353/61/2023-NT
Government of India
Ministry of New and Renewable
Energy (Hydrogen Division)

Atal Akshay Urja
Bhawan, Lodhi
Road, New Delhi
110003

To,

Date: 04/07/2024

Pay and Accounts Officer
Ministry of New and Renewable
Energy

Sub: **Scheme Guidelines for funding of testing facilities, infrastructure, and institutional support for development of Standards and Regulatory framework under the National Green Hydrogen Mission**

Sir/Madam,

I am directed to convey that sanction of the President of India for the Scheme on "Funding of testing facilities, infrastructure, and institutional support for development of Standards and Regulatory framework" under the National Green Hydrogen Mission (NGHM) for implementation during the period 2024-26 at a total cost of Rs. 200 crores.

2. **Objectives:**

i. To identify the gaps in the existing testing facilities for components, technologies and processes being used in the value chain of Green Hydrogen and its derivatives.

ii. To create new testing facilities/infrastructure to test, validate and certify technologies, and processes in the value chain of Green Hydrogen & its derivatives.

iii. To upgrade existing testing facilities available with different testing agencies.

iv. To ensure safe and secure operations of equipment/instruments used in the Green Hydrogen Value Chain.

v. To encourage participation from private as well as government entities for establishment of world class testing facilities in India.

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 National Green Hydrogen Mission Head.

5. This issues in exercise of the powers conferred on this Ministry and with the concurrence of IFD vide their Diary. No. 136 dated 04/07/2024.

6. This issues with the approval of Hon'ble Minister of New and Renewable Energy.

Sujit Pillai
Scientist F

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
7. Major Public Sector Enterprises operating in Renewable Energy/Power Sector
8. Principal Director of Audit, Scientific Audit-II, DGCAR, IBP. Estate, Delhi-11002
0. Director General (Local Bodies), Office of the Comptroller & Auditor General, Deendayal Upadhyay Marg, New Delhi
6. Solar Energy Corporation of India (SECI), 6th floor, Plate-B, NBCC office, Block tower-2, East Kidwai Nagar, New Delhi. 110023
9. Indian Renewable Energy Development Agency Limited (IREDA), 3rd floor, August Kranti Bhavan, Bhikaji Cama place, New Delhi-110066

Internal distribution

1. PS to Hon'ble Minister of New and Renewable Energy
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Sujit Pillai
Scientist F

Annex

Ministry of New & Renewable Energy (MNRE)
Government of India

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Scheme Guidelines for funding of testing facilities, infrastructure, and institutional support for development of Standards and Regulatory framework under the National Green Hydrogen Mission

1. Introduction

1.1. The National Green Hydrogen Mission (NGHM), hereafter mentioned as the 'Mission', was launched on 4th January 2023 with an outlay of Rs. 19,744 Crore with an aim to make India a global hub for production, usage and export of Green Hydrogen and its derivatives. It will contribute to India's goal to become Aatmanirbhar (self-reliant) through clean energy and serve as an inspiration for the global clean energy transition. The Mission will lead to significant decarbonization of the economy, reduced dependence on fossil fuel imports, and enable India to assume technology and market leadership in Green Hydrogen. Under the mission, along with other initiatives, the Ministry of New & Renewable Energy (MNRE) proposes to provide support for the creation of suitable testing facilities to test, validate and certify technologies and processes in the Green Hydrogen value chain.

1.2. Green Hydrogen (GH2) is expected to play an important role in India's journey towards decarbonization and energy security. To ensure quality, sustainability, and safety in GH2 production and trade, development of robust quality and performance testing facilities has been kept as an integral part of the Mission. This encompasses all activities which would provide confidence that the technologies/ applications promoted and developed under the Mission will meet the expectations of consumers, investors, and other stakeholders. These include activities related to Standards, metrology, testing, certification, inspection, accreditation and quality management systems for the production and trade of GH2.

2. Development of Testing Facilities:

2.1. Para 7.10 (d) of Mission document states that creation of suitable testing facilities to certify and validate technologies will be supported. Formulation and

regular revision of testing protocols relevant to Indian conditions will be undertaken in collaboration with premier National and International research institutions. These will be updated periodically with emergence of new technologies and applications. Knowledge and experience gained from evaluation of established and new technologies will be disseminated appropriately.

2.2. Thrust areas under the Scheme for enabling robust quality and testing ecosystem, commensurate with the specified standards/guidelines, in the GH2 sector are as follows:

a. Development of new testing Infrastructure for the various components/ technologies/ processes in the production, storage, transportation & utilization of Green Hydrogen & its derivatives.
b. Upgradation of existing testing facilities for testing of equipment /instruments to be used in the GH2 value chain.
c. Technology mapping and information dissemination on quality and performance of systems, components and processes under GH2 ecosystem.
d. Other activities to support testing and quality assurance ecosystem for GH2 in the country

3. Objectives of the Scheme

i. To identify the gaps in the existing testing facilities for components, technologies and processes in the value chain of Green Hydrogen & its derivatives.
ii. To create new testing facilities/infrastructure to test, validate and certify components, technologies and processes being used in the value chain of Green Hydrogen & its derivatives.
iii. To upgrade existing testing facilities available with different testing agencies.
iv. To ensure safe and secure operations of equipment/instruments used in the Green Hydrogen Value Chain.
v. To encourage participation from private as well as government entities for establishment of world class testing facilities in India.

4. Budgetary Outlay: Rs. 200 Crore till FY 2025-26

5. Rationale and the Salient Features:

5.1. Testing centres developed and upgraded under the Scheme will bridge the gap in the existing testing infrastructures for various components Green Hydrogen Value Chain in the country.

5.2. The Scheme will lead to establishment of new testing facilities and upgradation of existing ones so as to achieve self-sufficiency in the areas of testing & certification for Green Hydrogen value chain.