

**BHARAT HEAVY ELECTRICALS LIMITED**  
(A Government of India Undertaking)  
INDIA

Notice seeking  
Expression of Interest  
from  
*Process Licensors*  
&  
*Engineering Consultants*  
for  
Post-Combustion Carbon Capture (Amine Solvent-Based),  
Ammonia Synthesis and Urea Synthesis  
for the expected  
Tender from NTPC NETRA

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**SECTION-1**

**DISCLAIMER**

- 1.1 The information contained in this Expression of Interest (EOI) document is provided to the Prospective Partner, by or on behalf of Bharat Heavy Electricals Limited (BHEL) or any of its employees or advisors on the terms and conditions set out in this EOI document and all other terms and conditions subject to which such information is provided.
- 1.2 This invitation to EOI document does not purport to contain all the information that each Prospective Partner may require.  
  
This invitation to EOI document may not be appropriate for all persons, and it is not possible for BHEL, its employees or advisors to consider the business/investment objectives, financial situation and particular needs of each Prospective Partner who reads or uses this invitation to EOI document.  
  
Prospective Partner should conduct his own investigations and analysis and should check the accuracy, reliability and completeness of the information in this invitation to EOI document and where necessary obtain independent advice from appropriate sources.
- 1.3 BHEL, its employees and advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the invitation to EOI document.
- 1.4 BHEL may at any time, in its absolute discretion, but without being under any obligation to do so, modify, amend or supplement the information in this invitation to EOI document.
- 1.5 The issue of this EOI does not imply that BHEL is bound to select and shortlist any or all the Prospective Partner.  
  
Even after selection of suitable Prospective Partner, BHEL is not bound to proceed ahead with the participation in any or all business opportunities and in no case be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
- 1.6 The Prospective Partner shall bear all costs associated with the preparation, technical discussion/presentation and submission of EOI.  
  
BHEL shall in no case be responsible or liable for the costs regardless of the conduct or outcome of the EOI process.
- 1.7 Canvassing in any form by the Prospective Partner or by any other agency on their behalf shall lead to disqualification of their proposals against this invitation to EOI.

**SECTION-2**

**TIMELINES OF EOI PROCESS & CONTACT DETAILS**

**2.1 TIMELINE OF EOI PROCESS**

The schedule of activities of the EOI Process shall be as follows -

Sl. No.	Description	Date
1	Publishing of Notice for EOI document	26.07.2025
2	Last date of Submission of EOI response (BHEL will reserve the right of extension of the date)	25.08.2025

**2.2 CONTACT DETAILS:**

All the correspondence shall be marked to the following:

Mr. K. Srinivas Addl. General Manager Proposals, Project Engineering & Systems Division Unit Bharat Heavy Electricals Limited (BHEL), Hyderabad, India, PIN 502032  Tel:(+91)- 40-23185364, 9441277025 E-Mail: <a href="mailto:ksrinivas@bhel.in">ksrinivas@bhel.in</a>	Mr. Chintan Gajera Manager Proposals, Project Engineering & Systems Division Unit Bharat Heavy Electricals Limited (BHEL), Hyderabad, India, PIN 502032  Tel:(+91)- 40-23184759, 8885528244 E-Mail: <a href="mailto:chintangajera@bhel.in">chintangajera@bhel.in</a>
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**2.3 GUIDELINES FOR EOI SUBMISSION**

The Prospective Partner shall forward their documents as part of EOI, to the e-mail of the contact persons indicated above.

The size of the e-mail (with attachments) may be restricted to **15 MB** due to constraint at receipt. The attachments may be split and sent in no. of e-mails clearly mentioning in subject of mail 'Mail 1 of N', Mail 2 of N, ....etc

SECTION – 3

BHEL

**3.1 BHEL**

*Bharat Heavy Electricals Limited (BHEL)* is a Central Public Sector Enterprise under ministry of Heavy Industry and Public Enterprises, Government of India.

