INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

IPHE Country Update December 2018: India

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Covered Period	November 2017 to December 2018

1. New Initiatives, Programs, and Policies on Hydrogen and Fuel Cells

Nothing new to report this period.

2. Hydrogen and Fuel Cell R&D Update

The Ministry's Research, Development and Demonstration (RD&D) programme on Hydrogen Energy and Fuel Cells focuses on: hydrogen production from renewable routes; development of materials and techniques for safe and efficient storage of hydrogen; development of fuel cells, including materials, components, sub-systems, systems, etc; demonstrations for stationary power generation and transportation; and development of hydrogen energy infrastructure in the country.

- Projects are presently being supported in premier academic institutions and industries in India.
- Mission project on hydrogen storage in hydride materials concluded at Benaras Hindu University, Varanasi. The project has developed several candidate materials with promising characteristics for transportation applications.
- Indian Institute of Technology, Kharagpur and Indian Institute of Chemical Technology, Hyderabad have established 10 Nm^3 pilot scale plants for hydrogen production through biological routes. The plants are capable of utilizing distillery effluent and food wastes for hydrogen production.
- Department of Science and Technology, Government of India, has also undertaken a call for R&D proposals in Hydrogen and Fuel Cells. This will mainly focus on basic research.

3. Demonstration, Deployments, and Workforce Developments Update

i. Tata Motors Ltd. has developed 10 PEM fuel cell buses that are currently undergoing trials.

ii. Indian Oil Corporation is implementing a project on H-CNG fuelled city transport buses in New Delhi. The H-CNG would be generated on-site at refilling stations through a patented compact reformation process.

iii. Hydrogen internal combustion engine based mini buses, three wheelers and dual-fuel SUVs, are at advanced stages of demonstration.

iv. Two hydrogen production and dispensing facilities are operational for demonstration and deployment of vehicles.

4. Events and Solicitations

Nothing new to report this period.

5. Investments: Government and Collaborative Hydrogen and Fuel Cell Funding

For the financial year 2018-19 (1 April, 2018 to 31 March, 2019), there is a provision of INR180 Million (2.6 Million US dollars) for hydrogen energy and fuel cell related activities in the budget of the Ministry of New and Renewable Energy.

6. Regulations, Codes & Standards, and Safety Update

Nothing new to report this period.