

GOVERNMENT OF INDIA  
MINISTRY OF NEW AND RENEWABLE ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 625**  
ANSWERED ON 25.07.2023

**NATIONAL GREEN HYDROGEN MISSION**

625. SHRI RAVICHANDRA VADDIRAJU

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

- a) whether Government plans to establish a dedicated fund for research and development of green hydrogen, a technology that is still in its early stages of development;
- b) if so, the details thereof and if not, the reasons therefor;
- c) whether Government is taking any steps to increase the lifespan of electrolyzer plants to make green hydrogen production more sustainable 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 launched 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 electrolyzers. An outlay of ₹ 400 crore has been earmarked for the R&D programme.

Council of Scientific & Industrial Research (CSIR) has also taken a major initiative in strengthening its Research, Innovation and Technology Development activities on green hydrogen by initiating an ambitious Hydrogen Technology (H2T) program in April 2022 with a budget of Rs. 7452.80 lakhs for a period of 2 Year 6 Months. The H2T program has 3 mission programs, one each in hydrogen production, hydrogen storage and hydrogen utilization areas. The mission program in green hydrogen production is focused on water electrolysis. The mission program on hydrogen storage is focused on carbon fiber composite tanks for high pressure (350, 700 bar) storage. The mission program on hydrogen utilization is designed to further improve (double) the performance of our current fuel cell technology, which has already been successfully licensed to an industry partner.

The details of the funds sanctioned for the aforesaid H2T programme is as under:

(Rs. in lakh)

<b>Financial Year</b>	<b>2022-23</b>	<b>2023-24</b>	<b>2024-25</b>	<b>Total</b>
Funds Sanctioned	4613.65	2169.73	669.42	7452.80

Further, Department of Science and Technology (DST) has initiated 4 projects under the Indo-Danish research and innovation cooperation in the area of "Green fuels including green hydrogen". In addition, DST has also initiated 11 projects under the Advanced Hydrogen and Fuel Cell program with an objective to promote and support activities related to the indigenous development of new and existing material in large quantities, catalysts, membranes, 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.

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