



Seize the opportunity  
offered by  
Biomethane, with a  
single handshake

# AB is the one-stop shop that guarantees all the benefits of biomethane to your company.

## THE CORE OF THE SYSTEM IS BIOCH4NGE®, THE SOLUTION FOR BIOGAS-TO-BIOMETHANE UPGRADING WITH MEMBRANE SYSTEM.

BIOCH4NGE® purifies biogas from the anaerobic digester. The filtered and dehumidified gas is compressed, cooled and purified from pollutants through a bed of activated carbons. Pre-treated and purified biogas undergoes upgrading, i.e. the separation of methane from carbon dioxide. The plant is complemented by a series of options: biogas pretreatments (such as the desulphurization system), necessary in the case of matrices particularly laden with undesirable compounds, biomethane post-treatments required for feeding into the grid (such as the booster compressor to increase the pressure) and other ancillary accessories (such as RTO-regenerative thermal oxidizers for post-treatment of waste gas).

(A) (B)

## THE RANGE OF BIOCH4NGE® SOLUTIONS

BIOCH4NGE® is available in standardized sizes from 50 to 1,500 Nm³/h, complete with pretreatment systems which can be associated with the existing biogas plants and can be integrated with possible extensions related to liquefaction of gas and CO₂ enhancement. Different size solutions can be made to measure.



Visit Biomethane Channel, the only video portal dedicated to the world of biomethane

→ [biomethanerngchannel.com](https://biomethanerngchannel.com)



## THE CH4LNG LIQUEFIER PRODUCES AN LNG SUITABLE FOR ROAD-BASED TRANSPORT.

CH4LNG is the AB solution for biomethane liquefaction, designed to be installed downstream of a BIOCH4NGE® system. It is based on an integrated cryogenic process, divided into three phases: treatment, liquefaction and storage. In the first part of the process, the TSA (Temperature Swing Adsorption) lowers the moisture and CO₂ content to the purity required for liquefaction. The biomethane is liquefied over several stages of cooling by progressively decreasing the temperature and is then conveyed to a transfer tank, in which the desired pressure and temperature conditions of the final product are reached.

(A) (B)

With AB you create a complete and sustainable energy system, combining cogeneration, biogas upgrading technologies, biomethane and CO₂ liquefaction, supported by a complete range of services: from the feasibility study to maintenance.

## ECOMAX® COGENERATION SOLUTIONS CAN POWER THE ENTIRE SYSTEM.

ECOMAX® cogeneration plants, in combination with BIOCH4NGE® and CH4LNG, can create a complete energy system. ECOMAX® produces electrical and thermal energy starting from a single fuel source (biogas or methane), to power the entire plant efficiently and sustainably. At the service of both BIOCH4NGE® and CH4LNG, AB can provide the complete power supply system for electrical utilities, including medium-low voltage transformer, medium voltage switchboards and low voltage power distribution.

(A) (B)

In support of the plant, AB also makes available **DISCO₂VERY**, the **CO₂ liquefier** which allows to purify and liquefy gas rich in carbon dioxide coming from the BIOCH4NGE® system, in order to obtain **liquid CO₂ suitable for food and industrial use**.

