

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 942
ANSWERED ON 08/02/2024

COMMERCIALIZATION OF GREEN HYDROGEN

942. SHRI S. JAGATHRAKSHAKAN

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

- (a) whether the Government has taken any initiative to provide guidance for developing a vibrant research and development ecosystem which can help commercialization of Green Hydrogen;
- (b) if so, the details thereof; and
- (c) if not, the reasons therefor?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER
(SHRI R.K. SINGH)

(a) to (c) The Ministry of New and Renewable Energy is implementing the National Green Hydrogen Mission, launched by the Government in January 2023. 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 following components have been announced as part of the Mission:

- i. Pilot Projects for steel, mobility, shipping, decentralized energy applications, hydrogen production from biomass, hydrogen storage, etc. with an outlay of Rs. 1466 crore;
- ii. Research & Development programme including through a public-private partnership framework for R&D with an outlay of Rs. 400 crore.

The Research and Development roadmap for the Mission has been released on 7th October 2023, which outlines the important research areas in this field.

Council of Scientific & Industrial Research (CSIR) is implementing a Mission Mode Project, with an outlay of Rs. 75 crore, to develop different types of indigenous electrolyzers, namely Anion Exchange Membrane (AEM) electrolyser, Proton Exchange Membrane (PEM) electrolyser, and Solid Oxide Electrolyser (SOE) electrolyzers; Fuel Cells and Hydrogen Storage Cylinders. The emphasis is on making the electrolyzers and fuel cells with efficiency comparable to global bench marks.

Department of Science & Technology (DST) has supported the Hydrogen and Fuel Cell program with an objective to promote and support activities related to the indigenous development of materials, catalysts, membrane, components for fuel cells, electrolyzers, hydrogen storage materials, materials for type IV cylinders and prototypes for implementation of various applications of hydrogen and fuel cell in the country.
