



## IPHE Country Update Nov 2023 – Feb 2024: Republic of Korea

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<b>Covered Period</b>	Nov 2023 – Feb 2024

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

- (January 2024) **Clean Hydrogen Certification Mechanism** was launched. As proposed in the preceding research project, GHG emissions in producing clean hydrogen (**well-to- production gate**) have to be equal to or less than **4 kgCO<sub>2</sub>eq/kgH<sub>2</sub>**. Emissions from conditioning (e.g. ammonia production) and transportation, including international shipping, are not counted for the time being. Eligible pathways are only those that actually contribute to meeting the national GHG reduction target. In order to differentiate clean hydrogen based on the emission level, there are four classes as below. Main activities this year will be preliminary review consulting (desk review) of actual production projects and exemplary certification in clean hydrogen demonstration sites in Korea. The first certificates are to be issued in 2027.

Class	1	2	3	4
Emissions (kgCO <sub>2</sub> eq/kgH <sub>2</sub> )	0-0.1	0.1-1	1-2	2-4

- (2H 2024) Bidding process of **Clean Hydrogen Portfolio Standard** will be opened by Korea Power Exchange. It is the first year for the clean hydrogen section (3.5 TWh) and only generators with clean hydrogen supply contracts are allowed in the section. The winners have to be ready to produce electricity on certified clean hydrogen in 2027. In case their hydrogen fails to meet the class or emissions level that are originally submitted, penalties or disadvantages may apply. The third round of the general hydrogen section (1.3 TWh) will be opened as well. The same amount was awarded last year in the two previous rounds.

### 2. Hydrogen and Fuel Cell R&D Update

N/A



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### **3. Demonstration, Deployments, and Workforce Developments Update**

- (December 2023) The government vowed to catalyse deployment of commercial FCEVs. With targets of 21,200 FC busses, 280 liquid hydrogen refueling pumps by 2030, financial supports or tax benefits will be introduced to purchase of forklifts and garbage trucks, fuel cell replacement in commercial FCEVs, etc.
- (December 2023) Hydrogen Storage/Transport Industry Cluster is to be established in the State of Gangwon. The national government plans to fund it with a total of USD240m in total (5 years starting from 2024). It is expected to accommodate infrastructure for testing labs, demonstration projects, etc. of hydrogen storage and transport.
- (January 2024) The first hydrogen liquefaction plant in Korea went operational in the city of Changwon. It has capacity of 5ton/day to supply nearby research labs, companies and HRS. Doosan Enerbility, Province of Kyounghnam and the city government jointly invested USD72m in it.

### **4. Events and Solicitations**

**N/A**

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

**N/A**

### **6. Regulations, Codes & Standards, and Safety Update**

**N/A**