprising of interlocks, alarms, trips etc. shall be incorporated in the composite plant, its accessories and auxiliaries.
- The layout of the plant shall facilitate easy and adequate accessibility to all operating and regular maintenance areas.
- The layout of the plant and storage system shall be in accordance with statutory regulations and approved by Chief Controller of Explosives (CCOE)/Petroleum Explosive Safety Organisation (PESO) /Static and Mobile Pressure Vessels (SMPV), Govt. of India.
- Silencers shall be provided wherever air or gas venting is involved to minimise noise level to 85 dBA.
- All PSV outlets shall be routed to safe location.
- Plant piping shall be routed and supported on elevated pipe rack.
- All valves and instruments shall be accessible

8. INSPECTION AND TESTING

- Equipment shall be subjected to stage wise expediting, inspection and testing at supplier's/sub supplier's works by Purchaser/its authorized inspection agency.
- Supplier shall perform tests and inspection necessary to ensure that the material and workmanship conform to the requirement of this specification.
- The AIR SEPARATION UNIT equipment shall, on its completion and before being placed in service, be subjected to inspection by purchaser's inspector or purchaser nominated inspection authority during manufacturing/testing stages, to determine that the assembly conforms to applicable requirements.



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- All test certificates shall be furnished for purchaser's reference and records.
- All the pressure vessels shall be hydrostatically tested and inspected as per applicable codes and standards. The total skid shall be hydro tested or pneumatically tested at applicable pressure. Any other tests as per data sheets, standards and codes shall also be performed.
- Certified copies of all statutory/Third party inspection authorities shall be furnished to Purchaser's authorized representative.
- Inspection requirements of different components shall be as listed in respective specification/data sheets.
- Material test certificates are subject to review by Purchaser's authorized representative.
- The control panels shall be simulation tested at works prior to dispatch.
- Plant instruments shall be duly calibrated.
- Any or all the tests, at Purchaser's option, shall be witnessed by Purchaser/its authorised inspection agency. However, such inspection shall be regarded as check-up and shall in no way absolve the supplier of his responsibility.
- All inspection certificates shall be furnished for purchaser's reference and records.

9. UTILITY REQUIREMENT

Utility	Flow (in m ³ /hr) (To be provided by supplier for normal mode oprn)	Supply Pressure (in Kg/cm ² (g))	Supply Temperature (in °C)	Remarks
Cooling Water	*	4.5	34	10°C temp rise is permitted
LP Steam	*	4	180	For vaporiser
HP Steam	*	107	515	Steam turbine inlet flange parameters, for steam driven compressors.
Instrument air	**	6	34	For Start-up and Performance test
Seal gas	**			Dry gas seal to be considered instead of conventional liquid seals. Seal gas to be mentioned.
Other	**			Any other utility requirement to be indicated

Note:

* Values to be indicated under BoQ2 tab of excel file BOQ_38220

** Values to be indicated in Annexure TD



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10. POWER SUPPLY REQUIREMENT

Supplier to indicate the total power requirement mentioning the required infrastructure.

Design Basis	HT Power	LT Power	Emergency (LT Power) If required
No of Line feeder intake	1	1+1	1
Nominal voltage	11 KV, 3 Phase AC	415 V, 3 Phase AC	415 V, 3 Phase AC
Frequency	50 Hz	50 Hz	50 Hz

The voltage level for motors shall be as follows:

- a) Upto 0.2 KW: Single phase 240V AC / 3 phase 415V AC
- b) Above 0.2 KW and upto 150 KW: 3 phase, 415V AC
- c) Above 150 KW and upto 1000 KW: 3 phase, 3.3 kV AC
- d) Above 1000 KW: 11 kV

11. SCOPE OF SUPPLY/ SERVICES

- D1. Design
- D2. Detailed engineering
- D3. Preparation and submission of drawings and documents for all equipment
- D4. Data for civil foundation design
- D5. Design data for earthing and lighting
- D6. Participation in HAZOP & SIL review
- D7. Procurement of raw materials and bought out components.
- D8. Manufacture, fabrication and assembly
- Q1. Quality plan and inspection schedule
- Q2. Quality control including NDT
- Q3. Inspection and testing including reports and certificates
- Q4. Surface preparation, protective coating and painting including supply of paint
- S1. All required machineries, equipment, piping, tools and spares for erection and commissioning
- S2. Complete Electrical for ASU portion – Transformers, HT Switchgears, LT switchgears, Emergency switch gear, Motors, actuators, Power distribution board, Push button boxes, Power and control cables, Cable trays, Above and below ground earthing, Illumination, Lightning protection etc.
- S3. Electrical, control system and Instrumentation (including all required analysers) work as per standards. All electrical components & installations, instruments shall be



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suitable for the electrical area classification and grouping in which the equipment is installed

- S4. MV Motors for compressors, if applicable
- S5. VVVF Converters for VSDs for cryogenic pumps
- S6. Complete control system for ASU portion - Distributed Control System/PLC, Emergency Shut down system(ESD), Engg. Station (HMI), Server, Printers, LVS, Clock, SOE, Historian, furniture etc.,
- S7. Complete Instrumentation for ASU portion – Field instruments (local gauges and remote transmitters), flow elements. Analysers, Vibration monitoring system, Junction boxes, Instrument racks, Instrument enclosures, Leak detectors, hook up materials etc.
- S8. Cabling of all instrumentation equipment up to junction box and junction box to PLC/DCS.
- S9. Power supply for ASU portion - Uninterrupted power supply system, 24 V DC battery/battery charger system and distribution board, 220 V DC battery/battery charger system and distribution boards
- S10. All Cables (Power, Control & Instrumentation) in ASU
- S11. Pneumatic supply and distribution in ASU
- S12. Laboratory instruments/equipment required for ASU
- S13. Elevators required for ASU island, if applicable
- S11. All control and on/off valves for ASU
- S12. Silencers, insulation, inter connecting piping, valves, safety valves, fittings, nuts & bolts, gaskets, pipe supports, ladder and platform etc.
- S13. Thermal and noise insulation
- S14. All required analytical equipment for safe operation and product control
- L1. Packing & Transportation
- L2. Transit insurance
- L3. Receipt, Unloading, Storage, Handling
- C1. Erection, Pre-commissioning and commissioning of complete system
- C2. Construction insurance until handover
- C3. Heavy lifting of mechanical equipment including provision of cranes and required scaffolding for erection requirement
- C4. EOT Crane of suitable capacity for material handling System-Crane capacity
- C5. Structural works
- C6. All piping work and installation including pipe racks and supports
- C7. Obtaining all statutory clearances, permits and approvals from local & statutory bodies for the construction and operation of ASU (excludes project related approvals)
- C8. Performance guarantee test run at site of complete package
- C9. Ensuring emission norms and safety
- C10. Filling up of oils & lubricants, desiccants, chemicals, refrigerants etc.
- O1. Provide full-fledged training for owner's Engineers



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12. EXCLUSIONS

- Required civil work such as foundations, roads, geotechnical investigation/ soil report, initial site preparation, land refilling, piling, and fencing etc.
- Control room
- Any equipment, piping, cabling - outside ASU area/ battery limits
- System for steam supply
- Complete cooling water re-cooling system (cooling tower, cycle pumps, water treatment, filtration etc.)
- Supply of utilities during construction phase will be made available on chargeable basis
- HT & LT Cable required outside ASU B/L.
- Cable trays / trench required outside ASU B/L.
- Cable between the Main plant DCS to ASU MCC panel & Main plant DCS to ASU PLC/DCS.
- DG set/ HVAC/ FFS/ FDA/ EOT/Water treatment.
- HT & LT Power required during construction phase will be provided on chargeable basis (at ₹ 6.90/kW-hr approx..)
- Water required during the construction phase will be provided on chargeable basis (at ₹ 75/m3)

Note:

1. Any other equipment/ packages not enlisted here but are appearing in process package or is within the battery Limits and is required to make the system complete in all respect for its safe and efficient operation is also included in supplier's scope
2. Any additional items or feature required, during detail engineering for the completeness and trouble-free performance of the system shall be included in the supplier's scope without any price implications, as long as system performance & technical requirements are kept unchanged.

13. BATTERY LIMIT INTERFACES (Utilities and power will be provided at terminal point)

- Gaseous O₂ product
- Gaseous N₂ product
- Cooling water
- Steam & other utilities
- Power



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14. PERFORMANCE GUARANTEE & TESTING

- A field performance test shall be conducted by the Supplier to demonstrate the guaranteed performance after commissioning in accordance with test procedure and report to be prepared generally in accordance with ASME PTC 47.1:2017.
- The procedure of performance testing shall be submitted for Purchaser's review and shall be mutually agreed between the purchaser and the supplier and the commencement of performance guarantee test shall be mutually agreed.
- The performance testing shall be for a period of 72 hours of continuous operation. Hourly recording of all operating and/or guaranteed parameters shall be carried out, in the presence of purchaser's representative.
- Necessary instruments for the performance testing shall be arranged by the Supplier, and shall be tested and calibrated before undertaking the performance test.
- The turndown operation of the air separation plant shall also be demonstrated after the performance test.

The following guaranteed parameters (as indicated in sub-clauses 3.2 and 3.3) shall be demonstrated by the supplier during performance test

- a. Gaseous Oxygen – Rated Flow, purity and pressure
- b. Liquid Oxygen – Rated Flow, purity and pressure
- c. Gaseous Nitrogen – Rated Flow, purity and pressure
- d. Liquid Nitrogen – Rated Flow, purity and pressure
- e. Steam Consumption for Turbine driven compressors
- f. Auxiliary power consumption for total plant
- g. Cooling water consumption

15. SPARES REQUIREMENT

In addition to the spares mention in the annexure MSP, supplier shall also separately submit a list of commissioning spares with quantities. The commissioning spares shall be sufficient for trouble free commissioning of the system at site. Any commissioning spares required during commissioning, over and above, the commissioning spares supplied, shall be made available by the supplier without any cost and time implication to purchaser.

16. OPERATION AND MAINTENANCE

BIDDER should be willing to provide operation and maintenance (O&M) service for the plant for a specified duration, in case the PURCHASER desires for the same at a later date.



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17. OPERATOR TRAINING

The objectives of supplier's training program shall be to transfer process technology and develop technical expertise in a core of individuals so that there is a pool of knowledge among Owner's personnel which can be used to operate and maintain complete plant and to give continuous long term training to junior operations and maintenance staff. The basic objective of training shall comprise of following main elements:

17.1 Owner's manpower shall receive sufficient detailed instructions on the plants to enable them to carry out normal operations, to take corrective action in the event of upset conditions, and to set up routine operating and maintenance procedures.

17.2 Owner's manpower shall be able to develop a thorough understanding of the plants and the know-how and processes behind it, be in a position to take positive and corrective action to prevent any upset and breakdown conditions from occurring, and to optimize plants' operations, maintenance and organization.

18.0 QUALITY ASSURANCE AND QUALITY CONTROL

18.1 Quality Control

The supplier must include in the supply a proven quality control and quality assurance system that will ensure the quality of Air Separation Unit. The quality control system must follow ISO 9001 guidelines.

18.2 Quality assurance

- The supplier shall be responsible for providing the necessary Quality Assurance and Quality Control procedures, maintaining continual surveillance and inspection activities during the entire periods of the Fabrication and Testing.
- Supplier shall submit Quality Assurance (QA) plan and inspection schedule before commencement of fabrication. Approved QA plan shall form the basis for equipment inspection.
- Inspections report and tests to be provided to purchaser during the fabrication period and before shipment of the equipment of ASU.
- Test and inspection reports shall be furnished for at least:
 - a) Material test certificates
 - b) Hydro test certificates
 - c) Statutory Approval certificate



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19.0 TECHNICAL DOCUMENTATION (should be provided only in English language)

19.1 Documents to be furnished with the offer

- Manufacturer's Catalogue & Brochures
- Experience record
- Datasheet of equipment
- Plot area requirement
- Drawings - GA drawing; C/S drawing; Layout drawing,
- P&ID
- Performance curves
- List of recommended spares for of trouble-free operation. The list should cover all spare parts consumption for 10 years' operation and shall include at least the following Information: Manufacturer P/N, description, quantity required.
- List of Erection & Commissioning spares
- List of Special tools & tackles (as per OEM recommendation)
- Basic data for civil design/ foundation details
- Utility Data – Along with water required during construction (m3)
- Electrical Load Data – Along with HT/LT power required during construction (max rating in kW and total consumption in kW-hr)
- Tentative sizing and heat dissipation data for electrical and DCS panels
- List of approvals/ clearances to be obtained from statutory bodies/ agencies with tentative timelines
- Inspection Test Plan
- Equipment manufacturer's General Reference List

19.2 Documents to be furnished after award of contract

The following documents shall be provided. Total of two (2) hard copies and one (1) copy on magnetic media (USB memory stick or CD-ROM) shall be provided within sixty (60) days after issue of purchase order.

- Detailed dimensional general arrangement drawing of the total system with cross sectional details, bill of materials and weight of individual parts for purchaser's approval. (Approval does not relieve the supplier from responsibility).
- Design calculations.



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- The drawing showing the supporting arrangement on floor including static & dynamic loading details at each support to be submitted for purchaser's approval.
- Building drawings
- Civil Load Data
- List of bought out items & their specifications.
- Test certificates
 - Test certificates shall be furnished before despatch of components. Test certificate for the following shall be furnished.
 - Material test certificate for all the major components.
 - Performance TC for the intended duty conditions.
- Quality Control/Inspection documents generated during the stages of inspection, performance inspection, and final inspection.
- Warranty certificate shall be furnished by the supplier.
- Operation & Maintenance (O & M) Manual should be submitted to purchaser prior to despatch of the equipment in digital format. The following aspects also to be covered in O & M manual
 - Manufacturer's Catalogue
 - Operation manual.
 - Safety instruction
 - Maintenance manual
 - Repair and overhaul manual
 - Complete and comprehensive parts catalogue (including pictures if applicable) manufacturer P/N and OEM P/N.
- Complete and comprehensive Parts Catalogue Maintenance/repair manuals and parts catalogue for other repairable components if were not included in the ASU O&M manual.



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1. BIDDING DOCUMENTS

The bidder is expected to examine the bidding documents, including all instructions, Pre-Qualification Criteria, Forms, Annexures, terms and conditions of Contract, specifications, drawings and other documents and to fully familiarize itself with the requirements of the bidding documents. Failure to furnish all the information required by the Bidding Documents or the submission of a bid not substantially responsive to the Bidding Documents in every respect may result in the rejection of the Bid.

2. AMENDMENT OF BIDDING DOCUMENTS

Bidders shall examine the Bidding documents thoroughly and inform the PURCHASER of any apparent conflict, discrepancy or error.

At any time prior to the deadline for submission of bids, the PURCHASER may, for any reason whether at its own initiative or in response to a clarification or modification requested by any prospective Bidder(s), modify the Bidding documents, if required.

Any Amendment to the bidding document (Corrigenda/Addenda/Amendment/extension in bid due date/ Clarifications etc) if any, shall be hosted on NIC Portal (<https://eprocurebhel.co.in/>).

Bidders are therefore advised to visit the Portal regularly for downloading the details of amendment to bidding document. The Bidders will be required to acknowledge notification of any such amendment to the Bidding documents. Bidders shall confirm the inclusion of Addendum/Corrigendum in their bid and shall follow the instructions issued along with addendum/corrigendum

3. LANGUAGE OF THE BID

The bid prepared by the bidders and all correspondence and documents relating to the Bid exchanged by the Bidder and the Company shall be written in the English language and all units shall be in Metric system. In case a document, certificate, printed literature, etc furnished by the bidder is in a language other than English, the same should be accompanied by an English Translation, duly authorized by the Chamber of Commerce of the Bidders' country, in which case, for the purpose of interpretation of the bid, the English translation shall govern.



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4. COMPLETION PERIOD / MILESTONE

Bidder shall be required to complete the WORK under the CONTRACT so as to achieve the completion, in accordance with the following milestones:

a) Mechanical Completion	30 Months from Effective Date of Contract
b) Preliminary Acceptance	36 Months from Effective Date of Contract
c) Supply of spares	1 year from the date of preliminary acceptance

The material supplies/services shall be in adherence to the list of items along with delivery schedules that will be finalised during the Kick off meeting with the CONTRACTOR in line with GUARANTEED COMPLETION DATE.

The “**Effective Date of Contract**” shall be the date of issuance of LOA (LETTER OF ACCEPTANCE) by the PURCHASER.

5. SIGNATURE ON BIDS

The Bid must contain the name, designation and place of business of the person or persons making the Bid and must be signed and sealed, on each page, by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature. The Bidder shall submit authority letter / Power of Attorney/ Board Resolution in favour of the authorized signatory(s) of the Bid. The Bidder's name stated on the proposal shall be the exact legal name of the Bidder

Bids by bodies corporate/ limited Companies must be signed with the legal name of the Corporation/Limited Company by the President, Managing Director or by the Company

Secretary or any other person or persons holding Power of Attorney for signing their Bid.

In case of a Single Bidder, Power of Attorney issued by the Board of Directors/ CEO / CHAIRMAN/ MD / C&MD /Company Secretary of the Bidder/ all partners in case of Partnership firm/Proprietor in favour of the authorised employee(s) of the Bidder, in respect of the particular tender for signing the Bid and all subsequent communications, agreements, documents etc. pertaining to the tender and to act and take any and all decision on behalf of the Bidder, is to be submitted.

The authorized employee(s) of the Bidder shall be signing the Bid and any consequence resulting due to such signing shall be binding on the Bidder.

Power of Attorney shall be as per law of land; Format of POA as per **Annexure POA**

Bid shall contain no cuttings, erasures or overwriting except as necessary to correct errors made by the Bidder in which case each such corrections or other changes in the Bid documents shall carry the initials of the person(s) signing the Bid.



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6. PRE-BID MEETING

The bidder may submit any queries/clarification/information pertaining to bidding documents in writing delivered by hand or by E-mail so as to reach BHEL not later than the date specified in the Letter Inviting Bid. Queries/ Clarifications/ Information sought in any other manner shall not be responded to.

The bidder or his authorised representative(s), is advised to attend a pre-bid meeting as indicated in the Letter Inviting Bid. The purpose of the meeting will be to clarify issues and to answer questions on any matter pertaining to the Tender conditions that may be raised at that stage by Bidders.

The PURCHSER's responses to Bidder's queries/clarifications raised will be furnished as expeditiously as possible. Any modification of the Bidding Documents which may become necessary as a result of the pre-bid meeting/conference shall be issued as Addendum/Amendment/Corrigendum.

Non-attendance of Bidders at the pre-bid conference will not be a cause for disqualification of the Bidder and it shall be presumed that the Bidder does not require any clarification.

7. EARNEST MONEY DEPOSIT (EMD)

Bidders shall submit Earnest Money Deposit (EMD) along with the bids (amount indicated in the salient features of bidding document). Micro and Small Enterprises (MSEs) or Start-ups as recognized by Department for Promotion of Industry and Internal Trade (DPIIT) are exempted from payment of EMD.

MSE vendors shall submit UDYAM registration certificate for claiming exemption for EMD. Medium Enterprises, graduated from its original category (Micro/Small) within the period of 3 years from the date of graduation is also eligible for EMD exemption.

EMD shall not carry any interest.

