

353/2/2024-NT
Government of India
Ministry of New and Renewable Energy
(Hydrogen Division)

Atal Akshay Urja Bhawan
Lodhi Road, New Delhi 110003
Date: 16 January 2024

To

The Pay & Accounts Officer,
Ministry of New and Renewable Energy,
New Delhi- 110003

Subject: Scheme Guidelines for Implementation of Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component-II: Incentive for Procurement of Green Ammonia Production (under Mode-2A) of the National Green Hydrogen Mission

Sir/Madam,

I am directed to convey the sanction of the President of India for Scheme for Procurement of Green Ammonia under Mode-2A of the Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme under the National Green Hydrogen Mission (NGHM).

2. The objectives of the Scheme are as follows:
 - i. To maximize the production of Green Ammonia in India
 - ii. Enhance cost-competitiveness of Green Ammonia vis-a-vis fossil-based alternatives
 - iii. Encourage large scale utilization of Green Ammonia
3. The Scheme will be implemented as per the detailed Guidelines given at **Annexure**.
4. The expenditure on this scheme will be met from the budget provisions made under the National Green Hydrogen Mission Head.
5. The Scheme will be implemented by the Ministry of New and Renewable Energy (MNRE) through Solar Energy Corporation of India Limited (SECI) as the Implementing Agency. SECI will aggregate demand and call for bids for the production and supply of Green Ammonia at the lowest cost through a competitive selection process with the incentive being fixed.
6. This is issued in exercise of the powers conferred on this Ministry and with the concurrence of IFD vide their Diary. No. 388 dated 16 January 2024.



7. This is issued with the approval of the Hon'ble Minister, New and Renewable Energy.

Yours faithfully,



(Shobhit Srivastava)
Scientist-E

Email: shobhit.srivastava@nic.in

Enclosed: Annexure

Copy to:

1. All Central Government Ministries and Departments
2. All Members of the Empowered Group under the Mission
3. All Members of the Advisory Group under the Mission
4. CEO, NITI Aayog, Sansad Marg, New Delhi
5. State Nodal Agencies (SNAs) of all States/UTs
6. Major Public Sector Enterprises operating in Renewable Energy/Power Sector
7. Principal Director of Audit, Scientific Audit-II, DGCAR, I.P. Estate, Delhi-110002
8. Director General (Local Bodies), Office of the Comptroller & Auditor General, Deendayal Upadhyay Marg, New Delhi
9. Solar Energy Corporation of India (SECI), 6th floor, Plate-B, NBCC office, Block tower-2, East Kidwai Nagar, New Delhi-110023
10. Indian Renewable Energy Development Agency Limited (IREDA), 3rd floor, August Kranti Bhavan, Bhikaji Cama place, New Delhi-110066

Internal distribution:

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Scheme Guidelines for implementation of "Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme — Component II: Incentive Scheme for Green Ammonia Production and Supply (under Mode 2A)" of the National Green Hydrogen Mission

1. Introduction

1.1. The Union Cabinet has approved the National Green Hydrogen Mission with an outlay of Rs. 19,744 crore up to FY 2029-30. The Strategic Interventions for Green Hydrogen Transition (SIGHT) programme is a major financial measure under the Mission, with an outlay of Rs. 17,490 crore. The programme proposes two distinct financial incentive mechanisms to support the domestic manufacturing of electrolysers and the production of Green Hydrogen. These incentives are aimed at enabling rapid scale-up, technology development and cost reduction.

1.2. There could be several modes for the implementation of the 'Incentive Scheme for Green Hydrogen Production'. These are presently identified as follows:

Mode 1: Bidding on least incentive demanded over the three-year period, through a competitive selection process.

Mode 2: Aggregation of demand and calling for bids for production and supply of Green Hydrogen and its derivatives at the lowest cost through a competitive selection process.

Mode 2 can be of the following types:

- **Mode 2A:** The implementation agency/ agencies shall aggregate demand and call for bids for production and supply of Green Ammonia at the lowest cost through a competitive selection process with the incentive being fixed.
- **Mode 2B:** The implementation agency/ agencies shall aggregate demand and call for bids for production and supply of Green Hydrogen at the lowest cost for a single refinery or multiple refineries, as decided by the Implementing Agency, through a competitive selection process with the incentive being fixed.

1.3. This document lays down the framework for the proposed incentives for the production and supply of Green Ammonia under Mode 2A.

