

Pure Biomethane Biogenic CO₂

—
Biogas upgrading for full value

November 2025

Our mission is to provide high-efficiency solutions that contribute to a sustainable, low-carbon future. As a leader in gas separation technology, we focus on upgrading biogas to biomethane and capturing CO₂ for climate friendly applications. Our advanced systems are designed to transform waste gases into valuable resources, supporting a greener energy landscape and reducing greenhouse gas emissions.

Our CO₂ separation technology helps turn biogas into clean, renewable biomethane. Our tailored solutions for CO₂ capture and liquefaction offer industries a practical path to reduce emissions, meet regulatory standards and seize new opportunities in a changing energy market.

Ammongas is committed to enabling universal access to reliable and sustainable energy solutions supporting UN SDG Goal 7. We are ready to support you with technology that meets today's needs and is engineered for tomorrow's challenges.



7 AFFORDABLE AND
CLEAN ENERGY



The Ammongas value chain

At the heart of Ammongas are four products that support our commitment to helping the community achieve green development.

Biogas Upgrading

Transforming raw biogas into biomethane, a renewable source of energy.

Extra Clean Methane

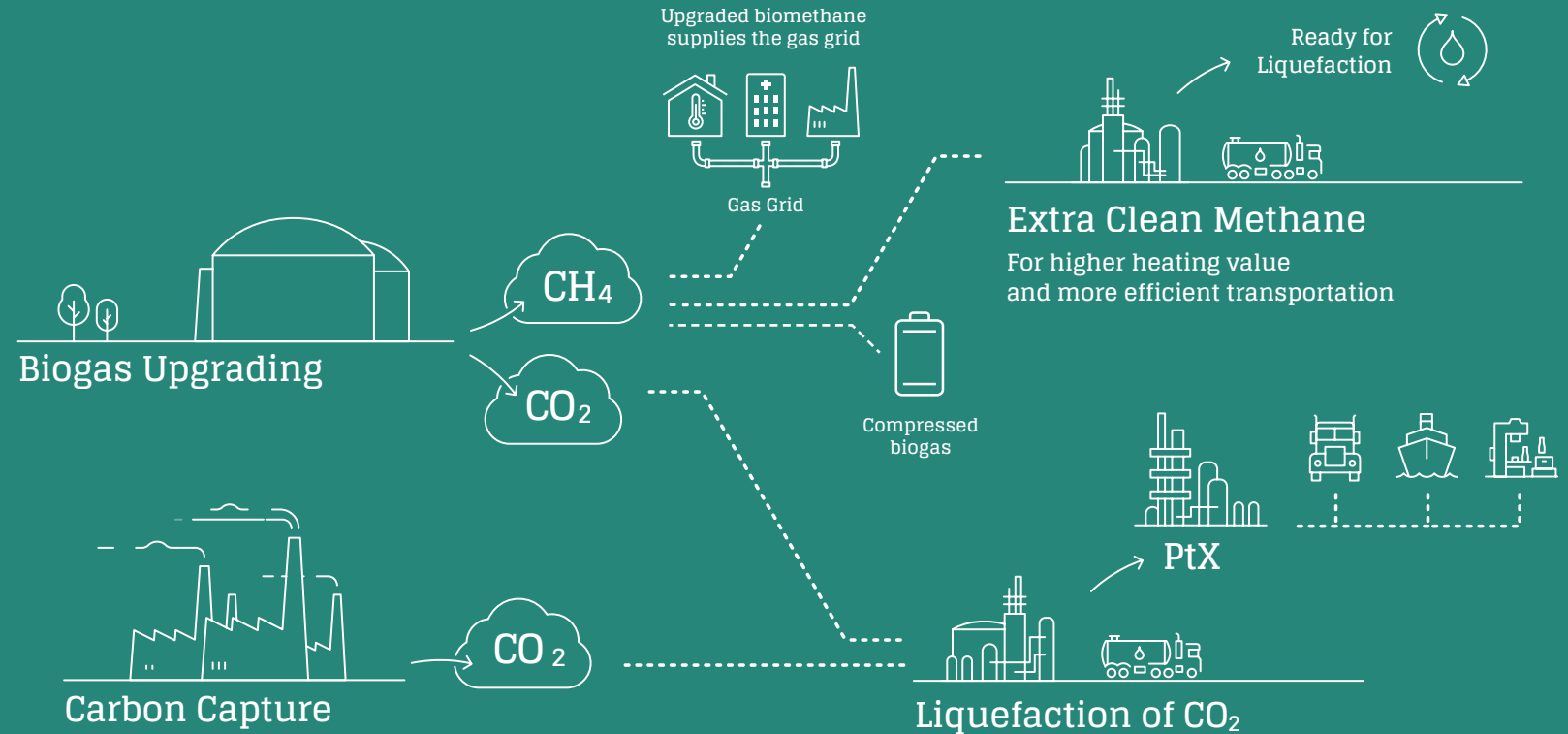
Producing high-purity methane that can be used for bio-LNG.