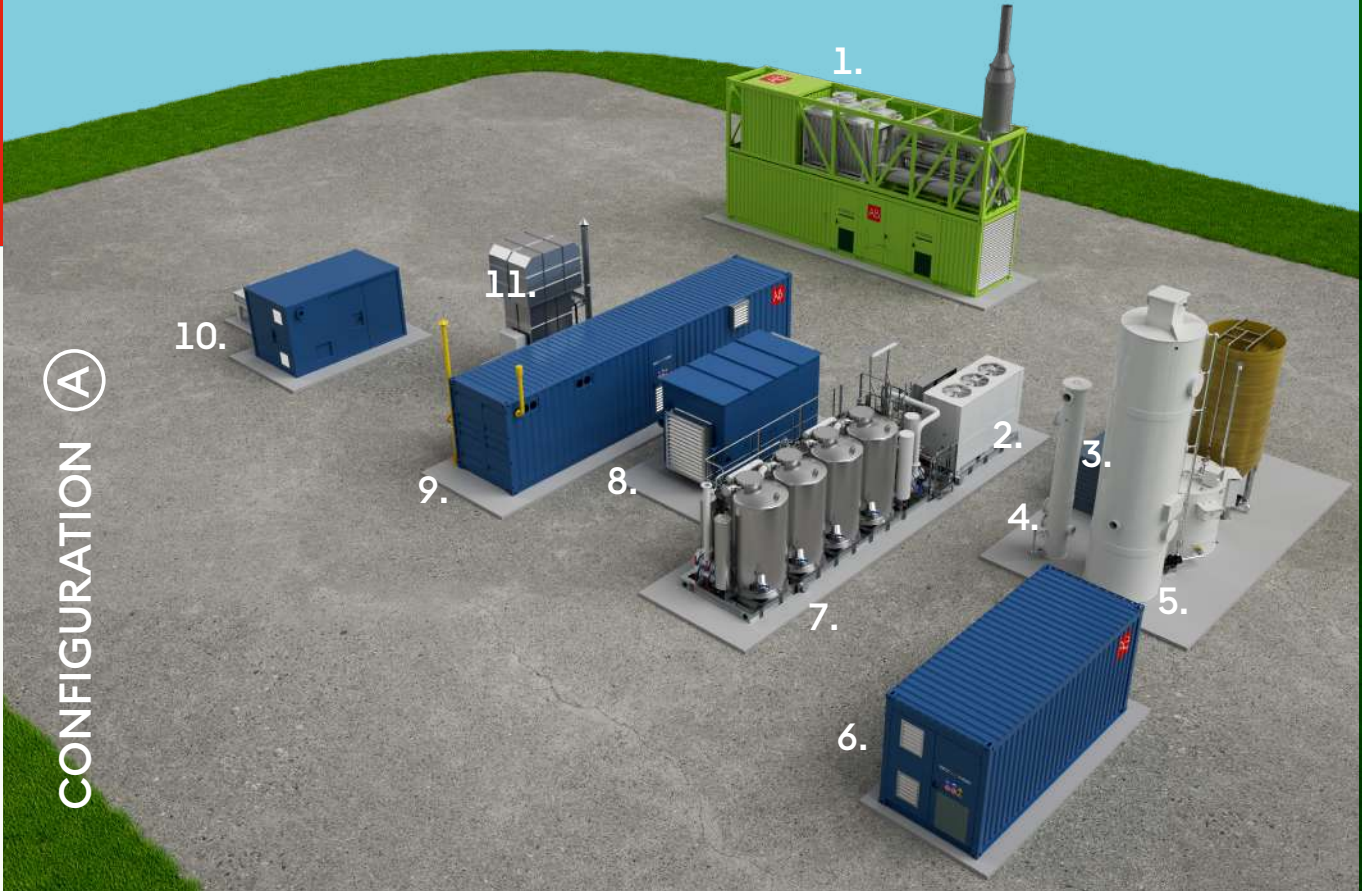
## Compressed or liquid biomethane?

→ In CONFIGURATION (A) the final product is compressed biomethane, which can be fed into the grid or used on site.

→ In CONFIGURATION (B) thanks to the addition of CH4LNG®, liquefied biomethane is obtained, which has a density three times higher than that of compressed natural gas, which ensures greater ease of transportation and a greater efficiency when used as fuel.

## LEGEND

1. COGENERATOR ECOMAX® (A) (B)
2. BIOGAS TREATMENT SKID FOR UPGRADING (A) (B)
3. REAGENT STORAGE (A) (B)
4. NH₃ TREATMENT TOWER (A) (B)
5. DESULPHURIZATION SYSTEM (A) (B)
6. OXYGEN GENERATOR ENCLOSURE (A) (B)
7. ACTIVE CARBON FILTERS (A) (B)
8. COMPRESSION SYSTEM (A) (B)
9. BIOCH4NGE® MEMBRANES UPGRADING ENCLOSURE (A) (B)
10. BOOSTER COMPRESSOR (A) (B)
11. RTO (A) (B)
12. CH4LNG® LIQUEFACTION SYSTEM (A) (B)
13. CRYOGENIC TANK (A) (B)
14. TRUCK LOADING SYSTEM (A) (B)



COMPRESSED BIOMETHANE

LIQUEFIED BIOMETHANE

## Every company in the agricultural and livestock sector has its own needs, which AB knows how to interpret.

It provides each one with tailor-made services that guarantee a long life to the investment and optimal performance over time. The assistance and maintenance of our plants is provided by AB Service: over 300 specialists operating all over the world, ready to intervene 24 hours a day, 365 days a year. The hours of operating availability of our plants average over 95%, with peaks of over 98%.

Feasibility study and choice of the best solution

Expert advice on legislation and incentives

Assistance in the authorization phase

Plant design and production

Installation and system start-up

24/7 maintenance and assistance service

Spare parts always on-hand

Financing

## Some of our references



Rely on AB's  
**ONE STOP SHOP** to  
obtain biomethane in  
a single solution, the  
best!

WATCH  
THE VIDEO ►



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