

REQUEST FOR INTEREST

Pilot Project of Hydrogen Blending with Natural Gas

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Country: India

Description:

NTPC, being the largest power generator of India wants to play a key role in India's transition to hydrogen economy. Since partial decarbonization of existing natural gas end use applications through hydrogen blending is not capital intensive, NTPC wants to explore the feasibility of undertaking this initiative at a pilot scale. Based on the experience of the pilot, hydrogen blending maybe undertaken on a much larger scale.

Purpose:

- NTPC intends to blend hydrogen with natural gas as part of the pilot at one of the NTPC townships. This identified cluster uses natural gas purely for domestic cooking.
- The initiative intends to analyse the commercial feasibility, test the solution at NTPC premises to prove the reliability, develop in-house expertise and subsequently develop a blending solution which can be implemented at much bigger scale in other clusters to substitute part of natural gas and decarbonize the end use applications using gas.
- Different configurations of blending equipment, electrolyser technologies and hydrogen storage are possible for creating a hydrogen blending solution.
- The interested applicants will specify in their response, the technical specification, costs, timelines, footprint, and other data. Through this Request for Proposal (RfP), NTPC reserves the right to implement the project amongst the shortlisted parties identified through this EoI Process or through a separate tender.

After the successful completion of the pilot project, similar systems will be setup at different locations to serve the bigger clusters within the CGD network.

a. NTPC's Role:

- Facilitate installation and commissioning of system within or outside NTPC premises.
- Routine operation of the system.
- Support in data collection.
- Facilitating the participant in applying for statutory clearances for the project.
- Capital Investment in procuring, installation and commissioning the system (milestone funding based on mutually agreed milestones).

b. Applicant's Role:

- Design of blending system, selection of the technology for electrolyser and hydrogen storage which best fits the intended use case.
- Engineering, supply of all parts of the system, erection, testing and commissioning of the system and integration with nearby PNG pipeline.
- Getting the required statutory clearances for installing the system.
- Routine Maintenance of the system for a period of 3 years from the date of commissioning.
- Data collection and analyzing the performance of the system during testing and subsequent operation as part of routine maintenance.

For more information, please visit: <https://eprocurmentpc.nic.in/nicgep/app>