

Media release, 7 September 2023

## “This has potential for the energy transition”

Project launch: Liquefaction plant in Blankenhain enables trade in bioLNG, liquid CO<sub>2</sub> and GHG quotas

***Hitachi Zosen Inova is supplying an amine scrubbing gas upgrading system with downstream liquefaction units for biomethane and carbon dioxide for a wet anaerobic digestion plant in Blankenhain, Thuringia. This is part of work to realign the plant for optimum operation in the future. The project has just been given the go-ahead and detail engineering has begun. The plant is expected to be commissioned and start delivering product gases by the end of 2024. This will drive decarbonisation in the transport sector and replace industrial gas from fossil sources with renewable CO<sub>2</sub>.***

**Blankenhain, Germany.** Blankenhain Verflüssigungs GmbH recently issued the notice to proceed (NTP) for the expansion of the wet anaerobic digestion (AD) plant in Blankenhain, 30 kilometres southeast of the Thuringian capital Erfurt. The company was established last year as a joint venture between the German energy producer biogeen (formerly the biogas division of energielenker), Münster, and the Swiss greentech company Hitachi Zosen Inova (HZI) in Zurich. Blankenhain Verflüssigungs GmbH was founded to upgrade an existing biogas plant to produce biofuel and carbon dioxide (CO<sub>2</sub>) from renewable sources.

In recent months the business case, which is also applicable to other biogas plants, has been finalised. Now the project has been launched. The detail engineering will be completed by the end of October this year. By August 2024, work to manufacture the systems in Zeven and civil engineering works in Blankenhain will have been completed, enabling the plant to be delivered and erected on site. After commissioning, planned for the end of November 2024, the plant will go into operation, converting nearly 58 GWh/a of raw biogas into approximately 3,700 tonnes of liquid biomethane (LBG) per year. This will be used as a renewable fuel for freight and heavy goods transport. In addition to this, the treatment process will produce around 7,500 tonnes of liquid CO<sub>2</sub>, which will be used as a substitute for fossil-generated CO<sub>2</sub> in processes in the medical, pharmaceutical and food industries. In addition to selling the product gases, Blankenhain Verflüssigungs GmbH will also be trading the greenhouse gas quotas.

### From Manufacturer to Trader

Renowned as a plant manufacturer, in the last five years HZI has added the production and sale of green gases to its portfolio, opening up another field of business which it has been successfully expanding worldwide. This combination of plant construction and gas and emissions trading offers interesting prospects for existing biogas plants going forward, especially in Germany. “This has potential for the energy transition, because there is also a call for alternative fuels from renewable resources for long-distance freight transport,” says Fabio Dinale, Executive Vice President Business Development at HZI, alluding to electric vehicles. He continues: “We take responsibility for our environment and the generations to come. So not only expanding our technology portfolio, but also evolving into a gas producer and supplier, has been the logical next step.”

### Equal Partners

HZI has found an established, experienced joint venture partner in the biogeen Group. Biogeen’s contribution to the project is the existing wet AD plant, which was built in 2011 by Schmack, now named HZI Schmack and part of the HZI greentech group. Westphalia-based biogeen is investing extensively in retrofitting to handle the new substrate mix of liquid manure, dung and biogenic agricultural residues and waste from food production. HZI, for its part, has commissioned its German subsidiary as the EPC contractor constructing the new systems. HZI BioMethan GmbH is already building a comparable facility near its northern German site. In addition to the liquefaction units, the scope of the contract also includes the replacement of an existing gas upgrading system with a state-of-the-art amine scrubbing upgrader, a combined heat and power unit to produce electricity and heat for the company’s own needs, civil engineering works and a long-term O&M contract.

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Attachment

LNG-Tank.jpg

**About Hitachi Zosen Inova**

Zurich-based greentech company Hitachi Zosen Inova (HZI) is a global leader in solutions for energy transition and circular economy including Waste to Energy (WtE) and Renewable Gas (RG), operating as part of the Hitachi Zosen Corporation Group. HZI acts as a project developer, technology supplier and engineering, procurement, and construction (EPC) contractor delivering complete turnkey plants and system solutions for thermal and biological waste recovery. Its solutions are based on efficient and environmentally sound technologies, are thoroughly tested, and can be flexibly adapted to customer requirements. HZI's Service Solutions Group combines its own research and development with comprehensive manufacturing and erection capabilities to provide support throughout a plant's entire plant cycle. HZI works for customers ranging from established waste management companies to up-and-coming partners in new markets. Its innovative and reliable solutions have been part of more than 1,600 reference projects worldwide.

Find out more about HZI at [www.hz-inova.com](http://www.hz-inova.com).

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