Carbon Capture

Utilizing technology to capture and store carbon dioxide emissions, helping to combat climate change.

CO₂ Liquefaction

Converting gaseous CO₂ into a purified liquid for easy transportation, storage, and versatile applications.



Scan the QR code and take a look at the detail in the video about our core products.

Principle of CO₂ separation

Ammongas uses the well-known absorber-stripper system with amines for upgrading of biogas and for Carbon Capture. The process has been used for many years in the oil and gas industry for removal of CO₂, H₂S among other acidic gases, and is known for being a robust and reliable system.

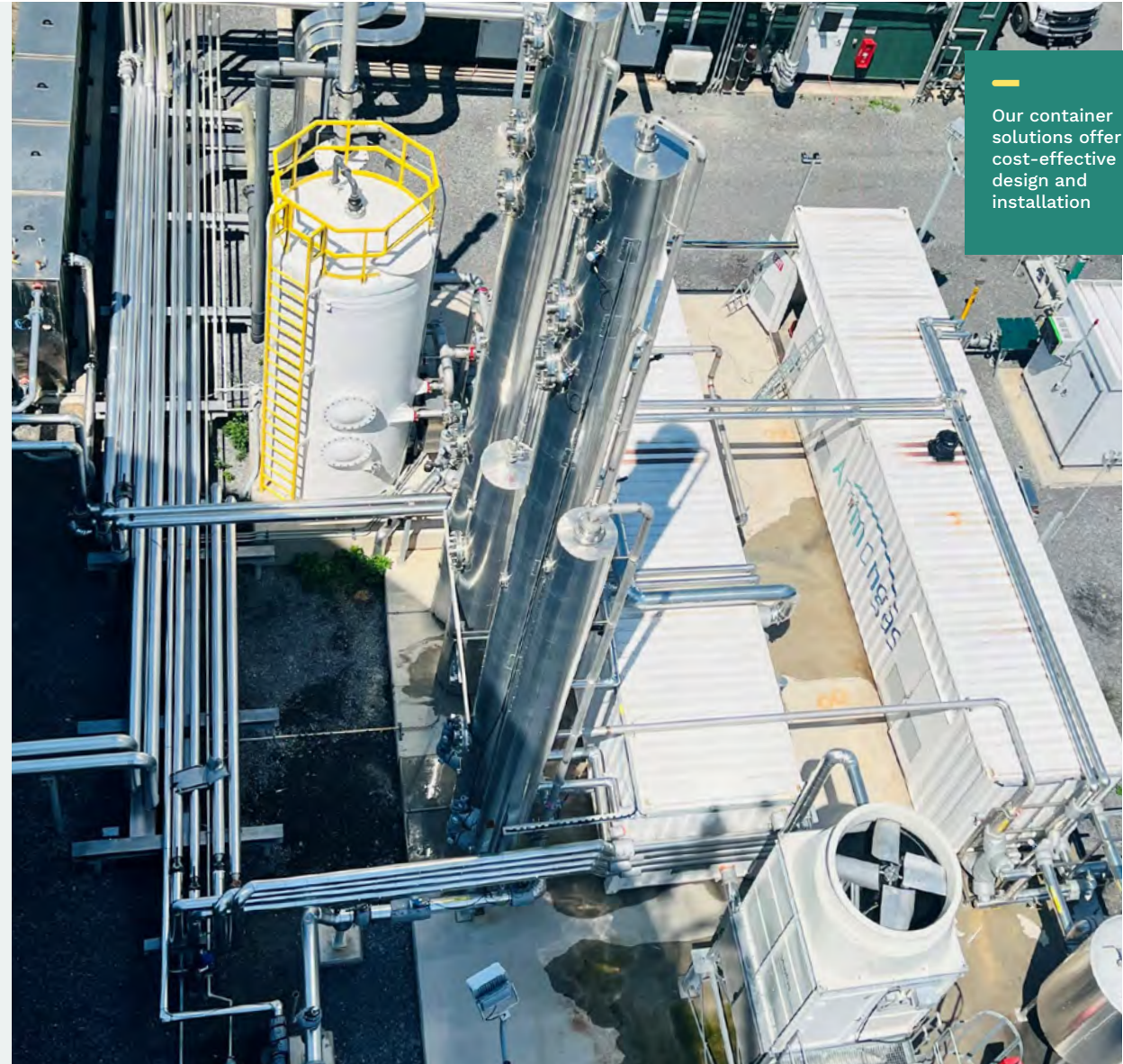
The central principle of an Ammongas plant is a CO₂-separation that uses an alkaline amine

