

NTPC RE LIMITED

(A wholly owned subsidiary of NTPC Ltd.)

NOTICE INVITING APPLICATIONS FOR

Enlistment of Technical Consultants for Green Ammonia Feasibility studies

NIA No. : RE-CS-0000-004 (GNH3)-9

Doc. No.: RE-CS-0000-004 (GNH3)-9

Date: 10.03.2023

1.0 NTPC Renewable Energy Limited (NTPC REL) invites online applications from eligible domestic and international consultants/agency for the above-mentioned Enlistment. The tentative brief Scope of work is as follows:

Scope of Works:

Objective: To undertake the feasibility study to assess the Green Ammonia plant requirements like CAPEX, OPEX, and gestation period and bring out the optimum Levelized Cost of green Ammonia. A few details are given below which would form an integral part of the feasibility report.

1. Levelized cost of Green Ammonia for CAPEX, yearly OPEX, and time for completion of facilities.
2. Location & Land Requirements
 - a) Finalisation of the exact location for setting up the complete facility within the site under consideration.
 - b) Footprint requirement for different sub-systems and complete facilities.
3. Green Hydrogen
 - a) Hydrogen purity and quantity required.
 - b) Hydrogen storage requirement if any.
 - c) Related Auxiliaries required
4. Nitrogen
 - a) Purity and quantity required.
 - b) Nitrogen storage requirement if any.
 - c) Related Auxiliaries required including PSA/ASU process.
5. Input requirement
 - a) Assessment of water, steam, and air including quality, and quantity parameters.
 - b) Storage requirement for the above inputs.
6. Electricity
 - a) Suitability and connectivity for power drawl from the grid.
 - b) Requirement of electricity drawl by different sub-systems

7. Ammonia synthesis:
Ammonia reactor, Catalyst, syngas compressors, chillers, heat exchangers, intercoolers, purification units etc.
8. Effluent Summary and Effluent Treatment Plant (ETP) requirement
 - a) Composition and quantum of effluent generated from the plant.
 - b) Integration of effluent with the existing ETP setup and requirement of ETP capacity if required
9. Material and energy balance.
10. Safety studies including HAZOP, HAZID, HAC etc.
11. Bulk chemicals transportation through Rail, Road, and Ship (Water) along with port handling facilities.
12. Regulatory clearances required.
13. Operational Philosophy
14. Infrastructure required for setting up of proposed plant e.g. Office space, storage for spares, input chemicals, transportation of finished goods.
15. Manpower structure and profiling for execution and O&M of the plant.
16. Project timelines with milestones including engineering, procurement, installation, and commissioning. (MNW/L1, L2 schedule).
17. Insurance policy & licensing requirement for setting up operations, and storage.
18. Financial analysis
19. Identification of project challenges and risks with a mitigation plan.

2.0 The Enlistment Documents will be available at www.ntpctender.com or <https://eprocurementpc.nic.in/nicgep/app> and may be downloaded as per following schedule:

Document No.	RE-CS-0000-004(GNH3)-9
Commencement Date for issuance of Applications for Enlistment	10.03.2023
Last date for receipt of queries	24.03.2023
Last date for receipt of completed Application for Enlistment	07.04.2023 at 15:00 Hrs (IST)
Date and Time for Opening of Applications	10.04.2023 at 15:00 Hrs (IST)

3.0 Mandatory Qualifying Requirement for Enlistment

3.1 TECHNICAL CRITERIA:

Route-1:

Applicant should have completed feasibility study / Front End Engineering Design (FEED)/Engineering Procurement and Construction Management work (EPCM) **for Green Ammonia production for a minimum of 10 Tons Per Day (TPD) in the last 3 years in**

a single work and at a single location prior to the last date of submission of the application for enlistment.

OR

Route-2:

Applicant should have completed feasibility study / Front End Engineering Design (FEED)/Engineering Procurement and Construction Management work (EPCM) in the following domains prior to the last date of submission of the application for enlistment.

(a) Green Hydrogen production of minimum 2 TPD in the last 5 years in a single work and at a single location

AND

(b) Grey Ammonia production of a minimum of 1000 TPD in the last 12 years in a single work and at a single location

Notes for technical criteria:

- i. The feasibility studies/FEED/EPCM carried out by the applicant's group company, holding company, or subsidiary company shall also be considered as the applicant's experience in meeting the QR.
- ii. Work completion certificate along with the letter of award specifying the details of the quantity of the ammonia and /or hydrogen handled, and the work completion date must be submitted.

3.2 Financial Criteria

3.2.1 The average annual turnover of the applicant should not be less than ₹ 40 Lacs, for any three (03) financial years out of the preceding five (05) financial years as on the last date of submission of the application for enlistment.

In case an Applicant does not satisfy the annual turnover criteria, stipulated above on its own, its Holding Company would be required to meet the stipulated turnover requirements as above, provided that the Net Worth of such Holding Company as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital of the Holding Company. In such an event, the applicant would be required to furnish along with the application for enlistment, a Letter of Undertaking from the Holding Company, supported by the Holding Company's Board Resolution, as per the format enclosed in the bid documents, pledging unconditional and irrevocable financial support for the execution of the Contract by the Applicant in case of an award.

