Media Release
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Kanadevia Inova to build more installations enhancing circularity in Denmark

Projects involving CO_2 liquefaction and biomethane generation support Danish national climate change targets

Existing Danish customer Bigadan has awarded Kanadevia Inova two further biogas contracts: the construction of a CO_2 liquefaction plant in Kalundborg on Zealand and a membrane gas upgrading plant near Nysted on the island of Lolland in Denmark. The plants, which are scheduled to start their respective operations in April and January 2026, will contribute to achieving national decarbonisation targets with the firm commitment and support of the Danish government.

Zurich, Switzerland – Skanderborg-based Bigadan A/S (short for Biogas Danmark) and Kanadevia Inova AG (formerly Hitachi Zosen Inova) are extending their collaboration with the ongoing development of more biogas plants in Denmark.

Bigadan, is a leading contractor who deliver and operate several biogas projects and plants in Denmark. One important facility, located in Kalundborg in the northwest of the island of Zealand, converts biogenic waste residues from the production of insulin and enzymes into approximately 28 million Nm³ of biogas per year, which is then upgraded to biomethane.

Currently, the carbon dioxide contained in the biogas is separated from the methane – the process used to produce the natural gas substitute from renewable resources – and released into the environment. However, in the future Bigadan will liquefy the CO_2 instead, which will contribute to a reduction in national CO_2 emissions.

Ralf Karmann, Head of Projects at Bigadan, explains the decision to expand these plants: “This will be our second CO_2 liquefaction plant. As experts in the biogas circular economy, we regularly upgrade our plants to the state-of-the-art to harness the possibilities available.”

Large-scale dual CO_2 liquefaction plant

Bigadan has chosen a proven partner, commissioning the Swiss greentech group Kanadevia Inova to build and supply the necessary plant technology. To achieve a liquefaction rate of more than 4,000 kg/h, the plant has been designed around two coupled Model L systems, the largest in Kanadevia Inova’s LCO2 series, with each system having a liquefaction capacity of 2,100 kg/h.

“We’re delighted to have been granted these further contracts with our valued client Bigadan,” says Dr Benoît Boulinguiez, Managing Director of Kanadevia Inova BioMethan in Zeven, the group’s site in northern Germany where the plants are being manufactured. “It demonstrates Bigadan’s trust, not only in our technology, but also in our development expertise and our proven track record in project delivery.”

In contrast to other previous plug-and-play projects in containerised design, such as those already delivered in Germany and the UK, Kanadevia Inova is building the new liquefaction facilities into an existing onsite infrastructure at Kalundborg. The project kicked off shortly into the New Year and the plant is scheduled to go into operation at the end of 2026.

Another membrane gas upgrading contract for Kanadevia Inova on the island of Lolland

Hot on the heels of the Kalundborg LCO2 scheme is a second contract at the Nystedt project. This involves expanding another existing biogas plant to include a gas upgrading system which will produce biomethane for injection into the regional gas supply grid.

Bigadan had already commissioned Kanadevia Inova just over a year ago with a membrane gas upgrading system for its biogas plant in Odense. The team in Zeven will now also supply this technology to Nystedt in the southeast area of the island of Lolland. This will provide around 100 GWh of biomethane, replacing natural gas usage in line with Denmark's current decarbonisation targets for 2030.

The facility, which features an M series L2000 upgrader, is a smaller version of the plant in Odense. The resulting synergies in preparation, contract drafting and project planning have enabled the scheme's development to be expedited. Thanks to the standardisation of these systems and advance production, Kanadevia Inova is able to offer shorter delivery times, with the plant scheduled to start operations at the end of this year.

Successful partnership for a growth market

These latest orders confirm the success of the new sales strategy adopted by Kanadevia Inova for stronger market growth in Denmark, which involves closer cooperation with regaco a/s in Herlev.

regaco, an experienced Danish partner, provides support with project acquisition, and thanks to its multiple sites, is also able to guarantee rapid 24/7 on-site service from qualified Danish-speaking system technicians.

"The last few months have shown that this level of service and leading plant availability are the ideal solutions to meet the needs of our Danish customers," explains Dr Benoît Boulinguiez.

This is particularly advantageous for Kanadevia Inova's customers when it comes to CO_2 liquefaction plants, as the systems supplied can generate useful gases and at a quality that is suitable for use in the food and pharmaceutical industries. Demand is growing in these industries, and in other sectors, for liquefaction technologies that can convert carbon dioxide from renewable sources, i.e. green CO_2, which then replaces fossil-based gas currently used in industrial processes and food production.

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Attachment: 1 picture

Bigadan_Carbon_Dioxide.jpg: Kanadevia Inova expands its partnership with Bigadan to build cutting-edge CO_2 liquefaction and biomethane plants in Denmark.

About Kanadevia Inova

Kanadevia Inova, formerly Hitachi Zosen Inova, is a global green-tech leader that pioneers innovative solutions for the energy transition, the circular economy and decarbonisation.

Headquartered in Zurich and employing 3,000 people in 17 countries, Kanadevia Inova specialises in Waste to X (WtX) and Renewable Gas (RG), delivering turnkey plants and system solutions that transform waste and biogenic residues into valuable resources.

As part of Kanadevia Corporation, our mission is to bring long-term value to society and contribute to a future free of wasted waste. We take a holistic approach – from project development, engineering,

procurement and construction (EPC) to service throughout a plant's life cycle. By integrating advanced technology and continuous research and development, we ensure that each project is designed to achieve optimal performance.

With more than 1,600 reference projects completed globally, our team delivers innovative, customer-centric solutions to both established market leaders and partners in emerging markets.

Find out more about our company at www.kanadevia-inova.com.

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