solution to absorb acidic gases. Heat is added to the system to regenerate the amine which circulates in a loop to reduce the consumption of solvent. Recuperating the heat is an integral part of the Ammongas value proposition and it is possible to achieve up to 90% heat recuperation from the process.

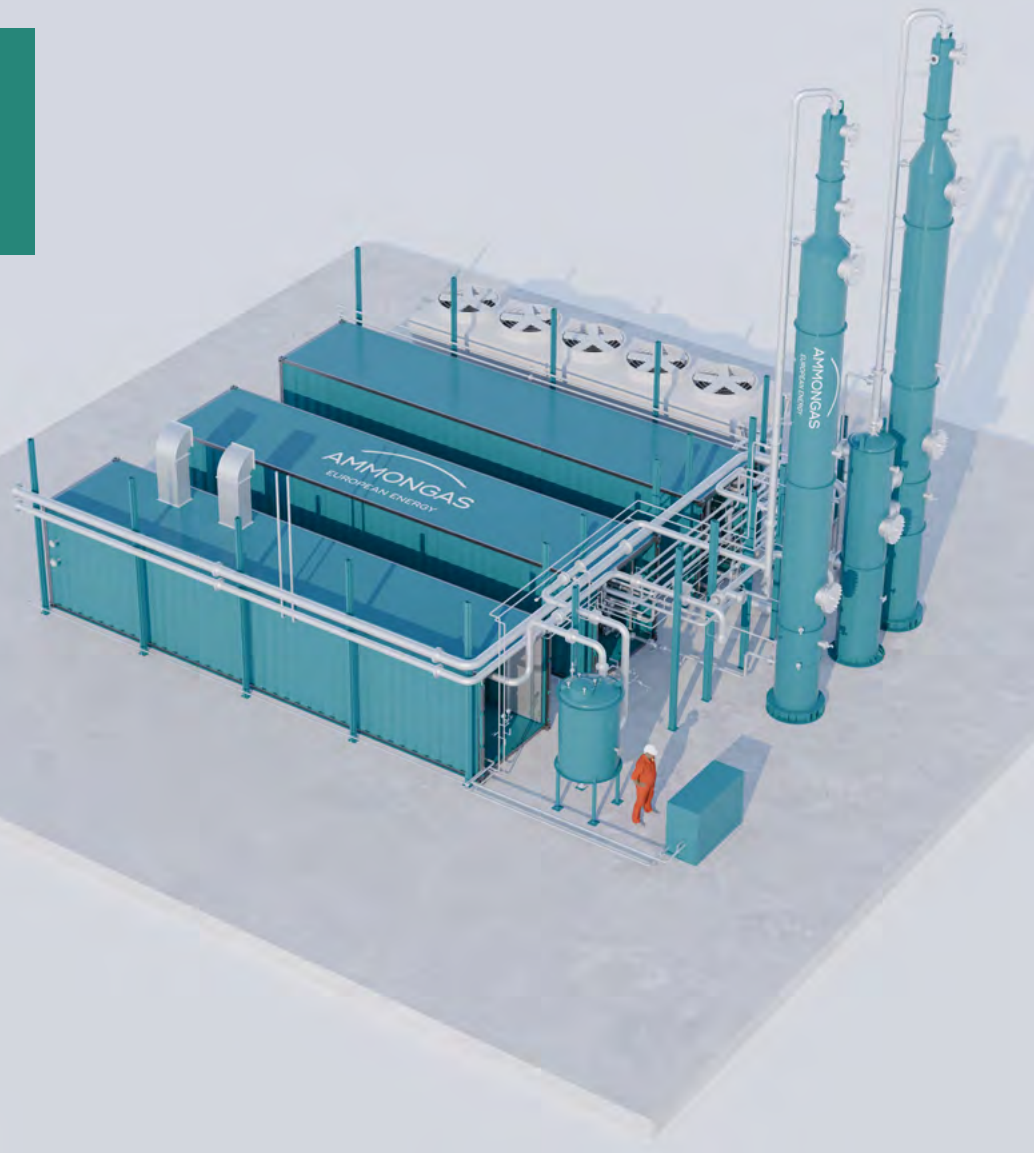
Upgrading of biogas in a class of its own with Ammongas.