Any Bid not accompanied with EMD shall be rejected by the PURCHASER as being non-responsive.



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Modes of deposit:

a) The EMD may be accepted only in the following forms:

- I. Electronic Fund Transfer credited in BHEL account (before tender opening)- Online Payment procedure for EMD amount attached (Annexure – EP) for vendors' reference.
- II. Banker's cheque/ Pay order/ Demand draft, in favour of BHEL, Trichy-14 payable at Trichy (along with offer).
- III. Fixed Deposit Receipt (FDR) issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Bidder, a/c BHEL)
(iv) Bank Guarantee in the format as per Annexure-BG from any of the banks mentioned in the Annexure-BG.
- IV. Insurance Surety Bonds.

b) The EMD shall remain valid for a period of 45 (forty-five) days beyond the final bid validity period. The Bank Guarantee shall be extended suitably if there is a delay in awarding the contract. The relevant extension shall be on Bidders' account.

FORFEITURE OF EMD:

- A bidder's EMD will be forfeited if the bidder withdraws or amends its/his tender or impairs or derogates from the tender in any respect within the period of validity of the tender or if the successful bidder fails to furnish the required bank guarantee/ Security deposit for 1 % of MOU Value within the specified period mentioned in the Tender.
- EMD by the tenderer will be withheld in case of any action on the bidder is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/ Contractors" and forfeited/ released based on the action as determined under these guidelines.

Bid securities of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity period and latest by the 30th day after the award of the contract. However, in case of two packet or two stage bidding, bid securities of unsuccessful bidders during first stage i.e. technical evaluation etc. will be returned within 30 days of declaration of result of first stage i.e. technical evaluation etc.

Bid security will be refunded to the successful bidder on conclusion of the order and receipt of a performance security/ Contract Security Cum Performance Guarantee.



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8. COST OF BIDS

The Bidder shall bear all costs associated with the preparation and submission of the Bid and PURCHASER will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

9. MODIFICATION AND WITHDRAWAL OF BIDS

In case any clarifications are sought by the PURCHASER after opening of tenders, then the replies of the bidder should be restricted to the clarification sought. Any bidder who modifies his bid (including a modification which has the effect of altering the value of his offer) after opening of Technical and Commercial bids without specific reference by the PURCHASER shall render the bid liable to be rejected without notice and without further reference to the Bidder.

No bid may be withdrawn in the interval between the deadline for the submission of bids and the expiration during the validity or agreed extension validity period duly agreed by the bidder.

10. INFORMATION REQUIRED WITH THE BID

Any bid not containing sufficient descriptive material to describe accurately the process details, functioning of various sections of the Plants, equipment proposed and other necessary details may be treated as incomplete and hence rejected. Such descriptive material and drawings submitted by the Bidder will be retained by the PURCHASER. Any major deviation from these drawings and descriptive material submitted will not be permitted during the execution of the Contract without specific written permission of the PURCHASER.

Standard catalogue pages and other documents of the Bidder may be used in the bid to provide additional information and data as deemed necessary by the bidder.

11. LOCAL CONDITIONS

It will be imperative on each Bidder to fully inform himself of all local conditions and factors which may have any effect on the execution of the works covered under these specifications and documents. Bidder shall inspect the site, examine and obtain at its cost and responsibility, all information required and satisfy himself regarding all matters and things such as access to site, communications, transport, right of way, the type and number of equipment and facilities required for the work, availability of local labour, materials and their



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rates, local working conditions, weather, flood levels, sub-soil conditions, natural drainage, and all information that may be necessary for preparing its Bid, performance of work and other obligations and related matters. By submitting the Bid the Bidder shall be deemed to have acknowledged and agreed that ignorance of the site and other said conditions shall not be basis for any claim for compensation or extension of time or loss of profits etc. and the PURCHASER shall not be liable on account thereof in any manner whatsoever to the Bidder or any person claiming through or under the Bidder.

Bidders must before submission of their Bids, acquaint themselves with all applicable regulatory and other legal requirements pertaining to insurance and health, safety and environment requirement in INDIA and rules related to work permit and visa requirements in INDIA or in any way or manner affecting the performance of Scope of Work, the Contractor and the Plant operation and performance including social security, safety, pollution control, permits, licenses, and the other statutory requirements and regulations. The submission of a Bid by the Bidder will be construed as evidence that such an examination was made and the Bidder shall not raise at any time later any claims/disputes against the PURCHASER and the PURCHASER shall not be liable for the same in any manner whatsoever.

In their own interest, the foreign bidders are particularly requested to familiarize themselves with the Income Tax Act 1961, the Companies Act, 2013, the Customs Act, 1962, including any amendments thereof and other related acts and laws prevalent in India.

The PURCHASER shall not entertain any request for clarification from the bidder, regarding such local conditions.

The Bidder shall be deemed to have prepared the Bid on the basis of its independent judgment and to have made all necessary allowances and provisions to ensure that the PLANT will meet all technical specification prescribed hereunder including the specified performance requirements and guarantees and be entirely suitable for the purpose for which it is intended. Accordingly, at the time of submission the Bid Price will, without extra price and/or extension of time, be held to include everything implicitly or otherwise required or necessary for the proper and timely completion of the WORK including ACCEPTANCE OF PLANT in accordance with the CONTRACT. Further, in case of any contract awarded under these specifications and documents, neither any change in the time schedule of the Contract nor any financial adjustments arising thereof shall be permitted by the PURCHASER, which are based on the lack of such clear information or its effect on the cost of the works to the Bidder.

Visit to site is optional and at BIDDER's cost and expense.



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12. BID PRICE & CURRENCY OF BIDS

Bidder expecting to incur a portion of its expenditure in more than one currency and wishing to be paid accordingly shall so indicate in the Bid. In such cases the Bid shall be expressed in different currencies (maximum **5 (five) currencies namely USD, EURO, GBP, JPY and INR** currencies including INR) and the respective amounts in each currency together making up the Bid Price.

The Bidders shall quote in their price for the entire scope of work as per **Annexure-BOQ** in the price schedule format (BOQ 38220) and the price break-up as a percentage in the annexure BOQ.

It shall be the duty of the CONTRACTOR to duly observe and perform all laws, rules, regulations, orders and formalities applicable under GST, Customs Duty, etc. on the import, manufacture, sale and/or supply of any material to the PURCHASER and performance of the works under the CONTRACT. The CONTRACTOR shall keep the PURCHASER indemnified from and against any and all claims, demands, prosecutions, actions, proceedings, penalties, damages, demurrages and/or other levies whatsoever made or levied by any Court, Tribunal or the Customs or other Authorities with respect to any alleged breach, evasion or infraction of such duties, taxes, charges or levies or any breach or infraction of any applicable laws, rules, regulations, orders or formalities concerning the same and from the consequence thereof attributable to the CONTRACTOR.

The price of materials is divided into two parts, the Foreign Exchange component and the Indian Rupee component.

Payment for indigenous materials to the extent indicated in the Bill of Materials shall be made on the basis of CONTRACTOR's invoice

All bank charges of bidder's bankers shall be to the Bidder's account and all Bank charges of PURCHASER's bankers shall be to PURCHASER's account.

13. TAXES AND DUTIES

CONTRACTOR shall be entirely responsible for all taxes, stamp duties, licence fees and other such levies applicable, on performance of WORK under CONTRACT, outside PURCHASER's country. CONTRACTOR shall also be responsible for payment of all taxes, duties and levies such as custom duty, GST, (including those taxes payable on reverse charge mechanism) income tax, etc. as applicable on performance of WORK under CONTRACT, in India. All such



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taxes, stamp duties, licence fees, and other such levies applicable shall be quoted in the format, **Annexure BOQ**.

Any changes in statutory rules and regulations under GST regime shall be followed by CONTRACTOR.

Except as specifically provided to the contrary in any other clauses of this tender,

- (i) The CONTRACTOR shall within the price of materials and scope of supply be liable to pay and bear any and all duties, taxes, levies and cesses lawfully payable on any goods, equipment or materials imported into India or within any local limits for permanent incorporation in the work(s), and on materials sold and supplied to the PURCHASER pursuant to the CONTRACT.
- (ii) The CONTRACTOR shall within the price of services and scope of services be liable to pay and bear any and all duties, taxes, levies and cesses lawfully payable on any goods or equipment imported into India or within any local limits for use in the performance of the work(s), and on services performed pursuant to the CONTRACT.
- (iii) The CONTRACTOR shall be liable for and shall pay any and all Indian fees, taxes, duties, levies and cesses including education cess etc., assessable against CONTRACTOR in respect of or pursuant to the CONTRACT.
- (iv) In addition, the CONTRACTOR shall be responsible for payment of all Indian duties, levies, and taxes etc., assessable against the CONTRACTOR or CONTRACTOR's employees or SUB-CONTRACTOR'S whether corporate or personal or applicable in respect of property.

TAXES, DUTIES AND LEVIES IN FOREIGN COUNTRIES

The CONTRACTOR shall accept full and exclusive liability at his own cost for the payment of any and all taxes, duties, cesses and levies howsoever designated, as are payable to any government, local or statutory authority in any country other than India as are now in force or as are hereafter imposed, increased or modified and as are payable by the CONTRACTOR, his agents, SUB-CONTRACTORS and Suppliers and its/their respective employees for or in relation to the performance of this CONTRACT. The CONTRACTOR shall be deemed to have been fully informed with respect to all such liabilities and shall further be deemed to have considered and included the same in his bid and the lump sum Price shall not be varied in any way on this account.



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TAX INDEMNITY

It will be the duty of the CONTRACTOR to duly observe and perform all laws, rules, regulations, orders and formalities applicable to Customs Duty/GST on the manufacture, sale, import and/or supply of any material to PURCHASER and/or applicable under GST on the services performed by the CONTRACTOR pursuant hereto. The CONTRACTOR shall keep the PURCHASER indemnified for and against any and all claims, demands, prosecutions, penalties, damages, demurrages and/or other levies whatsoever made or levied by the Court or Customs Authorities with respect to any alleged breach, evasion or infraction of such duties, taxes, charges or levies or any breach or infraction of such laws, rules, regulations, orders or formalities concerning the same and from the consequence thereof.

The CONTRACTOR confirms that it has included all taxes, duties, levies etc., as applicable at prevailing rates, in its CONTRACT PRICE. In case, CONTRACTOR has not included any such taxes, duties, levies etc., at all and/or at prevailing rates and CONTRACTOR has to pay such taxes, duties, levies etc., PURCHASER shall not be liable for payment of such liabilities and/or PURCHASER shall not reimburse such taxes, duties, levies etc. to CONTRACTOR.

The CONTRACTOR shall be responsible for payment of any tax levied on the transfer of property and goods involved with relevant GST act and rules made there under including amendments, if any. The CONTRACTOR shall be liable to ensure to have registered with the respective tax authorities and to submit self-attested copy of such registration certificate(s) and any taxes/ duties/ levies being charged by the CONTRACTOR would be claimed by issuing proper tax invoice/challan indicating details/ elements of all taxes charged and necessary requirements as prescribed under the respective tax laws and also to mention correct and valid registration number(s) on all tax invoices raised to PURCHASER.

Any other taxes / duties not considered by the CONTRACTOR, at the time of bidding, in relation to this CONTRACT, which in terms of relevant legislation is the liability of CONTRACTOR, is discharged by PURCHASER, would be recovered from the CONTRACTOR from any subsequent payment due to the CONTRACTOR.

In case of award of CONTRACT to a foreign Contractor, the CONTRACTOR shall take all reasonable steps available to it and comply with all formalities to get the CONTRACT registered with the appropriate Indian custom authorities

In case of award of CONTRACT to a foreign Contractor, the CONTRACTOR shall be responsible on completion of CONTRACT or whenever required to undertake customs reconciliation work with Indian custom authorities and finalise the customs assessment by furnishing the necessary technical documents, technical information etc. to the said authorities.



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INCOME TAX

CONTRACT PRICE shall be inclusive of any and all Indian Income Tax payable in India. PURCHASER shall deduct Indian Income Tax or any other tax and surcharge as applicable as per rates prescribed for such contracts from time to time, from the payments due to CONTRACTOR and issue tax deducted at source certificate to CONTRACTOR. It is the responsibility of the CONTRACTOR to file proper income tax return and pay taxes thereon if any, or claim refund thereof if any. The CONTRACTOR shall give PURCHASER all necessary documents relating to its income tax assessments and to keep the PURCHASER informed about their assessments.

Personal income tax payable, if any, in respect of salary and perquisites of CONTRACTOR's personnel / SUB-CONTRACTOR's personnel in India shall be payable by the individual so deputed by CONTRACTOR or SUB-CONTRACTOR. It is the responsibility of the individual or CONTRACTOR to file proper income tax return and pay taxes thereon if any, or claim refund thereof if any. The CONTRACTOR shall give PURCHASER all necessary documents relating to income tax assessments of its personnel and to keep the PURCHASER informed about their assessments.

14. CUSTOM DUTY

Notwithstanding anything mentioned regarding custom duty in any other portion of this tender, the following provisions regarding custom duty shall apply under this Contract.

- (i) **Customs Duty on merit rate basis** for imports of materials shall be shown separately under section of taxes and duties in BOQ and the same shall be subject to the provisions as indicated in SCHEDULE OF PRICES (Annexure BOQ).
- (ii) CONTRACTOR shall be responsible for all customs clearance and related expenses at his cost.
- (iii) CONTRACTOR shall be responsible for payment of customs duty with applicable surcharges, Anti-dumping duty, Counter-vailing duty on subsidised articles, Safeguard duty etc. and any other tax including GST, levies, cess etc. applicable on such additional duties, if imposed on Plant and Equipment including Type Test and Mandatory Spares/ Recommended Spares.
- (iv) The CONTRACTOR shall pay the Customs Duties on the assessable value of materials envisaged to be imported for the purpose of permanent incorporation in the Works. The IGST shall be paid on the CIF value along with the Customs Duties and taken together.



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- (v) The CONTRACTOR shall be fully responsible for Port and Customs clearance including stevedoring, handling, unloading, loading and storage and for satisfying all Port and Customs formalities for the clearance of the goods, including preparation of the Bill(s) of Entry and other documents required for import and/or clearance of the goods. The CONTRACTOR shall also be fully responsible for any delays, penalties, demurrages, shortages and other charges and losses, if any, in this regard. The customs duty and other import duties payable on the CIF value of materials imported and IGST payable calculated on the CIF value and Customs Duties, taken together for the purpose of permanent incorporation in the work shall be paid directly by the CONTRACTOR and are shall be reimbursable at actuals based on the production of Bills of Entry upon receipt of materials at the PURCHASER end.
- (vi) The CONTRACTOR shall provide the PURCHASER with all necessary documents like Bill of lading, Bill of Entry, Invoices etc. These documents should have reference that “the material imported is intended for use of “COAL TO AMMONIA NITRATE Project of OWNER,” in case OWNER is entitled to avail any exemption and/or reduced custom duty and the benefit towards the same to be passed on the PURCHASER.
- (vii) The CONTRACTOR shall appoint a Customs House Clearing Agent of good standing and ensure speedy customs clearance.
- (viii) The CONTRACTOR shall be responsible to register the Import License with Customs Authorities at the Port of Import, and to answer and sort out technical queries (if any) raised by Customs Authorities in regard to any import(s).
- (ix) All imported materials shall be ‘billed to and shipped to’ in the name of CONTRACTOR.
- (x) As the above statutory provisions are frequently reviewed by Government of India (GOI), the CONTRACTOR is advised to check the latest position in their own interest and OWNER will not bear any responsibilities for any incorrect assessment of statutory levies by the CONTRACTOR.

15. GST

The price/ rate to be quoted by the BIDDER shall be exclusive of GST which will be paid at actual applicable rates at the time raisal of invoice, subject to the variation in taxes and duties clause. The BIDDER shall indicate the present applicable GST rate in the annexure BOQ.

Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration Number (GSTIN) which should be clearly mentioned in the offer.



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CONTRACTOR shall mention their GSTIN in all their invoices (incl. credit Notes, Debit Notes), DC and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No. which is linked/uploaded in GSTN network shall be clearly indicated), Billed to party (with GSTIN) & Shipped to party details, item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, Place of Supply etc.

All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code)

Invoices will be processed only upon completion of statutory requirement and further subject to following:

- Vendor declaring such invoice in their GSTR-1 Return/ IFF
- Receipt of Goods or Services and Tax invoice by PURCHASER

In case of discrepancy in data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, then PURCHASER 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 or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by PURCHASER.

In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-06 or GSTR-3B to be filed) within stipulated time, then GST paid on the invoices pertaining to the month for which GST amount not remitted by the vendor will be withheld and recovered from other payments of the vendor.

In case GST credit is denied to PURCHASER due to non-receipt or 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 PURCHASER, GST amount claimed in the invoice shall be disallowed to the vendor.

Where any GST liability arising on PURCHASER under Reverse Charge (RCM), the vendor has to submit the invoices to PURCHASER well within the timeline prescribed in GST Law, to enable PURCHASER to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by PURCHASER along with Interest, then such Interest payable or paid shall be recovered from the vendor.

GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018- Central Tax dated 13.09.2018. GST TDS certificate will be generated in GSTN portal



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subsequent to vendor accepting the TDS deduction in the GSTN portal & the vendor can directly download the Certificate from the GSTN Portal

In case of orders for supply of goods, the BIDDER must submit the E-Way Bill (with Part-B filled) generated in the E-Way Bill portal, used for transportation of goods for the respective tax invoice.

The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract shall be limited to direct transactions between PURCHASER and BIDDER. PURCHASER shall not consider GST on any transaction other than the direct transaction between PURCHASER and BIDDER.

In case the declared invoice is subsequently amended in GSTN portal which results in any adverse financial implication on PURCHASER, the financial impact thereof including interest/penalty shall be recovered from the bidder's due payment.

16. BIDDING DOCUMENTS AND DEVIATION

Bidders shall confirm compliance to Bidding Documents.

It is expected that bidders will submit bids based strictly on the terms and conditions and specifications contained in the bidding documents and will not stipulate any deviations. PURCHASER reserves the right to reject as non-responsive any bid containing deviation(s).

Bidder's authorized representative(s) shall attend the pre bid meeting on the prescribed day at the given venue specified in NIT. During the pre-bid meeting, all the technical and commercial issues shall be discussed and concluded to ensure that the bid received subsequent to pre bid meeting shall be without any deviations to terms and conditions. Hence, bidders shall treat the pre bid meeting as utmost important and depute competent & senior person capable of taking on the spot decision to sort out all the technical and commercial issues.

However, in case any bidder does not attend the pre bid meeting, it shall be understood that the bidder has a clear understanding of the scope, terms & conditions of the bidding document and does not have any comments/ deviations to the requirements of the bidding document.

In order to ensure fruitful discussions during pre-bid meeting, the bidder is requested to submit any queries/clarification/information pertaining to Bidding document in writing delivered by hand or by e-mail in the format provided in Bidding Forms so as to reach two



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days prior to Pre-bid meeting. These queries shall be replied during pre-bid meeting. The editable soft copies of the queries shall also be e-mailed to concerned persons specified in tender, to enable Purchaser to prepare replies to the queries in the same format expeditiously.

