



INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

IPHE Country Update June 2021: Republic of Korea

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

- Hydrogen Economy Law¹ entered into force in February 2021, exactly one year after its enactment. It lays the ground for promotion of hydrogen economy and safe use of hydrogen in the society.
- Revision of Hydrogen Economy Law was proposed in June 2021 to establish “Clean Hydrogen Energy Portfolio Standards (CHPS)” and national clean hydrogen certification system. Hydrogen fuelled power generation (stationary fuel cells) are currently supported by Renewable Portfolio Standards (RPS), but there have been concerns about its clearly distinguished characteristics (e.g. variable costs stemming from fuel prices) from other renewable energy sources. A clean hydrogen certification system, indispensable for CHPS and other hydrogen applications, will be developed with the revision of the law.

2. Hydrogen and Fuel Cell R&D Update

- A government-funded research project for green hydrogen production plants integrated to the ammonia-based supply chain is under way. It intends to build a 1,000Nm³/hr capacity plant by 2025 and develop system components to carry, store, decompose, and burn ammonia with appropriate safety and pollution prevention measures.

3. Demonstration, Deployments, and Workforce Developments Update

N/A

4. Events and Solicitations

N/A

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

- In the third meeting of Hydrogen Economy Committee (March 2021), large Korean companies such as SK, Hyundai Motors and POSCO announced their investment plans worth more than US\$38 billion (until 2030) in total. The plans cover the whole hydrogen supply chain – production (US\$10B), storage & supply (US\$7B) and application (US\$20B).

6. Regulations, Codes & Standards, and Safety Update

- As Hydrogen Economy Law took effect, institutional arrangements based on the law began to apply. They include hydrogen-specialized company standard, hydrogen price reporting by refuelling stations and hydrogen-specialized industrial complex designation processes.
- Hydrogen Industry Life-cycle Safety Support Center is due to open in December 2021. The national government and the city of Daejeon jointly invested 26.3 billion KRW (US\$23.3 million). The Center will play a role of a test bed for hydrogen safety by testing and inspecting various hydrogen equipment and mobility-related parts.

¹ Hydrogen Economy Promotion and Hydrogen Safety Management Law



Summary Country Update June 2021: Republic of Korea

Transportation	Target Number	Current Status (June 2021)
Fuel Cell Vehicles ²	2,900,000 (excl. export) by 2040	14,426
FC Bus	40,000 (excl. export) by 2040	106
H2 Station	1,200 by 2040	88

² Includes Fuel Cell Electric Vehicles with Range Extenders