2. **Title of Scheme:** Incentive Scheme for Green Ammonia Production and Supply (under Mode 2A)

3. **Outlay for Incentive Scheme for Production of Green Hydrogen and its derivatives (all modes):** Rs. 13,050 crore

4. **Objectives:**

- i. To maximize the production of Green Ammonia in India.
- ii. Enhance cost-competitiveness of Green Ammonia vis-a-vis fossil-based alternatives.
- iii. Encourage large scale utilization of Green Ammonia.

5. **Implementation Methodology:** The scheme will be implemented through a transparent selection process for award of incentives, details of which are furnished in this Section.

5.1. **Implementing Agency**

5.1.1. The Scheme will be implemented by the Ministry of New and Renewable Energy (MNRE) through Solar Energy Corporation of India Limited (SECI) as the Implementing Agency. SECI will be responsible for providing secretarial, managerial and implementation support and carrying out other responsibilities as assigned by MNRE from time to time. The responsibilities of SECI, inter alia, include receipt of applications, examination and appraisal of applications as per the provisions of the scheme, issuing acknowledgements and letters of award to applicants, examination of beneficiaries' claims for incentive disbursement, verifying and reconciliation of disbursement claims with prescribed documents, compilation of data regarding progress and performance of scheme through Quarterly Review Reports and other documents. SECI will also submit quarterly progress reports to MNRE, including details of claims received for incentive disbursement, amounts disbursed, reasons for delay in disbursement of incentives, if any. SECI will be eligible to get 0.5% of the incentive amount disbursed as administrative charges on annual basis.

5.1.2. SECI will have the right to carry out physical inspection of an applicant's production plants. It may take help from third-party agencies for verification of technical parameters. If required, MNRE may also designate National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited labs or other third-party certification agencies, etc. for such verification.

5.2. Green Hydrogen Standard

5.2.1. To qualify for incentives under the scheme, the bidder must ensure that the Green Hydrogen utilized in the production and supply of Green Ammonia aligns with the detailed criteria outlined in the 'National Green Hydrogen Standard' notified by MNRE and estimated as per conversion factor given in Para 5.2.2.

5.2.2. The following equivalence factor is applicable for the calculation of quantity of Green Hydrogen for a specific quantity of Green Ammonia and the resultant incentive:

Derivative	Equivalent amount of Green Hydrogen
Green Ammonia	0.1765 kg Green Hydrogen per kg of Green Ammonia

5.3. Guiding Principles

- i. Under the scheme, a direct incentive in terms of Rs/kg of Green Ammonia produced and supplied will be provided for a period of 3 years from the date of commencement of Green Ammonia production and supply.
- ii. Beneficiaries under the scheme will be selected through a competitive selection process.
- iii. The incentive 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 of production and supply, and Rs. 5.30/kg during the third year of production and supply.
- iv. The bidder shall be required to produce the Green Ammonia capacity quoted for supply. Trading/ arbitrage is not allowed under the Scheme.

- v. Same quantum of production and supply of Hydrogen and its derivatives cannot get incentives under two different modes of SIGHT Programme. For e.g., if a bidder gets incentive under Mode 1 of the SIGHT Programme for hydrogen production, incentive under Mode 2A can only be claimed for additional capacity, over and above the capacity on which incentive is claimed under Mode 1.

5.4. Selection of Bidders for award of Incentives

5.4.1. The details of the selection process of bidders for the award of incentives under Mode 2A are outlined in this section.

5.4.2. Bidding Process: MNRE, through SECI, will invite bids for competitive selection under this mode. The bidders will be required to quote the following:

- a. Annual production capacity of Green Ammonia to be supplied, for which incentive is sought. The capacity quoted should be constant over the period of Ammonia Purchase Agreement (APA) (in thousand Metric Tonnes {MT}); and
- b. Price quoted, in Rs./ kg for the supply of Green Ammonia (exclusive of taxes)

5.4.3. Selection Process

- a. Qualified bidder(s) will be allocated capacities in the order of the **Quoted Price of Supply** (in Rs./kg). It must be noted that only a single price should be quoted by the suppliers for the supply of Green Ammonia over the period of APA.
- b. The bidder quoting the least price of supply (L1) will be allocated its admissible capacity first. Subsequently, the bidder quoting the next lowest price of supply (L2) will be allocated its admissible capacity, continuing until the total available capacity is exhausted.
- c. In the event where two or more bidders quote the exact same price of supply, these tied bids would be prioritized based on the bidder quoting a higher quantum of bid capacity. If bid capacities are also equal, the bidders will be assigned the same ranking and allotted equal capacities.