It is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing companies of its kind in India having a turnover of around US \$ 2.6 billion and is a company listed in stock exchanges of India.

The company is engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable Energy, Water Management, Oil & Gas and Defence with over 180 product offerings to meet the needs of these sectors.

BHEL has been in the business for more than 50 years and BHEL supplied power equipment account for about 58% of the total thermal generating capacity in India.

The company has highly skilled and committed manpower of approximately 30,000 employees spread across 16 manufacturing units, 4 project execution units, 8 service centres and 15 regional offices besides host of project sites spread all over India and abroad.

BHEL has its footprint in all the inhabited continents with references in 82 countries with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10,000 MW.

BHEL invests more than 2.5% of turnover on R&D and innovation.

More details about the entire range of BHEL's products and operations can be seen at [www.bhel.com](http://www.bhel.com).

**3.2 PE&SD, Corporate R&D (Units of BHEL)**

*Project Engineering & System Division (PE&SD)* is an Engineering Unit of BHEL and is located in Hyderabad, Telangana State in Southern India. It has capabilities to execute the projects on EPC basis and has rich experience of engineering the Captive Power Plants and has experience of executing wide variety of projects like Solar Power Plants, Railway Line Electrification and Sulphur Recovery Unit in Refinery.

**SECTION – 4**  
**PROJECT BRIEF**

NTPC is planning to setup a "CO<sub>2</sub> to Green Urea" plant at NTPC. This plant will capture the carbon dioxide from the flue gas of Coal Fired Boiler and convert into Green Urea using Green Ammonia. The Ammonia is planned to produce from the Green Hydrogen from Electrolyser & Nitrogen from Air Separation Unit or Nitrogen Separation Unit. By capturing CO<sub>2</sub> from the flue gas of a coal-fired power plant, the project aims to reduce carbon emissions while creating a valuable product like urea, which is commonly used as a fertilizer.

**Scope of Work:**

The complete scope of the proposal for the Design, Engineering, Manufacture, Supply, Construction, Erection, Testing & Commissioning works on EPC basis for 150 TPD Green Urea Plant which include CO<sub>2</sub> capture, N<sub>2</sub> capture, Green H<sub>2</sub> generation, Ammonia synthesis, Urea synthesis, Associated utilities, Product conveying/Storage/Handling/Baggage/Transportation shall be based on single point responsibility.

**Role of BHEL:**

BHEL intends to participate in the expected Tender as EPC Bidder with the support of suitable Process Licensors and Process Integrator (Engineering Sub Contractor)

**SECTION – 5**  
**EOI**

**5.1 OBJECTIVE OF THIS NOTICE:**

The CO<sub>2</sub> Capture (2X325 TPD) Plant is planned to be set up at NTPC Simhadri power plant, A.P. and

- (i) Hydrogen Production (15 TPD)
- (ii) Nitrogen Block (70 TPD) / Air Separation Unit (96 TPD)
- (iii) Green Ammonia Production (90 TPD)
- (iv) Green Urea Production (150 TPD)

at Pudimadaka Green Hydrogen Hub (approx 25 km from NTPC Simhadri Plant), A.P., India

The objective of this Notice is to seek EOI from Partners who are

- (i) Licensors for Process of
  - Post-Combustion Carbon Capture (Amine Solvent-Based)
  - Ammonia Synthesis
  - Urea Synthesis
- (ii) Integrators of above processes who have to execute Residual Process Engineering and Detailed Engineering within the blocks and in integration of the blocks.

