

A lot of firsts in the India Green Ammonia Auction

Preliminary Insights on the SIGHT Tender for 539,000 tons per annum
of Green Ammonia

June 2024



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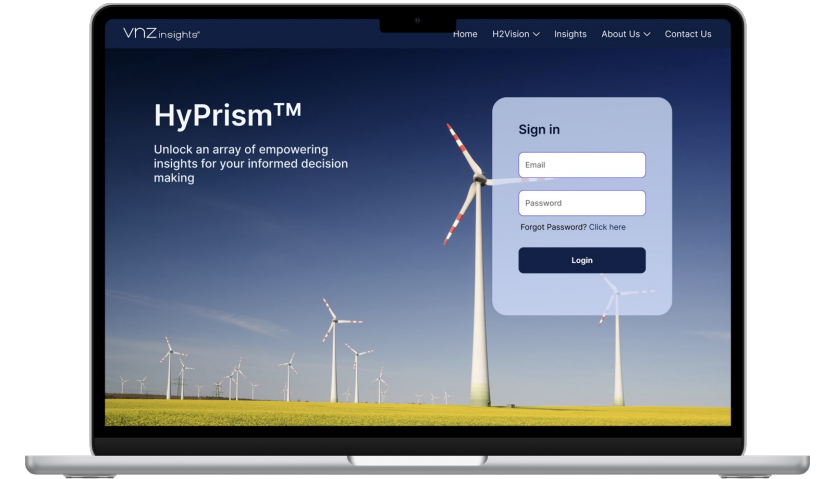
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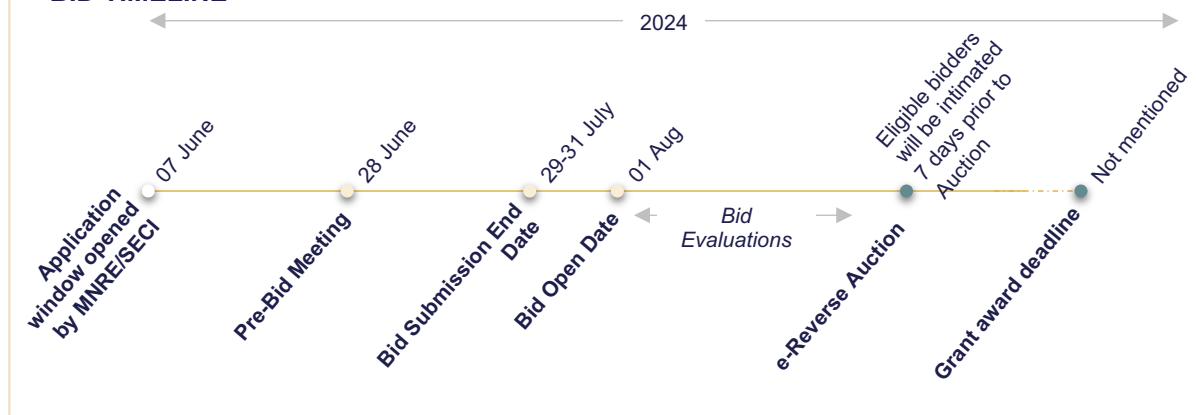
SIGHT Mode-2A-Tranch-I Tender for 539,000 tons per annum of Green Ammonia

BASICS

SIGHT Mode-2A-Tranch-I

Status	Open
Product Funded	539,000 tones per annum of Green Ammonia defined as ammonia produced using Green Hydrogen, i.e., hydrogen produced through electrolysis with GHG emission not more than 2 kg CO2 eq per Kg (India Hydrogen Standard)
Mechanism	<ul style="list-style-type: none"> SECI (Solar Energy Corporation of India) will act as the Intermediary Procurer for procurement of Green Ammonia supplied by the Green Ammonia Producer and its sale to the Procurers entirely on back-to-back basis. SECI will enter into a Green Ammonia Purchase Agreement (GAPA) with the successful Bidder(s)/GAP(s) selected based on this RfS for purchase of Green Ammonia for a period of 10 years based on the terms, conditions and provisions of the RfS and GAPA
Subsidy type & capacity	<ul style="list-style-type: none"> Fixed Premium on Green Ammonia Production for 3 years Green Ammonia Purchase Agreement (GAPA) for 10 years at bid price
Budget/ Incentive	<ul style="list-style-type: none"> Fixed premium for Green Ammonia will be Rs. 8.82/kg of Green Ammonia in the first year of production and supply, Rs. 7.06/kg during the second year, and Rs. 5.30/kg during the third year. This incentive is on top of the bid price for supplying Green Ammonia Producers will also be eligible for Carbon Credits under the 2023 Scheme
Delivery timeline	Projects are expected to come online within 36 months (3 years) from the Effective Date of the Green Ammonia Purchase Agreement (GAPA). Penalty applicable in case of late commissioning depending on the how late.