The bidders are required to participate in the pre-bid meeting after going through the entire bidding document along with PQC. Bidder shall come with all technical and commercial points on which they need clarifications and also to ensure that they possess all the supporting documentation for meeting the PQC (if any). In case of any doubt, they may discuss the same during the meeting to avoid any techno-commercial clarifications/discussions post bid.

Any modification of the Bidding Document, which may become necessary as a result of the pre-bid discussion, shall be intimated to all bidders through the issue of an Addendum/Amendment at the Portal.

Technical/ Commercial queries (TQ/CQ) shall not be issued once the bids have been opened. However, wherever CQ/ TQ are unavoidable, the same may be raised (Only once in case of Pre-Qualification Criteria) and the cut-off date given for CQ/ TQ replies shall be adhered to.

Offers shall be evaluated based on the information available up to cut-off date for CQ/ TQ replies. Bidder shall not submit any Price against TQ/ CQ raised unless specifically sought in writing by Purchaser.

Bidder is advised to visit and examine the Project Site and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for execution of the Works. All costs towards the same including the cost of visiting the Site shall be at the bidder's own expense.

Bidder and any of its personnel will be granted permission by Owner to enter upon its premises and lands/ Project Site for the purpose of such visit, but only upon the express condition that the bidder and its personnel will relieve and indemnify Owner and its personnel from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

Examination of bids and determination of responsiveness

The PURCHASER's determination of a bid's responsiveness is based on the content of the bid only. Prior to the detailed evaluation of Bids, the PURCHASER will determine whether each Bid: -



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- (a) Meets the "Pre-Qualification Criteria" of the Bidding Documents;
- (b) Has been properly signed;
- (c) Is accompanied by the required 'Earnest Money';
- (d) Is substantially responsive to the requirements of the Bidding Documents; and
- (e) Provides any clarification and/or substantiation that the PURCHASER may require to determine responsiveness.

A substantially responsive Bid is one which conforms to all the terms, conditions and specifications of the Bidding Documents without material deviations or reservations or omissions for this purpose PURCHSER defines the foregoing terms below: -

- a) "Deviation" is departure from the requirement specified in the tender documents.
- b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirement in the tender documents.
- c) "Omission" is the failure to submit part or all of the information or documentation required in the tender document.

A material deviation, reservation or omission is one that,

- a) If accepted would,
 - (i) Affect in any substantial way the scope, quality, or performance of the job as specified in tender documents.
 - (ii) Limit, in any substantial way, inconsistent with the Tender Document, the PURCHASER's rights or the tenderer's obligations under the proposed Contract.
- b) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

The PURCHASER shall examine all aspects of the bid to confirm that all requirements have been met without any material deviation, reservation or omission.

17. SUBMISSION OF BIDS

The Bid shall be submitted in electronic format (through NIC portal) as per given time schedule.



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18. INSTRUCTION FOR ONLINE SUBMISSION OF BID

This Tender is hosted in NIC portal & offer to be submitted through NIC portal only. You are requested to submit your 2 parts offer before due date & time of the enquiry through NIC (<https://eprocurebhel.co.in>) only.

Offer is to be submitted in TWO part bids system (Techno-commercial bid & Price bid) in the E-Procurement NIC PORTAL (<https://eprocurebhel.co.in>) ONLY.

At its option, BHEL may consider extending the due date/s for the tender openings. Sufficient notice would be given by BHEL for such extensions and it will be published as corrigendum in following websites,

<https://eprocurebhel.co.in>

<http://www.bhel.com/tender/>

However, in addition to submission of e-bids as above, bidders are required to submit **original the documents for EMD and Power of Attorney**

The documents shall be in a sealed envelope which should reach on or before the e-Bid Submission Due Date and time at the address mentioned below.

Titled as “**Original Documents for NIT No..... and Name of the Project**
.....”

4th floor, 24 Building,
BHEL Trichy Complex
Trichy.

Attention:

S.B.Rajesh Kummar

Dy. Manager (MM/BOI)

E-mail: sbrajesh@bhel.in/ duraip@bhel.in

The Bid shall be submitted in **two (02) COVERS** in respective folders provided in the e-procurement website.

Bidders to upload the documents strictly in the respective folders at the designated place in the e-tendering website. Non Compliance to the same may lead to rejection of their offer.

Bidder is required to upload in e-tendering portal the scanned copy of the following documents along with the e-bid:



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COVER- 1 – It shall contain the Pre-Qualification Criteria (Annexure-PQC), Technical & Unpriced Commercial Bid related documents.

i.	Letter of submission and synopsis of the proposal
ii.	Organization Profile covering (a) Name & address of the organization with telephone, fax, e.mail nos. with contact persons (b) history & structure of the organizations with names of directors & chief executives of bidder
iii.	Copy of Article of Association of the Company or Board Resolution mentioning Chairman/ Chief Executive Officer / Managing Director of the Company of bidder.
iv.	Copies of documentary proof, verified and certified by any of the reputed independent third party inspection agency, in support of “Technical Criteria” as per Prequalification Criteria (PQC) requirement.
v.	Financial details, verified and certified by any of the reputed independent third party inspection agency, in support of “Financial Criteria” as per Pre-Qualification Criteria (PQC) requirement.
vi.	A declaration shall be submitted to the effect that Bidder shall not be under Blacklisted, liquidation, court receivership or similar proceedings as per Annexure -BL
vii.	Power of Attorney of Bid Signatory from the competent authority as per Annexure-POA
viii.	Indigenous supplier should submit audited copies of annual reports (Balance Sheet, Profit & Loss statement) for the last 3 years or from the date of incorporation whichever is less and GST certificate. Foreign supplier should submit the latest reports from reputed third party business rating agencies like Dun & Bradstreet, Credit reform etc.
ix.	Detailed schedule of supplies in tabular/chart format for the materials and execution of the services (<i>May ensure all items listed under annexure BOQ is included in the supply schedule</i>)
x.	Declaration by the Bidder regarding “No – Deviation” as per Annexure-ND



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xi.	Earnest Money Deposit (EMD)
xii.	Format for authorisation to DSC holder as per Annexure-DSC
xiii.	Format integrity pact as per Annexure-IP
xiv.	Public Procurement (Preference To Make In India) Policy – Certificate from CA as per Annexure MII
xv.	Provision for Procurement from a bidder which shares a land border with India as per Annexure LBS
xvi.	Complete Bidding Document and all technical and commercial amendments/addendums if any issued, digitally signed as a token of having received and read all parts of the bidding document and having accepted and considered the same in preparing their bid
xvii.	Technical Details/ documents specified under “Technical specification for cryogenic ASU” and Annexure TD
xviii	Filled up Annexure-BOQ with percentage price break up and taxes and duties
xix.	Any other information required in the Bidding Documents or considered relevant by the Bidder.

In case of non-submission of above documents or submission of incomplete documents, the PURCHASER reserves the right not to evaluate such offers further and not to enter into correspondence in this regard after opening the Techno-commercial Unpriced Bid.

COVER- 2 – PRICE BID

The Prices are to be submitted strictly as per the Schedule of Prices (Excel document). All the prices quoted in the Schedule of prices shall be exclusive of GST, customs duty, CESS/SURCHARGE, SWS ETC. on Customs duty.

GST, customs duty, CESS/SURCHARGE, SWS etc. on Customs duty shall be indicated in percentage (not absolute value) in Annexure-BOQ which is submitted in Cover-1



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19. OPENING OF BIDS

The Bids shall be opened and evaluated in two stages:

Stage-I: Opening & Review of EMD, Pre-Qualification Bid, Technical and Un-Priced Commercial Bids (Cover-1)

The PURCHASER will review the Bank Guarantee (BG)/DD/Banker's Cheque submitted by Bidder against EMD, with respect to:

- a) its value,
- b) validity
- c) issuing Bank.
- d) The format attached with the tender document.
- e) Whether the BG has been issued in favour of the bidding company

In case, the Bidder has not submitted the EMD or the BG submitted by the Bidder is not as per the requirement of tender with respect to the above mentioned parameters, the Bids submitted by them may be rejected.

Thereafter, PURCHASER will open Pre-Qualification Bid, technical and un-priced commercial Bids of those Bidders, whose EMD, is found to be in order as described here above.

PURCHASER will first review Pre-qualification bid. Technical and Un-Priced Commercial Bids shall be evaluated only for those bidders whose bid is found to be Prequalified based on the Pre-Qualification Criteria.

Stage – II: Opening of Price Bid (Cover-2)

The date of the opening of the Price Bid shall be intimated to technically and commercially acceptable Bidders via e-procurement Portal.

The evaluation of the priced Bids shall be done as described under Clause No. 21.0 of this document.

If the Bids as judged by the PURCHASER are unresponsive, the tender may be declared void and a new procedure for selection of CONTRACTOR as deemed appropriate by PURCHASER may be adopted.



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20. VALIDITY OF BID

The bids should be kept valid for acceptance for a period of **365 days from the last date of opening of Unpriced Technical and Commercial Bids.**

Under the exceptional circumstances, prior to expiry of the original Bid period, the PURCHASER may request the Bidder for a specified extension in the period of validity. The request and the responses thereto shall be made in writing or by E-mail.

In the event of PURCHASER seeking extension of period of validity of the Bids, the validity of EMD shall also be suitably extended.

A Bidder agreeing to the request of PURCHASER seeking extension shall not be permitted to modify his bid, and will be required to extend the validity of his EMD correspondingly. The provisions regarding forfeiture of EMD shall continue to apply during the extended period of Bid Validity

In the event of our customer order covering this tender being cancelled /placed on hold / otherwise modified, BHEL would be constrained to accordingly cancel / hold / modify the tender at any stage of execution.

21. EVALUATION AND COMPARISON OF BIDS

The financial L1- comparison shall be as follows

Total landed cost (including all cost up to destination and taxes* and duties) of items quoted *(as per file BOQ_38220 for schedule of prices file and annexure – BOQ)*

Plus (+)

Loading towards utility consumption (Power, HP Steam and Cooling water) over the useful life of the plant, computed on a NPV basis.

Plus (+)

Other applicable loadings as per the tender document

Currency of evaluation shall be INR. Rate quoted in Foreign currencies will be converted to INR by multiplying with the Exchange rate (SBI TT Selling rate) as on the techno-commercial bid opening date. If the date of opening happens to be a bank holiday, then the forex rate as on previous bank (SBI) working day shall be taken.

*** Taxes for which input tax credit is unavailable will only be considered**



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Basis for NPV Calculation of utilities

- a) Utility consumption indicated in Annexure TD will be considered for the loading calculation.
- b) Computation will be made considering 330 days per year for a period of 25 years starting from 3 years after the issue of LOA.
- c) Discount rate of 10% p.a will be used for the computation
- d) The lowest value of individual utility consumption rate from among the bids will form the basis for working out the loading.
- e) Cost of individual utility to be considered for loading will be as follows

Item Description	Unit Price in INR	Unit
Cooling water	35.75	M3
Total Power	4	KWh
Superheated Steam at 107 kg/cm ² g & 515 °C	800	MT

22.AWARD OF CONTRACT

The PURCHASER will shortlist the Bidder whose Technical and Commercial bid has been determined to be substantially responsive and Price Bid to be the lowest evaluated Bid, further provided that the Bidder is determined to be qualified to perform the CONTRACT satisfactorily.

After selection, the selected bidder has to enter into a MoU with the PURCHASER based on which PURCHASER shall submit the bid to the OWNER (Joint venture company between BHEL and CIL) for the proposed Coal to Ammonium Nitrate Plant at Jharsuguda District, Odisha.

The purpose of the MoU are as below:

- To co-operate with each other in terms of MOU in submitting detailed proposal to PURCHASER in response to Tender for Coal to Ammonium Nitrate Plant.
- To co-operate with each other in terms of this MOU to discuss as and when called by PURCHASER during post bid stage, cooperate with PURCHASER to perform the said



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OWNER's Contract, if awarded to PURCHASER, in accordance with the terms and conditions agreed with the OWNER and as per the Scope of Work specified in this tender.

- To determine the rights and obligations of the Parties in connection with the performance of the PURCHASER's Contract both internally amongst us, as well as with respect to OWNER.

Selected Bidder shall extend the price validity so as to enable the PURCHASER to submit the offer to OWNER based on the Tender for Coal to Ammonium Nitrate Plant.

The initial validity of the MoU shall be 6 months from the date of signing. However, when the CONTRACT is finalised based on the MoU, the validity of the MoU stands extended till the completion of the CONTRACT.

Within 30 days of Signing of MOU, selected bidder shall submit bank guarantee/ Security deposit for 1 % of MOU Value (CONTRACT PRICE) valid during validity period of MOU. EMD of the selected bidder will be converted as Security Deposit and additional value (if any) shall be submitted as bank guarantee/ Security deposit by the selected bidder.

MOU shall have stipulation that in the event of price reduction during negotiation by PURCHASER with OWNER, corresponding reduction will be passed on to selected bidder.

PURCHASER reserves the right to vary the quantity of any of the Spares and/or delete any item of Spares altogether at the time of Award of Contract.

The mode of contracting with the successful bidder will be a Single contract on **"Total Package"** basis.

The subject job is not splittable / divisible

23. SIGNING OF CONTRACT AGREEMENT

LETTER OF ACCEPTANCE ("LOA") shall be released by the PURCHASER to the selected Bidder within 45 days from the date of contract from OWNER.

The Bidder shall enter into a Contract Agreement with the PURCHASER, failing which the Security deposit/ BG issued at the time of MOU is liable to be forfeited.

The date of issue of LOA shall be considered as EFFECTIVE DATE of the CONTRACT. Thereafter a contract agreement shall be executed between the PURCHASER and the BIDDER within fifteen (15) days from date of acceptance of LOA, CONTRACTOR shall sign the CONTRACT and return it to the PURCHASER. The copy of the CONTRACT shall be signed by an authorised officer of the CONTRACTOR in whose name Power of Attorney has been issued.



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24. INTEGRITY PACT

Bidders are required to unconditionally accept the "Integrity Pact (IP)", as per Annexure IP, (executed on plain paper) and submit the same duly signed on all pages by the bidder's authorized signatory along with the bid.

25. PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) POLICY

For this procurement, Public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products is applicable for this tender. 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 19.07.2024 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 Part-II bids against this NIT.

Class-I and Class-II suppliers shall submit along with Part-I bid a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content and the place of value addition in format attached (Annexure-MII)

26. PROVISION FOR PROCUREMENT FROM A BIDDER WHICH SHARES A LAND BORDER WITH INDIA

In line with Department of Expenditure's O.M. No. F.6/18/2019-PPD dated 23.07.2020 and Order (Public Procurement No. 1) dated 23.07.2020 and subsequent orders, bidder to submit Certificate as per Form I & II enclosed as Annexure-LBS.

27. BREACH OF CONTRACT, REMEDIES AND TERMINATION

In case of breach of contract, wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:



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a. from dues available in the form of Bills payable to defaulted supplier against the same contract.

b. from the dues payable to defaulted supplier against other contracts in the same Region/Unit /any other region/unit

c. In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier.

Further, levy of liquidated damages, debarment, termination, de-scoping, short-closure, etc., will be applied as per provisions of the contract.”

In the event of OWNER cancels /places on hold the subject project, PURCHASER would be constrained to accordingly terminate / hold / modify the tender at any stage of execution.

In case of breach of contract, notice will be issued by PURCHASER and the CONTRACT will be terminated.

28.SUSPENSION OF BUSINESS DEALINGS

The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the firms debarred across BHEL, shall be rejected. The list of firms debarred across BHEL is available on BHEL web site www.bhel.com.

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

1.1. 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(s) in a transparent and fair manner, and with equity.

1.2. Commitment by Bidder/ Supplier/ Contractor:

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



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

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

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in malpractices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company

29.MSE VENDOR PREFERENCE

- i. If L1 vendor is an MSE vendor entire project package will be ordered on L1 vendor.
- ii. If a Non MSE vendor is coming as L1, then L1 prices will be counteroffered on MSE vendor who is quoting price within the price band L1+15% and if they are agreeing, purchase order will be awarded for full/complete supply of total tendered value to MSE.
- iii. If more than one MSE vendors are available in the L1+15% price band then lowest of the MSE vendor will be selected for counteroffering. If lowest MSE vendor is not accepting it will be counteroffered to the next MSE vendor in the price band and so on.
- iv. Finally if none of the MSE vendor in the price band is not accepting it will be ordered on L1 non MSE vendor.

Payment for MSE Indigenous vendors will be as per MSMED Act, 2006

MSE suppliers can avail the intended benefits only if they submit along with the offer, attested/notarized copy of Udyam Registration certificate.

Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry, in case of any deficiency in the above required documents or in case the documents are not submitted before price bid opening. If



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the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal even if submitted earlier.

30.FRAUD PREVENTION POLICY

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

31.CARTEL FORMATION

All the firms should desist from forming cartel as the practice is prohibited under Section 3(3) (a) & (d) of the competition Act 2002. If any such instance is observed during this tender will attract disciplinary action as per BHEL policies.

The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). 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. In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/guidelines.

32.RESOLUTION OF DISPUTES

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

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.



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2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Annexure-RD to this Terms and conditions.

The Annexure-RD together with its appendices will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this terms and conditions.

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to other Party refer such dispute or difference to sole arbitration of an arbitrator appointed as per the Arbitration and Conciliation Act, 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties.

This contract shall be governed, construed and interpreted in accordance with the laws of India.

Subject as aforesaid, the provision of Arbitration & Conciliation Act 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

The seat of arbitration shall be New Delhi, India

The cost of arbitration shall be borne as per the award of the Arbitrator.

Subject to arbitration in terms of clause above, the Courts at Trichy, Tamil Nadu, India shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or difference and/or reference for the arbitration, the vendor shall proceed with and continue without hindrance the performance of its obligation under this Contract with due diligence and expedition in a professional



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manner except where the Contract has been terminated by either Party in terms of this Contract.

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

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organizations (Excluding disputes concerning Railways, Income Tax, Customs & Excise Departments, such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM No. 05/003/2019-FTS-10937 dtd. 14th December, 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

33.FORCE MAJEURE CLAUSE

- a. Notwithstanding the provisions contained in other clauses, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure. For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management, freight embargoes and Acts of GOD.
- b. If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty-one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- c. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.



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- d. In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

34.SET OFF CLAUSE

BHEL shall have the right to recover any money which in the sole opinion of BHEL is due from the supplier from any money due to the supplier under this Contract or any other contract or from the Security Deposit/BG furnished by the supplier under this Contract or any other contract.

35.CONFLICT OF INTEREST AMONG BIDDERS/AGENTS

A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- c) they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or

Bidder participates in more than one bid in this bidding process.

- e) Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly! Assemblies from one bidding manufacturer in more than one bid; or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:

- 1. The principal manufacturer directly or through one Indian agent on his behalf; and
- 2. Indian/foreign agent on behalf of only one principal;

Or

- g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or



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- h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business in the format given in Annexure-CFI.

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

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

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

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

The contractor shall comply with all applicable State and Central Laws, Statutory Rules, Regulations, Notifications etc. such as Payment of Wages Act, Minimum Wages Act, Workmen Compensation Act, Employer's Liability Act, Industrial Disputes Act, Employers Provident Act, Employees State Insurance Scheme, Contract Labour (Regulation and Abolition) Act, 1970, Payment of Bonus & Gratuity Act, Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996, The Building and Other Construction Workers' Welfare Cess Act 1996 and other Acts, Rules, and Regulations for labour/workers as applicable and as may be enacted by the State Government and Central Govt. during the tenure of the Contract and having force or jurisdiction at Site. The Contractor shall also comply with provisions of and give all such notices to the local Governing Body, Police and other relevant Authorities as may be required by the Law.