**5.2 EXPECTATIONS FROM RESPONDENTS TO THIS NOTICE (AS PART OF EOI):**

- (a) Licensors are expected to furnish
  - the technical aspects of their process
  - configuration (sizing of equipment) of their process to meet the **Project** requirement and data sought by BHEL
  - list of the Proprietary equipment which shall be necessarily bought from Licensor
  - list of the recommended suppliers for other equipment
  - cost of the proprietary equipment which will be supplied by Licensor
  - indicative cost of other equipment
  - commercial conditions and terms
- (b) Process Integrators are expected to furnish
  - the technical aspects of their offer
  - cost of their offer
  - commercial conditions and terms

**5.3 ELIGIBILITY CONDITIONS FOR PROSPECTIVE PARTNER**

5.3.1 Prospective partner should have technology in its own name / its Parent Company name and it should have been established in a commercial organisation.

5.3.2 The Prospective Partner can be Private, Public or Government owned legal entity.

Government entity shall be eligible only if they can establish that:

- I. They are legally and financially autonomous, and
- II. They operate under commercial law

#### **5.4 INSTRUCTIONS**

##### **5.4.1 Extent of Exclusivity:**

BHEL & Partner will jointly address all the business opportunities covered under JAA/MOA, however, if for any specific business opportunity, either of the party do not wish to participate, such party shall so intimate in writing to the other party.

After receipt of such intimation, other party is free to pursue such business opportunities either individually including its parent firm/associates/affiliates or with any other third party.

The party which has shown unwillingness to participate in the specific business opportunity shall not address such particular business opportunity either individually including its parent firm/associates/affiliates or with some other party.

##### **5.4.2 A prospective Partner requiring any clarification to the EOI documents may notify the same through e-mail or by post at the address indicated in Section 2 of this EOI.**

BHEL will respond to any request for clarification or modification of the EOI that it receives within specified time.

BHEL will reply the clarifications by e-mail and may post if deemed pertinent for all others on its website.

Prospective Partners are advised to regularly visit BHEL's website for clarifications, modifications if any.

##### **5.4.3 BHEL at their sole discretion may inspect the Prospective Partner works / office / reference project sites etc. for the purpose of evaluation, if required.**

#### **5.5 PROCESS TO BE CONFIDENTIAL:**

Information relating to the examination, clarification, evaluation and comparison of EOIs and recommendations shall not be disclosed to Prospective Partner.

Any effort by Prospective Partner to influence BHEL in this regard may result in the rejection of the proposal.

#### **5.6 MISCELLANEOUS:**

##### **5.6.1 Right to accept or reject any or all Applications:**

- i. Notwithstanding anything contained in this invitation to EOI, BHEL reserves the right to accept or reject any EOI and to annul the EOI Process and reject all EOIs at any time without any liability or any obligation for such acceptance, rejection or annulment and without assigning any reasons, thereof.
- ii. BHEL reserves the right to disqualify any Prospective Partner during or after completion of EOI process, if it is found there was a material misrepresentation by any such Prospective Partner or the Prospective Partner fails to provide within the specified time, supplemental information sought by BHEL.
- iii. BHEL reserves the right to verify all statements, information and documents submitted by



the Prospective Partner in the EOI. Any such verification or lack of such verification by BHEL shall not relieve the Prospective Partner of his obligations or liabilities hereunder nor will it affect any rights of BHEL.

**5.6.2 Governing Laws & Jurisdiction:**

The EOI process shall be governed by, and construed in accordance with, the laws of India and the Courts at New Delhi (India) shall have exclusive jurisdiction over all disputes arising under, pursuant to and / or in connection with this EOI process

