

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 3031
ANSWERED ON 19/08/2025

ADOPTION OF HYDROGEN FUEL CELL TECHNOLOGY

3031. SHRI JAGGESH

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

- (a) whether Government has collaborated with any international agencies or private companies for the deployment of hydrogen fuel cell technology in the transport sector;
- (b) whether any Indian cities have been selected for pilot projects involving hydrogen fuel cell-run public transport buses;
- (c) whether there is a specific timeline or roadmap for the large-scale deployment of hydrogen fuel cell buses across the country;
- (d) whether adequate infrastructure such as hydrogen refueling stations is being developed to support the operation of these buses; and
- (e) if so, the details thereof and incentives offered to operators to adopt hydrogen fuel cell technology?

ANSWER

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

(a) to (e) 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.

Five pilot projects have been sanctioned under NGHM for use of green hydrogen in road transport sector consisting total of 37 vehicles (buses and trucks), and 9 hydrogen refueling stations. Out of these 37 vehicles, 9 buses and 6 trucks work on fuel cell based technology.

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.

The locations for 9 hydrogen refueling stations are Greater Noida, Bhubaneswar, Balasore, Mumbai highway, Trivandrum, Kochi, near Rajkot, near Vadodara and Bayyavaram.

The projects are being implemented by consortiums of following organisations:

- i. M/s NTPC Limited and M/s Ashok Leyland
- ii. M/s Indian Oil Corporation Limited and M/s Tata Motors
- iii. M/s Hindustan Petroleum Corporation Limited and M/s Volvo Trucks India Limited
- iv. M/s Reliance Industries Limited and M/s Ashok Leyland
- v. Agency for New and Renewable Energy Research and Technology (ANERT), Government of Kerala and M/s Bharat Petroleum Corporation Limited.

The total financial support for the pilot projects is INR 207.91 crores from NGHM, for conducting trials for 18 – 24 months.

In addition, M/s Oil India limited has developed a hydrogen fuel cell e – bus, which was flagged off during the India Energy Week (IEW) in Bengaluru in February 2023.

M/s NTPC Limited has also set up a green hydrogen mobility station in Leh, for running 5 fuel cell buses. M/s Indian Oil Corporation Limited is also operating 15 fuel cell buses.
