

353/39/2023-NT
Government of India
Ministry of New and Renewable Energy
(Hydrogen Division)

Atal Akshay Urja Bhawan,
Lodhi Road, New Delhi 110003
Date: 28/06/2023

To

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

Sub: Scheme Guidelines for implementation of "Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing" of the National Green Hydrogen Mission

Sir/Madam,

I am directed to convey the sanction of the President of India for the implementation of the "Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing" of the National Green Hydrogen Mission for the period from FY 2025-26 to FY 2029-30 with a total outlay of Rs. 4440 crore under this component.

2. Objectives:

- i. Maximize the indigenous electrolyser manufacturing capacity.
- ii. Achieving lower levelized cost of Hydrogen production.
- iii. Ensuring globally competitive performance and quality of products.
- iv. Progressively enhancing domestic value addition.
- v. Supporting established and promising technologies.

3. Implementation Methodology: The Scheme will be implemented as per the detailed Scheme Guidelines at **Annex**.

4. The expenditure on this scheme will be met from the budget provisions given under the Hydrogen Mission Head.

5. Solar Energy Corporation of India (SECI) shall be the implementing agency for implementation of this scheme.

6. This issues in exercise of the powers conferred on this Ministry and with the concurrence of IFD vide their Diary. No. 128 dated 28/06/2023.



7. This has the approval of Hon'ble Minister of Power and New and Renewable Energy.

Yours faithfully,

Chaphekar

(Dr. Prasad Chaphekar)

Deputy Secretary

Email: prasad.chaphekar@gov.in

Enclosed: **Annex**

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-11002
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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Chaphekar

(Dr. Prasad Chaphekar)

Deputy Secretary

Email: prasad.chaphekar@gov.in

Subject: Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing” under the National Green Hydrogen Mission

1. Introduction

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

2. Title of Scheme: Incentive Scheme for Electrolyser Manufacturing

3. Outlay: ₹ 4,440 crore

4. Objectives:

- i. Maximizing the indigenous electrolyser manufacturing capacity.
- ii. Achieving lower levelized cost of hydrogen production.
- iii. Ensuring globally competitive performance and quality of products.
- iv. Progressively enhancing domestic value addition.
- v. Supporting established and promising technologies.

5. Implementation Methodology:

The scheme will be implemented through a transparent selection process for award of incentives, details of which are furnished in the succeeding paragraphs.

5.1 Implementing Agency

- i. The Scheme will be implemented by 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 claims of beneficiaries for disbursement of incentives, verification and reconciliation of disbursement claims with prescribed

documents, compilation of data regarding progress and performance of the scheme through Quarterly Review Reports and other information / documents. SECI will also submit progress to MNRE on a quarterly basis along with details of disbursement claims received for Incentive, amount disbursed, reasons for delay in disbursement of the incentives etc. SECI will be eligible to get 0.5% of the incentive amount disbursed as administrative charges on annual basis.

- ii. SECI will have the right to carry out physical inspection of an applicant's manufacturing units and offices. It may take help of 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 Guiding Principles:

- i. Under the programme, support will be provided for electrolyser manufacturing, in terms of Rs./kW corresponding to the manufacturing capacity.
- ii. Base Incentive will start with Rs.4440/kW in the first year and will gradually taper down on an annual basis.
- iii. The incentives proposed under this scheme will be provided for 5 years from the date of commencement of manufacturing of electrolysers.

5.3 Selection of bidders for award of incentive

The details of selection process of bidders for award of incentives is outlined in this section.

5.3.1 Performance quotient

The scheme aims to incentivize manufacturing of efficient and high-quality electrolysers in India. Since Specific Energy Consumption (SEC) of electrolyser will directly impact the cost of Green Hydrogen, the following parameters will be considered while calculating the incentives:

Category number	1	2	3	4	5	6	7	8	9	10	11	12
Specific Energy Consumption(σ) (kWh/kg of H ₂)	$\sigma < 46$	$46 \leq \sigma < 47$	$47 \leq \sigma < 48$	$48 \leq \sigma < 49$	$49 \leq \sigma < 50$	$50 \leq \sigma < 51$	$51 \leq \sigma < 52$	$52 \leq \sigma < 53$	$53 \leq \sigma < 54$	$54 \leq \sigma < 55$	$55 \leq \sigma < 56$	$\sigma > 56$
Performance quotient	1.20	1.16	1.12	1.08	1.04	1.00	0.96	0.92	0.88	0.84	0.80	0

5.3.2 Local Value Addition

- i. A key objective of the scheme is to progressively indigenize the

electrolyser value chain. For this purpose, to be eligible for incentives, the bidder would have to demonstrate certain minimum Local Value Addition (LVA) for each year of production of electrolyzers as per the following table:

For Alkaline Electrolyzers:

Year of production	1st	2nd	3rd	4th	5th
Minimum LVA	40%	50%	60%	70%	80%

For Proton Exchange Membrane/Solid Oxide Electrolyser/Anion Exchange Membrane Electrolyzers:

Year of production	1st	2nd	3rd	4th	5th
Minimum LVA	30%	40%	50%	60%	70%

ii. The percentage of Local Value Addition will be calculated as follows:

$$LVA = \left[\frac{[(\text{Sale Value of Electrolyser}) - (\text{Value of imports})]}{\text{Sale Value of Electrolyser}} \right] \times 100\%$$

For this purpose:

- Sale Value of Electrolyser is the Sale value of Electrolyser as per GST invoice excluding net domestic indirect taxes and returns.
- Value of imports is the Value of direct and indirect imported materials and services (including all Customs Duty) as per Bill of Entry filed in Customs, used in manufacturing of electrolyser.
- Verification of Local Value Addition (LVA) will be carried out on an annual basis. For the purpose of determination of LVA, weighted average LVA for the completesales in a given year shall be certified by Statutory Auditor.

5.3.3 LVA Factor

Further, an LVA factor would be defined as follows:

For Alkaline Electrolyzers:

LVA%	LVA < 40%	40% ≤ LVA < 50%	50 ≤ LVA < 60%	60 ≤ LVA < 70%	70 ≤ LVA < 80%	80 ≤ LVA ≤ 90%	LVA > 90%
LVA Factor	0	0.4	0.5	0.6	0.7	0.8	1.0