



International Partnership
for Hydrogen and Fuel Cells
in the Economy

Republic of Korea Update

43rd IPHE Steering Committee Meeting

10-11 June 2025

Santiago, Chile

Announcements / New Initiatives *Republic of Korea*

• Investments/Funding/Policies/Initiatives

1. Clean Hydrogen Portfolio Standard (Dec. 2024, May 2025)

- One contract (750 GWh/yr for 15 years) was awarded in 2024 round
- 3.0 TWh for 2025 round (same 15-year contracts starting in 2028 unless one-year grace period applies)

2. Meetings on **Supply of Mobility Hydrogen** (Dec. 2024, Mar. 2025)

- Consultative group for mobility hydrogen supply held two meetings to ensure the stable supply
 - The group is composed of relevant ministries, local governments, producers and suppliers, HRS businesses, etc.
- In 2025, hydrogen demand projected to reach 23,000 ton (max) with 2,000 buses and 11,000 cars added to national FCEV fleet

Announcements / New Initiatives *Republic of Korea*

• New Research & Development, Demonstration and/or Deployment Activities

1. R&D Project on **Direct Reduced Iron** under Preliminary Feasibility Study for Government Support (Nov. 2024)
 - Demonstration project on fluidized hydrogen reduction furnace of 300 kt/yr with 95+% GHG reduction
 - Total expenses of 646 mil. USD for 5 years ('26-'30)
 - 247 mil. USD to be disbursed by government depending on the study result

• Key Collaborations

1. Second **Korea-Japan Hydrogen Cooperation Dialogue** (Mar. 2025)
 - Follow-up of cooperative activities by 4 working groups
 - WGs: supply chain development, carbon intensity and certification, criteria and standards coordination, safety sector
 - Agreement to establishing a private sector supply chain cooperation platform, advancing GHG measuring methodologies, etc.

Examples of Lessons Learned and Impact *Korea*

Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
<ul style="list-style-type: none"> Clean hydrogen section of Clean Hydrogen Portfolio Standard 	<ul style="list-style-type: none"> Demand creation backed by clear policy signal No investment in clean hydrogen supply chain without long-term contracts Mechanism design for price discovery is a very challenging task under great information asymmetry Consideration of impact on electricity price – consumers acceptance of higher electricity price in early stage of hydrogen economy Foreign exchange risks need to be properly addressed

Republic of Korea – Profile November 2024

Status of Deployments (End of 2024, Apr. 2025)

- ✓ Stationary FC: **1,129.3 MW** ('24)
- ✓ FCEV: **38,841** ('25)
- ✓ FC Bus: **1,982** ('25)
- ✓ HRS: **408** ('24)

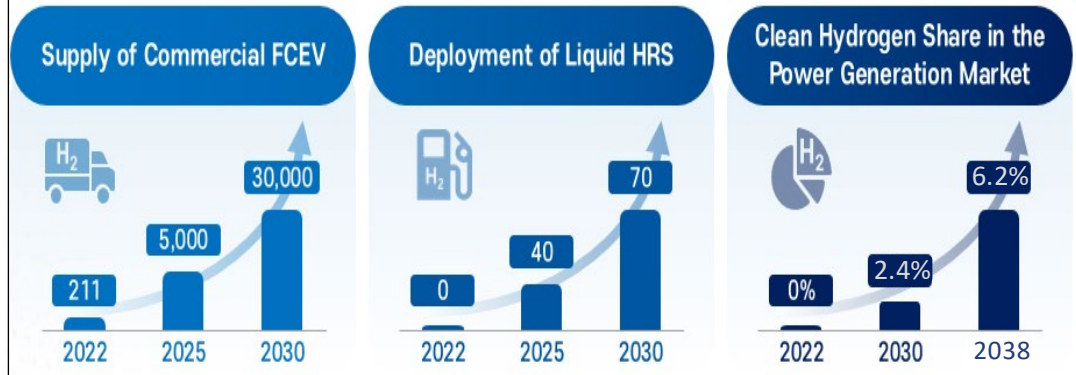
Leading Government Initiatives

Triple-Up* policy package
 * Scale-up, Build-up, Level-up
 based on
 Hydrogen Economy Promotion and Hydrogen
 Safety Management Law (Feb. '20)

Goals or Focus Areas

- Huge **demand creation**
- Demand-based **distribution infrastructure**
- Clean hydrogen **supply chain** establishment
- Institutional foundation for **hydrogen market**

Deployment Goals



Funding

- **Mobility subsidy** budget: 721.8B KRW (528M USD)
- **Hydrogen, FC R&D** budget: 47.8B KRW (34.9M USD)

Thank you



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