

NTPC LIMITED
(A Government of India Enterprise)



SECTION – I

INVITATION FOR BIDS (IFB)

**HYDROGEN REFUELING STATION FOR GREEN HYDROGEN
MOBILITY PROJECT IN BHUBANESWAR, ODISHA**

INVITATION FOR BIDS
NTPC LIMITED
(A Government of India Enterprise)

CONTRACTS SERVICES
INVITATION FOR BIDS (IFB)

FOR

**HYDROGEN REFUELING STATION FOR GREEN HYDROGEN MOBILITY
PROJECT IN BHUBANESWAR, ODISHA**

(Domestic Competitive Bidding)

IFB No.: **RE-CS-H2-ODISHA-001**

Date: 04.03.2025

Tender Ref No.: **RE-CS-H2-ODISHA-001**

Tender Id: 2025_NTPC_95036

Bidding Document No. RE-CS-H2-ODISHA-001

1.0 NTPC Ltd. invites online bids from eligible bidders on Single Stage Two Envelope (i.e. Envelope-I: Techno-Commercial Bid and Envelope-II: Price Bid) for **HYDROGEN REFUELING STATION FOR GREEN HYDROGEN MOBILITY PROJECT IN BHUBANESWAR, ODISHA.**

2.0 BRIEF SCOPE OF WORK

The brief scope of work inter alia includes:

- (I) The Bidder shall be responsible for the Design, engineering, supply, construction, erection, testing, commissioning of the hydrogen fuelling station, including civil and architectural works with 10 years of operation and maintenance (O&M) works of all systems on turnkey basis.
- (II) The equipment's / systems / documentation as below, are in the scope of bidder:
 - a) **Integrating with an Electrolyser system of 18 kg/hr.** (Electrolyser system shall be provided by the NTPC)
 - b) **Hydrogen compression system** to compress the hydrogen to a pressure of **500 bar** of rated capacity of **20 kg/hr.**
 - c) **Hydrogen storage facility** to store **540 kg at 500 bar** in H2 cylinders cascades.
 - d) **Hydrogen Dispenser system** to fill requisite hydrogen into FCEVs at **350 bar.**
 - e) **Nitrogen generation system** of **10 Nm³/hr** for production N2 gas for purging operation.

- f) **Gas Chromatograph (GC)** and/or **spectrometry** for testing the hydrogen gas sample entering the FCEV buses.
- g) **Firefighting facilities and Fire suppression system** in H2 areas and control building
- h) **Non-Thermal Forward Osmosis (NTFO)** system of **15 TPD** for producing permeate water from treated sewage water.
- i) **Battery Energy Storage System (BESS)** of **80 kW / 600 kWhr** to support electrolyser coolers, other critical equipment's and control system.
- j) **Solar Rooftop of 40 kW, Vertical wind turbine of 20 kW** installed in the rooftop of the building and sheds.
- k) **Complete civil and electrical works** with integration of HT System, H2 generation, compression, storage and dispenser system, BESS etc. including **Office cum switchgear** building.
- l) Unified **Integrated Control System (ICS)** incl. SCADA and EMS for the control and monitoring of the entire plant.
- m) Conducting safety studies of Hazard and Operability (**HAZOP**), Safety Integrity Level (**SIL**), Hazard Identification and Risk Assessment (**HIRA**), Quantitative Risk Assessment (**QRA**), Hazardous area classification (**HAC**), Escape Muster and Emergency Response Analysis (**EMERA**), Disaster Management Plan (**DMP**).
- n) Wi-Fi of building, with an envelope of 20 m around the Filling station.
- o) **ZLD** and **ETP** for the complete plant facilities.

The detailed scope of work is as defined in the bidding document No.: RE-CS-H2-ODISHA-001

3.0 Detailed specification, Scope of work and Terms & Conditions are given in the bidding documents, which are available for examination and downloading at e-tender portal (as specified in this notice) and as per the following schedule:

GePNIC Portal Tender Ref. No./Tender Id	RE-CS-H2-ODISHA-001 / 2025_NTPC_95036	
IFB Date	04.03.2025	
Last Date for receipt of queries from prospective Bidders	14.03.2025	
Last date and time for receipt of bids comprising both Techno-Commercial Bid and Price Bids bid	27.03.2025	15:00:00 (IST)
Date & Time of opening of Techno-Commercial Bid	28.03.2025	15:00:00 (IST)
Cost of Bidding Documents in INR	INR 7,875/- (Indian Rupees Seven Thousand Eight hundred Seventy Five only)	

No Queries from Bidders, whatsoever, shall be entertained by the Employer beyond the last date of receipt of Queries/ Pre-Bid Conference as specified above.

