

Media release, 8 October 2021

Hitachi Zosen Inova to Supply CO₂ Liquefaction Plant for Pioneering Swiss Project

The Swiss company CO2 Energie AG has commissioned Hitachi Zosen Inova to construct an installation to separate and liquefy renewable carbon dioxide at an existing biogas plant. This renewable by-product will be made available for industrial purposes, avoiding the use of fossil carbon dioxide, and thus contributing to global climate protection and decarbonisation efforts in a pilot project showing the path into the future.

Nesselbach, Switzerland. Hitachi Zosen Inova (HZI) has been awarded the contract to engineer and deliver a turnkey plant to liquefy carbon dioxide (CO₂) naturally resulting from an organic digestion plant. The client is CO2 Energie AG, which in Nesselbach (Canton Aargau) will take the CO₂ generated in the treatment of organic waste to produce biogas and biomethane and prepare it for industrial applications. The Nesselbach project marks an important step forward in HZI's Renewable Gas business.

Technological Upgrade of Existing Site

For the visionaries in Nesselbach, this project has both environmental and economic advantages: The existing biogas plant at the site has until now produced biogas, which is upgraded into biomethane for feeding into the regional natural gas grid. The process involves separating the carbon dioxide in the biogas from the methane. In the future the new installation will capture and liquefy the CO₂ from the gas upgrading process for use as product gas in various industrial applications, for example as technical welding gas, in gas extinguishing systems or for inertisation. The HZI liquefaction plant will have a processing capacity of 4,000 t/a CO₂. In addition to the efficient utilisation of carbon dioxide, the project contributes to the substitution of fossil CO₂.

HZI is developing the plant as a compact, container construction that will liquefy the high-purity product gas and inject it into storage tanks. Upgrading existing biogas plants with CO₂ liquefaction is a pioneering project for plant operators that also pays off monetarily by serving other sectors of the economy, making it fully circular. HZI's Renewable Gas division also provides biogas and gas upgrading technologies, making it a partner with a wealth of experience in all the work involved, including comprehensive expertise in the relevant interfaces – a key advantage when it comes to integrating equipment into the overall concept.

(2,379 characters including spaces)

Annex: Biogasanlage Nesselbach.jpg

Photo caption: A new CO₂ liquefaction installation is being constructed by HZI on the site of the biogas plant in Nesselbach, Canton Aargau, Switzerland (picture credit: CO2 Energie AG)

About Hitachi Zosen Inova

Zurich-based Hitachi Zosen Inova (HZI) is a global leader in energy from waste (EfW) and renewable gas, operating as part of the Hitachi Zosen Corporation Group. HZI acts as an engineering, procurement, and construction (EPC) contractor and project developer, delivering complete turnkey plants and system solutions for thermal and biological EfW recovery. Its solutions are based on efficient and environmentally sound technology, are thoroughly tested, and can be flexibly adapted to customer requirements. HZI's Service Group combines its own research and development with comprehensive manufacturing and erection capabilities to provide support throughout the entire plant life cycle.

HZI works for customers ranging from experienced waste management companies to up-and-coming partners in new markets worldwide. Its innovative and reliable waste, flue gas treatment, gas upgrading and power-to-gas solutions have been part of more than 700 EfW and biogas reference projects delivered since 1933.

To find out more about HZI, please visit www.hz-inova.com.

Media Contact

Hitachi Zosen Inova AG

HZI Media Office, Manuela Höllinger

Hardturmstrasse 127, CH-8005 Zurich, Switzerland, T +41 44 277 14 57

com@hz-inova.com , www.hz-inova.com