

(GLOBAL INVITATION FOR EXPRESSION OF INTEREST)

# NTPC Limited

(A Government of India Enterprise)



Invites

Expression of Interest (Eoi)

From

**Any Indian or Global Company**

For

**Synthesis of Carbon in different morphologies from  
CO<sub>2</sub> & Set up of Demonstration Plant**

(Ref: NTPC/NETRA/EOI/09-2021)

# Expression of Interest from Indian or Global Company for 'Synthesis of Carbon in different morphologies from CO<sub>2</sub> & Set up of Demonstration Plant'

## Section-I: Eoi Information

### 1.0 ABOUT NTPC

NTPC is India's largest energy conglomerate with +66 GW power generating capacity, with roots planted way back in 1975 to accelerate power development in India. Since then, it has established itself as the dominant power major with presence in the entire value chain of the power generation business. From fossil fuels it has forayed into generating electricity via hydro, nuclear and renewable energy sources. This foray will play a major role in lowering its carbon footprint by reducing greenhouse gas emissions.

### 2.0 ABOUT NETRA

NETRA is the R&D wing of NTPC. Through its innovative solutions, NETRA contributes to position NTPC at the front of learning curve and sustain its eminence in Indian Power Sector. NETRA endeavours to become a key player and driver for R&D in the domain of energy, nurturing NTPC goals. For now, besides providing state of art scientific services to Indian power plants, NETRA is focused towards development and demonstration of technologies in the domain of carbon capture and its utilization, green hydrogen, green synthetic fuel and chemicals, water, ash etc.

### 3.0 PURPOSE OF THE EOI

NTPC intends to capture CO<sub>2</sub> from the waste flue gas exiting Fossil Fired Power Plants and convert it into value added products. NTPC has worked in the domain of CO<sub>2</sub> capture and considers it as a commercially viable with CO<sub>2</sub> utilization. With this intent, NTPC intends to map various upcoming innovative CO<sub>2</sub> utilization technologies and setup demonstration plant of appropriate size. This Eoi is for synthesis of carbon in different morphologies (any one or mix of more than one morphology) like high purity carbon, carbon black, carbon fibre, blend of carbon black and carbon fiber, carbon nano tubes etc by utilizing CO<sub>2</sub> separated from flue gas.

After identifying the Indian/ Global Company/ Consortium/ Affiliates/ Representatives (herein after called APPLICANT), contractual and commercial proposals for undertaking Demonstration Project(s) in some of the NTPC plants shall be initiated separately.

### 4.0 EOI TIMELINES

Interested APPLICANTS may download the documents of EOI free of cost from [www.ntpctender.com](http://www.ntpctender.com) & <https://eprocurmentpc.nic.in>. Important dates for the EOI are following:

- b. Last date for queries/ seeking clarification : 15.10.2021
- c. Last date for submission of Eoi : 30.10.2021

d. Response Validity

: 12 months from Last Date of  
Eol Submission

## **5.0 VALIDITY OF THE RESPONSES**

The Applicant shall submit the responses which shall remain valid up to twelve (12) months after the response Deadline (“Response Validity”). NTPC reserve the right to reject any response, which does not meet the aforementioned validity requirement.

NTPC may solicit the Applicant’s consent for an extension of the period of validity of the response. The request and the response in this regard shall be in writing. In the event any APPLICANT refuses to extend its response validity as requested by NTPC, NTPC shall terminate processing of such APPLICANT’s responses. An APPLICANT accepting NTPC request for validity extension shall not be permitted to modify its response.

## **Section-II: Instructions to the Applicants**

### **1. GENERAL INSTRUCTIONS:**

- a. Language of the responses to EoI or any query/ clarifications/ correspondences shall be in English only.
- b. For expression of interest, Application Form and Annexures given in Section-III shall be duly filled and sent to NTPC by the applicant in hard as well as soft copy.
- c. Applicant should go through Section-I and Section-II thoroughly before filling and submitting the application form and annexures in Section-III.
- d. Applicant shall mention the name and contact details of two persons, with complete address, phone number and email id.
- e. NTPC Ltd. may, at its sole discretion, ask for additional information/ documents and/ or seek clarifications from the applicant (s) after the Deadline for submission of response, inter alia, for the purpose of removal of inconsistencies or infirmities in their responses.

### **2. CORRIGENDUM**

At any time before the last date of submission of EoIs, NTPC may, for any reason, whether at its own initiative or in response to a clarification requested by an applicant, modify the EoI document. The amendment will be posted on the website and will be binding on the applicant (s) and the applicant will give due consideration to the same, while they submit their EoIs, and would invariably enclose documents/ information, as required, on account of the amendment, as a part of the EoI. NTPC may, at its discretion, extend the deadline for the submission of EoIs.