4.0 All bids must be accompanied by Bid Security for an amount of **INR 20,00,000/- (Indian Rupees Twenty lakh only)** in the form as stipulated in the Bidding Documents.

ANY BID NOT ACCOMPANIED BY AN ACCEPTABLE BID SECURITY IN A SEPARATE SEALED ENVELOPE SHALL BE REJECTED BY THE EMPLOYER AS BEING NON RESPONSIVE AND SHALL NOT BE OPENED. IN CASE, THE BID SECURITY IS SUBMITTED THROUGH ELECTRONIC FUND TRANSFER (EFT), BIDDER TO SUBMIT THE PROOF OF E-PAYMENT OF BID SECURITY IN SEPARATE SEALED ENVELOPE.

(Bidders who are unable to send the Original Bank Guarantee in physical form at the tender opening location, may adopt procedure given in Bidding documents)

- 4.1** Class-I local suppliers only are eligible to participate in this tender, as defined in the bidding documents/ Public Procurement (Preference to Make in India), Order 2017 and its subsequent amendments/ revisions issued by DPIIT. The bidders may apprise themselves of the relevant provisions of bidding documents in this regard before submission of their bids.

5.0 Qualification Requirements for Bidders (QR)

In addition to the requirements stipulated under section Instruction to Bidder (ITB), the Bidder should also meet the qualifying requirements stipulated hereunder in clause 1.0 and clause 2.0 as below:

1.0 TECHNICAL CRITERIA

1.1 Route-1:

The Bidder should have designed/got designed, supplied, erected/supervised erection and commissioned/supervised commissioning of a Hydrogen Refuelling Station (HRS) comprising compression, storage and dispensing of hydrogen at 350 bar and obtained a PESO (India)/ NFPA (US)/IECEX (Australia)/PED/ATEX/CE (Europe)/KHK (Japan)/ KGS or KOSHA (South Korea) license for operation of the station. The HRS should have been in successful operation for at least one (1) month prior to the date of Techno-Commercial bid opening.

OR

1.2 Route-2:

The Bidder has executed project(s) as Engineering, Procurement, and Construction (EPC) Contractor with single point responsibility for Hydrogen Generation Plant/Refinery/Petrochemical/Onshore Oil & Gas processing facilities/Offshore Oil & Gas processing facilities/Chemical/Fertilizer/Power/Metallurgy/any other Process Industry for an average daily hydrogen capacity handling of 1 TPH. The station should have been in successful operation for at least one (1) year prior to the date of Techno-Commercial bid opening.

OR

1.3 Route-3:

The Bidder should have designed/got designed, supplied, erected/supervised erection and commissioned/supervised commissioning of a CNG Refueling Station (CRS) comprising compression, storage and dispensing of compressed natural gas and obtained a PESO license for operation of the station. The CRS should have been in successful operation for at least one (1) year prior to the date of Techno Commercial bid opening.

AND

The Bidder should also have experience of handling at least 20 Nm³ /day hydrogen system consisting of generation/hydrogen compression/ storage.

OR

1.4 Route-4:

The Bidder should be a developer or EPC contractor having previous experience of working as a developer or EPC contractor in the energy sector with execution of packages under a single contract in last ten (10) years of financial value not less than ₹15 Cr. (Indian Rupees Fifteen Crores only) or more and the same should have been in successful operation for at least one (1) year prior to the date of techno-commercial bid opening. The Bidder participating in this route should collaborate/associate with an agency meeting any of the Routes - 1 or 2 or 3 above.

The Bidder shall furnish a Letter of Undertaking from the above Collaborator/ Associate for the performance of the contract, as per the format enclosed in the bidding documents. The Letter of Undertaking shall be submitted along with the techno-commercial bid, failing which the Bidder shall be disqualified, and its bid shall be rejected.