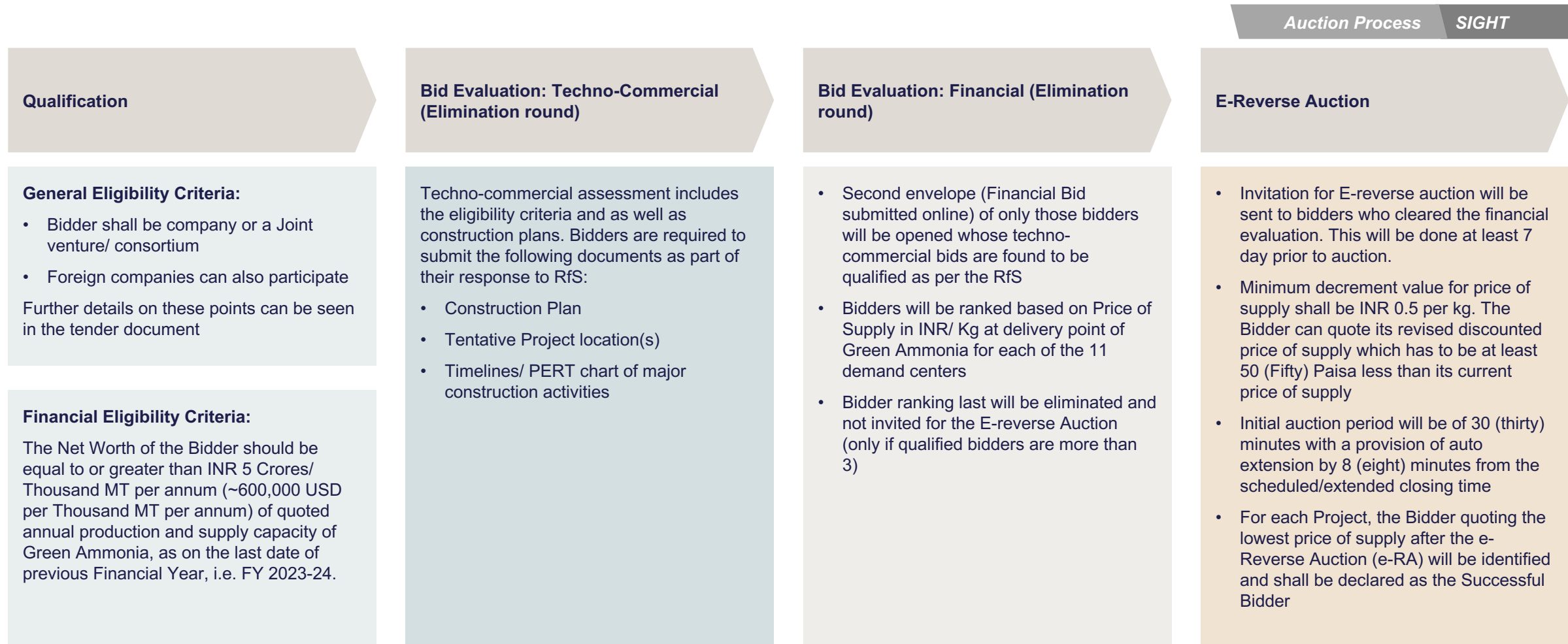
BID TIMELINE



AUCTION DESIGN

Subsidy type	Fixed premium	Contract-for-difference	CAPEX/OPEX
Auction type	Sealed bid	Dynamic	Hybrid: Sealed bid for screening and e-auction for ranking
Off-take duration	10 years		
Subsidy duration	3 years		
Realisation period	3 years		

