

# INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

# **IPHE Country Update November 2017: India**

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#### 1. New Policy Initiatives on Hydrogen and Fuel Cell

In order to promote demonstration and deployment, favourable import duty structure has been introduced for fuel cell systems to be deployed with renewable generated fuels.

## 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 the following broad areas:

- a. Hydrogen production from renewable routes.
- b. Development of materials and techniques for safe storage of hydrogen.
- c. Research on different types of fuel cells, including materials, components, subsystems, systems, etc.
- d. Demonstrations for stationary power generation and transportation.
- e. Support development of hydrogen energy infrastructure in the country.

Projects are presently being supported in premier academic institutions and industries in India.

#### 3. Demonstration and Deployments Update

- a. Hydrogen internal combustion engine based mini buses, three wheelers, dual-fuel SUVs, and fuel cell based buses have been developed and are at advanced stages of demonstration.
- b. Two hydrogen production and dispensing facilities are operational for demonstration and deployment of vehicles.
- c. Pilot scale plants for hydrogen production through biological routes have been established and trials are underway.

#### 4. Events and Solicitations

Nil

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

For the financial year 2017-18 (1 April, 2017 to 31 March, 2018), there is a provision of Rs.220 Million (US\$3.41M) for hydrogen energy and fuel cell related activities in the budget of the Ministry of New and Renewable Energy.