

November 15, 2023

Asahi Kasei Corp.

Gentari Hydrogen Sdn Bhd

JGC Holdings Corporation

Asahi Kasei, Gentari, and JGC signed MOU on FEED study for 60 MW class alkaline water electrolyser to produce green hydrogen in Malaysia

Asahi Kasei, Gentari Hydrogen Sdn Bhd, a wholly-owned subsidiary of PETRONAS clean energy arm Gentari Sdn Bhd (Gentari), and JGC Holdings Corporation (JGC) today announced the completion of a detailed feasibility study for production of up to 8,000 tonnes per year of green hydrogen using a 60 megawatt (MW) class alkaline water electrolyser system. The parties also signed a memorandum of understanding (MOU) for a front-end engineering design (FEED) study for the said project. This project is supported by the Green Innovation Fund for Large-scale Alkaline Water Electrolysis System Development and Green Chemical Plant Project by Japan's New Energy and Industrial Technology Development Organization (NEDO).

Pursuant to the MOU, the parties are preparing for the FEED study to commence in January 2024. The operation is planned for start-up in 2027.



Nobuko Uetake of Asahi Kasei, Michèle Azalbert of Gentari, and Masahiro Aika of JGC at the MOU signing ceremony

This collaboration between Asahi Kasei, Gentari, and JGC will advance the deployment of a 60 MW class water electrolyser paired with an integrated control system to produce green hydrogen. This commercial-scale project demonstrates the companies' commitment to fostering markets for green hydrogen and establishing a foundation for regional green hydrogen

production, aligning with the broader mission of decarbonisation in Japan, Malaysia, and across Southeast Asia.

“We are pleased to collaborate with these two companies on a project that will demonstrate to the world the practical application of green hydrogen. Asahi Kasei's experience from demonstration experiments in Germany and managing a 10 MW electrolyser in Japan for over three years will play a pivotal role in this project's success,” said Nobuko Uetake, Lead Executive Officer of Asahi Kasei and Senior General Manager of its Green Solution Project.

“This strategic collaboration between Gentari, Asahi Kasei, and JGC, amplifies value for all involved. The project stands as a catalyst for advancing Malaysia's hydrogen economy towards achieving its green hydrogen target of 200,000 tonnes per year by 2030, aligning with the National Energy Transition Roadmap and Hydrogen Economy and Technology Roadmap. Beyond this, Gentari is developing hydrogen projects with national and state entities to position Malaysia as the region's leading hydrogen hub, leveraging PETRONAS assets and the country's strategic advantages,” said Michèle Azalbert, Gentari's Chief Hydrogen Officer.

“I would like to express our sincere appreciation for the efforts to conclude this MOU. JGC Group is currently constructing a demonstration facility of clean ammonia production adjacent to Asahi Kasei's electrolyser at Namie-machi, Fukushima Prefecture, Japan, together with an integrated control system. We look forward to applying the lessons learnt from the demonstration and to utilising its technical outcomes toward the execution of this project in Malaysia,” said Masahiro Aika, Senior Executive Officer, Technology Commercialization Officer and General Manager, Sustainability Co-creation Unit of JGC.

About Asahi Kasei

The Asahi Kasei Group contributes to life and living for people around the world. Since its foundation in 1922 with ammonia and cellulose fiber businesses, Asahi Kasei has consistently grown through the proactive transformation of its business portfolio to meet the evolving needs of every age. With more than 48,000 employees worldwide, the company contributes to a sustainable society by providing solutions to the world's challenges through its three business sectors of Material, Homes, and Health Care. The hydrogen-related business is positioned as one of Asahi Kasei's "10 Growth Gears" (GG10) businesses to drive future growth, and the company plans to focus proactive investment in this domain. Asahi Kasei is also a member of industry associations such as the Hydrogen Council in Europe and the Japan Hydrogen Forum in the U.S., emphasizing its dedication to advancing green solutions in key focus areas. For more information, visit <https://ak-green-solution.com/en/>

About Gentari

Gentari is focused on delivering the solutions required to put clean energy into action today, to transform how we live tomorrow. Gentari's three initial core pillars of Renewable Energy, Hydrogen and Green Mobility form a comprehensive portfolio of solutions to help our customers in their decarbonisation journey. Its global 2030 aspiration is to achieve 30-40 GW of installed capacity in renewable energy, up to 1.2 million tonnes per year of clean hydrogen, and over 10% share of the public charging points and Vehicle-as-a-Service market across key countries in the Asia-Pacific region. In the long term, Gentari aims to be the most valued clean energy solutions partner, creating greater impact, connecting businesses, and making the journey to a net zero future possible.

For more information, visit www.gentari.com

About JGC

JGC group operates Engineering, Procurement and Construction businesses for plants and facilities in a variety of regions throughout the world, contributing to economic growth and industrial development in not only Japan, but also in various countries worldwide. JGC group established our purpose as "Enhancing planetary health," aiming to solve the three social issues of "achieving both a stable supply of energy and decarbonization," "reducing the environmental impact of resource use," and "establishing and maintaining infrastructure and services that support our daily lives" with making full use of the capabilities it has cultivated.

For more information, please visit <https://www.jgc.com/en/>