### **3. CONTENT OF EOI**

The application of EoI consists of the following in Section-III:

- Covering Letter in Annexure 1
- Information to be filled in Annexure 2

### **4. SUBMISSION OF EoI**

For consideration of EoI, applicants are required to e-mail softcopy of EoI, completed in all respect, through e-mail as well as send the hard copy of the same, which can be submitted either in person or by registered/ speed post till last date of submission of EoI to the following address:

- a. Soft Copy: (i) To: [subratasarkar@ntpc.co.in](mailto:subratasarkar@ntpc.co.in), (ii) CC: [headnetra@ntpc.co.in](mailto:headnetra@ntpc.co.in)
- b. Hard Copy:

Submitted to:

**Sh. Subrata Sarkar**

NETRA, NTPC LTD

E-3, ECOTECH-II, UDYOG VIHAR, GREATER NOIDA-201306

DISTT. GAUTAM BUDH NAGAR, UP (INDIA), Phone: 0120-2356581

All the pages of the response should be duly stamped and signed by the authorized signatory in whose favour the Power of Attorney is issued.

NTPC reserves the right to reject or accept any or all applications, cancel/withdraw the EoI process without assigning any reason whatsoever and in such case, APPLICANT shall not have any claim arising out of such action. NTPC bears no responsibility or liability of any kind in reference to the EoI.

#### **5. OPENING OF RESPONSES TO THE EoI**

The responses to the EoI shall be opened as per the time schedule 1500 Hrs at date as mentioned in Section-I and will be communicated to the applicant (s) via e-mail.

In the event of any of above dates falling on a day which is not a working day or which is a public holiday, the responses shall be opened on the next working day at the same venue and time.

#### **6. RESPONSIVENESS CHECK OF EoI**

Responses shall be deemed non responsive for following reasons:

- a. Responses that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, power of attorney, applicable undertakings, provided in more details at annexure in Section-III;
- b. Responses not signed by authorized signatory and / or stamped in the manner indicated in this EoI;
- c. Material inconsistencies in the information/ documents submitted by the Applicant
- d. An Applicant submitting more than one response to this EoI either itself or through an affiliate or subsidiary company;
- e. Response validity being less than that required as per Clause 5 of section-I of this EoI;
- f. Response being conditional in nature;
- g. Response not received by the response Deadline;
- h. Response having Conflict of Interest;
- i. Applicant delaying in submission of additional information or clarifications sought by NTPC, as applicable;

All bids that shall meet the responsive check requirements set out above in this section of the EoI document shall be considered as responsive. In case of non-submission of relevant details as above, the responses may be considered as "Non-responsive", at the sole discretion of NTPC and will not be considered further.

## **7. COSTS AND EXPENSES TOWARDS RESPONSE TO EoI**

The Applicants shall be responsible for all the costs associated with the preparation of the response and participation in discussions and finalization & execution of the documents related with this EoI, NTPC shall not be responsible in any way for such costs, regardless of the conduct or outcome of this short-listing/ selection process.

## **8. CONFIDENTIALITY**

The Applicants undertake to hold in confidence this EoI and any document related or pursuant to this EoI and not to disclose the terms and conditions of the transaction contemplated hereby to third parties, except:

- a. To their professional advisors;
- b. To their officers, contractors, employees, agents or representatives, financiers, who need to have access to such information for the proper performance of their activities;
- c. Disclosures required under applicable Law, without the prior written consent of the other parties of the concerned agreements.

Provided that the Applicant(s) agrees and acknowledges that NTPC may at any time, disclose the terms and conditions of this EoI and any document related or pursuant to this EoI to any person, to the extent stipulated under the applicable Law.

## Section-III: Application Form & Annexures

### **ANNEXURE-1** **FORMAT FOR COVERING LETTER CUM UNDERTAKING**

(The covering letter should be on the Letter Head of the Applicant)

Date : \_\_\_\_\_

Place : \_\_\_\_\_

To, .....

**Sub.: (INVITATION FOR EXPRESSION OF INTEREST)**

**Ref.: Eol No. \_\_\_\_\_, dated \_\_\_\_\_ (the "Eol")**

Dear Sir,

We, the undersigned ..... [Insert name of the "Applicant"] having read, examined and understood in detail the **(INVITATION FOR EXPRESSION OF INTEREST)**.

We confirm that neither we nor any of our Parent Company/ Affiliate/ Ultimate Parent Company has submitted response other than this response directly or indirectly in response to the aforesaid Eol.

