



International Partnership
for Hydrogen and Fuel Cells
in the Economy

Republic of Korea Update

39th IPHE Steering Committee Meeting

26 – 27 April 2023

Pretoria, South Africa

Announcements / New Initiatives *Republic of Korea*

Investments/Funding/Policies/Initiatives

1. Policy research on **Clean Hydrogen Certification Mechanism** (April 2023)

- Proposed threshold: **< 4kgCO₂eq/kgH₂ (well-to-gate)**
 - Transportation (international shipping) emissions: temporarily not counted
- Accounting methodologies for production pathways (all colors welcomed)
- Due to open in January 2024

2. Draft rules for **Clean Hydrogen Portfolio Standard** (March 2023)

- Annual amount of H₂/NH₃ electricity to be purchased by power retailers
- General (1.3 TWh in '23) and clean (3.5 TWh in '24) section separated
- General CHPS bidding process starts in June / Clean section in 2024

Announcements / New Initiatives *Republic of Korea*

New Research & Development, Demonstration and/or Deployment Activities

1. Fuel cell bus deployment program (April 2023)
 - Grant for FC bus purchase (400 units) to selected cities/provinces
2. Clean hydrogen/ammonia power generation industry meeting (March 2023)
 - Equipment manufacturers, fuel suppliers, power companies with MOTIE

Key Collaborations

N/A

Other

N/A

Examples of Lessons Learned and Impact *Republic of Korea*



Program initiative, policy, regulation or mandate	Lessons Learned/Outcomes
<ul style="list-style-type: none"> • Deployment of FCEVs exceeds 25K units (summer '22) • In the early stage of the hydrogen economy, hydrogen for FCEVs was mostly by-product hydrogen from the petrochemical industry • Despite the growing demand for hydrogen, the supply of by-product hydrogen is decreasing due to the recession in the petrochemical industry caused by the Russia-Ukraine crisis • In August 2022, hydrogen supply to some hydrogen refueling stations was stopped 	<ul style="list-style-type: none"> • Importance of hydrogen supply and demand management • Necessity of establishing a stable hydrogen supply chain • Diversification of hydrogen production and supply channel • Transition from a hydrogen supply chain focused on by-product hydrogen to a hydrogen supply chain of various production channels • Enhancing capacity of hydrogen stockpiling (e.g. liquid hydrogen, hydrogen pipeline etc.)



Republic of Korea – Profile April 2023

Status of Deployments

- ✓ Stationary FC: **883MW**
- ✓ FCEV: **29,445**
- ✓ FC Bus: **283**
- ✓ HRS: **162**

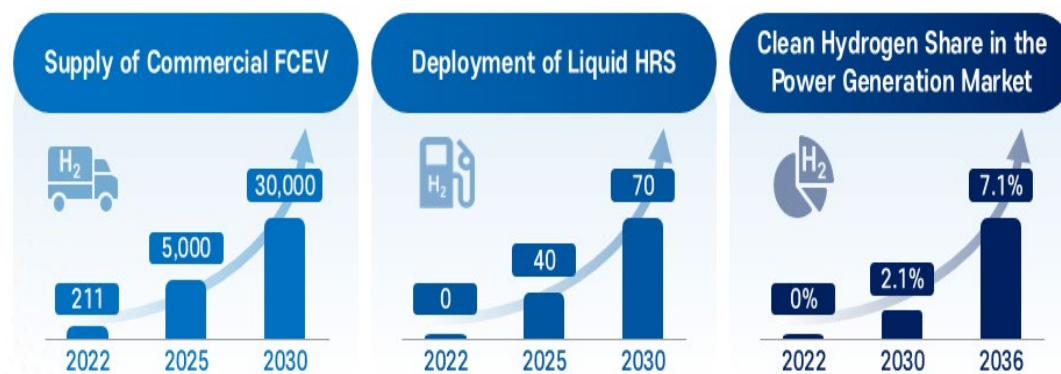
Leading Government Initiatives

Basic Plan for Implementing Hydrogen Economy
backed by
Hydrogen Economy Promotion and Hydrogen
Safety Management Law (Feb. '20)

Goals or Focus Areas

- Clean H₂ production RD&D
- Strengthening Hydrogen ecosystem competitiveness
- Expansion of infrastructure by easing regulatory barriers
- Establishment of safety management system

Deployment Goals



Funding

- 2023 Budget (mobility only):
850B KRW (680M USD)

Thank you



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