Ammongas has built **40+ biogas upgrading** plants ranging from 150 to 10,000 m³/h.

Our container solutions offer cost-effective design and installation



Turnkey biogas upgrading with optimized footprint and high efficiency

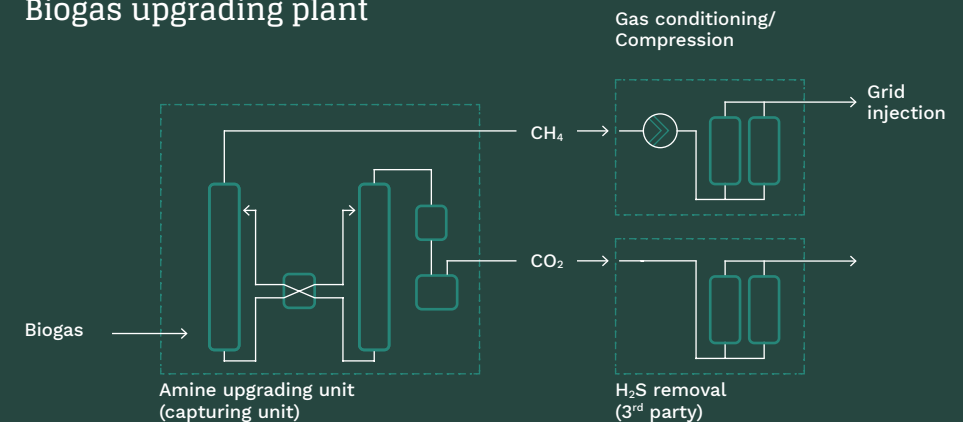


Biogas upgrading

Ammongas is an expert in CO₂-separation for biogas upgrading to biomethane. Ammongas' absorption process is so efficient that the methane slip to the atmosphere is less than 0.05%. This means that the amount of methane recovered is more than 99.9%.

Due to the efficient process, CO₂ is removed efficiently leading to a higher purity of CH₄ in the upgraded gas. Furthermore, the robust technology of the upgrading process results in low operational expense with an average up-time of 99% including service.