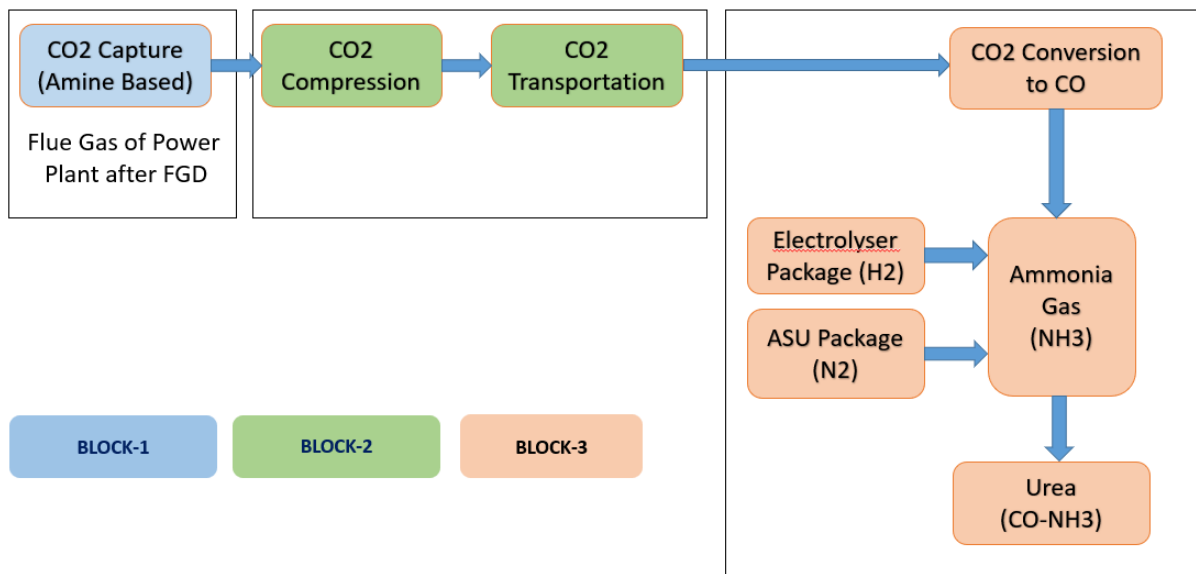
SECTION – 6

TECHNICAL REQUIREMENTS FOR POST-COMBUSTION CARBON CAPTURE (AMINE SOLVENT-BASED),  
AMMONIA SYNTHESIS & UREA SYNTHESIS ISLANDS

Synthesis Island consists of three blocks,  
viz. 1. Post-Combustion Carbon Capture (Amine Solvent-Based), 2. Ammonia Synthesis & 3. Urea Synthesis

Technology Licensors can provide technology for **all the three blocks** *or* for individual blocks.

Flow Diagram of Urea Plant :-



**SECTION-7**

**Check List for Documents to be forwarded along with EOI**

Prospective Partner should submit following documents along with their Proposal:

Sl. No.	Document Description	Format
1.	General information	Annexure - 1
2.	Experience	Annexure - 2

**ANNEXURE-1**

**General Information**

Date:

Legal name of company	
Country of constitution:	
Year of constitution:	
legal address in country of constitution:	
Mobile Number of the Concerned Person:	
Email id of the Concerned Person:	
Attached are copies of original documents of	
<ul style="list-style-type: none"><li>○ Articles of Incorporation or Documents of Constitution, and documents of registration of the legal entity named above.</li></ul>	

(Signature of Authorized Signatory)

Name:

Designation:

Address:

Date:

**Annexure – 2**  
**Experience**

Date:

Prospective Partner 's Legal Name:

Process	Willingness to offer (Yes / No)	Remark
Post-Combustion Carbon Capture		
Ammonia Synthesis		
Urea Synthesis		
Integration of above processes*		
Supply		
Supervision and Erection & Commissioning		
Basic Engg. Design Basis BEDB Package		
Basic Engg. for offer submission by BHEL to Customer's Tender		
Detailed Engg. for execution stage in case of order receipt by BHEL		

\*Technology providers offering technology for all the three above processes to indicate their willingness for offering process integration.

**(Signature & Seal)**

**Respondents to furnish the Reference List of their past experience for the above, containing below minimum details:**

- Name of the Project & Location
- Owner/Customer, Capacity, Date of order and commissioning of the plant
- Customer contact details

Separate sheet can be added to provide the above information.

**Notes:**

Copies of Work order / Purchase Order / Letter of Award Performance Certificate from customer are to be forwarded later, as per BHEL's request.