The Contractor shall obtain independent License under the Contract Labour (Regulations and Abolition) Act, 1970 for engaging contract labour as required from the concerned Authorities based on the certificate (Form- V or as applicable) issued by the Principal Employer/Customer.

The contractor shall pay and bear all taxes, fees, license charges, Cess, duties, deposits, tolls, royalties, commission or other charges which may be levied on account of his operations in executing the contract.

While BHEL would pay the inspection fees and Registration fees of Boiler/Electrical Inspectorate, all other arrangements for site visits periodically by the Inspectorate to site, Inspection certificate etc. will have to be made by contractor. However, BHEL will not make any payment to the Inspectorate in connection with contractor's Welders/Electricians qualification tests etc.



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Contractor shall be responsible for provision of Health and Sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act), Safety precautions etc. as may be required for safe and satisfactory execution of contract.

The contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.

The contractor shall be responsible for the proper behaviour and observance of all regulations by the staff employed by him.

The contractor shall ensure that no damage is caused to any person/property of other parties working at site. If any such damage is caused, it is responsibility of the contractor to make good the losses or compensate for the same.

All the properties/equipment/components of BHEL/their Client loaned with or without deposit to the contractor in connection with the contract shall remain properties of BHEL/their Client.

The contractor shall use such properties for the purpose of execution of this contract. All such properties/equipment/components shall be deemed to be in good condition when received by the contractor unless he notifies within 48 hours to the contrary. The contractor shall return them in good condition as and when required by BHEL/their Client. In case of non-return, loss, damage, repairs etc. the cost thereof as may be fixed by BHEL Engineer will be recovered from the contractor.

In case the contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon if the item rates are not mentioned in existing contract.

Any delay in completion of works/or non-achievement of periodical targets due to the reasons attributable to the contractor, the same may have to be compensated by the contractor either by increasing manpower and resources or by working extra hours and/or by working more than one shift. All these are to be carried out by the contractor at no extra cost.

The contractor shall arrange, coordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.

All safety rules and codes applied by the Client/BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment/material and works to be performed by him and shall maintain all light, fencing guards, slings etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards. Due precautions shall be taken against fire hazards and atmospheric conditions. Suitable number of Clerical staff, watch and ward, store keepers to take care of equipment/materials and construction tools and tackles shall be posted at site by the contractor till the completion of work under this contract.



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The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per prescribed standards and practices.

Contractor has to ensure the implementation of Health, Safety and Environment (HSE) requirements as per directions given by BHEL/Customer. The contractor has to assist in HSE audit by BHEL/Customer and submit compliance Report. The contractor has to generate and submit record/reports as per HSE plan/activities as per instruction of BHEL/Customer.

The contractor will be directly responsible for payment of wages to his workmen. A pay roll sheet giving all the payments given to the workers and duly signed by the contractor's representative should be furnished to BHEL site for record purpose, if so called for.

Contractor shall create awareness amongst their workforce by helping & encouraging in opening bank accounts and to encourage them to adopt digital mode of transactions. While releasing wages/ salary to their workers/ supervisors/ staff, Contractor shall comply with the GOI's guidelines for maximizing such transactions through Non-Cash / digital means.

In case of any class of work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.

Also, no idle charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour and Tools & Plants being rendered idle due to any reason at any time.

The contractor shall take all reasonable care to protect the materials and work till such time the plant/equipment has been taken over by BHEL or their Client whichever is earlier.

The contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly.

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

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

The Contractor to note that some of BHEL's T&Ps/MMDs may not be insured. The Contractor will take necessary precautions and due care to protect the same while in his custody from



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any damage/ loss till the same is handed over back to BHEL. In case the damage / loss is due to carelessness/ negligence on the part of the contractor, the Contractor is liable to get them repair/ replaced immediately and in case of his failure to do so within a reasonable time, BHEL will reserve the right to recover the loss from the contractor.

For all works having contract value of Rs. 5,00,000/- or above, BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life/ permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below.

a) Victim: Any person who suffers permanent disablement or dies in an accident as defined below.

b) Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing/ operation and works incidental thereto at BHEL factories/ offices and precincts thereof, project execution, erection and commissioning, services, repairs and maintenance, trouble shooting, serving, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works/ during working at BHEL Units/ Offices/ townships and premises/ Project Sites.

c) Compensation in respect of each of the victims:

i. In the event of death or permanent disability resulting from Loss of both limbs:

Rs. 10,00,000/- (Rs. Ten Lakh).

ii. In the event of other permanent disability: Rs.7,00,000/- (Rs. Seven Lakh)

d) Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to section 2 (l) of the Employee's Compensation Act, 1923.

Contractor shall be fully responsible for their T&Ps and other material mobilized at site. In any case, BHEL shall not be liable for any damage/loss/misuse of any item(s) belong to the contractor.



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1. SITE FACILITIES

The proposed project will be located in Lakhanpur area of Mahanadi coalfields Limited (MCL) Odisha. The total land area of the site is -350- acres. Plant site is located at Lakhanpur in Jharsuguda district of Odisha on the National Highway NH-49. NH-49 is passing at about 10 km from the site. The nearest railway station Belpahar is 10 km from the site. Nearest air port, Veer Surenda Sai Airport, 38 km, approx 1.5 hours journey by road/ rail. Nearest sea port Paradip is 450 km by rail/road from the site.

PURCHASER shall provide the following SITE facilities:

- Organisation and personnel for general co-ordination of site activities.
- General safety and security services.
- Unrestricted access to SITE

PURCHASER shall NOT provide any accommodation and facilities for travelling to and from SITE to the place of residence to the personnel of CONTRACTOR, deputed at SITE for performing WORK under CONTRACT, personnel of SUBCONTRACTOR and VENDOR.

Area for making shed/covered storage for storing EQUIPMENT will be provided by the PURCHASER, however, the construction of shed will be under CONTRACTOR scope. CONTRACTOR should ensure the received materials are safely stored in a closed shed.

Construction Water and Construction Power shall be provided at one point within battery limit on chargeable basis (presently at ₹ 75 /m³ (approx.) for Construction Water and ₹ 6.90/KWH (approx.) for Construction Power. In case of any escalation by statutory authorities in the unit rates during execution of Contract, the same shall be borne by Contractor).

For PRE-COMMISSIONING / COMMISSIONING/ START-UP phase, PURCHASER shall provide the following at defined Battery Limit;

Steam, Power and Cooling water shall be made available to the CONTRACTOR at one point of ASU battery limit 1 month prior to the end of Mechanical Completion period for Pre-commissioning by PURCHASER at ASU battery limit.

Note:

1. Even if CONTRACTOR completes MECHANICAL COMPLETION before the scheduled period, PURCHASER shall provide raw materials and utilities as per the schedule defined above (reckoned from the scheduled Mechanical Completion date). CONTRACTOR shall not claim any compensation on account of such early MECHANICAL COMPLETION and PURCHASER shall not be held liable for any time or cost implications owing to such early completion.

2. Storage insurance will be in PURCHASER's scope



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2. ACCEPTANCE OF PLANTS AND FACILITIES

CONTRACTOR's liabilities for the Performance Guarantees given for the PLANTS and Facilities in respect of capacity, consumption, product quality and pollution level shall be discharged only when the PERFORMANCE AND GUARANTEE TESTS as stipulated in Clauses 14 of the Technical specification for cryogenic ASU of the NIT and parameters specified in Annexure - TD, have been successfully carried out as per acceptance criteria specified below.

PLANT ACCEPTANCE CRITERIA

Subject to fulfilling PERFORMANCE AND GUARANTEE TESTS stipulated in Clause 14 of the Technical specification for cryogenic ASU of the NIT and parameters specified in Annexure-TD, PURCHASER shall be in readiness to accept the PLANTS. CONTRACTOR shall take all steps to fulfil the provisions of the CONTRACT for PURCHASER to issue PRELIMINARY ACCEPTANCE CERTIFICATE. No deviations from the parameters specified in sub clauses 3.2 and 3.3 of the technical specification is acceptable and the CONTRACTOR is liable to rectify the system to meet the specified end product requirement.

ISSUANCE OF PRELIMINARY ACCEPTANCE CERTIFICATE

Within 30 (thirty) DAYS from completing successfully PERFORMANCE & GUARANTEE TESTS by the CONTRACTOR, and CONTRACTOR fulfilling all the obligations under the provision of the CONTRACT, PURCHASER shall issue PRELIMINARY ACCEPTANCE CERTIFICATE to CONTRACTOR.

LABOUR AND STAFF

The CONTRACTOR shall make his own arrangement for labour, erection and COMMISSIONING engineers and all other staff required for carrying out the CONTRACT. The necessary permissions from Government of India regarding work permit and visa requirement shall be obtained by the CONTRACTOR.

The CONTRACTOR shall make his own arrangements for providing canteen service to his labour and staff. Open space for this purpose may be provided by PURCHASER. The CONTRACTOR shall at his own cost provide office and other accommodation for his staff and workmen. The CONTRACTOR shall also provide communication, transport, insurance coverage and medical facilities to his staff and workmen.

The CONTRACTOR shall be responsible for all statutory obligations and any other laws in this regard in force from time to time regarding the employment or conditions of service of CONTRACTOR's labour, workman or employees.

The CONTRACTOR shall observe all safety rules as required under various rules, regulations and laws in India and shall also strictly adhere to safety regulations of PURCHASER.



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3. CURRENCIES OF BID AND PAYMENT

For the purpose of this clause and any other relevant provisions in these documents, Foreign Currency (**maximum 5 (five) currencies namely USD, EUR, GBP, JPY and INR**) shall mean as quoted by the bidders.

Foreign Bidders may quote prices for MATERIALS and services to be imported into India either in Indian Rupees or in the Foreign Currencies or in a combination of Indian Rupees and the Foreign Currencies.

Bidders shall quote the price for MATERIALS and services to be procured from India and for expenses to be incurred in India only in Indian Rupees.

Indian bidders may quote the prices for materials and services to be imported into India in the Foreign Currency. Such bidders quoting in foreign currency shall separately indicate in a list the materials and services to be imported into India and the Foreign Currency price payable for such materials and services.

Indian bidders who have indicated materials or services to be imported into India, and who have indicated the Foreign Currency price for such materials and/or services in their bids as specified above, shall be paid the Foreign Currency paid for the relevant materials or services imported into India (subject to the maximum of the Foreign Currency indicated in the priced bid in relation to such supplies or services) as per Terms of payment (clause 6). If as a result, there shall remain any unutilized foreign currency indicated in the priced bid relevant to the formation of the CONTRACT in relation to such supplies or services, these shall be considered to be the CONTRACTOR's fee for the relative procurement or services, as the case may be, and shall be added to and paid for separately, in the Final Bill, in addition to the price of services, in Indian Rupees equivalent of such unutilised foreign currency balance(s) converted at the currency exchange rate, available at RBI'S WEBSITE, prevailing on the date of MECHANICAL COMPLETION.

If in the performance of the CONTRACT, the CONTRACTOR obtains or procures within India any materials or services which at the time of the bid were indicated to be procured or provided from outside India, the CONTRACTOR shall be paid only the Indian Rupee equivalent of the foreign currency cost of such materials or services as indicated in the last priced bid relevant to the formation of the CONTRACT, converted at the currency exchange rate, available at RBI'S WEBSITE prevailing on the date of payment by the CONTRACTOR for such supplies or services. Any change in such sourcing shall be subject to the PURCHASER's / CONSULTANT's prior consent. In case of change of source of supply from Indian to foreign or



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vice versa net evaluated cost would be carried forward, both in respect of CIF as well as INR price and taxes and duties thereon.

If in the performance of the Contract, the CONTRACTOR obtains or procures from outside India any materials or services which at the time of the bid were indicted to be procured or provided from within India, such bidder shall be paid only the Indian Rupees indicated in the Bill of Materials or in the Schedule of Activities, as the case may be, for such materials or services. In case of change of source of supply from Indian to foreign or vice versa net evaluated cost would be carried forward, both in respect of CIF as well as INR price and taxes and duties thereon. However, CONTRACTOR shall take prior permission of the PURCHASER for such change of source of supply.

The CONTRACTOR shall not be entitled to switch the quoted foreign currency to another foreign currency

The Lump sum price quoted by the CONTRACTOR shall be gross of Indian Income Tax, and the lump sum price(s) shall be deemed to include Indian Income Tax.

Any taxes to be paid by the purchaser directly to the authorities will be set off against the contract price quoted by the bidder

The CONTRACTOR shall submit billing schedule which is to be approved by the PURCHASER. The CONTRACTOR shall submit all invoices for a particular month under a single covering letter (once in a month) based on the billing schedule duly certified by PURCHASER with related documents.

Due Date for Payment

PURCHASER will make progressive payments as and when the payment is due as per the terms of payment set forth in the CONTRACT. Payment will become due and payable by PURCHASER within 90 days, except Final Payment, from the date of receipt of CONTRACTOR'S bill/invoice by PURCHASER provided the documents submitted are complete in all aspects and are submitted as per billing schedule.



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4. PRICE VARIATION CLAUSE

Prices quoted by the Bidder for Materials and services in Indian Rupees shall be subject to price adjustment during performance of the Contract to reflect changes in the cost of material & labour, in accordance with the procedures specified below

4.1 For Material supply

$$V = P \times \left[F + A \left(\frac{A1}{A0} \right) + B \left(\frac{B1}{B0} \right) + L \left(\frac{L1}{L0} \right) \right]$$

4.2 For Services

$$V = P \times \left[F + L \left(\frac{L1}{L0} \right) \right]$$

Where,

V = Adjusted Price (in Rupees) to be paid.

P = Base Price (excluding taxes and duties) of supplies/materials and services quoted in INR at the time of bidding, as per Annexure BOQ.

For Item A, B & L

Suffix "0" – Base date for respective Index (April'2024)

Suffix"1" – Date of Actual Shipment or Schedule Date of shipment whichever is earlier

A1 = Index applicable as on 60 days prior to Date of Actual Shipment or Scheduled Date of shipment whichever is lower.

B1 = Index applicable as on 60 days prior to Date of Actual Shipment or Scheduled Date of shipment whichever is lower.

L1 = Index applicable as on 30 days prior to Date of Actual Shipment or Scheduled Date of shipment whichever is lower.



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S. No.	Item	Value of Co-Efficient	Name of published index and Origin	Value of Base date Indices (April'2024)
1	F= Fixed Portion	0.20 – For supply 0.50 – For services		
2	A = Index for "Hot Rolled (HR) Coils & Sheets, including Narrow Strip" under sub-group of "Mild Steel –Flat Products" under Group of "Manufacture of Basic Metals" as published by Ministry of Commerce and Industry, GOI	0.30	Economic Adviser / RBI Bulletin	A0=136.6
3	B = Index for "Manufacture of structural metal products" under Group of "Manufacture of Fabricated metal products, except Machinery and Equipment" as published by Ministry of Commerce and Industry, GOI	0.35	Base Year 2011-12 = 100	B0=130.7
4	L = Consumer price index for industrial workers (All India General) as published by Labour Bureau, Shimla	0.15 – For supply 0.50 – For services	Labour Bureau Shimla / RBI Bulletin Base Year 2016=100	L0= Will be informed Later

Upward price variation will be payable for the entire approved extended completion period (*) considering the applicable indices as per the above formula. Accordingly, in case of delay by the contractor beyond contractual delivery date for reasons attributable to contractor, no upward price variation shall be payable.

However, downward/ negative price variation shall be applicable for the actual completion period.

() Approved extended completion period shall mean the justified extension in completion period.*

For example: If Schedule date of Shipment is May'25 and the actual completion date is December'25 out of which extension up to October'25 is not attributable to the contractor, the upward price variation shall be payable only till October'25. However, downward price variation shall be applicable till December'25.



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5. STATUTORY VARIATION IN TAXES AND DUTIES

No variation on account of taxes and duties, statutory or otherwise, shall be payable by PURCHASER to CONTRACTOR except for GST, BOCW Cess and custom duty with applicable Cess/Surcharge. However, any statutory variation for GST and Custom Duty with applicable Cess/Surcharge shall be payable up to GUARANTEED COMPLETION DATE against documentary evidence.

Any reduction in the amount of GST and Custom Duty with applicable Cess/Surcharge resulting from a reduction in the rate of GST, and Custom Duty with applicable Cess/Surcharge or remission or exemption from GST, and Custom Duty with applicable Cess/Surcharge with respect to Goods and Services provided to the PURCHASER shall be deducted from contract price within the GUARANTEED COMPLETION DATE and also during the delayed contractual Project completion, if any.

Any new taxes, duties, cess, levies notified or imposed after the submission of Price Bid but before GUARANTEED COMPLETION DATE shall be to PURCHASER's Account.

In case the GUARANTEED COMPLETION DATE is extended for reasons solely attributable to PURCHASER, then any increase on account of statutory changes in GST and Custom duty with applicable Cess/Surcharge until the extended period shall be borne by PURCHASER. Further, any new taxes, duties, cess, levies notified or imposed after the submission of Price Bid during such extended GUARANTEED COMPLETION DATE shall be to PURCHASER's Account.

6. TERMS OF PAYMENT

A. FOR SUPPLY OF MATERIALS

I. AGAINST COMPLETION OF ENGINEERING AND PLACEMENT OF PURCHASE ORDERS FOR RAW MATERIAL / BOUGHT OUT ITEMS

15% (Fifteen percent) will be released on completion and certification by PURCHASER the engineering activities, placement of purchase orders for raw materials and bought out items by the CONTRACTOR as per the list of items that will be finalised during the Kick off meeting with the CONTRACTOR and submission of data for civil design/ foundation details along with civil load data by CONTRACTOR.

This payment shall be released after submission of Bank Guarantee for 110% of the value. This Bank Guarantee shall be valid upto 3 months after receipt of all MATERIALS at SITE and acceptance of same.



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II. AGAINST RECEIPT OF MATERIAL AT SITE

70% (Seventy percent) direct EFT payment along with all applicable taxes and duties for the materials indicated in the Annexure BOQ after 90 days from the date of Certificate of Verification and Good Condition of material at site by PURCHASER against the submission of below mentioned documents (Sub Clause (ii)). For imported materials, payment shall be on CAD basis after 90 days from the date of receipt of documents, specified below (Sub Clause (i)) at BHEL bank. Respective bank charges to respective account.

If CONTRACTOR insists for L/C for foreign supplies portion (CIF value), only Usance L/C with 120 days credit will be opened one month prior to material readiness. Hence, CONTRACTOR shall intimate the material readiness accordingly for opening of LC. LC validity period will be 90 days and for any extension, applicable charges will be to supplier's account. Upon LC expiry the subsequent bills will be against CAD basis.

The bank charges relating to such Letter of Credit outside India, if any shall be to CONTRACTOR's account, while the charges payable to bankers in India shall be to PURCHASER account.

