GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY

LOK SABHA

UNSTARRED QUESTION NO. 1692

ANSWERED ON 10.12.2025

GREEN BLUE AND GREY HYDROGEN PRODUCTION

1692. SHRI MAGUNTA SREENIVASULU REDDY

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

- (a) the details regarding the quantity of green, blue and grey hydrogen produced in the country during the last three years, year, category, State-wise including Andhra Pradesh;
- (b) the details of the number of production hubs set up across the country for each type of hydrogen green, blue and grey, State-wise;
- (c) whether the Government has set any target year for phasing out grey hydrogen and achieving complete transition to green hydrogen production and usage;
- (d) if so, the details thereof and the roadmap formulated to achieve the same;
- (e) whether the Government has taken any steps to incentivise industries and States to adopt green hydrogen technologies and shift from fossil fuel-based hydrogen production; and
- (f) if so, the details thereof and if not, the reasons therefor?

ANSWER

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

(a) & (b) As per report titled 'Green Hydrogen: Enabling Measures Roadmap for Adoption in India' by World Economic Forum, 6.5 Million Metric Tonnes (MMT) per annum of hydrogen is produced and utilised in the country. The Category wise and state wise data is not maintained at present.

As per the information available, the status of green hydrogen production capacity installed is placed at **Annexure**.

The following green hydrogen hubs have been identified under the National Green Hydrogen Mission till November 2025:

- i MNRE has recognised Deendayal Port (Kandla, Gujarat), V. O. Chidambaranar Port (Tuticorin, Tamil Nadu) and Paradip Port (Odisha) as green hydrogen hubs under NGHM.
- ii MNRE has also endorsed the proposal by NTPC for setting up of the Green Hydrogen Hub at Pudimadaka, Andhra Pradesh.
- iii Four projects have been awarded to be developed as Hydrogen Valley Innovation Clusters (HVICs) namely, Jodhpur hydrogen valley, Odisha hydrogen valley, Pune hydrogen valley and Kerala hydrogen valley.

Government of Andhra Pradesh has issued an order for establishing the State as India's largest green hydrogen hub and outlining a roadmap to transform Andhra Pradesh into a Green Hydrogen Valley by 2030.

(c) & (d) The Government of India is implementing the National Green Hydrogen Mission (NGHM), with an objective to make India a global hub of production, usage and export of green hydrogen and its derivatives. The NGHM has set a target to establish 5 MMT of green hydrogen production capacity by 2030 for domestic use as well as export purpose.

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 Metric Tonnes per Annum (MTPA) of green hydrogen has been allocated under this scheme to be used as feedstock or energy source for the replacement of fossil fuel – based hydrogen production.

- (e) & (f) To adopt green hydrogen technologies and shift from fossil fuel-based hydrogen production, the following steps have been taken:
 - i Prices have been discovered by Solar Energy Corporation of India for the production and supply of 7,24,000 MTPA of Green Ammonia (a derivative of Green Hydrogen) to 13 fertilizer units across India.
 - ii Further, 20,000 tonnes per annum of green hydrogen production and supply capacity has been awarded for supply to the refineries of Indian Oil Corporation Ltd., Bharat Petroleum Corporation Limited and Hindustan Petroleum Corporation Limited.

MNRE has advised states to incorporate provisions related to green hydrogen in their policies. MNRE had also organised a workshop on National Green Hydrogen Mission with states on 6th June 2024 at New Delhi.

Several states have taken proactive steps in this regard, details of which are as follows:

- Dedicated Green Hydrogen policies notified by the states of Maharashtra, Uttar Pradesh, and West Bengal;
- ii Facilitative provisions under the Renewable Energy or Energy or Industrial policies have been included by the states of Andhra Pradesh, Bihar, Himachal Pradesh, Madhya Pradesh, Odisha, Telangana, Rajasthan and Chhattisgarh.

Current status of green hydrogen production capacity in India

- i. M/s ACME Cleantech Solutions Pvt. Ltd. has built a green ammonia integrated demonstration and pilot plant in Bikaner, Rajasthan with green ammonia production capacity of 5 metric tonnes per day and green hydrogen production capacity of 500 normal cubic meter per hour.
- ii. M/s Bharat Petroleum Corporation Limited (BPCL) has commissioned a green hydrogen plant with a capacity of 0.7 kilotonnes per annum at its Bina refinery.
- iii. National Institute of Solar Energy has commissioned a green hydrogen plant with a capacity of 10 normal cubic meters per hour in Gurugram, Haryana.
- iv. M/s INOX India Limited has commissioned a green hydrogen production plant of 190 tonnes per annum capacity at Chittorgarh, Rajasthan.
- v. M/s Hygenco Green Energies Pvt. Ltd. has commissioned a green hydrogen plant of 16 tonnes per annum capacity in Ujjain, Madhya Pradesh.
- vi. M/s Hygenco Green Energies Pvt. Ltd. has also commissioned a green hydrogen plant of 78 tonnes per annum capacity in Hisar, Haryana.
- vii. Additionally, M/s Hygenco Green Energies Pvt. Ltd. has also set up a green hydrogen plant of 230 tonnes per annum capacity in Chhatrapati Sambhajinagar, Maharashtra.
- viii. M/s SJVN Limited has inaugurated India's multi-purpose (Combined Heat and Power) Green Hydrogen Pilot Project at SJVN's 1,500 MW Nathpa Jhakri Hydro Power Station (NJHPS) in Jhakri, Himachal Pradesh. The state-of-the-art Green Hydrogen Pilot Project has capacity to produce 14 kilograms of Green Hydrogen daily during 8 hours of pperation. In addition, it has the capacity to generate electricity through its fuel cell of 25 kW capacity.
- ix. M/s THDC India Limited has developed a green hydrogen plant with a production capacity of 50 kilograms per day in Rishikesh, Uttarakhand.
- x. M/s Larsen & Toubro Limited has set up a green hydrogen production plant of 15 tonnes per annum capacity in Hazira, Gujarat.
- xi. M/s Oil India Limited has commissioned a green hydrogen plant designed to generate 10 kilograms of green hydrogen in 8 hours and can produce upto 30 kilograms per day.
- xii. M/s Hero Future Energies has commissioned a green hydrogen production plant with a capacity of 25 tonnes per annum in Tirupati, Andhra Pradesh.
- xiii. M/s GAIL (India) Limited has commissioned a 10 MW green hydrogen plant at Vijaipur, Madhya Pradesh.
- xiv. M/s Adani New Industries Limited (ANIL) has commissioned a 5 MW green hydrogen pilot plant in Kutch, Gujarat.
- xv. M/s NTPC Limited has commissioned a green hydrogen plant at its Kawas township, Surat, Gujarat.
- xvi. M/s NTPC Limited has commissioned a green hydrogen plant at Leh, Ladakh.
- xvii. M/s Larsen & Toubro Limited has commissioned a green hydrogen plant at Kandla, Gujarat, with capability of producing approximately 140 metric tonnes of green hydrogen annually
- xviii. V. O. Chidambaranar Port Authority has successfully completed a pilot project for 10 normal metre cube per hour green hydrogen production.
 - xix. M/s Torrent Group has commissioned a green hydrogen plant at Gorakhpur, Uttar Pradesh.
 - xx. M/s JSW Energy Limited has commissioned a green hydrogen plant at Vijayanagar, Karnataka, with a capacity of 3800 tonnes per annum.