

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 3126**  
ANSWERED ON 21/12/2023

**GREEN HYDROGEN SECTOR**

3126. SHRI N. REDDEPPA

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

- (a) the present status of adoption of Green Hydrogen in the country;
- (b) whether there has been any significant job creation in the Green Hydrogen sector and if so, the details thereof;
- (c) the extent to which Green Hydrogen has been able to reduce dependence on crude oil;
- (d) whether the Government has been able to export Green Hydrogen till now; and
- (e) if so, the details thereof and if not, the reasons therefor?

**ANSWER**

**THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER**

**(SHRI R.K. SINGH)**

(a) to (e) The Ministry of New and Renewable Energy is implementing the National Green Hydrogen Mission, approved by the Union Cabinet on 4<sup>th</sup> January 2023, with an outlay of ₹ 19,744 crore. The overarching objective of the Mission is to make India the Global Hub for production, usage and export of Green Hydrogen and its derivatives.

The present status of adoption of Green Hydrogen in the country is as follows:

- i. GAIL Limited has started India's maiden project of blending Hydrogen in City Gas Distribution grid. Two percent by volume of hydrogen is being blended in CNG network and 5 vol% of hydrogen is being blended into PNG network at City Gas Station of Avantika Gas Limited (AGL), Indore in the state of Madhya Pradesh.
- ii. NTPC Limited has initiated blending of Green Hydrogen upto 8% (vol/vol) in PNG Network at NTPC Kawas Township, Surat, Gujarat from January 2023.
- iii. Besides these, other PSUs have taken up various projects such as:
  - (a) Hydrogen based Fuel-Cell Electric Vehicle (FCEV) Buses in Leh by NTPC
  - (b) Hydrogen based Fuel-Cell Electric Vehicle (FCEV) Buses in Greater Noida by NTPC
  - (c) Oil India Limited has developed a 60 kW capacity hydrogen fuel cell bus, which is a hybrid of an electric drive and a fuel cell.
  - (d) Demonstration pilot plants for production of Green Hydrogen through water electrolysis using solar power, biomass oxy steam gasification and CBG reforming for refueling 15 no. of Hydrogen Fuel Cell buses by Indian Oil

In addition, several entities have announced plans to set up production facilities for Green Hydrogen/ Green Ammonia in India.

Since Green Hydrogen adoption in the country is at an initial stage, through demonstration projects, its impact on job creation, reduction in dependence on oil and exports has been limited so far.

However, the expected outcomes of the National Green Hydrogen 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 a cumulative ₹ 1 lakh crore worth of fossil fuel imports by 2030.
- ii. This is likely to leverage over ₹8 lakh crore in total investments and create over 6 lakh jobs.

Under the Strategic Interventions for Green Hydrogen Transition (SIGHT) scheme (Mode – I, Tranche – I) of the National Green Hydrogen Mission, Request for Selection (RfS) has been issued for selection of Green Hydrogen producers for setting up production facilities of 450,000 tons for Green Hydrogen in India.

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