INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

IPHE Country Update Nov 2024 – Jun 2025: Republic of Korea

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

- (Dec 2024) The first ever round of bidding process of the clean hydrogen section of **Clean Hydrogen Portfolio Standard** (CHPS) was concluded. One contract was awarded to a Korean power generation company that would be supplied with blue ammonia from abroad. The winner will produce 750GWh annually on the clean fuel under the contract that will last for 15 years starting from 2027 (a single year grace period may apply if necessary). Korea Electric Power Corporation (KEPCO) would procure as much as 6.5TWh of clean hydrogen electricity in the 2024 round, but eventually only one bid was found successful through the screening process.
  The ammonia should be certified as clean with GHG emissions equal to or less than 4 $kgCO_2eq/kgH_2$ (well-to-hydrogen gate).

- (May 2025) The annual round of **Clean Hydrogen Portfolio Standard** (CHPS) was commenced. Its clean section would award contracts up to 3,000 GWh/yr this year. Winners of this round are obliged to supply KEPCO with clean ammonia/hydrogen electricity from 2028 (a single year grace period may apply if necessary). On the whole, other important features such as contract duration (15 years), emissions threshold ($4kgCO_2eq/kgH_2$) remain the same.
  The general section is open for 1,300 GWh/yr. The awardees are allowed to produce electricity from any kind of hydrogen from 2027. Their contracts last 20 years.

- (Dec 2024, Mar 2025) Ministry of Trade, Industry and Energy (MOTIE) held meetings of the **consultative group for mobility hydrogen supply** to ensure stable hydrogen supply to hydrogen refuelling stations. The group is composed of relevant ministries, local governments, producers and suppliers, HRS businesses, etc. Current main source of mobility hydrogen is by-product from the petrochemical industry in Korea.
  In 2025, mobility hydrogen demand is projected to reach 23,000 ton (max) with 2,000 buses and 11,000 cars added to national FCEV fleet

2. Hydrogen and Fuel Cell R&D Update

- (Nov 2024) National R&D Project Assessment Committee selected a project on direct reduced iron to be a subject of Preliminary Feasibility Study for government support. The project is demonstration of fluidized hydrogen reduction furnace which would produce 300kt/yr of iron with less than 5% GHG emissions.
  R&D projects that apply for large scale governmental support should pass through the study to be eligible. The total expenses of the project amounts to 646 mil. USD for 5 years (’26-’30) and the government would cover 247 mil. USD depending on the study result

3. Demonstration, Deployments, and Workforce Developments Update

4. Events and Solicitations

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

6. Regulations, Codes & Standards, and Safety Update