### GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY

# LOK SABHA

## **UNSTARRED QUESTION NO. 1929**

TO BE ANSWERED ON 10.12.2015

#### HYDROGEN FUEL TECHNOLOGY

#### 1929. SHRI PRAHLAD SINGH PATEL:

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

- (a) whether the country lags far behind in respect of the hydrogen fuel technology in the world;
- (b) if so, the reasons therefor along with the achievements made under the National Hydrogen Energy Road Map (NHERM) programme since its inception;
- (c) whether the Government proposes to put this technology in a "National Mission" category for undertaking research and develop hydrogen as a clean fuel for the country, if so, the details thereof;
- (d) if not, the reasons therefor; and
- (e) the steps taken/proposed to be taken by the Government in this regard?

#### **ANSWER**

THE MINISTER OF STATE FOR POWER, COAL & NEW AND RENEWABLE ENERGY (INDEPENDENT CHARGE) (SHRI PIYUSH GOYAL)

- (a): Yes, Madam. The developed countries are ahead of India in terms of technological development in the area of hydrogen energy and fuel cells.
- **(b)**: Technology development in the developed countries is generally industry driven, whereas Research and Development (R&D) in India is mainly carried out by academic institutions and laboratories with financial support from the Government. National Hydrogen Energy Road Map (NHERM) was adopted in 2006 and thereafter, R&D activities in the country have been guided as per pathways suggested in the NHERM. A total of 68 research, development and demonstration projects in the area of hydrogen energy and fuel cells have been sanctioned so far by the Ministry of New and Renewable Energy from 2006-07.
- (c), (d) & (e): In the NHERM, 8 technology development projects were recommended to be taken up in Mission Mode, of which 4 Mission Mode projects related to hydrogen production, its storage and development of hydrogen fuelled internal combustion engine for vehicles, sanctioned by the Ministry of New and Renewable Energy, are under implementation.

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