(i) DOCUMENTS TO BE SUBMITTED FOR IMPORTED MATERIALS

- a) Signed invoice(s)
- b) 2 of 3 original Bill of Lading and 4 (four) non-negotiable copies
- c) Certificate of country of origin issued by a competent authority
- d) Packing list
- e) Manufacturer's certificate of inspection for shipment duly approved by the CONTRACTOR in one original and one photocopy
- f) Third Party Inspection Release Note clearly indicating that equipment/ material has been inspected and accepted as per QAP approved by PURCHASER, or waiver certificate issued by PURCHASER
- g) Insurance Certificate
- h) Entry gate pass duly endorsed by PURCHASER's security for verification of physical entry of material to SITE.
- i) Certificate of Verification and Good Condition after receipt of material at site by PURCHASER.

(ii) DOCUMENTS TO BE SUBMITTED FOR INDIGENOUS MATERIALS

- a) Signed Invoice(s)
- b) Packing list.
- c) Manufacturer's certificate of inspection for shipment duly approved by the CONTRACTOR in one original and one photocopy



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- d) Third Party Inspection Release Note clearly indicating that material has been inspected and accepted as per QAP approved by PURCHASER, or waiver certificate issued by PURCHASER.
- e) Railway Receipt/LR
- f) Insurance Certificate
- g) Entry gate pass duly endorsed by PURCHASER's security for verification of physical entry of material to SITE.
- h) Certificate of Verification and Good Condition after receipt of material at site by PURCHASER.

III. AGAINST MECHANICAL COMPLETION CERTIFICATE

5 % (five percent) along with all applicable taxes and duties for the materials indicated in the Annexure BOQ on issue of MECHANICAL COMPLETION Certificate

IV. AGAINST PRELIMINARY ACCEPTANCE CERTIFICATE

8 % (eight percent) along with all applicable taxes and duties for the materials indicated in the Annexure BOQ on issue of PRELIMINARY ACCEPTANCE CERTIFICATE

V. AGAINST CONTRACTOR's CERTIFIED FINAL BILL

2 % (two percent) along with all applicable taxes and duties for the materials indicated in the Annexure BOQ on completion of balance jobs, if any, against the CONTRACTOR's Certified Final Bill, after issue of PRELIMINARY ACCEPTANCE CERTIFICATE.

B. FOR SERVICES

90% (Ninety Percent) of the Services Price component as per Annexure- BOQ, shall be paid after 90 days from the date of completion of the indicated services duly certified by the PURCHASER.

8 % (eight percent) along with all applicable taxes and duties for the materials indicated in the Annexure BOQ on issue of PRELIMINARY ACCEPTANCE CERTIFICATE

2 % (two percent) along with all applicable taxes and duties for the materials indicated in the Annexure BOQ on completion of balance jobs, if any, against the CONTRACTOR's Certified Final Bill.



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C. TRANSPORTATION & TRANSIT INSURANCE

100% (Hundred Percent) of Local Transportation charges (including port clearance, port handling and port charges etc., if applicable, and inland transit insurance charges) for the plant and equipment shall be paid to the Contractor pro-rata to the value of the equipment/commissioning spares received at site after 90 days from the date of acknowledgement of completion of Activity by PURCHASER. The aggregate of all such pro-rata payments shall, however, not exceed the total amount identified in the Contract for Local Transportation (Annexure BOQ).

D. SUPPLY OF SPARES

100% (Hundred percent) direct EFT payment along with all applicable taxes and duties for the materials indicated in the Annexure MSP after 90 days from the date of Certificate of Verification and Good Condition of material at site by PURCHASER against the submission of below mentioned documents (Sub Clause (ii)). For imported materials, payment shall be on CAD basis after 90 days from the date of receipt of documents, specified below (Sub Clause (i)) at BHEL bank. Respective bank charges to respective account.

If CONTRACTOR insists for L/C for foreign supplies portion (CIF value), only Usance L/C with 120 days credit will be opened one month prior to material readiness. Hence, CONTRACTOR shall intimate the material readiness accordingly for opening of LC. LC validity period will be 90 days and for any extension, applicable charges will be to supplier's account. Upon LC expiry the subsequent bills will be against CAD basis.

The bank charges relating to such Letter of Credit outside India, if any shall be to CONTRACTOR's account, while the charges payable to bankers in India shall be to PURCHASER account.

(i) DOCUMENTS TO BE SUBMITTED FOR IMPORTED MATERIALS

- a) Signed invoice(s)
- b) 2 of 3 original Bill of Lading and 4 (four) non-negotiable copies
- c) Certificate of country of origin issued by a competent authority
- d) Packing list
- e) Manufacturer's certificate of inspection for shipment duly approved by the CONTRACTOR in one original and one photocopy
- f) Third Party Inspection Release Note clearly indicating that equipment/ material has been inspected and accepted as per QAP approved by PURCHASER, or waiver certificate issued by PURCHASER
- g) Insurance Certificate
- h) Entry gate pass duly endorsed by PURCHASER's security for verification of physical entry of material to SITE.
- i) Certificate of Verification and Good Condition after receipt of material at site by PURCHASER.



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(ii) DOCUMENTS TO BE SUBMITTED FOR INDIGENOUS MATERIALS

- a) Signed Invoice(s)
- b) Packing list.
- c) Manufacturer's certificate of inspection for shipment duly approved by the CONTRACTOR in one original and one photocopy
- d) Third Party Inspection Release Note clearly indicating that material has been inspected and accepted as per QAP approved by PURCHASER, or waiver certificate issued by PURCHASER.
- e) Railway Receipt/LR
- f) Insurance Certificate
- g) Entry gate pass duly endorsed by PURCHASER's security for verification of physical entry of material to SITE.
- h) Certificate of Verification and Good Condition after receipt of material at site by PURCHASER.

Note:

As per extant provisions of Income Tax Act, 1962 in India, foreign suppliers have to submit the following documents to avail benefits under DTAA at time of each dispatches, failing which TDS will be applicable considering Business Income in India. (Current TDS rate @ 40% as per the extant law provisions) plus applicable surcharge and cess is to be deducted u/s. 195 of I.T Tax Act

- Valid Tax Residency Certificate issued by Govt / Tax agency of country.
 - Form 10F duly filed signed.
 - No PE and No Business connection declaration in supplier's letter head.
 - Declaration of No Significant Economic Presence (SEP) in India as per Indian I.T Rule 11UD & indemnity to pay taxes at later stages on demand.
 - Self-declaration that Non-resident is eligible to obtain benefits of relevant DTAA between India and Supplier's country. (sample copy as per Annexure-DT)
 - Any deviation in the credit period of the payment term will attract loading as mentioned below.
- MCLR rate of SBI p.a. + 6% (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) shall be considered for loading for the period of relaxation sought by bidder's subject to competent authority approval.

Example of the same is provided below

Payment Terms	Relaxation period	Loading (@MCLR 8.65% p.a. + 6%)
LC 90 days	30	1.2%
LC 60 days	60	2.41%
LC 30 days	90	3.61%



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7. DEEMED ACCEPTANCE

In case, COMMISSIONING and/or conductance of PERFORMANCE AND GUARANTEE TESTS of the PLANT is delayed by 18 months from MECHANICAL COMPLETION due to the reasons solely attributable to the PURCHASER, PLANT shall be considered as DEEMED ACCEPTED with a DEFECT LIABILITY PERIOD of another 12 months from the date of DEEMED ACCEPTANCE. The Contract Security-Cum-Performance Bank Guarantee shall be extended, accordingly, by the CONTRACTOR.

Reasonable cost for Commissioning, and/or Sustained Load Test and/or conductance of Performance and Guarantee Tests and/or training of PURCHASER's personnel in PLANT shall be worked out mutually and shall be retained by PURCHASER. Payment against PRILIMINARY ACCEPTANCE less the aforesaid retention amount shall be released against submission of equivalent amount of separate Bank Guarantee (Valid upto. DEFECT LIABILITY PERIOD.) by the CONTRACTOR upon DEEMED ACCEPTANCE of the PLANT. The bank guarantee already running as Contract Security-Cum-Performance Bank Guarantee shall be extended, by the CONTRACTOR so as to ensure its validity upto 06 months from the date of completion of DEFECT LIABILITY PERIOD.

This provision of DEEMED ACCEPTANCE shall not be applicable in case reasons for delay solely attributable to the PURCHASER are resolved before the completion of 18 months from MECHANICAL COMPLETION date and COMMISSIONING and PERFORMANCE AND GUARANTEE TEST is started within 18 months from MECHANICAL COMPLETION date. In that case remaining activities including COMMISSIONING / PERFORMANCE AND GUARANTEE TESTS shall be completed as per the terms & conditions of the CONTRACT and security-cum-performance bank guarantee shall be extended, accordingly, by the CONTRACTOR so as to ensure minimum validity of 6 months from the expiry DEFECT LIABILITY PERIOD.

Even after the DEEMED ACCEPTANCE, CONTRACTOR shall not be absolved from his obligations of carrying out the remaining activities including COMMISSIONING / PERFORMANCE AND GUARANTEE TESTS.

The CONTRACTOR may, in consultation with the PURCHASER, demobilise the team from the Site. It shall remobilise when COMMISSIONING and/or conductance of PERFORMANCE AND GUARANTEE TESTS is called for by PURCHASER.

In case of DEEMED ACCEPTANCE, PURCHASER shall be responsible for care, custody and proper maintenance of the PLANT. However, PURCHASER, at its option, may retain the CONTRACTOR's services for watch, ward and preservation of the PLANT and reimburse the CONTRACTOR a mutually agreed reasonable cost incurred to do so.



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After Deemed Acceptance, on performance of PGTR by the CONTRACTOR, if the Guaranteed parameters are not achieved, then the CONTRACTOR shall furnish the Recommendation/Report for corrective action to be implemented by PURCHASER to achieve the desired Guaranteed parameters.

8. DEFECT LIABILITY PERIOD AND LATENT DEFECTS

The DEFECT LIABILITY PERIOD shall be for a period of 12 (Twelve) months from the date of PRELIMINARY ACCEPTANCE/DEEMED ACCEPTANCE.

(i) If at any time before the PRELIMINARY ACCEPTANCE or during the DEFECTS LIABILITY PERIOD stated below, the PROJECT MANAGER:

a. Claim that any matter is a DEFECT; and

b. as soon as reasonably practicable gives to the CONTRACTOR notice of the particulars of the DEFECT; the CONTRACTOR shall as soon as reasonably predictable make good the DEFECTS so notified and the PURCHASER shall so far as may be necessary place the PLANT at the CONTRACTOR's disposal for this purpose. The CONTRACTOR shall, if so required by the PROJECT MANAGER, submit his proposals for making good any DEFECT to the PROJECT MANAGER for his approval.

(ii) If the PURCHASER notifies any DEFECT arising from any breach of the CONTRACT by the CONTRACTOR, the CONTRACTOR shall bear his own cost of making good the DEFECT.

(iii) The performance guarantees are demonstrated only through the performance tests carried out before the achievement of the PRELIMINARY ACCEPTANCE CERTIFICATE.

(iv) CONTRACTOR shall carry out further test(s) on the repaired/replaced item during the DEFECT LIABILITY PERIOD having the sole purpose to verify that said item is capable of working in compliance with contractual requirements. Such test(s) shall not be intended as a repetition of the performance tests already performed.

(v) If DEFECT is made good after the issue of a PRELIMINARY ACCEPTANCE CERTIFICATE, the PROJECT MANAGER may require the CONTRACTOR to repeat any appropriate performance test for the purpose of establishing that the DEFECT has been made good. The CONTRACTOR shall be responsible for the cost of any repeat inspection or test in the event of an inspection or test failure.

(vi) If in the course of making good any DEFECT which arises during the DEFECTS LIABILITIES PERIOD and CONTRACTOR repairs, replaces or renew any part of the PLANT,



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Clause 8 of Commercial Terms Part-I shall apply to the repair or to that part of the PLANT so replaced or renewed and shall further apply until the expiry of a period of 12 months from the date of such repair, replacement or renewal (the extended DEFECTS LIABILITY PERIOD).

(vii) If the CONTRACTOR does not make good with a reasonable time any DEFECT which he is liable to make good under Sub-Clause (i), then the PURCHASER may, without prejudice to any other remedies or relief available to him under the CONTACT, proceed to do the work, provided that the PURCHASER gives at least fourteen DAYS notice of his intention.

(viii) If the PURCHASER reasonably requires that any DEFECT notified to the CONTRACTOR under Sub-clause (i) which arises during the DEFECT LIABILITY PERIOD be made good urgently and the CONTRACTOR is unable or refuses to comply within a reasonable time, the PURCHASER may, without prejudice to any other remedies or relief available to him under the CONTRACT, proceed to do the work in such a manner as the PROJECT MANAGER may decide, including the employment of a third party.

(ix) If the PURCHASER has made good a DEFECT in accordance with Sub-clause (vii) or (viii), the CONTRACTOR shall reimburse the PURCHASER his reasonable cost along with overhead cost involved in doing so provided that the PURCHASER gives a notice to the CONTRACTOR of his intention and submits a claim supported by DOCUMENTS. The PROJECT MANAGER and the CONTRACTOR may agree the amount to be paid by the CONTRACTOR, or in the absence of agreement the PROJECT MANAGER shall decide such amount as may be reasonable. Such amount shall be:

- i. deducted from any money that would otherwise be payable under the CONTRACT;
- or
- ii. paid by the CONTRACTOR to the PURCHASER

(x) If the PLANT cannot be used because of a DEFECT to which this Clause 8 applies, the DEFECTS LIABILITY PERIOD, or if applicable the extended DEFECTS LIABILITY PERIOD, shall be extended by a period equal to the period during which it cannot be used. Similarly, the DEFECTS LIABILITY PERIOD, or if applicable the extended DEFECTS LIABILITY PERIOD shall be extended by any period wherein the PLANT cannot be used by reason of the CONTRACTOR putting the PLANT into such condition that it passes any relevant performance test or attempting to do so.

LATENT DEFECTS

At the end of the Defect Liability Period, the contractor liability ceases except for latent defects. The contractor's liability for latent defects warranty shall be limited to a period of five (5) years from the end of Defect Liability Period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period in this clause 8, but later



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9. FINAL ACCEPTANCE CERTIFICATE

Subject to Sub-clause 8.x and clause 9, as soon as DEFECT LIABILITIES PERIOD for the PLANT has expired or the CONTRACTOR has made good all DEFECTS that have within such period appeared in the PLANT or a Section in accordance with Clause 8, whichever is later, the PROJECT MANAGER shall issue a certificate (a 'FINAL ACCEPTANCE CERTIFICATE') to the CONTRACTOR stating that the PLANT or Section and any related work have finally been completed and the date of that completion

If Sub-clause 8.vi continues to apply to any part of the PLANT, the PROJECT MANAGER shall as soon as clause 9 is otherwise satisfied, issue a FINAL ACCEPTANCE CERTIFICATE for the remainder of the PLANT or Section in which the repair or part is included, provided that such repair or part is then free from DEFECTS which the CONTRACTOR is bound to make under Clause 9. Such repair or part shall then be treated as if it were a separate Section and shall be the subject of separate FINAL ACCEPTANCE CERTIFICATE.

The FINAL ACCEPTANCE CERTIFICATE shall constitute conclusive evidence for all purposes and in any proceedings whatsoever between the PURCHASER and the CONTRACTOR that the CONTRACTOR has completed that part of the PLANT and made good all DEFECTS therein in all respects in accordance with his obligations under the CONTRACT.

Where there is more than one FINAL ACCEPTANCE CERTIFICATE the last to be issued shall be identified as being the last FINAL ACCEPTANCE CERTIFICATE.

No FINAL ACCEPTANCE CERTIFICATE shall be conclusive as stated above if it or any other FINAL ACCEPTANCE CERTIFICATE was issued in reliance upon any fraudulent act, misrepresentation or concealment.

10. REPLACEMENT OF PARTS AND MATERIALS DEFECTIVE/DAMAGED/LOST DURING TRANSIT/ ERECTION AND COMMISSIONING)

If during the progress of the WORKS, the PURCHASER shall decide and inform in writing to the CONTRACTOR that the CONTRACTOR has manufactured any plant or part of the plant unsound or imperfect or has furnished any plant inferior to the quality specified, the CONTRACTOR on receiving details of such defects or deficiencies shall at his own expense, within seven (7) days of his receiving the notice or otherwise within such time as may be reasonably necessary for making it good, proceed to alter, reconstruct or remove such work and furnish fresh equipment up to the standards of the specifications. In case the CONTRACTOR fails to do so, the PURCHASER may on giving the CONTRACTOR seven (7) days' notice in writing of his intentions to do so, proceed to remove the portion of the works so



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complained of and at the cost of the CONTRACTOR perform all such work or furnish all such equipment provided that nothing in this clause shall be deemed to deprive the PURCHASER of or affect any rights under the CONTRACT which the PURCHASER may otherwise have in respect of such defects and deficiencies.

If the material/ equipment or any portion thereof is damaged or lost during transit and handling, storage, erection, commissioning at site, the replacements of such material / equipment shall be effected by the CONTRACTOR within a reasonable time to avoid unnecessary delay in the COMMISSIONING of the EQUIPMENT and without waiting for realisation of cost of damages from the insurance company, appointed by him for this purpose. This will not alter the schedule of commissioning & guarantee tests in any way.

11. LIQUIDATED DAMAGES (LD)

i. For Delay in Completion

- a) Time is the essence of the contract.
- b) The ordered items shall be delivered/erected/commissioned as per the delivery period mentioned in the CONTRACT. The material supplies/services shall be in adherence to the list of items along with delivery schedules that will be finalised during the Kick off meeting with the CONTRACTOR in line with GUARANTEED COMPLETION DATE.
- c) In case the CONTRACTOR supplies/erects/commissions the ordered items/services/spares beyond the delivery period specified, Liquidated Damages as detailed below shall be levied from the CONTRACTOR without prejudice to any other relief /compensation available to PURCHASER under any other condition of the contract/applicable legal provisions.
- d) Failure to dispatch the supplies/erect/commissions/render service in the time as per the delivery for the CONTRACT finalised as per sub clause (b) above would make the CONTRACTOR liable to an Liquidated Damages at the rate of 0.5% of the delayed value per week of the delay or part thereof
- e) Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).
- f) Indigenous: Date of reckoning LD shall be as below:

For Material Supply to Project Site: - Date of Certificate of Verification and Good Condition of material at site by PURCHASER.

For Services: - Date of completion of the indicated services duly certified by the PURCHASER.
- g) In the event the CONTRACTOR fails to attain the PRELIMINARY ACCEPTANCE within the GUARANTEED COMPLETION DATE due to the reasons for which CONTRACTOR is liable



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under CONTRACT then the CONTRACTOR shall pay to the PURCHASER as LD at the rate of 0.5 % of the TOTAL CONTRACT PRICE per week of delay or part thereof

- h) Maximum value of LD as per sub-clause d) and g) will be limited of 10% of the TOTAL CONTRACT PRICE.

ii. For Failing to Meet Utility requirement

CONTRACTOR shall guarantee overall consumption of the utilities as specified in the Annexure TD. In the event of any of the utility consumption exceeding 100% but up to 102.5% of the Guaranteed Works, the CONTRACTOR will pay the PURCHASER Liquidated Damages as specified hereunder.

