News Release

Kanadevia
Technology for people and planet

Kanadevia Corporation
November 19, 2024

Decision Made to Construct Mass Production Facility for PEM-Type Hydrogen Generator Electrolysis Stacks in Tsuru City, Yamanashi Prefecture

～ Selected for the "GX Supply Chain Construction Support Project" by the Ministry of Economy, Trade and Industry（METI）～

Hitachi Zosen Corporation changed its company name to Kanadevia Corporation as of October 2024.

Kanadevia Corporation is pleased to announce that the Company has decided to construct a mass production facility for water electrolysis stacks, the core equipment of Polymer Electrolyte Membrane (hereinafter, PEM) type hydrogen generation equipment, in Tsuru City, Yamanashi Prefecture.

The new facility will be in a new industrial park in Atsuhara, Tsuru City, Yamanashi Prefecture, and will have an annual production capacity of 1 GW of water electrolysis stacks (157,000 tons of hydrogen equivalent per year based on an electrolysis efficiency of 5 kWh/Nm^3) with a total capital investment of approximately JPY8 billion. As part of our mid-term management plan "Forward 25," Kanadevia has planned an investment of JPY140 billion in priority areas, including decarbonization business. This investment is a part of that initiatives.

In addition, Kanadevia had submitted an application for the "GX Supply Chain Construction Support Project[*1]" solicited by the Ministry of Economy, Trade and Industry under the theme of "Mass production of PEM type water electrolysis stacks systems". We are pleased to announce that our application has been approved.

The new facility will consist of various sections including a stock yard for materials, a cell stacking area, a stack assembly area, and an aging area, etc. The stack manufacturing process will be automated and streamlined by integrating DX technologies such as image diagnosis. Additionally, a traceable manufacturing management system will be established. This will also allow us to improve the cycle time post-operation and aim to enhance production capacity beyond our initial projections. The facility design will be started early in 2025 and completed by the end of fiscal year 2028, with plans to start production.

＜External view of the facility for mass production of water electrolysis stacks＞

The purpose of this investment (construction of the facility) is to strengthen product competitiveness in terms of cost, supply capacity, and delivery time through mass production of water electrolysis stacks, which has been productized by using our strength in integral-type design technology. In addition to selling hydrogen generators in Japan and overseas, Kanadevia will actively supply water electrolysis stacks, as key components, to partner companies and develop after-sales service business.

Kanadevia will also provide solutions through system integration with its group's decarbonization-related products, such as methanation, biogas systems, and desalination facilities, both in Japan and overseas. By starting with new domestic mother factory, developing manufacturing bases for hydrogen generator both in Japan and overseas, and strengthening and expanding our hydrogen-related business, Kanadevia aims to achieve sales of over JPY100 billion in the 2030s and over 200 billion yen in the 2040s in the hydrogen-related business based on water electrolysis stacks and systems.

The global installed capacity of hydrogen generators is estimated to reach 5 GW by the end of 2024 and 230 GW by 2030. Considering projects in the early stages of development, it is predicted that this figure will grow to around 520 GW[*2]. In addition, Japan and other hydrogen advanced countries view the creation and expansion of demand for the realization of a hydrogen society as an urgent issue and have planned and announced various policy supports. This capital investment is an appropriate opportunity to take advantage of this transitional period in the business environment, and Kanadevia will contribute to the realization of a hydrogen society and carbon neutrality by meeting future industrial demand for large equipment and the social implementation of decarbonization systems.

※1 This refers to subsidies provided to indirect assistance businesses planning large-scale investments that can compete globally in hydrogen generators, floating offshore wind power generation facilities, perovskite solar cells, fuel cells, and related raw materials and manufacturing equipment that can compete globally, as well as to manufacturing businesses

that have unique technologies or produce domestically limited raw materials..

※2　International Energy Agency（IEA）”Global Hydrogen Review 2024“

The overview of the new facility is as follows.

1. Construction site　　: New industrial park in Atsuhara, Tsuru City, Yamanashi Pref. Japan
2. Production model　　: Water electrolysis stack system of PEM type hydrogen generator (future plan)
3. Production capacity　: 1 GW/year or more
4. Planned completion　: End of FY2028
5. Number of employees: Approx. 100 (at the start of operation)
6. Investment　　: Approximately JPY8 billion