



International Partnership
for Hydrogen and Fuel Cells
in the Economy

Republic of Korea Update

38th IPHE Steering Committee Meeting
29 – 30 November 2022
San José, Costa Rica

Announcements / New Initiatives

Republic of Korea



• Investments/Funding/Policies/Initiatives

1. Revision of “Hydrogen Economy Law” (June, 2022)

- Institutional ground to promote clean hydrogen use
- Definition and certification of clean hydrogen, Purchasing obligations for electricity produced using hydrogen, etc.

2. Hydrogen Policy of **New Government** (November, 2022)

- **Demand upscaling:** 30K commercial FCEVs (2030), 7.1% share of hydrogen-fueled power generation (2036)
- **Infrastructure & institutions:** H₂ power generation bidding ('23), Hydrogen business law ('23), Clean hydrogen certification ('24)
- **Industry promotion:** R&D for core technologies

3. Launch of “Hydrogen Fund” (July, 2022)

- Announced in “2022 H₂ Investors’ Day” event
- Fund raising target: 500B KRW (370M USD) by Korea H₂ Business Summit member companies and other investors



Announcements / New Initiatives

Republic of Korea



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

- FCEV self-charging demonstration ('22.8)
- 12.5MW scale electrolysis demonstration project ('22.9)
- Real-time RFS information system (Hying) going available on mobile apps ('22.5)



• Key Collaborations

- Clean Hydrogen Trade Initiative (CHTI) Forum at H₂ MEET 2022 ('22.9)
- Global Hydrogen Industrial Association Alliance (GHIAA) launch ceremony in Seoul ('22.5)

• Other

- The First Hydrogen Day (November.2)



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 25,000 units in Korea. • 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 (eg. Liquid hydrogen, hydrogen pipeline etc.) |



Republic of Korea – Profile November 2022

Status of Deployments (as of 2022.9)

- ✓ Stationary FC: **850MW**
- ✓ FCEV: **26,508**
- ✓ FC Bus: **206**
- ✓ HRS: **153**

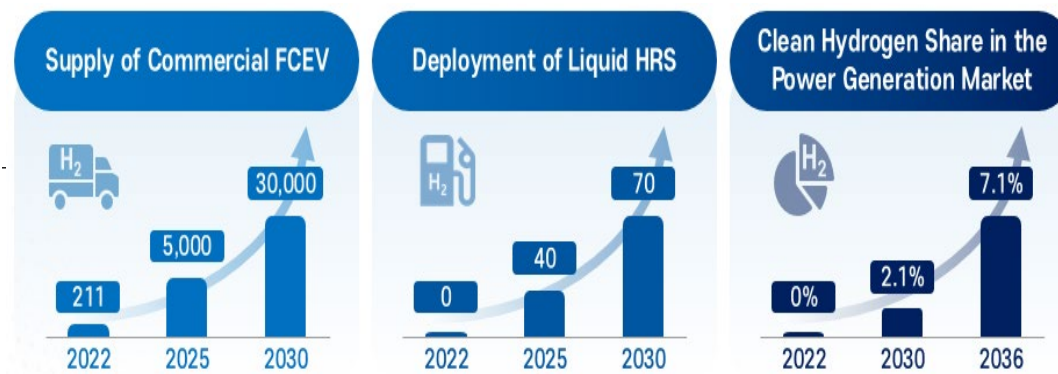
Leading Government Initiatives

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

- 2022 Budget : 3,04.9B KRW
(2.466B USD)

Thank you



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