

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 3487
ANSWERED ON 01.04.2025

GREEN HYDROGEN PRODUCTION

3487. SHRI DEREK O' BRIEN

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) the key performance indicators being used to assess the progress of green hydrogen and green ammonia production capacity, particularly in relation to the National Green Hydrogen Mission's target of 5 million tonnes per annum by 2030;
- (b) the current status of infrastructure for green hydrogen production, storage, and distribution, along with the major gaps and challenges identified, so far; and
- (c) the steps being taken to strengthen and scale up the infrastructure required for green hydrogen and ammonia production, ensuring long-term sustainability and resilience?

ANSWER

**THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER
(SHRI SHRIPAD YESSO NAIK)**

(a) to (c) The Government of India is implementing the National Green Hydrogen Mission, with an objective to make India a global hub of production, usage and export of green hydrogen and its derivatives.

The expected outcomes of the Mission, by 2030, are as follows:-

- (i) India's green hydrogen production capacity is likely to reach 5 MMT per annum, contributing to reduction in dependence on import of fossil fuels. Achievement of Mission targets is expected to reduce ₹ 1 lakh crore worth of fossil fuel imports by 2030 cumulatively.
- (ii) Nearly 50 MMT per annum of CO₂ emissions are expected to be averted through production and use of the targeted quantum of green hydrogen.

The major challenges include the differential in the cost of green hydrogen as compared to grey hydrogen, high cost of storage and transportation, lack of established supply chains, paucity of testing infrastructure etc.

Strategic Interventions for Green Hydrogen Transition (SIGHT) is a key component of the Mission which provides financial incentives for production of green hydrogen and electrolyser manufacturing. A production capacity of 8,62,000 tonnes per annum of green hydrogen has been allocated, while electrolyser manufacturing capacity of 3,000 MW per annum has been allocated.

Scheme Guidelines for Implementation of SIGHT Programme – Component – II: Incentive for Procurement of Green Ammonia Production (under Mode – 2A) and Component – II: Incentive for Procurement of Green Hydrogen Production (under Mode – 2B), under the Mission have been issued on 16th January 2024.

Additionally, scheme guidelines have been issued for implementing green hydrogen - based pilot projects in the steel, shipping, and road transport sectors.

- (i) Total seven pilot projects have been sanctioned for use of green hydrogen in the steel sector.
- (ii) Five pilot projects are sanctioned for use of green hydrogen in road transport sector consisting total of 37 vehicles (buses and trucks), and 9 hydrogen refueling stations. These vehicles will run on 10 different routes across the country viz., Greater Noida – Delhi – Agra, Bhubaneswar – Konark – Puri, Ahmedabad – Vadodara – Surat, Sahibabad – Faridabad – Delhi, Pune – Mumbai, Jamshedpur – Kalinga Nagar, Thiruvananthapuram – Kochi, Kochi – Edappally, Jamnagar – Ahmedabad, and NH-16 Visakhapatnam – Bayyavaram.

Ministry of New and Renewable Energy had also issued the scheme guidelines for funding of testing facilities, infrastructure, and institutional support for development of Standards and Regulatory framework under the Mission on 4th July 2024.

Other steps being taken to strengthen and scale up the infrastructure required for green hydrogen and ammonia production, are as follows:

- (i) Green Hydrogen/Green Ammonia Plants commissioned on or before 31.12.2030, and which utilize renewable energy for the production of green hydrogen or green ammonia, have been granted exemption from the payment of Inter State Transmission System (ISTS) charges for a period of 25 years, starting from the date of commissioning of the project.
- (ii) Duty benefits under Section 26 of SEZ Act, 2005 have been allowed to the units for installation as well as O&M of renewable energy equipment exclusively for captive consumption of the unit.
