



THE CUSTOMER

VERDEMOBIL BIOGAZ, a pioneering French company that specializes in the valorization of renewable gases, including BioCH₄, BioCO₂, and BioH₂.

THE CHALLENGE

Develop a system that uses cryogenic distillation to cool and purify lean biogas, while consuming minimal energy.

THE SOLUTION

SWEP designed and sized brazed plate heat exchangers, which are key to the process of purifying CO₂, specifically for VERDEMOBIL BIOGAZ.

THE HEAT EXCHANGERS

For VERDEMOBIL BIOGAZ, SWEP has installed countless different types and sizes of BPHEs, with different flow rates, across 6 different system designs.

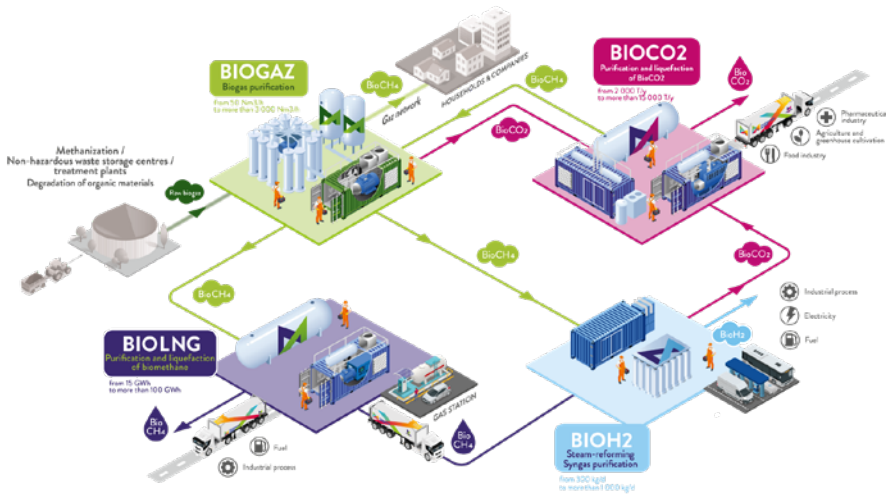
THE RESULTS

Pure, liquid CO₂.

VERDEMOBIL BIOGAZ and SWEP – creating pure CH₄, CO₂, and H₂ from lean biogas

Purifying biogas

The purification of biogas into biomethane generates two primary streams: Biomethane and lean gas, also called “off gas,” which is primarily composed of carbon dioxide. At their installations, VERDEMOBIL BIOGAZ captures, purifies, liquefies, and distills this gas, allowing for the valorization of 100% of the biogas, with zero discharge of CH_4 or CO_2 into the atmosphere.



VERDE MOBIL modules.

The role of SWEP BPHEs

SWEP brazed plate heat exchangers play a crucial role at many stages of VERDEMOBIL BIOGAZ's innovative cryogenic systems, including:

- Pre-cooling
- Liquefaction
- Heat recovery
- Vaporization
- Condensing process and auxiliary fluids

Why choose SWEP?

Kevin PREAU, Engineering Manager at VERDEMOBIL BIOGAZ, expresses satisfaction with the long-term relationship between SWEP and VERDEMOBIL BIOGAZ.

“The choice of SWEP brazed plate heat exchangers stems from their wide range of products, offering a compact design for space optimization and system customization. Regarding cost, service and team responsiveness to deadlines, SWEP receives an A+ rating from VERDEMOBIL BIOGAZ.”



More About VERDEMOBIL BIOGAZ

Based in Montaigu-Vendée, France, VERDEMOBIL BIOGAZ specializes in the design, manufacture, maintenance, and operation of renewable gas recovery units. The company is made up of a dynamic team of more than 50 people and is growing continuously to support BioCH_4 , BioCO_2 , and BioH_2 projects in France and internationally.

15 years of experience and expertise

VERDEMOBIL BIOGAZ developed its first unit in 2010. Since 2018, the company has continuously expanded its range of biogas valorization solutions to meet a wide range of uses and needs. VERDEMOBIL BIOGAZ also offers reliable solutions for purifying biogas into Biomethane through Pressure Swing Adsorption (PSA) and membrane filtration, which are suitable for projects of all sizes in biogas production.

Global perspective, global operations

VERDEMOBIL BIOGAZ currently operates 52 renewable gas recovery facilities in five countries. These facilities recover 1,138 GWh of biomethane and 41,675 tons of BioCO_2 every year.



SWEP brazed plate heat exchangers.