NOTES:

- (i) For Route 1, 2 and 3 the bidder should have executed the job in a single contract within the preceding seven (7) years prior to the date of the Techno-Commercial bid opening. A work completion certificate(s) from the client/ owner specifying the details of the project scope is to be submitted along with a license certificate (as applicable) from the local regulatory agency allowing the operation of the project.
- (ii) For all routes, a certificate from the client/owner of the plant shall also be furnished by the Bidder for the successful operation of the reference plant.
- (iii) Projects executed by Bidder's Holding Company shall also be considered as Bidder's experience meeting the QR. In such a case, bidder shall submit a letter of support from their Holding Company for successful performance of the contract valid up to the end of defect liability period of the contract, as per the format enclosed with the bidding documents. The Letter of support shall be submitted along with techno-commercial bid, failing which the Bidder shall be disqualified, and its bid shall be rejected.
- (iv) In case the award for the reference works has been received by the Bidder either directly from the owner of the plant or any other intermediary organization, a certificate from such owner of the plant or the intermediary organization shall be required to be furnished by the Bidder.
- (v) The Bidder shall be registered in India under the Companies Act 2013 as on the date of the techno-commercial bid opening.
- (vi) For Route 4, the value of executed works shall be given a simple weightage to bring them at current price level by adding 5% for each completed year (total number of days/365) after the end date of completion/execution/commissioning of the reference work, till the last day of month previous to one in which NIT has been invited. The specified value of executed works is excluding any taxes and duties.
- (vii) Energy sector means all industries involved in the production and sale of energy i.e. oil and gas, power plants etc.

2.0 FINANCIAL CRITERIA

2.1 Financial Criteria for the Bidder

2.1.1 The average annual turnover of the Bidder, in the preceding three (3) financial years as on the date of techno-commercial bid opening, should not be less than **INR 18.80 Crores (Indian Rupees Eighteen Crores Eighty lacs only)** or in equivalent foreign currency.

In case the bidder does not satisfy the average 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 bidder would be required to furnish along with its bid, 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 Bidder in case of award.

2.1.2 The Net Worth of the Bidder should not be less than 100% of the Bidder's paid-up share capital as on the last day of the preceding financial year. In case the Bidder meets the requirement of Net Worth based on the strength of its Subsidiary(ies) and/or Holding Company and/or Subsidiaries of its Holding Company wherever applicable, the Net Worth of the Bidder and its Subsidiary(ies) and/or Holding Company, in a combined manner should not be less than 100% of their total paid-up share capital. However, individually, their Net Worth should not be less than 75% of their respective paid-up share capital.

Net worth in combined manner shall be calculated as follows:

Net worth (combined) = $(X1+X2+X3) / (Y1+Y2+Y3) \times 100\%$ where X1, X2, X3 are individual Net Worth which should not be less than 75% of the respective paid-up share capitals and Y1, Y2, Y3 are individual paid-up share capitals.

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

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

In cases where audited results for the last preceding financial year as on the date of opening of the Techno-commercial bid are not available, certification of financial statements from a practising Chartered Accountant shall also be considered acceptable. In case, Bidder is not able to submit the Certificate from a practising Chartered Accountant certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the 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 the date of Techno-commercial bid opening and the Certificate from the practising Chartered Accountant certifying the financial parameters is not available.

2.2 Financial Criteria for the Collaborator(s)/ Associate(s)

2.2.1 The average annual turnover of the Collaborator / Associate, in the preceding three (3) financial years as on the date of techno-commercial bid opening, should not be less than **INR 1.90 Crores (Indian Rupees One crore Ninety lacs only)** or in equivalent foreign currency.

In case the Collaborator(s) / Associate(s) does not satisfy the average 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 Collaborator(s) / Associate(s) would be required to furnish along with its Techno-Commercial bid, 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 Collaborator(s) / Associate(s) in case of award.

2.2.2 The Net Worth of the Collaborator(s) / Associate(s) should not be less than 100% of the Collaborator(s) / Associate(s) 's paid share capital as on the last day of the preceding financial year. In case the Collaborator(s) / Associate(s) meets the requirement of Net Worth based on the strength of its Subsidiary(ies) and/or Holding Company and/or Subsidiaries of its Holding Company wherever applicable, the Net Worth of the Collaborator(s) / Associate(s) and its Subsidiary(ies) and/or Holding Company, in combined manner should not be less than 100% of their total paid-up share capital. However, individually, their Net Worth should not be less than 75% of their respective paid-up share capital.

Net worth in combined manner shall be calculated as follows:

Net worth (combined) = $(X1+X2+X3) / (Y1+Y2+Y3) \times 100\%$ where X1, X2, X3 are individual Net Worth which should not be less than 75% of the respective paid-up share capitals and Y1, Y2, Y3 are individual paid-up share capitals.