Illustration

1. *If the price of supply quoted by Bidder-1 (L1), which is lowest among all bids, is Rs. 50/kg of Green Ammonia; and the price of supply quoted by Bidder-2 (L2), which is second lowest, is Rs. 52/kg of Green Ammonia, then Bidder-1 will be first allocated the quoted bid capacity.*
2. *In case of tie between two bidders with same price of supply quoted, say, Rs. 50/kg and same bid capacities (e.g. 200,000 MT per annum); then they will be awarded equal capacities depending on the quantum of unallocated capacity, up to a maximum of 200,000 MT per annum each, as bid.*

d. SECI may also ask the bidders with prices within a specified range with respect to the L1 price, to match their price with the L1 price, in a sequential order i.e. L2 would be invited first to match the price, followed by L3 and so on.

5.4.4. Eligibility for Bidding

- i. The Net Worth of the Bidder on the last date of previous Financial Year, as specified in the tender document should be equal to or greater than Rs. 5 crore per thousand MT per annum of quoted production and supply capacity of Green Ammonia.
- ii. The bidder can be a single company or a Joint Venture/ Consortium of more than one company. The Bidder may seek qualification on the basis of financial capability of its Affiliate(s) to meet the qualification requirements.

5.4.5. Capacity Allocation

- i. The capacity available for bidding under Tranche I of Mode 2A is 5,50,000 MT per annum of Green Ammonia. Additional capacity of Green Ammonia, may be decided by MNRE for subsequent tranches, if any.

- ii. SECI may specify a minimum capacity below which bids will not be accepted. SECI may also specify a cap or maximum capacity that can be allocated to a single bidder.
- iii. Any unallocated capacity during the Tranche could be carried over to the subsequent tranche.
- iv. The above limits are indicative and can be modified by MNRE as per the requirement.

5.5. Payment of incentives to successful bidders

5.5.1. The incentive payout for successful bidders will be calculated as follows:

Incentive payout in a given year = (Incentive for that year in Rs/kg of Green Ammonia) x (Allocated capacity or Actual Production and supply in the year, in kg, whichever is lower)

5.5.2. Allocated capacity will remain constant over a period of three years. Incentive shall be disbursed to each successful bidder on an annual basis, after the requisite claim is received from the successful bidder, and duly verified by MNRE, through SECI.

5.6. Timelines for Commissioning

5.6.1. The successful bidders, allotted capacities under the scheme, must commence manufacturing in accordance with the timelines mentioned in the bid document.

5.7. Penalties

5.7.1. Bidders will have to submit, at the time of bid submission, Earnest Money Deposit (EMD) as prescribed in the tender document. The tender document will inter-alia, contain provisions regarding forfeiture of EMD in case of selected bidder refusing to submit the requisite documents/Performance Bank Guarantees (PBG)/or other similar Performance Guarantee instruments as per tender document/ extant

guidelines or the selected bidder not meeting eligibility criteria upon submission of documents.

5.7.2. Successful Bidders will have to submit Performance Bank Guarantees (PBG)/ other similar Performance Guarantee Instruments, at the time of accepting the award as prescribed in the tender document. In case of default or delay in commissioning, commensurate bank guarantees will be forfeited by SECI, as penalty. Detailed modalities in this regard will be given in tender documents. Encashment of EMD, bank/other guarantees, accrued interest or other charges collected shall be remitted by SECI to the Consolidated Fund of India as per rule-230 (8) of GFRs 2017.

5.7.3. Successful bidders will be required to sign APA with procurers. The penalties for non-compliance of the APA will be spelt out in the APA. The disbursement of incentives will be linked to the adherence to the APA by the supplier.

6. Monitoring

6.1. A Scheme Monitoring Committee (SMC) under the co-chairmanship of Secretary, Department of Fertilizers and Secretary, MNRE with Mission Director of National Green Hydrogen Mission (NGHM) as one of its members and other experts as may be required for the purpose, shall periodically review the status of implementation/ performance of Green Ammonia production and supply capacities awarded/ set up under the scheme. The Committee will also facilitate / recommend measures to resolve difficulties, if any.

7. Power to amend Scheme Guidelines

7.1. MNRE may make the necessary amendments in the Scheme Guidelines, as and when required, with the approval of the Hon'ble Minister of New & Renewable Energy.