Tender Process | Qualification and screening criteria are not stringent allowing for greater participation; selection criteria is price only



Qualification

General Eligibility Criteria:

- Bidder shall be company or a Joint venture/ consortium
- Foreign companies can also participate

Further details on these points can be seen in the tender document

Financial Eligibility Criteria:

The Net Worth of the Bidder should be equal to or greater than INR 5 Crores/ Thousand MT per annum (~600,000 USD per Thousand MT per annum) of quoted annual production and supply capacity of Green Ammonia, as on the last date of previous Financial Year, i.e. FY 2023-24.

Bid Evaluation: Techno-Commercial (Elimination round)

Techno-commercial assessment includes the eligibility criteria and as well as construction plans. Bidders are required to submit the following documents as part of their response to RfS:

- Construction Plan
- Tentative Project location(s)
- Timelines/ PERT chart of major construction activities

Bid Evaluation: Financial (Elimination round)

- Second envelope (Financial Bid submitted online) of only those bidders will be opened whose techno-commercial bids are found to be qualified as per the RfS
- Bidders will be ranked based on Price of Supply in INR/ Kg at delivery point of Green Ammonia for each of the 11 demand centers
- Bidder ranking last will be eliminated and not invited for the E-reverse Auction (only if qualified bidders are more than 3)

Auction Process

SIGHT

E-Reverse Auction

- Invitation for E-reverse auction will be sent to bidders who cleared the financial evaluation. This will be done at least 7 day prior to auction.
- Minimum decrement value for price of supply shall be INR 0.5 per kg. The Bidder can quote its revised discounted price of supply which has to be at least 50 (Fifty) Paisa less than its current price of supply
- Initial auction period will be of 30 (thirty) minutes with a provision of auto extension by 8 (eight) minutes from the scheduled/extended closing time
- For each Project, the Bidder quoting the lowest price of supply after the e-Reverse Auction (e-RA) will be identified and shall be declared as the Successful Bidder

Off-taker overview | 11 off-take projects with 539,000 MT demand participating in the tender; bidders need to furnish details on project and associated construction plan

Off-taker details incl. location, annual requirement and supply schedule



Key project information bidders need to share

- ✔ Participation at project level (yes/no)
- ✔ Tentative location of Ammonia project to serve the demand center
- ✔ Proposed Mode of Delivery (pipeline, tankers, or any other mode)
- ✔ RE Supply details (Quantum of RE required and Source of RE to be specified - i.e., setting up own plant/tying-up with third party through a PPA)
- ✔ Construction Plan
- ✔ Timelines/ PERT chart of major construction activities

Note: MT – Metric Tonnes; MCS – Maximum Consignment Size

5 Source: SECI; VNZ Auction Database; VNZ Insights analysis

Among the many operational, financial and off-take considerations, three key considerations for bidders

Key considerations

SIGHT

Highly competitive

- We expect the auction to be highly competitive with significant presence of large Indian industrial groups, Renewable IPPs, Govt. owned PSUs, etc.
- 15+ companies are actively pursuing green ammonia project development across India



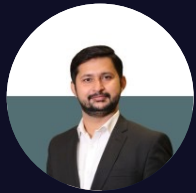
Finding balance between optimizing for India vs optimizing for Exports

- Key consideration for project developers would be whether to optimize around cost (e.g., use Power Banking) or around Exports
- Monthly power banking available for green hydrogen plants can significantly reduce the cost of ammonia and give competitive advantage in auction
 - However, if developers want to export ammonia to Europe and Far East (Japan, South Korea), banking facility may be an issue. In Europe, it will not meet the RFNBO definition while for Far East since it might increase the CO2 footprint of Hydrogen/Ammonia produced

Variable vs Uniform bid pricing

- Considering that bid needs to be submitted at off-take project level (11 in total), developers would need to consider whether to build one large facility and transport ammonia to demand centers vs building multiple facilities closer to demand centers.
- It is likely that developers would prefer one large facility and ship ammonia to various sites.

Contact us for more information



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