2.2.3 In case the Collaborator(s) / Associate(s) is not able to furnish its audited financial statements on a standalone entity basis, the un-audited unconsolidated financial statements of the Collaborator(s) / Associate(s) can be considered acceptable provided the Collaborator(s) / Associate(s) further furnishes the following documents for substantiation of its qualification:

- (a) Copies of the unaudited unconsolidated financial statements of the Collaborator(s) / Associate(s) along with copies of the audited consolidated financial statements of its Holding Company.
- (b) A 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 Annual Report of the Company.

In cases where audited results for the last preceding financial year as on the date of opening of the Techno-commercial bid are not available, certification of financial statements from a practicing Chartered Accountant shall also be considered acceptable. In case, the Collaborator(s) / Associate(s) is unable to submit the Certificate from a practising Chartered Accountant certifying its financial parameters, the audited results of three consecutive financial years preceding the last financial year shall be considered for evaluating the 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 the date of Techno-commercial bid opening and the Certificate from the practicing Chartered Accountant certifying the financial parameters is not available.

NOTES:

- (i) 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 does not include reserves credited out of the revaluation of assets, write back of depreciation provisions and amalgamation. Further, any debit balance of the Profit & Loss account and miscellaneous expenses to the extent not adjusted or written off, if any, shall be reduced from Reserves & Surplus.

- (ii) Other income shall not be considered for arriving at annual turnover.
- (iii) "Holding Company" and "Subsidiary Company" shall have the meaning ascribed to them as per Companies Act 2013.
- (iv) For annual Turnover indicated in foreign currency, the exchange rate as on seven (7) days prior to the date of Techno-Commercial bid opening shall be used.

6.0 NTPC reserves the right to reject any or all bids or cancel/ withdraw the Invitation for Bids without assigning any reason whatsoever and in such case no bidder/ intending bidder shall have any claim arising out of such action.

7.0 Interested parties are required to get registered with GePNIC website <https://eprocurrentpc.nic.in> (if not already registered). The bidding document is available online. A complete set of Bidding Documents may be downloaded by any interested Bidder from the NTPC e-tendering portal website <https://eprocurrentpc.nic.in> (GePNIC Portal).

The cost of the bidding documents as mentioned above is required to be submitted along with GSTIN. Interested Bidders can pay for the cost of documents as mentioned above in the form of Electronic transfer/ NEFT Payments in the following account details of NTPC:

Account Number	52142904702
IFSC Code	SBIN0020511
Name of Bank	State Bank of India
Branch Code	20511
Address	Scope Complex, Lodhi Road Branch, Ground Floor, Core-6 Scope Complex, Delhi-110003

In case of electronic fund transfer, the bidder shall be required to submit the copy of transfer receipt/ electronic transfer receipt along with their bid in separate sealed envelope.

While carrying out online transfer, Bidders shall ensure to enter "Tender No. - Bidder Name" in the Text / Remarks / Reason field. Bidder shall submit the details of same along with their bid in separate sealed envelope and also upload the details on GePNIC portal (Technical Bid Part) in the following format:

Declaration for Payment of Cost of Bidding Document	
Tender Reference No:	
Bidder Name:	
UTR Reference:	
Amount:	
Date of Transfer:	
Transferor Bank:	
(Signature of Bidder with Seal)	

7.1 Issuance of Bid Documents to any Bidder shall not construe that such Bidder is considered to be qualified. Bids shall be submitted online. Bidder shall furnish Bid Security, Cost of bidding documents, and Power of Attorney separately offline as detailed in Bidding

Documents before the stipulated bid submission closing date and time at the address given below.

Note: No hard copy of Bidding Documents shall be issued.

- 8.0** Transfer of Bidding Documents purchased by one intending Bidder to another is not permissible.
- 9.0** Any 'Bidder from a country which shares a land border with India', as specified in the Bidding Documents, will be eligible to bid in this tender only if bidder is registered with the Competent Authority as mentioned in the Bidding Documents.

However, the said requirement of registration 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.

10.0 ADDRESS FOR COMMUNICATION

Addl. General Manager (CS) / DGM (CS)
Contracts Services

NTPC Green Energy Limited 4th Floor, NETRA Building E-3, Ecotech-II, Udyog Vihar, Greater Noida Gautam Budh Nagar, Uttar Pradesh, India, Pin – 201306

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