GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 2588
ANSWERED ON 16.03.2023

GREEN HYDROGEN RELATED RESEARCH AND DEVELOPMENT

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SHRI N. REDDEPPA

Will the Minister of New and Renewable Energy be pleased to state:

(a) whether the Government proposes to create a separate fund dedicated to research and development with respect to green hydrogen for which the technology and scale are still at a nascent stage;
(b) if so, the details thereof and if not, the reasons therefor;
(c) whether the Government is taking any steps to look into increasing the basic life of electrolyzer plants to make green hydrogen production more viable in the long term; and
(d) if so, the details thereof including the funds being dedicated for the same and if not, the reasons therefor?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND POWER

(SHRI R.K. SINGH)

(a) to (d) On 4th January 2023, the Union Cabinet approved the National Green Hydrogen Mission with an initial outlay of ₹ 19,744 crore. The Mission proposes a comprehensive R&D programme *inter alia* to support innovation efforts for improving affordability, efficiency and reliability of Green Hydrogen technologies including electrolysers. An outlay of ₹ 400 crore has been earmarked for the R&D programme.

Council of Scientific & Industrial Research (CSIR) is implementing a Hydrogen Technology (H2T) program with a budget of about ₹ 80 crore for strengthening its Research, Innovation and Technology Development activities on Green Hydrogen. The program inter alia focuses on technologies for improving life of electrolyzers by development of thermochemically robust membranes/electrolytes, reinforced fluoropolymer membranes, graphite composite bipolar plates, and ceramic interconnects.

Additionally, under Department of Science and Technology's call of "Advanced Hydrogen & Fuel Cell (AHEC 2021)", R&D projects are being supported on various hydrogen technologies. Of these, the following 2 projects are related to increasing the life of electrolyzers:

S. No.	Title	Implementing Institute	Total Sanctioned Amount
1	Development of Electrodes and modular Compact Membrane less Electrolyzer set up for sustainable H2 production from sea/tap/ground water	Rajiv Gandhi Institute of Petroleum Technology, Amethi	₹ 2,53,28,000/-
2	Development of Alkaline Water Electrolyser Stack Prototype for green H2 production from dynamic renewable energy devices using self-repairable Electrocatalyst and stable Membrane	CHRIST University (Deemed to be University), Bengaluru	₹ 70,62,360/-