- a) For every 0.50% increase in any of the utility consumption specified in Annexure TD, the CONTRACTOR will pay Liquidated Damages (LD) equal to 1.0% of the TOTAL CONTRACT PRICE.
- b) If the utility consumption as demonstrated during the performance test is more than 102.5% of the Guaranteed utility consumption, then the CONTRACTOR shall take corrective action irrespective of the cost involved. In case the Guaranteed utility consumption is more than 102.5% even after taking the corrective action, the same shall be considered as breach of Contract.

12. WARRANTY

It shall be a condition of the CONTRACT and the CONTRACTOR shall ensure and undertake that the plant shall achieve the requirement as set forth herein and as per Clause 14 of the technical specification for cryogenic ASU (Doc no: 3002) and Annexure-TD

The CONTRACTOR shall ensure and undertake that the Plants, Equipment and machineries will be new and in accordance with the CONTRACT documents and free from defects in design, material and workmanship and **shall give warranty for a period of Twelve (12) calendar months commencing immediately upon PRELIMINARY ACCEPTANCE.**

After the issue of the PRELIMINARY ACCEPTANCE CERTIFICATE, in the event of an emergency where, in the judgement of the PURCHASER, delay would cause serious loss or damage, repairs or adjustments may be made by the PURCHASER or a third party chosen by the PURCHASER without advance notice to the CONTRACTOR and the documented and direct cost of such work shall be paid by the CONTRACTOR but only to the extent that the repair or adjustment was due a defect attributable to CONTRACTOR as ascertained by PURCHASER.

The cost of any special or general overhaul rendered necessary during the warranty period due to defects for which CONTRACTOR is liable under CONTRACT in the PLANT or defective work carried out by the CONTRACTOR shall be borne by the CONTRACTOR.



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The acceptance of the equipment by the PURCHASER shall in no way relieve the CONTRACTOR of his obligation under this clause.

In the case of those defective parts which are not repairable at site but are essential for the commercial use of the equipment and machineries, the CONTRACTOR shall mutually agree to a programme of replacement or renewal which will minimise interruption to the maximum extent, in the operation of the equipment and machineries.

At the end of the DEFECTS LIABILITY PERIOD or the extended DEFECTS LIABILITY PERIOD, the CONTRACTOR's liability ceases. In respect of goods supplied by the SUB-CONTRACTORS to the CONTRACTOR where a long guarantee (more than 12 months) is provided by such SUB-CONTRACTORS/ VENDOR(s)/SUB-VENDOR(s), the PURCHASER shall be entitled to the benefit of such longer guarantees.

During the guarantee period, the CONTRACTOR shall provide if required by the PURCHASER the services of operation engineers to advise the PURCHASER for such period and in such number as may be mutually agreed upon. The CONTRACTOR's operation engineers shall also train the PURCHASER's personnel, act as a liaison between the PURCHASER and the CONTRACTOR, assist the PURCHASER in ordering and obtaining spare parts, generally monitoring operation and maintenance and trouble shooting and supervising repair work under guarantee.

The provisions of cost of transport, insurance etc. shall be implemented at the CONTRACTOR's expenses.

Performance Guarantees

CONTRACTOR shall guarantee the performance of PLANTS and associated offsite utilities as specified in the Technical Documents. Guarantees shall be demonstrated as described in Clause 14 of the technical specification for cryogenic ASU (Doc no: 3002) and Annexure-TD

Design and Vendors'/ Sub-Contractors' Guarantees

CONTRACTOR shall guarantee the design and engineering work carried out by him against mistakes, errors, defective specifications, inadequacy and other such items which lead to the supply of inadequate PLANTS and Facilities. In case of detection of such mistakes, errors, deficiencies etc. the CONTRACTOR shall redo the design and/or engineering work to overcome all such mistakes, errors, deficiencies etc. at no extra cost to PURCHASER.

CONTRACTOR shall be responsible for all the items of the EQUIPMENT procured by him from VENDORS/ SUB-CONTRACTORS. Further, CONTRACTOR shall replace or repair any item of EQUIPMENT which is demonstrated to be defective under normal operating conditions within DEFECT LIABILITY PERIOD.



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13.CONTRACT SECURITY CUM PERFORMANCE BANK GUARANTEE (CS cum PBG)

Within 30 days after issue of LOA/Purchase Order, the CONTRACTOR shall furnish to the PURCHASER Contract Security cum Performance Guarantee in the form of a bank guarantee for faithful completion of Project, as per terms and conditions of the Contract, issued by PURCHASER'S approved list of Banks (Annexure BG) for an amount equivalent to 10% of the TOTAL CONTRACT PRICE.

The Contract Security cum Performance Guarantee will be invoked by the PURCHASER on CONTRACTOR's failure to complete their obligations under the CONTRACT without prejudice to any of the rights or remedies the PURCHASER may be entitled to as per terms and conditions of the CONTRACT. The proceeds of Contract Security cum Performance Bank Guarantee (CS cum PBG) shall be appropriated as compensation for any loss resulting from such failure of the CONTRACTOR. The CS cum PBG shall be denominated in the currency/currencies of the CONTRACT.

The CS cum PBG shall be valid up to DEFECTS LIABILITY PERIOD as covered in clause 8 above plus six months. The CONTRACTOR shall extend the validity of the CS cum PBG suitably if it is required due to change in the Defect Liability Period/Deemed Defect Liability Period at its own cost. The bank guarantee shall be suitably extended in event of repair/replacement of equipment or any part thereof during DEFECT LIABILITY PERIOD to take care of extended warranty period of repair/ replacement. The proforma for this bank guarantee is enclosed as Annexure-BG. The bank guarantee will be discharged by the PURCHASER after the CONTRACTOR's performance obligation including any warranty obligation under the CONTRACT. For any component replaced during DEFECT LIABILITY PERIOD, the component should work satisfactorily for a period of 12 months from the date of replacement.

NOTE:

- (i) Any bank guarantee may it be for Bid Security (EMD) or CS cum PBG shall be issued by PURCHASER'S approved list of Banks (Annexure BG).
- (ii) The non-judicial Stamp paper of appropriate value only or equivalent document value prevailing in the country of the CONTRACTOR shall have to be purchased in the name of the bankers executing the bank guarantee and not in the name of the CONTRACTORS.

Rights of the PURCHASER to invoke Contract Security-cum-Performance Bank Guarantee:

- I. Whenever any claim against the CONTRACTOR for the payment of a sum of money arises out or under the CONTRACT, the PURCHASER shall be entitled to recover such sum by invoking and appropriating in part or whole the Security-cum-Performance Bank



BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT -TIRUCHIRAPPALLI
Commercial terms (Part-II) for cryogenic ASU

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Guarantee of the CONTRACTOR. In the event of the security being insufficient or if no security has been taken from the CONTRACTOR, then the balance or the total sum recoverable, as the case may be shall be deducted from any sum then due or which at any time thereafter may become due to the CONTRACTOR. The CONTRACTOR shall pay to the PURCHASER on demand any balance remaining due.

- II. All compensation or other sums of money payable by the CONTRACTOR to the PURCHASER under terms of this CONTRACT may be deducted from or paid by the invoking/encashment of a sufficient part of his Security-cum-Performance Guarantee or from any sums which may be due or may become due to the CONTRACTOR by the PURCHASER of any account whatsoever and in the event of his Rights of the PURCHASER to forfeit Security-cum-Performance Guarantee as per the terms of this tender.

14. SUBMISSION OF CIVIL INPUT BY CONTRACTOR

Data for civil design/ foundation details along with civil load data shall be submitted by CONTRACTOR within 3 months from the date of LOA. Delay in commencement of Erection and Commissioning of PLANT on account of delay in submitting the Data for civil design/ foundation details along with civil load data shall be attributable to the contractor and extension of time shall not be entertained.



BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT - TIRUCHIRAPPALLI
Annexure to Technical specification for cryogenic ASU

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ANNEXURE – TD

TECHNICAL DETAILS (To be filled/confirmed by supplier)

1.0 PRODUCT GUARANTEE

Product		Quantity (in TPD)	Quantity (in Nm ³ /hr)	Purity (in Wt%)	Pressure (in Kg/cm ² (g))	Confirmation
Gaseous Oxygen	Normal	1200	35000	≥ 99.5	31.6	
	Design	1320	38500			
LP Gaseous Nitrogen	Normal	540	18000	≤ 5 ppm O ₂	9.0	
	Design	594	19800			
MP Gaseous Nitrogen	Normal	1030	34300	≤ 5 ppm O ₂	36.0	
	Design	1135	37800			

Note: Both Normal as well as design mode of operation to be demonstrated and guaranteed.

2.0 PLOT AREA REQUIREMENT

Total area requirement to be specified. Plant, control room and storage area to be indicated separately along with open and covered area requirement

	Open	Covered
Plant		
Control room		
Storage area		
Other area		

3.0 UTILITY REQUIREMENT (Values to be indicated for the normal mode of operation)

Utility	Flow (in m ³ /hr)	Supply Pressure (in Kg/cm ² (g))	Supply Temperature (in °C)	Remarks
Instrument air		6	34	For Start-up and Performance test
Seal gas				Dry gas seal to be considered instead of conventional liquid seals. Seal gas to be mentioned.
Other				Any other utility requirement to be indicated



BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT – TIRUCHIRAPPALLI
Annexure MSP for Cryogenic ASU

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Annexure – MSP

List of spares

S.No	Name of Equipment	Item Description	Unit	Quantity
1	Main Air Compressor	Rotor assembly for all stages	Set	1 for each stage
		Bull Gear with Shaft	Set	1
		Coupling	PC	1
		Bearings - Complete Set (Both rotor shafts and bull gear shaft)	Set	1
2	GAN Compressor	Rotor assembly for all stages	Set	1 for each stage
		Bull Gear with Shaft	Set	1
		Coupling	PC	1
		Bearings - Complete Set (Both rotor shafts and bull gear shaft)	Set	1
3	Expansion Turbines With Booster Brake	Plug in unit	PC	1
		Bearings for Rotor Shaft	Set	1
		Main oil pump incl. coupling and E-motor	PC	1
4	Expansion Turbines With Generator Brake	Plug in unit	PC	1
		Bearings for Rotor Shaft	Set	1
		Main oil pump incl. coupling and E-motor	PC	1
5	LOX back-up pump	Spare pump including motor	PC	1
6	LIN back-up pump	Spare pump including motor	PC	1
7	LOX IC pump	Spare pump including motor	PC	1
8	LIN transfer pump	Spare pump including motor	PC	1
9	Regeneration gas heater	Spare heater bundle	PC	1
10	Turbine	Completely assembled dynamically balanced rotor	Set	1
		Inlet nozzles complete set	Set	1
		Journal and thrust bearing with internals and pads	Set	1
		Complete set coupling with internals for turbine/gear box	Set	1
		Governor assembly	Set	1
		Thrust collar assembly	Set	1
		Lube oil pump	PC	1
		Complete gear box set	Set	1

Tender Inviting Authority: Dy.Manager/MM/BOI							
Name of Work: Pre Bid Tie Up for Cryogenic Air Separation Unit (ASU) for proposed Coal to Ammonium Nitrate (2000 TPD) Project							
Enquiry No: 180/CTC/ASU/ENQ dated 01.06.2024							
Name of the Bidder/ Bidding Firm / Company :							
Schedule of Prices Note: All the prices quoted in the column M shall be exclusive of GST, customs duty, CESS/SURCHARGE, SWS ETC. on Customs duty. GST, customs duty, CESS/SURCHARGE, SWS etc. on Customs duty shall be indicated in percentage (not absolute value) in Annexure-BOQ which is submitted in Cover-1							
NUMBER #	TEXT #	NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Quoted Currency in INR / Other Currency	UNIT RATE In Figures To be entered by the Bidder in Corresponding Currency	TOTAL AMOUNT in Corresponding Currency	TOTAL AMOUNT In Words
1	2	4	5	12	13	53	55
1	Package-A: Main Supply Package						
1.01	Price of materials/supplies in INR (Includes Mechanical, Electrical, Instrumentation, valves & piping, consumables, chemicals, catalysts, construction/commissioning spares, tools & tackles, Insulation, Painting, etc...)	1	SET	INR		0.0000	INR Zero Only
1.02	Price of materials/supplies in USD (Includes Mechanical, Electrical, Instrumentation, valves & piping, consumables, chemicals, catalysts, construction/ commissioning spares, tools & tackles, Insulation, Painting, etc...)	1	SET	USD		0.0000	USD Zero Only
1.03	Price of materials/supplies in EUR (Includes Mechanical, Electrical, Instrumentation, valves & piping, consumables, chemicals, catalysts, construction/ commissioning spares, tools & tackles, Insulation, Painting, etc...)	1	SET	EUR		0.0000	EUR Zero Only
1.04	Price of materials/supplies in GBP (Includes Mechanical, Electrical, Instrumentation, valves & piping, consumables, chemicals, catalysts, construction/ commissioning spares, tools & tackles, Insulation, Painting, etc...)	1	SET	GBP		0.0000	GBP Zero Only
1.05	Price of materials/supplies in JPY (Includes Mechanical, Electrical, Instrumentation, valves & piping, consumables, chemicals, catalysts, construction/ commissioning spares, tools & tackles, Insulation, Painting, etc...)	1	SET	JPY		0.0000	JPY Zero Only
1.06	Price of services in INR (Includes erection, commissioning, trial run, performance guarantee, technical documentation and training, etc.)	1	SET	INR		0.0000	INR Zero Only
1.07	Price of spares in INR (As per the list in annexure MSP)	1	SET	INR		0.0000	INR Zero Only
1.08	Price of spares in USD (As per the list in annexure MSP)	1	SET	USD		0.0000	USD Zero Only
1.09	Price of spares in EUR (As per the list in annexure MSP)	1	SET	EUR		0.0000	EUR Zero Only
1.1	Price of spares in GBP (As per the list in annexure MSP)	1	SET	GBP		0.0000	GBP Zero Only
1.11	Price of spares in JPY (As per the list in annexure MSP)	1	SET	JPY		0.0000	JPY Zero Only
1.12	Transportation & transit Insurance in INR (includes P&F)	1	SET	INR		0.0000	INR Zero Only
1.13	Transportation & transit Insurance in USD (includes P&F)	1	SET	USD		0.0000	USD Zero Only
1.14	Transportation & transit Insurance in EUR (includes P&F)	1	SET	EUR		0.0000	EUR Zero Only
1.15	Transportation & transit Insurance in GBP (includes P&F)	1	SET	GBP		0.0000	GBP Zero Only
1.16	Transportation & transit Insurance in JPY (includes P&F)	1	SET	JPY		0.0000	JPY Zero Only

Tender Inviting Authority: Manager/MM/BOI

Name of Work: Pre Bid Tie Up for Cryogenic Air Separation Unit (ASU) for proposed Coal to Ammonium Nitrate (2000 TPD) Project

Enquiry No: 180/CTC/ASU/ENQ dated 01.06.2024

Name of the Bidder/ Bidding Firm / Company :	
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Utiliy values (To be provided by supplier for normal mode oprn)

NUMBER #	TEXT #	TEXT #	TEXT
Sl. No.	Item Description	Units	Values to be filled up by Bidder
1	2	5	24
1.01	Cooling Water	Cubic Meter	
1.02	Low Pressure Steam (4 kg/cm ² g & 180°C)	Metric Tonnes	
1.03	High Pressure Steam (107 kg/cm ² g & 515°C)	Metric Tonnes	
1.04	LT Power (Including emergency LT power)	kWh	
1.05	HT Power	kWh	



BHARAT HEAVY ELECTRICALS LIMITED
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ANNEXURE – BOQ

Important Note:

- All values in this annexure-are to be mentioned as % and no absolute values are to be indicated
- Loading towards utility consumption (Power, HP Steam and Cooling water) over the useful life of the plant, computed on a NPV basis will be added to the above LSTK/contract price to evaluate the lowest bid price. Details mentioned under clause 21 of commercial terms-part I
- Total price of SUPPLIES **shall not exceed 75%** of the TOTAL CONTRACT PRICE.
- SUPPLIES shall include but not limited to the Price of all materials complete in all respect including spares & consumables etc. up to PRILIMINARY ACCEPTANCE.
- The GST on the Material Supplies/services in INR will be paid at the prevailing rate at the time of dispatch. Customs duty and related cess, surcharge and GST shall be paid at actuals based on the submission of the proof by CONTRACTOR for Foreign currencies.

I. Break-up of materials/supplies

**a. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.01
(Price of materials/supplies in INR)**

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%

**b. Percentage Price Break-up for BOQ SI. No. 1.02
(Price of materials/supplies in USD)**

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%



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c. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.03
(Price of materials/supplies in EUR)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%

d. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.04
(Price of materials/supplies in GBP)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%

e. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.05
(Price of materials/supplies in JPY)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%



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II. Break-up of services

a. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.06
(Price of services in INR)

The below listed items are not exhaustive and BIDDER may indicate further break-up as required by adding more rows.

S. No.	Main Supply Package for ASU	% Price Break up
1	Erection	
2	Pre-commissioning	
3	Commissioning	
4	Trial operation	
5	Furnishing technical documentation	
6	Training	
	May add required no of rows	
TOTAL		100%

III. Break-up of spares (To be ensured that all the items indicated in Annexure-MSP should get covered in sections III a. to III e. below)

a. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.07
(Price of materials/supplies in INR)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%

b. Percentage Price Break-up for BOQ SI. No. 1.08 (Price of materials/supplies in USD)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%



BHARAT HEAVY ELECTRICALS LIMITED
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c. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.09
(Price of materials/supplies in EUR)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%

d. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.10
(Price of materials/supplies in GBP)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%

e. Percentage Price Break-up for the price quoted against BOQ SI. No. 1.11
(Price of materials/supplies in JPY)

S. No.	Main Supply Package for ASU	% Price Break up
1	Material-1	
2	Material-2	
3	Material-3	
4		
5		
	May add required no of rows	
TOTAL		100%



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III. Break-up of taxes and Duties

a. Taxes and duties for items quoted against BOQ Sl. No. 1.01
(To be specified as % of basic material cost)

S. No.	Item Description	CGST %	SGST %	IGST %
1	Material-1			
2	Material-2			
3	Material-3			
4				
5				
	May add required no of rows			

b. Taxes and duties for items quoted against BOQ Sl. No. 1.02

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURC HARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
	May add required no of rows					

c. Taxes and duties for items quoted against BOQ Sl. No. 1.03

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURC HARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
	May add required no of rows					



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d. Taxes and duties for items quoted against BOQ Sl. No. 1.04

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURC HARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
	May add required no of rows					

e. Taxes and duties for items quoted against BOQ Sl. No. 1.05

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURC HARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
	May add required no of rows					

f. Taxes and duties for items quoted against BOQ Sl. No. 1.06

S. No.	Item Description	CGST %	SGST %	IGST %
1	Erection			
2	Pre-commissioning			
3	Commissioning			
4	Trial operation			
5	Performance testing and guarantee demonstration			
6	Furnishing technical documentation			
7	Training			
	May add required no of rows			



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g. Taxes and duties for items quoted against BOQ Sl. No. 1.07
(To be specified as % of basic material cost)

S. No.	Item Description	CGST %	SGST %	IGST %
1	Material-1			
2	Material-2			
3	Material-3			
4				
5				
May add required no of rows				

h. Taxes and duties for items quoted against BOQ Sl. No. 1.08

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURC HARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
May add required no of rows						

i. Taxes and duties for items quoted against BOQ Sl. No. 1.09

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURC HARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
May add required no of rows						



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j. Taxes and duties for items quoted against BOQ Sl. No. 1.10

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURCHARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
	May add required no of rows					

k. Taxes and duties for items quoted against BOQ Sl. No. 1.11

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURCHARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Material-1					
2	Material-2					
3	Material-3					
4						
5						
	May add required no of rows					

l. Taxes and duties for items quoted against BOQ Sl. No. 1.12 to 1.16

S. No.	Item Description	BASIC CUSTOM DUTY (BCD) %	CESS/SURCHARGE, SWS ETC. ON BCD %	CGST % (on assessable value)	SGST % (on assessable value)	IGST % (on assessable value)
1	Items quoted against BOQ Sl. No. 1.12	-NA-	-NA-			
2	Items quoted against BOQ Sl. No. 1.13					
3	Items quoted against BOQ Sl. No. 1.14					
4	Items quoted against BOQ Sl. No. 1.15					
5	Items quoted against BOQ Sl. No. 1.16					
	May add required no of rows					

Integrity Pact (IP)

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

SL	IEM	Email
1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in
2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in
3.	Shri Mukesh Mittal, IRS (Retd.)	Iem3@bhel.in

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

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

Note:

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

Details of contact person(s): -

(1)

Name: Rajesh Kummar SB

Deptt: MM/BOI

Address: 24 Building, BHEL, Trichy

Phone: 0431-2574166

Email: sbrajesh@bhel.in

(2)

Name: Duraippandi P

Deptt: MM/BOI

Address: 24 Building, BHEL, Trichy

Phone: 0431-257 7741

Email: duraip@bhel.in

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 **Pre Bid tie up for Cryogenic Air Separation Unit (ASU) for proposed Coal to Ammonium Nitrate Project**

_____ (hereinafter referred to as "Contract"). 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 panel of Independent External Monitor(s) (IEMs), 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. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during 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 shall 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, terminate the contract, if already awarded, exclude from future business dealings and/ 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 (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above, the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) 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 or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity 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 panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are 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 IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs 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 IEMs the option to participate in such meetings.


- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a 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 or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, 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 the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs 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 Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have 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 IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration


- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact 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. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, 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 Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact 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 Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.


 For & On behalf of the Principal
 Dy. Manager / Purchase / BOI
 Materials Management
 Bharat Heavy Electricals Limited
 Tiruchirappalli, Tamil Nadu - 620 014
 (Office Seal)

Place Trichy
 Date 24.05.2024

Witness: 
 (Name & Address) N. MOHAN
Dy. Engineer
Materials Management / BOI
BHEL, TIRUCHY - 620 014.

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

Witness: _____
 (Name & Address) _____

**CLAUSE REGARDING PROVISION FOR PROCUREMENT FROM A BIDDER
WHICH SHARES A LAND BORDER WITH INDIA**

1. Order (Public Procurement No. 1) dated 23.07.2020, Order (Public Procurement No.2) dated 23.07.2020 and Order (Public Procurement No. 3) dated 24.07.2020, Department of Expenditure, Ministry of Finance, Govt. of India refers. The same are available at website <https://doe.gov.in/procurement-policy-divisions>.
2. 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. For details of competent authority refer to Annexure I of Order (Public Procurement No. 1) dated 23.07.2020.

Further the above will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given in the website of the Ministry of External Affairs, Govt. of India

3. "Bidder" (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) for purpose of this provision 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.
4. "Bidder from a country which shares a land border with India" for the purpose of this:
 - 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

5. "Beneficial owner" for the purpose of above (4) will be as under:

- i) 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(s), 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 the 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;
- ii) 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;
 - iii) 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;
 - iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 - v) 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.

6. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons

7. SUBMISSION OF CERTIFICATE IN BIDS:

Bidder shall submit a certificate in this regard as Form-1.

If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate rejection of the bid/termination and further action as per "Procedure for Action in case of Corrupt/Fraudulent/ Collusive / Coercive Practices" of tender document.

8. The registration, wherever applicable, should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

9. **PROVISION TO BE IN WORKS CONTRACTS, INCLUDING TURNKEY CONTRACTS:**

The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in Para 4 herein above. A Certificate to this regard is to be submitted by bidder is placed at Form-II

Form-I

UNDERTAKING ON LETTERHEAD

To,

M/s

SUB:

TENDER NO:

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder which shares a land border with India, we certify that, bidder M/s (Name of Bidder) is:

- (i) Not from such a country []
- (ii) If from such a country, has been registered []
with the Competent Authority. (Evidence of valid registration by the Competent Authority shall be attached)

(Bidder is to tick appropriate option (✓ or X) above).

We hereby certify that bidder M/s (Name of Bidder) fulfills all requirements in this regard and is eligible to be considered against the tender.

Place: [Signature of Authorized Signatory of Bidder]

Name:

Date:

Designation:

Seal:

Form-II

CERTIFICATE FOR TENDERS FOR WORKS INVOLVING POSSIBILITY OF SUB-CONTRACTING

To,

M/s

SUB:

TENDER NO:

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; we certify that, bidder M/s _____ (Name of Bidder) is:

- (i) not from such a country []
- (ii) if from such a country, has been registered []
with the Competent Authority. (Evidence of valid registration by the Competent Authority shall be attached)

(Bidder is to tick appropriate option (√ or X) above).

We further certify that bidder M/s _____ (**Name of Bidder**) will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority.

We hereby certify that bidder M/s _____ (**Name of Bidder**) Fulfills all requirements in this regard and is eligible to be considered.

Place:

[Signature of Authorized Signatory of Bidder]

Name:

Date:

Designation:

Seal:

Annexure- M I

Letter head of CA/ Statutory auditor / Cost auditor (>Rs. 10 Cr value)

Ref:

Date:

To,

BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT,
24 BUILDING, BHEL, TRICHY-
620014.

Subject: - Certification regarding local content

Reference: Tender Enquiry No.....

Name of Package:.....

Dear Sir,

We hereby certify that items of (package name) for (Project Name/Rate Contract) offered by M/S (bidder's name) having its registered works at has local content of..... %.

Further, M/S(bidder's name)..... meets the requirement of minimum local content in line with clause no..... of NIT no dated..... and the Public Procurement (Preference to Make in India), Order 2017 dated-15.06.2017 and further modified order dt. 28.05.2018 and subsequent Orders dt. 04.06.2020 & 19.07.2024 issued by DPIIT

The details of the location at which the local value addition IS made as follows.

	Item Description	Detailed address of the Location(s) where the local value addition is made

(CA/Cost Firm Name with FRN & Seal)

Chartered/Cost Accountants

(name of Member)

(Membership no.)

(UDIN no.)

**ANNEXURE-ND (No Deviation
Certificate)
(To be given in bidder's letter pad)**

Note: The following Declaration to be submitted on the bidder's Letter Head, duly signed & stamped and to be attached along with your Technical bid of the tender.

Tender Details: Pre Bid tie up for Cryogenic Air Separation Unit (ASU) for proposed Coal to Ammonium Nitrate Project

Enquiry No.: **180/CTC/ASU/ENQ**

Enquiry Date: **01.06.2024**

I/We M/s.
have read and clearly understood all the Terms and conditions in Tender Schedule of and accordingly accept the same without any deviation what so ever.

- *I/ We unconditionally agree to all the tender conditions and no new conditions are imposed by us in the technical / price bid. I understand in the event of imposing any condition in the technical / price bid, such condition would be ignored by BHEL and only the prices will be considered for the purpose of evaluation".*

In case of any deviation (Technical or commercial) the same is mentioned below. (Bidders to please note deviations mentioned else where would not be considered and such deviations would be null and void)

SPECIFICATION	1. Technical Specification for Cryogenic Air Separation Unit (ASU) (Doc no: 3002 CTC - ASU) 2. Annexures- TD to Technical Specification 3. Commercial Terms Part-I 4. Commercial Terms Part-II 5. Definition of Terms and Interpretation	
DOC. REFERENCE	BHEL ENQ. CALLED FOR	FIRM'S ALTERNATE OFFER

- *I/ We confirm that none of our group concern or affiliates etc., appears on the list of banned firms / companies by BHEL (list available on www.bhel.com) nor any of the Director / Partner / proprietor of bidder / such group concern or affiliate etc. are involved with such company.*
- *I/ We also declare that, we have not been suspended or black listed or issued with Show Cause Notice by BHEL- Trichy or any other BHEL Unit or any PSU/ Government organization.*
- *I/ We confirm that other than us, none of our group concerns or affiliates etc. are participating in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s).*
- *I/ We confirm that if any of the above statement / information furnished by us in this tender is found to be false/ fake at any stage of tender evaluation or during execution of contract, BHEL will have the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc. as deemed fit.*

(Contractor Signature with Seal)
Contractor Signature

Contractor Seal

Annexure-RD

BRIEF PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS

1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings.
3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores
Conciliation shall be carried out by 3 Conciliators nominated by BHEL.
5. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
6. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.

7. The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case within 15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case within 1 month from the date of conclusion of the last hearing.
8. Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.
9. In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
10. Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
11. When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
12. In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
13. Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its

recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.

14. In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.
15. The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
16. Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.
17. In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
18. A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the

same out of complete freewill and consent, without any pressure, undue influence.

19. The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
20. Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.
21. Unless otherwise provided for in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.
22. The proceedings of Conciliation under this Scheme may be terminated as follows:
 - a. On the date of signing of the Settlement agreement by the Parties; or,
 - b. By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
 - c. By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
 - d. By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration.
 - e. On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.

23. The Conciliator(s) shall be entitled to following fees and facilities:

S1 No	Particulars	Amount
1	Sitting fees	Each Member shall be paid a Lump Sum fee of Rs 75,000/- for the whole case payable in terms of paragraph No. 27 herein below.
2	Towards drafting of settlement agreement	In cases involving claim and/or counter-claim of up to Rs 5crores. Rs 50,000/- (Sole Conciliator)

S1 No	Particulars	Amount
		<p>In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs 75,000 (per Conciliator) In cases involving claim and/or counter-claim of more than Rs 10 crores. Rs 1,00,000/- (per Conciliator)</p> <p>Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement Agreement by the Competent Authority of BHEL.</p>
3	Secretarial expenses	<p>Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC.</p> <p>Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC</p>

4	Travel and transportation and stay at outstation i) Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)	As per entitlement of the equivalent officer (pay scale wise) in BHEL.
	Others	As per the extant entitlement of whole time Functional Directors in BHEL.
Sl No	Particulars	Amount
		Ordinarily, the IEC Member(s) would be entitled to travel by air Economy Class.
5	Venue for meeting	Unless otherwise agreed in the agreement, contract or the Memorandum of Understanding, as the case may be, the venue/seat of proceedings shall be the location of the concerned Unit / Division / Region / Business Group of BHEL. Without prejudice to the seat/venue of the Conciliation being at the location of concerned BHEL Unit / Division / Region / Business Group, the IEC after consulting the Parties may decide to hold the proceedings at any other place/venue to facilitate the proceedings. Unless, Parties agree to conduct Conciliation at BHEL premises, the venue is to be arranged by either Party alternately.

24. The parties will bear their own costs including cost of presenting their cases/evidence/witness(es)/expert(s) on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.
25. If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.
26. The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.
27. Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.
28. The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 3 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.
29. The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/ regulatory body, as the case may be.
30. The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:

- a. Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
 - b. admissions made by the other party in the course of the Conciliator proceedings;
 - c. proposals made by the Conciliator;
 - d. The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
- 31. The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
- 32. None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
- 33. The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.
- 34. The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.

Appendix I

FORMAT FOR SEEKING CONSENT FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To,

M/s. (Stakeholder's name)

Sub: Resolution of the Disputes through conciliation by Independent Expert Committee (IEC).

Ref: Contract No/MoU/Agreement/LOI/LOA& date _____.

Sir,

With reference to above referred Contract/MoU/Agreement/LOI/LOA, you have raised certain Disputes/claims. Vide your letter dated____ you have requested BHEL to refer the Disputes/claims to IEC for Conciliation.

We are enclosing herewith Format (3) for giving consent and the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. You are requested to give your unconditional consent to the said terms and conditions of the Scheme by returning the same duly sealed and signed on each page. On receipt of your consent, matter will be put to the Competent Authority for consideration and decision.

Please note that BHEL has also certain claims against you (if applicable). BHEL reserves its right to agree or not to agree conciliation of the said disputes through BHEL and this letter is being issued without prejudice to BHEL's rights and contentions available under the contract and law.

Yours faithfully,

Representative of BHEL

Appendix II

FORMAT FOR GIVING CONSENT BY CONTRACTOR/VENDOR/CUSTOMER/COLLABORATOR/CONSORTI UM PARTNERS FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To,

BHEL

.....

Sub: Resolution of Disputes through Conciliation by Independent Expert Committee (IEC).

Ref: Contract/MoU/Agreement/LOI/LOA No & date____

With reference to above referred contract, our following bills/invoices/claims submitted to BHEL are still unpaid giving rise to Disputes:

SL. no.	Claim Description	Bill submitted to BHEL (no. and date)	Amount of the bill/claim	Amount received from BHEL	Outstanding Amount

Accordingly we request you to kindly refer the Disputes in respect of above claims to IEC for Conciliation.

We hereby agree and give our unconditional consent to the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. We have signed the same on each page and enclosed it for your consideration.

Yours faithfully,

(Signature with stamp)

**Authorized Representative of Contractor
Name, with designation
Date**

Appendix III

STATEMENT OF CLAIMS/COUNTER CLAIMS TO BE SUBMITTED TO THE IEC BY BOTH THE PARTIES

1. Chronology of the Disputes
2. Brief of the Contract/MoU/Agreement/LOI/LOA
3. Brief history of the Disputes:
4. Issues:
5. Details of Clam(s)/Counter Claim(s):

SI. No.	Description of claim(s)/Counter Claim	Amount (in INR)Or currency applicable in the contract	Relevant contract clause

6. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract)

Note– *The Statement of Claims/Counter Claims may ideally be restricted to maximum limit of 20 pages. Relevant documents may be compiled and submitted along with the statement of Claims/Counter Claims. The statement of Claims/Counter Claims is to be submitted to all IEC members and to the other party by post as well as by email.*

POWER OF ATTORNEY (POA)
(To be submitted on the Non-Judicial stamp paper)

Bid NO:

Description of work:

Name of Bidder: _____

“The undersigned _____ (Name of LEGAL PERSON, i.e. CEO/C&MD/Company Secretary/Partners) is lawfully authorized to issue this POA* on behalf of the company M/s _____ (Name of bidder) whose registered address is _____ and does hereby appoint Mr./Ms _____ (name of authorized person signing the bid document) _____ (Designation) of M/s _____ (Name of bidder) whose signature appears below to be the true and lawful attorney/(s) and authorize him/her to sign the bid (both physically & digitally on CPP Portal), conduct negotiation, sign contracts and execute all the necessary matter related thereto, in the name and on behalf of the company in connection with the PQ no. _____.

The signature of the authorized person/(s) herein constitutes unconditional obligations of M/s _____ (Name of bidder). This Power of Attorney (POA) shall remain valid and in full force and effect before we withdraw it in writing (by fax, or mail or post). All the documents signed (within the period of validity of the Power of Attorney) by the authorized person herein shall not be invalid because of such withdrawal.

(*)

- (I) In case of a single Bidder, the power of Attorney shall be issued as per the constitution of the bidder as below.
- a) **In case of Proprietorship:** By Proprietor
 - b) **In case of Partnership:** by all Partners or Managing Partner.
 - c) **In case of Limited Liability Partnership:** by any bidder's employee authorized in terms of Deed of LLP.
 - d) **In case of Public /Limited Company:** POA in favour of authorized employee(s) by Board of Directors through Board Resolution or by the designated officer authorized by Board to do so. Such Board Resolution should be duly countersigned by Company Secretary / MD / CMD / CEO.

SIGNATURE OF THE LEGAL PERSON

(Name of person with Company Seal)

BANK GUARANTEE FOR PERFORMANCE SECURITY

(Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s))

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY **IFSC**
AND MICR CODE

Dear Sirs,

1. 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) (VENDOR CODE) 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.....dated³ valued at Rs.....⁴ (Rupees -----)/FC.....(in words.....) for⁵ (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Performance Security by way of a Bank Guarantee, equivalent to% (.... Percent) of the said value of the Contract to the Employer for the due performance of all the contractual obligations of the Vendor / Contractor / Supplier including warranty obligations
2. 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.
3. 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. _____.
4. 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.

5. 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 thebank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of all the contractual obligations of the Vendor / Contractor / Supplier including satisfactory completion of the warranty period /obligations 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.

6. 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.

7. 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.

8. 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.

9. 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.

10. Unless a demand or claim under this guarantee is made on us in writing on or before the⁸we shall be discharged from all liabilities under this guarantee thereafter.

11. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirappalli.

12. 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 (minimum 3 to 6 months from the expiry date) 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.

13. 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.....

BANK EMAIL ID:

BANK PHONE NO:

AUTHORISED SIGNATORIES CELL PHONE NO:

BANK FAX NO:

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

Sl. No.	Name of the bank
1	State Bank of India
2	Canara Bank
3	IDBI Bank Limited
4	ICICI Bank Limited
5	HDFC Bank Limited
6	Axis Bank
7	IndusInd Bank Limited
8	Bank of Baroda
9	Exim Bank
10	Indian Bank
11	Punjab National Bank
12	Union Bank of India
13	Yes Bank Limited
14	RBL Bank Ltd.
15	Standard Chartered Bank
16	Indian Overseas Bank
17	Kotak Mahindra Bank Limited
18	Federal Bank Limited
19	Hongkong and Shanghai Banking Corporation Ltd

BANK GUARANTEE FOR ADVANCE

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of Bharat Heavy Electricals Limited¹ (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.....² (Name of the Vendor / Contractor / Supplier), with its registered office at _____² (hereinafter called "the Vendor/Contractor/Supplier" which expression shall include its successors and permitted assigns) a contract Ref No.....dated³valued at Rs.....(Rupees -----) /FC.....(in words.....) for⁴(hereinafter called the 'Contract')

AND WHEREAS the Employer has agreed to advance to the Vendor/Contractor/Supplier, a sum of Rs..... (Rupees..... only), equivalent to _____% of the said value of the Contract (hereinafter called "the said Advance"), upon the condition, that the said Advance shall be secured by a guarantee for Rs/ FC ----- (Rupees/ FC -----)⁵ from a Bank as hereinafter appearing.

We,, (hereinafter referred to as the Bank), having registered/Head office at and 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 but not exceeding Rs/FC ----- (Rupees/FC -----) without any demur, merely on your first demand 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 hereunder and the Vendor/Contractor/supplier shall have no claim against us for making such payment.

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

We>>>> Bank further agree 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.....⁶ and shall be extended from time to time on the request of the Employer for such period as may be desired by the 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 hereof. However, unless a demand or claim under this Guarantee is made on us in writing on or before the⁷ we shall be discharged from all liabilities under this Guarantee.

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.....⁵
- b) This Guarantee shall be valid up to⁶
- c) Unless the Bank is served a written claim or demand on or before⁷ 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)

Date.....