1. We give our unconditional acceptance to the Eol, issued by NTPC, as amended. In token of our acceptance to the Eol, the same have been signed & stamped by us and enclosed to the response. We hereby confirm that the provisions of the Eol shall be binding on us.
2. We have submitted our response strictly as per provisions and formats of the Eol, without any deviations, conditions and without mentioning any assumptions or notes.
3. We hereby unconditionally and irrevocably agree and accept that the decision made by NTPC in respect of any matter regarding or arising out of the Eol shall be binding on us. We hereby expressly waive any and all claims in respect of Eol process. We confirm that there are no litigations or disputes against us, which materially affect our ability to participate or function under the obligations with regard to Eol.
4. Details of the contact person are furnished as below:  
Name :  
Designation:  
Address:  
Contact numbers:  
Email id:
5. We are enclosing herewith the entire response containing duly signed formats in electronic format sent via email to NTPC as per the Eol for consideration.

6. It is confirmed that our response is consistent with all the requirements of submission as stated in the EoI and subsequent communications from NTPC, if any.
7. The information submitted in our response is complete, strictly as per the requirements stipulated in the EoI and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response.
8. We confirm that all the terms and conditions of our response are valid for acceptance for a period of twelve (12) months from the response Deadline.
9. We confirm that we have not taken any deviation so as to be deemed "Non-Responsive" as stipulated in Section-II of this EoI.
10. We understand that you are not bound to accept any response you receive.

We remain,

Yours sincerely

(Name, Designation and Signature of Authorized Person in whose name Power of Attorney is issued)



**ANNEXURE-2**  
**INFORMATION TO BE SUBMITTED BY APPLICANT**

(Note: Documents in support of meeting the respective requirement shall be submitted by the Applicant.)

| S.No     | DETAILS  | REMARKS<br>(Kindly enclose separate papers wherever required with cross ref) |
|----------|--|--|
| <b>A</b> | <b>GENERAL DETAILS</b>   |  |
| A.1      | Name of Organization   |  |
| A.2      | Address of Organization  |  |
| A.3      | Contact Details (Email, Phone, Fax, Mobile)  |  |
| A.4      | Contact Details of Indian representative (Email, Phone, Fax, Mobile)   |  |
| <b>B</b> | <b>TECHNOLOGY DETAILS</b>  |  |
| B.1      | Process description and operations/ steps involved   |  |
| B.2      | Product & quality  |  |
| B.3      | Product standard (IS, DIN etc. – if any)   |  |
| B.4      | By products and pollutants & required treatment on products and pollutants   |  |
| B.5      | On the basis of generation of product: <ul style="list-style-type: none"> <li>○ Raw material requirement</li> <li>○ Energy requirement (Electricity and heat)</li> <li>○ Utility requirement</li> <li>○ Consumption of: catalyst, solvent, etc. (any other process specific requirements)</li> </ul> |  |
| B.6      | Market price of product and raw material, catalyst, solvent, etc.  |  |
| B.7      | Benefit of technology (environmental, financial)   |  |
| B.8      | Patent Number  |  |
| B.9      | Pilot Plant Size   |  |
| B.10     | Technology Readiness Level   |  |
| B.11     | Duration for which pilot plant has been operated   |  |
| <b>C</b> | <b>PROPOSED PILOT PLANT DETAILS</b>  |  |
| C.1      | Plant Size   |  |
| C.2      | Process inputs (Name / Quantity / Quality)   |  |
| C.3      | Process outputs (Name / Quantity / Quality)  |  |
| C.4      | Utilities (Name / Quantity / Quality)  |  |
| C.5      | Handling of by-products and pollutants   |  |
| C.6      | Land requirement   |  |
| C.7      | Approx. cost of plant (For Pilot Plant Size mentioned above)   |  |
| <b>D</b> | <b>BUSINESS INFORMATION</b>  |  |
| D.1      | Who owns the technology (Applicant / Partner of Applicant)   |  |
| D.2      | Whether the applicant has Design & Engineering Capability (Yes/No)   |  |

|          |  |  |
|----------|--|--|
| D.3      | Whether the applicant has EPC capability (Yes/No)  |  |
| D.4      | Whether the applicant has executed work against sl no D.1 & D.2 above. If yes, then provide details (PO, completion certificate, Performance certificate, number of years in operation, patent information).   |  |
| D.5      | Whether the applicant has an Indian partner in form of JV / Alliance /Arrangement /Agreement – who can take up the job, if yes, the details to be provided.  |  |
| D.6      | Whether applicant is ready to operate and maintain the plant for a minimum six-month period after commissioning of plant.<br>In addition to above, applicant can suggest any other model to operate and further develop the process based on operational experience. |  |
| <b>E</b> | <b>FINANCIAL DETAILS</b>   |  |
| E.1      | Copy of audited annual report for the last three years   |  |

I/We declare that the information stated here in above is accurate.

Signature (with designation & seal):

Printed Name:

Company Address:

Tel:

Fax:

Email:

Date: