

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 1743
ANSWERED ON 06/08/2024

GREEN HYDROGEN MISSION

1743. SHRI DHANANJAY BHIMRAO MAHADIK

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

- (a) the expenditure allocated for the Green Hydrogen Mission;
- (b) the measures taken/proposed to be taken and the schemes introduced to promote Green Hydrogen; and
- (c) the status of initiative of Government with regard to blending of hydrogen with CNG/LPG?

ANSWER

THE MINISTER OF STATE FOR NEW & RENEWABLE ENERGY AND POWER

(SHRI SHRIPAD YESSO NAIK)

(a) &(b) The Ministry of New and Renewable Energy is implementing the National Green Hydrogen Mission, approved by the Union Cabinet in January 2023, with an overall outlay of Rs. 19,744 crore. The overarching objective of the Mission is to make India a global hub of production, usage and export of Green Hydrogen and its derivatives.

The following schemes have been launched under the Mission so far:

- I. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing” have been issued on 28th June 2023.
- II. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive Scheme for Green Hydrogen Production (under Mode 1)” have been issued on 28th June 2023.
- III. 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)” have been issued on 16th January 2024.
- IV. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive for Procurement of Green Hydrogen production (under Mode 2B)” have been issued on 16th January 2024.
- V. Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Shipping Sector have been issued on 1st February 2024.
- VI. Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Steel Sector have been issued on 2nd February 2024.
- VII. Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Transport Sector have been issued on 14th February 2024.
- VIII. Scheme Guidelines for the implementation of the Research & Development Scheme have been issued on 15th March 2024.

- IX. Scheme Guidelines for setting up Hydrogen Hubs in India have been issued on 15th March 2024.
- X. Scheme Guidelines for scheme on skilling, up – skilling and re – skilling have been issued on 16th March 2024.
- XI. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component I: Incentive Scheme for Electrolyser Manufacturing Tranche – II” have been issued on 16th March 2024.
- XII. Scheme Guidelines for implementation of “Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme – Component II: Incentive Scheme for Green Hydrogen Production (under Mode 1) – Tranche II” have been issued on 3rd July 2024.
- XIII. Scheme Guidelines for funding of testing facilities, infrastructure, and institutional support for development of Standards and Regulatory framework have been issued on 4th July 2024.

Other steps taken for promotion of Green Hydrogen inter – alia, include the following:

- I. Green Hydrogen/Green Ammonia Plants commissioned on or before 31.12.2023, and which utilize renewable energy for the production of Green Hydrogen or Green Ammonia, have been granted exemption from the payment of ISTS charges for a period of 25 years, starting from the date of commissioning of the project.
- II. Standalone plants producing Green Hydrogen/Green Ammonia by way of electrolysis of water using Renewable Energy, have been exempted from requirement of prior Environmental Clearance under the provisions of the Environment Impact Assessment Notification 2006.
- III. 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.
- IV. Exemption has been granted from ALMM and RLMM requirements for Renewable Energy plants located inside an Special Economic Zone (SEZ) or Export Oriented Unit (EOU) and supplying power exclusively for production plants of Green Hydrogen (or its derivatives), which are located inside an SEZ or set up as an EOU.
- V. 8 companies have been allocated 1.5 GW per annum of electrolyser manufacturing capacity under Component I: Incentive Scheme for Electrolyser Manufacturing (Tranche I), of the SIGHT programme.
- VI. 10 companies have been allocated 4,12,000 Tonnes per annum of Green Hydrogen production capacity under Component II: Incentive Scheme for Green Hydrogen Production (under Mode 1 Tranche I) of the SIGHT programme.

(c) Based on the information available, the initiatives taken by Public Sector Enterprises on blending of hydrogen with CNG/PNG/LPG, inter – alia, include:

- I. National Thermal Power Corporation (NTPC) commissioned a Green Hydrogen Blending Project at Kawas, Gujarat with 5% hydrogen blend on a volume basis with Piped Natural Gas (PNG). Hydrogen blend was increased to 8% on a volume basis with PNG from Dec 2023 onwards.
- II. Gas Authority of India Ltd. (GAIL) launched a pilot project of Hydrogen Blending with PNG at Avantika Gas Limited (AGL, a JV of GAIL and HPCL) at a rate of up to 2% Hydrogen blend on a volume basis, which was increased to 5% after March 2023.