Place of Issue.....

¹ NAME AND ADDRESS OF THE EMPLOYER. i.e Bharat Heavy Electricals Limited

² NAME AND ADDRESS OF VENDOR /CONTRACTOR / SUPPLIER

³ DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

⁴ CONTRACT VALUE AND PROJECT/SUPPLY DETAILS

⁵ BG AMOUNT IN FIGURES AND WORDS

⁶ VALIDITY DATE

⁷ DATE OF EXPIRY OF CLAIM PERIOD

Note:

1. Units are advised that expiry of claim period may be kept 3-6 months after validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.
2. The BG should be 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/Contractor/Supplier /Bank issuing the guarantee.
3. In line with the GCC, SCC or contractual terms, Unit may carry out minor modifications in the Standard BG Formats. If required, such modifications may be carried out after taking up appropriately with the Unit/Region's Law Deptt.
4. In exceptional circumstances where advance payment is to be made to a vendor and the Unit has contractually agreed with the Contractor/ Vendor for periodic reduction in Advance Bank Guarantee, if required the following clause may be added in the BG Text-

"The liability under this Guarantee shall stand reduced proportionally on periodic basis, in accordance with the value of effected shipment/dispatches/services completed on written confirmation by BHEL."

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

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

**DECLARATION REGARDING BANNED/BLACKLISTED/DELISTING AND
LIQUIDATION, COURT RECEIVERSHIP (On Bidder's Letter Head)**

To,
.....

SUB:

Dear Sir,

We hereby confirm that we have not been banned or blacklisted or de-listed or put on Holiday by any Government / Quasi-Government / Public Sector Undertaking / Private Firm / Financial Institutions on due date of submission of bid.

We also confirm that we are not under any liquidation, court receivership or similar proceedings or 'bankruptcy'.

If it is found at a later date that the Contractor has secured the contract by furnishing wrong information or by suppressing facts in the bid submitted, OWNER reserves the right to cancel the contract and forfeit the EMD/ Security cum Performance Guarantee and put the CONTRACOR on Holiday / Banned / Blacklist for a period of two years by Owner (CIL, BHEL) and PDIL.

Further, we also confirm that in case there is any change in status of the declaration prior to award of contract, the same will be promptly informed to OWNER by us.

Place:

[Signature of Authorized Signatory of Bidder]

Date:

Name:

Designation:

Seal:

Annexure-CFI

Declaration of sister / common business / management units in same / similar line of business for the quoted items in this tender.

Bidder details:

NIT Reference:

Sl. No.	Name of Sister Concern / Common business / Management Units	Relationship with Bidder	Nature of Business with BHEL

signature and Seal for bidder

FORM NO. 10F

[See sub-rule (1) of rule 21AB]

**Information to be provided under sub-section (5) of section 90 or
sub-section (5) of section 90A of the Income-tax Act, 1961**

I. *son/daughter of Shri. in the capacity of
..... (designation) do provide the following information,
relevant to the previous year..... *in my case/in the case
of..... for the purposes of sub-section (5) of *section 90/section 90A:—

<i>Sl.No</i>	<i>Nature of information</i>	<i>:</i>	<i>Details #</i>
(i)	Status (individual, company, firm etc.) of the assessee	:	
(ii)	Permanent Account Number or Aadhaar Number of the assessee if allotted	:	
(iii)	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)	:	
(iv)	Assessee's tax identification number in the country or specified territory of residence and if there is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assessee claims to be a resident	:	
(v)	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A is applicable	:	
(vi)	Address of the assessee in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable	:	

2. I have obtained a certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A from the Government of (name of country or specified territory outside India)

Signature:

Name:

Address:

Permanent Account Number or Aadhaar Number

Verification

I do hereby declare that to the best of my knowledge and belief what is stated above is correct, complete and is truly stated.

Verified today the day of.....

.....
Signature of the person providing the information

Place:

Notes :

1. *Delete whichever is not applicable.

2. #Write N.A. if the relevant information forms part of the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A.

We do not wholly or partly carry on business in the Republic of India through a Permanent Establishment in India. Further we do not constitute any Permanent Establishment in India in accordance with the Article No. 5 of the DTAA between India and _____ (Supplier country name)

We also declare No Significant Economic Presence (SEP) in India as per Indian IT Rule 11UD and self-declare that No-resident is eligible to obtain benefits of relevant DTAA between India and _____

We do not have a business connection¹ in the Republic of India as per Section 9(1)(i) of the Act.

As and whenever we will constitute / establish any Permanent Establishment/ business connection in India or deemed to have a Permanent Establishment / business connection in India or in case it is held by Indian Income Tax Authorities that we have a Permanent Establishment / business connection in India (referred as 'event'), we will bring this to the knowledge of Bharat Heavy Electricals Limited before any subsequent payments are released by Bharat Heavy Electricals Limited or within 5 working days of any such event, whichever is earlier.

We hereby declare that whatever is stated above is true and correct. In the event there is any change in any of the facts stated above, we will bring this to the knowledge of Bharat Heavy Electricals Limited before any subsequent payments are released by Bharat Heavy Electricals Limited or within 5 working days of any such event, whichever is earlier.

Where any tax, interest, penalty is levied on Bharat Heavy Electricals Limited for non/lower withholding of taxes on account of the above declarations being incorrect, we, _____, hereby undertake that we shall reimburse Bharat Heavy Electricals Limited such amounts as would be demanded by the Tax Authorities along with Interest and Penalty.

Explanation in foot mark

¹ The term 'business connection' shall include significant economic presence ("SEP") of a non-resident in India, w.e.f. 1 April 2021. As per Explanation 2A to Section 9(1)(i) of the Act read with Notification no. 41 of 2021, SEP for this purpose, shall mean:- (a) transaction in respect of any goods, services or property carried out by a non-resident with any person in India including provision of download of data or software in India, for which aggregate payments

ANNEXURE – EP

E-PAYMENTS

- This annexure to the techno-commercial bid explains how to make e-payments to BHEL- Tiruchirappalli through SBI e-collect.
- Vendors (EMD and SD Payments payable by others) can utilise this facility.
- Payments can be made using Internet Banking, Debit Cards/Credit Cards etc.
- SBI Charges a minimum amount (Service Charge) for every transaction. This may vary according to the MODE selected.

STEP BY STEP PROCEDURE:

Login to <https://www.onlinesbi.com>

1. Select State Bank Collect available on the top (pre login page)
2. Accept the terms and conditions and click “PROCEED”
3. Select State “TAMILNADU “and Institution type “INDUSTRY “.
4. Select “BHEL TRICHY under “INDUSTRY”.
5. In the next page, Select APPROPRIATE category, fill details correctly & click “SUBMIT”.
6. If all details entered are correctly populated, click “CONFIRM “to proceed.
7. Make payment as per your convenience. (Options available are payment of fees through SBI Net Banking, State Bank ATM cum Debit Cards / Other Bank Debit / Credit Cards and through SBI Branches).
8. SAVE & Keep the copy of receipt for future reference.

HOW TO TAKE RECEIPT FOR A PAYMENT MADE, EVEN ON A LATER DATE:

(PLEASE CHECK THE STATUS BEFORE MAKING PAYMENT SECOND TIME)

1. Login to www.onlinesbi.com
2. Select State Bank Collect available on the top (pre login page)
3. Accept the terms and conditions and click “PROCEED”
4. Select “PAYMENT HISTORY “option available on the left side of screen.
5. Using two options as mentioned below, you can get the receipt:
 - a. Type the same Date of Birth, Mobile Number which you have entered at the time of making payment through SB collect. Select the date range and submit.
 - b. If you know the payment reference number, then enter the Reference number (DU...) along with any other information (Date of Birth / Mobile number, which you have entered at the time of making payment). Select the date range and submit.
6. In the next page, take print out of receipt.

PROFORMA OF BANK GUARANTEE

(in lieu of EARNEST MONEY)

(On non-Judicial stamp paper of appropriate value, should be valid for a period of at least six months from the date of tender opening)

Bank Guarantee No.....

Date.....

To

Bharat Heavy Electricals Limited
High Pressure Boiler Plant, Tiruchirappalli – 620014

Dear Sirs,

In accordance with the terms and conditions of Invitation for Bids/Notice Inviting Tender, Enquiry No..... (Tender Reference) M/s.....(vendor name) having its registered office at (hereinafter referred to as the 'Tenderer'), is submitting its bid for the work of (Name of work) invited by Bharat Heavy Electricals Limited through its Unit, High Pressure Boiler Plant, at Tiruchirappalli – 620014

The Tender Conditions provide that the Tenderer shall pay a sum of Rs (BG Amount in words and Figures) as Earnest Money Deposit in the form therein mentioned. The form of payment of Earnest Money Deposit includes Bank Guarantee executed by a Scheduled Bank.

In lieu of the stipulations contained in the aforesaid Tender Conditions that an irrevocable and unconditional Bank Guarantee against Earnest Money Deposit for an amount of (BG Amount in words and Figures) is required to be submitted by the Tenderer as a condition precedent for participation in the said Tender and the Tenderer having approached us for giving the said Guarantee,

We, the[Name & address of the Bank] having our Registered Office at(hereinafter referred to as the Bank) being the Guarantor under this Guarantee, hereby irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer without any demur, merely on your first demand any sum or sums of(BG Amount in words and Figures) without any reservation, protest, and recourse and without the beneficiary 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..... (BG Amount in words and Figures)

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 hereunder and the Tenderer shall have no claim against us for making such payment.

We, Bank, further agree 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 Tender or to extend the time of submission of 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 -renderer and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said -renderer or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Tenderer 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 renderer and notwithstanding any security or other guarantee that the Employer may have in relation to the Tenderer's liabilities.

This Guarantee shall be irrevocable and shall remain in force up to and including (Six months from the date of tender opening) and shall be extended from time to time for such period as may be desired by the Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Tenderer but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms hereof. However, unless a demand or claim under this Guarantee is made on us in writing on or before the (Six months from the date of tender opening) we shall be discharged from all liabilities under this Guarantee.

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

WeBank 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..... (BG Amount in words and Figures)
- b) This Guarantee shall be valid up to.(Six months from the date of tender opening)
- c) Unless the Bank is served a written claim or demand on or before (Six months from the date of tender opening) 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)

Date.....

Place of issue.....

1. Details of the Invitation to Bid/Notice Inviting Tender
2. Name and Address of the Tenderer
3. Details of the Work
4. Name of the Employer
5. BG Amount in words and Figures
6. Validity Date
7. Date of Expiry of Claim Period

Note:

The BG should be 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/Contractor/Supplier /Bank issuing the guarantee.

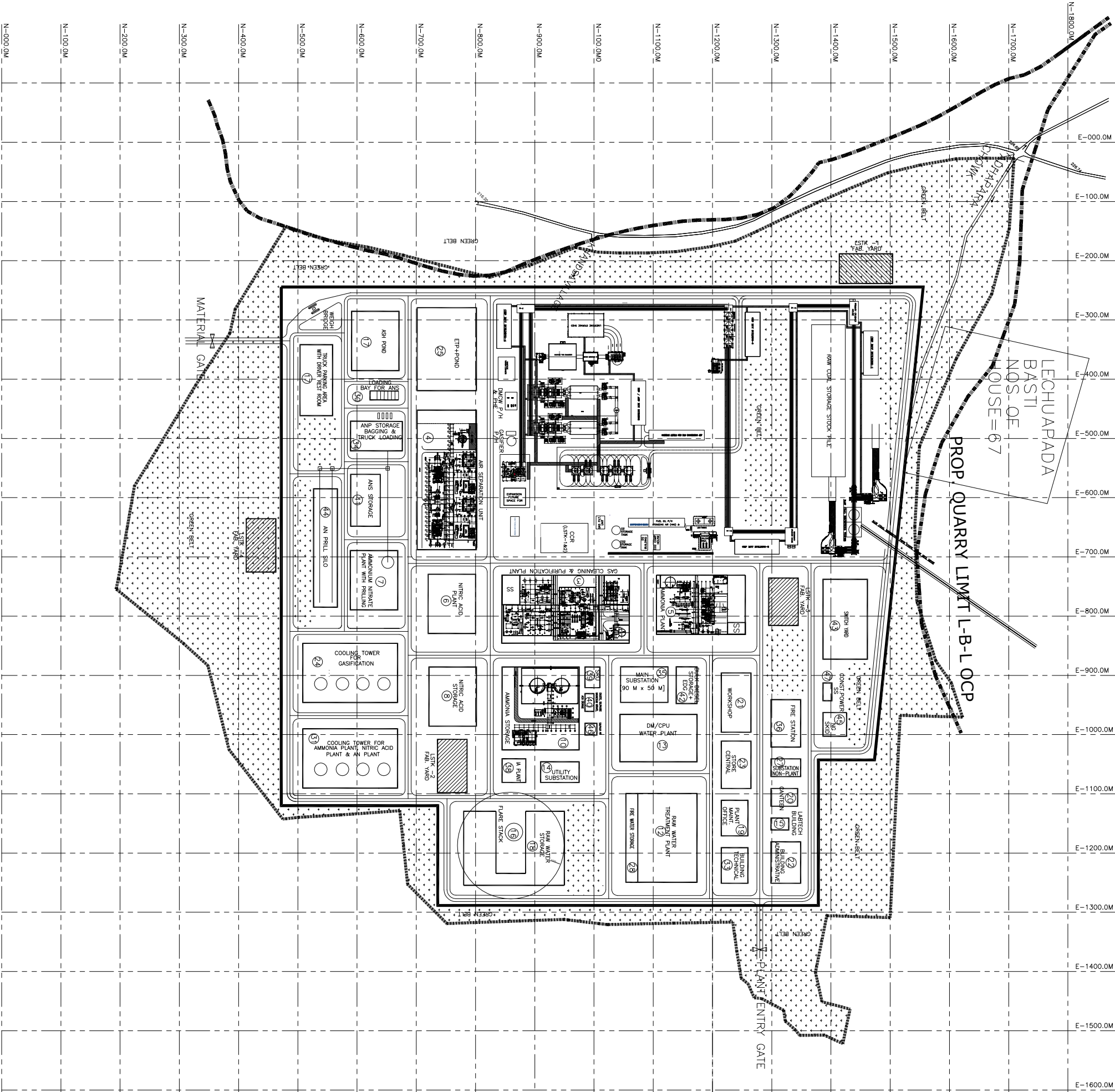
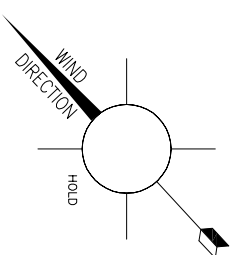
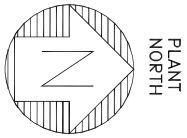


TABLE FOR FACILITIES/UNITS

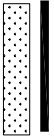
S/L NO.	BLOCK DESCRIPTION	SIZE IN METER	REMARKS
1.	COAL & LIME STORAGE PACKAGE		
2.	GASIFICATION PLANT PACKAGE	215 M x 115 M	
3.	GAS CLEANING & PURIFICATION PLANT	230 M x 100 M	
4.	AIR SEPARATION UNIT	230 M x 100 M	
5.	AMMONIA PLANT	150 M x 80 M	
6.	NITRIC ACID PLANT	100 M x 80 M	
7.	AMMONIUM NITRATE PLANT WITH PRILLING	100 M x 80 M	
8.	NITRIC ACID STORAGE	100 M x 80 M	
9.	DELETED	-	
10.	AMMONIA STORAGE	140 M x 130 M	
11.	STEAM GENERATION PLANT	150 M x 100 M	
12.	RAW WATER TREATMENT PLANT	130 M x 80 M	
13.	DMSO WATER PLANT	65 M x 35 M	
14.	UTILITY SUBSTATION	30 M x 20 M	
15.	LAB TECH BUILDING	120 M x 65 M	
16.	FLARE STACK	1600 SQM	
17.	TRUCK PARKING AREA WITH DRIVER REST ROOM	120 M x 65 M	
18.	RAW WATER STORAGE	1600 SQM	
19.	PLANT MAINT OFFICE	60 M x 45 M	
20.	CANTEN	45 M x 30 M	
21.	WORKSHOP	100 M x 50 M	
22.	ADMINISTRATIVE BUILDING	70 M x 50 M	
23.	CENTRAL STORE	80 M x 50 M	
24.	COOLING TOWER FOR GASIFICATION AND UTILITY	160 M x 100 M	
25.	ETP-POND	140 M x 100 M	
26.	DELETED	-	
27.	NON-TECH SUBSTATION	50 M x 30 M	
28.	FIRE WATER STORAGE	170 M x 20 M	
29.	DELETED	-	
30.	LOADING BAY ANS (6 NOS.)	48 M x 15 M	
31.	COOLING TOWER FOR AMMONIA, NITRIC ACID AND AIR PLANT	160 M x 100 M	
32.	CENTRAL CONTROL ROOM	DELETED	
33.	TECHNICAL BUILDING	60 M x 45 M	
34.	ANP STORAGE BAGGING & TRUCK LOADING	95 M x 50 M	
35.	MAIN SUBSTATION	80 M x 60 M	
36.	FIRE STATION	80 M x 50 M	
37.	ASH SILO	40 M x 40 M	
38.	IA PLANT	35 M x 25 M	
39.	SRI UNIT	30 M x 15 M	
40.	MAGNESIUM NITRATE, CAUSTIC SULPHURIC ACID STORAGE	85 M x 65 M	
41.	ANS STORAGE	-	
42.	BULK DIESEL STORAGE + EDG	135 M x 75 M	
43.	SWITCHYARD	220 M x 40 M	
44.	AN PRILL SILO	40 M x 40 M	
45.	NG SKID	20 M x 20 M	
46.	SULPHUR PIT	30 M x 15 M	
47.	CONSTRUCTION POWER SUBSTATION	160 M x 120 M	
48.	ASH POND		

NOTES:-

1. ALL DIMENSIONS AND COORDINATES ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. REFERENCE BENCH MARK (BM) POINTS IS WRT GLOBAL CO-ORDINATES HAVING N-**** & E-**** (GRID COORDINATES N-000.0M, E-000.0M).
3. BLOCK SIZE OF FACILITIES ARE TO BE FINALIZED AFTER GETTING VENDOR INFO.
4. * INDICATES HOLD.

LEGEND :-

PROPOSED FACILITIES
GREEN BELT AREA



TOTAL PLANT AREA WITH GREEN BELT = 350.00 ACRE (APPROX.)
PLANT AREA = 225.00 ACRE (APPROX.)
GREENBELT AREA = 125.00 ACRE (APPROX.)

ISSUED FOR
TENDER PURPOSE

P2	12.07.24	RE-ISSUED FOR TENDER	AM	AS/NS	PK
P1	07.06.24	ISSUED FOR TENDER	AS	NS	PK
P	22.04.24	PRELIMINARY ISSUE	AM	AS/NS	PK
REV.	DATE	D E S C R I P T I O N	P R D.	C R D.	A P P D.
CLIENT :			REV.	DATE	

LOCATION :
MCL, LAKHANPUR AREA
JHARSUGUDA, ODISHA

TITLE :
PRELIMINARY LAYOUT OF
COAL BASED AMMONIUM NITRATE PLANT

PROJECTS & DEVELOPMENT INDIA LTD.
Noida