

## PRESS RELEASE

LCO<sub>2</sub> tank successfully connected

### **BioEnergie Park Güstrow ready to be placed into operation**

**July 25th 2023** The conversion and assembly work at Germany's largest integrated bio-LNG plant with bio-CO<sub>2</sub> liquefaction – BioEnergie Park Güstrow in Mecklenburg-Western Pomerania – has just been completed. The EnviTec Biogas team is now ready to start placing the plant into operation. 'Now that the last component, the 300,000-litre LCO<sub>2</sub> tank made of pressure vessel steel, has been integrated, we can start the test phase with the newly installed plant components,' says Frank Hinken, Managing Director of EnviTec Bioenergie Güstrow GmbH.

The raw biogas produced at BioEnergie Park Güstrow is upgraded to natural gas quality with the help of the innovative EnviThan gas upgrading process. The CO<sub>2</sub>-enriched permeate from the gas treatment process contains an extremely small amount of methane and is transferred to the CO<sub>2</sub> liquefaction plant (LCO<sub>2</sub> plant) for further treatment. It is used for the production of liquid carbon dioxide. 'The bio-CO<sub>2</sub> produced can be used in food and beverage production sectors, for example, or, in greenhouses,' explains Hinken. The off-gas created during the liquefaction of CO<sub>2</sub>, which contains other non-condensable gases such as nitrogen, oxygen and hydrogen as well as methane, is fed to the combined heat and power plants at the site, where it is used to generate energy for self-supply. 'Through this active circular economy, we are making an important contribution to a greener transport sector,' stresses Jürgen Tenbrink, Chief Technology Officer of EnviTec Biogas AG, which is based in Lohne and Saerbeck.

Once in operation, due late summer this year, the plant will produce 25,000 kg of bio-LNG daily for heavy-duty transport vehicles. This will provide green fuel for more than 50,000,000 lorry kilometres (31,068,550 miles) per year. At the same time, the liquefaction of biomethane is accompanied with the liquefaction of carbon dioxide via the gas treatment process. The liquid carbon dioxide, 15,000 metric tonnes per year generated at food quality, substitutes fossil-based carbon dioxide, significantly improving the CO<sub>2</sub> footprint of the plant.

## Information – EnviTec BioEnergie Güstrow GmbH

- Commissioning of Germany's largest biogas plant, built by EnviTec Biogas, in 2009
- Purchase and transfer to EnviTec Own Investment ownership in 2021
- The aim is to enable the production of 9,600 metric tonnes of bio-LNG (liquefied natural gas) and 15,000 metric tonnes of bio-LCO<sub>2</sub> per year by late summer 2023.
- Previously, the 500-GWh biogas upgrading unit fed biomethane into the 25-bar natural gas network. The former operator required around 400,000 metric tonnes of substrate for this. This was predominantly sweet corn, but also included whole plant silage, cereals and grass silage.
- The new operating concept, input will be reduced to 150,000 metric tonnes per annum, primarily consisting of agricultural residues. Additional CHP units will be 'docked on' to supply 3.1 MW<sub>el</sub> of power for the plant's own use. Digestate storage capacities have also been adjusted accordingly.
- The conversion of the Güstrow site required investment in a CO<sub>2</sub> liquefaction plant and an LNG plant for biomethane liquefaction as well as extensive reinvestment in elements such as new roofs and agitators amounting to more than EUR 50 million.

### About EnviTec Biogas AG

EnviTec Biogas AG covers the entire value chain for the production of biogas, including the planning and turnkey construction of biogas plants and biogas upgrading plants as well as their commissioning. The company takes charge of biological and technical services on demand, and also offers operational management services. EnviTec operates 89 of its own plants, making it one of the largest biogas producers in Germany. EnviTec's business interests also include the direct marketing of upgraded biomethane as well as the marketing of electricity and balancing energy. The company is represented in 15 countries worldwide by its own companies, sales offices, strategic partners and joint ventures. In 2022, the EnviTec Group generated revenue of EUR 382.8 million and EBT of EUR 66.6 million. The Group currently employs 607 people worldwide. EnviTec Biogas AG has been listed on the Frankfurt Stock Exchange since July 2007.

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