VANZETTI CRYOGENIC TECHNOLOGY

## Press Release

# Cryogenic pumps for bioLNG

*Vanzetti Engineering has supplied its own centrifugal cryogenic pumps for biogas micro liquefaction plants.*

*Cavallerleone, May 2021* – The climate goals of the European Union call for a 55% reduction in greenhouse gas emissions by the end of 2030. To meet these goals, the *Gas for Climate* consortium proposes the introduction of a binding target for 2030 of 11% renewable gases out of the total final European gas demand. To ensure an acceleration of renewable gas market growth within the European Union, the 11% share is sustained by two binding sub-goals related to green hydrogen and biomethane, where at least 8% of the gas used in the EU by 2030 must be biomethane.

Based on EBA (European Biogas Association) figures, a total of 167 TWh of biogas is produced in Europe, equivalent to 15.8 billion cubic meters, and approximately 26 TWh of biomethane, equal to 2.43 billion cubic meters. This production already corresponded to 18,943 biogas plants at the end of 2019 and 725 biomethane plants installed, but the market is destined to witness significant growth in coming years, including in Italy.

Vanzetti Engineering's **centrifugal cryogenic pumps** are suitable for use in **biogas micro liquefaction plants**. Recent supplies include the bioLNG production plant built in **Verolanuova**, in the province of Brescia, by the Livorno-based company **2LNG** (Tecnoproject Industriale joint venture), and the first upgrading and liquefaction plant started up in Italy by the Piedmont firm **Criotec Impianti** in **Candiolo** at the **Cooperativa La Speranza**.

Vanzetti Engineering pumps are used in this type of application to transfer bioLNG produced by micro liquefiers which are downstream from a biomethane upgrading process. Biogas from animal type waste, or plant scraps or organic fraction of municipal solid waste (OFMSW), are purified with the upgrading process to biomethane and then liquefied. The final liquefied product is characterised by a high degree of purity, necessary to prevent damage to the liquefier.

In biogas micro liquefaction plants, the role of the cryogenic pump is at the end of the process, once the biogas is in the storage tank: the pump is used to transfer the product and represents the last communicating element between the plant and the company that must pick up the product and take it to another supply point. Centrifugal pumps are installed on manual skids in micro liquefaction plants. Vanzetti Engineering handles the supply of the cryogenic pump and builds the entire skid, while the end customer takes care of installing the plant.

The product generally used for this type of application is the **cryogenic pump DSM 230 on skid**. This type of pump features an electric motor, direct transmission and mechanical seal, an ideal configuration for transfer applications.

In addition to the plants of Verolanuova and Candiolo, other projects are currently in the authorisation phase in various sites in Italy and plants are already being built in other parts of the world, for example, in northern Europe a new plant was recently started up in Holland where Vanzetti Engineering centrifugal pumps are utilised to transfer product from the micro liquefier to tanks.


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