3.2.2 In case the Applicant is not able to furnish its audited financial statements on a standalone entity basis, the unaudited unconsolidated financial statements of the Applicant can be considered acceptable provided the Applicant further furnishes the following documents on the substantiation of its qualification:

- (a) Copies of the unaudited unconsolidated financial statements of the Applicant along with copies of the audited consolidated financial statements of its Holding Company.
- (b) Certificate from the CEO/ CFO of the Holding Company, as per the format enclosed in the bidding documents, stating that the unaudited unconsolidated financial statements form part of the consolidated financial statement of the Holding Company.

In the case where audited results for the last financial year as on the date of submission of the application for enlistment are not available, the financial results certified by a

practicing Chartered Accountant shall be considered acceptable. In case the Applicant is not able to submit the Certificate from a practicing Chartered Accountant certifying its financial parameters, the audited result of any three out of five consecutive financial years preceding the last financial year shall be considered for evaluating financial parameters. Further, a certificate would be required from the CEO/CFO as per the format enclosed in the bidding documents stating that the financial results of the company are under audit as on techno-commercial bid opening and the Certificate from a practicing Chartered Accountant certifying the financial parameters is not available.

Notes for financial criteria:

- a) Net worth means the sum total of the paid-up share capital and free reserves. Free reserves mean all reserves credited out of the profits and share premium account but do not include reserves credited out of the revaluation of the assets, write-back of depreciation provision, and amalgamation. Further, any debit balance of the Profit and Loss account and miscellaneous expenses to the extent not adjusted or written off, if any, shall be reduced from reserves and surplus.
- b) Other income shall not be considered for arriving at annual turnover.
- c) "Holding Company" and "Subsidiary" shall have the meaning ascribed to them as per the Companies Act of India.
- d) For the value of the annual turnover indicated in foreign currency, the exchange rates as on seven (7) days prior to the date of submission of the application for enlistment shall be used

3.3 The evaluation of the enlistment shall be carried out against the various parameters identified in the application documents and shall also include the mandatory criteria indicated at Para 3.1 and Para 3.2 above. "**Enlistment Score**" of the prospective applicants shall be calculated based on the evaluated criteria and the mandatory criteria as mentioned above.

3.4 Notwithstanding anything stated above, the NTPC REL reserves the right to verify any information /document furnished, inspect the works carried out by the applicant and also to carry out assessment of the capabilities and capacity of the applicant to perform the assignment, should the circumstances warrant such assessment in the overall interest of the NTPC REL

4.0 Subsequent to Enlistment, only the Enlisted Consultants/Agencies will be invited to submit bids in respect of specific assignments of NTPC REL for carrying out the Green Ammonia Feasibility Studies.

5.0 NTPC REL reserves the right to reject any or all applications or cancel/withdraw the 'Notice Inviting Applications' without assigning any reasons whatsoever and in such case no Applicant or intending Applicant shall have any claim arising out of such action. NTPC shall also have the right to verify any information/document furnished by the Applicant/Agency/Company/Firm and inspect the works carried out by the Applicant/Agency/Company/Firm, if so required.

6.0 Applicants who respond within due date with application as mentioned above against this advertisement will only be considered for Enlistment.

7.0 Initial steps for participating in the NIA through E-tender site are as per the table mentioned below:

Bidder Manual Kit for Enrolment	
Pre-Requisites for System using e-Procurement sites	<ul style="list-style-type: none"> ➤ A computer system with atleast 1 GB RAM and Internet Connectivity ➤ Internet Explorer 9.0 and above or Mozilla Firefox 3.5 upto version 49 ➤ Internet Connectivity with atleast 2 Mbps ➤ Java Run Time Engine (JRE – 1.8.0) or higher
Bidder Enrolment	<ul style="list-style-type: none"> ➤ Enter a valid email address for login ID. The login ID cannot be modified once registered ➤ Provide a Password ➤ Confirm a password.
Personal Details	<ul style="list-style-type: none"> ➤ Furnish all details as per the fields ➤ The fields marked with red asterisk are mandatory ➤ Company Name cannot be changed once registered. ➤ For Indian Bidder PAN number is mandatory ➤ For Foreign Bidder, Country name is Mandatory and the PAN number is not required.
DSC Registration	<ul style="list-style-type: none"> ➤ The bidder becomes a valid bidder only after the registration of the DSC. ➤ Bidders need to possess a valid DSC for participating in e-Tendering (Class3 DSC) ➤ Bidders need to procure DSC 24 Hours prior to DSC Registration. ➤ It can be procured from any of the Certifying Authority registered under CCA India ➤ DSC drivers needs to be installed and DSC needs to be physically inserted into the system.

For further details and queries, the applicants may refer <https://eprocurementpc.nic.in>.

8.0 Issuance of Enlistment Documents to any Applicant shall not construe that such Applicant is considered to be qualified. The Applicant shall bear all costs incurred in the preparation and submission of the application and other actions implied. NTPC REL shall not be responsible or liable for such costs, regardless of the outcome of the Enlistment process.

Transfer of Enlistment Documents downloaded by one intending Applicant to another is not permissible.

9.0 Address for communication:

AGM (RE-CS) / Sr Manager (RE-CS)
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 E-3, Ecotech-II, Udyog Vihar, Greater Noida
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