Biogas upgrading plant

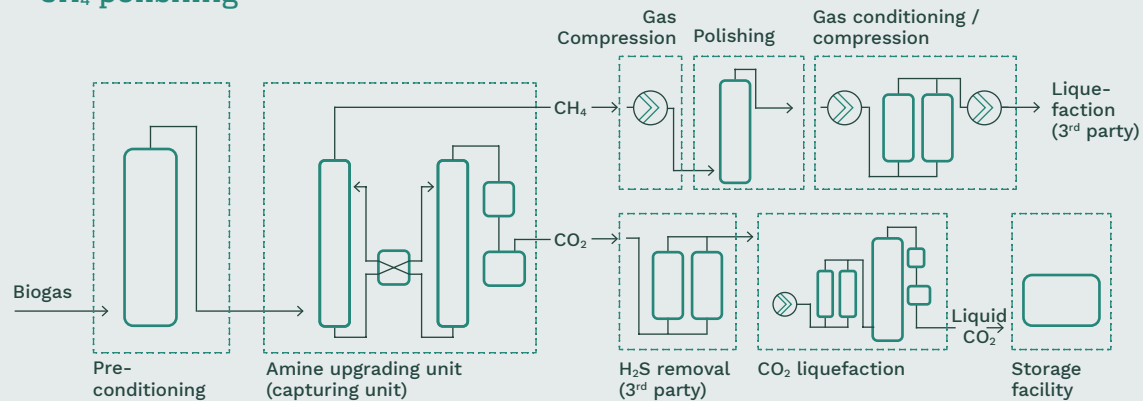


Stand-alone or integrated CH₄ polishing

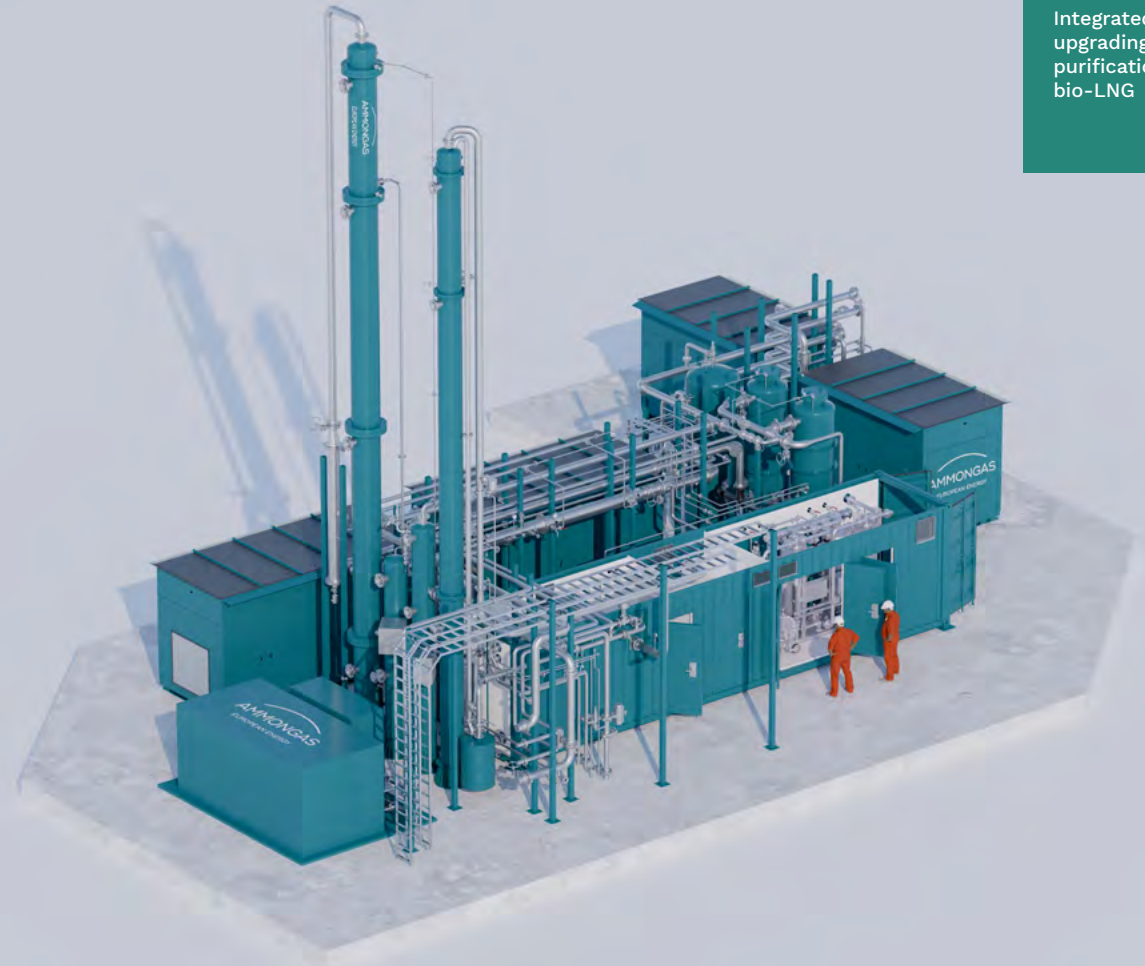
Ammongas' CO₂-separation process can remove down to less than 50 ppm of CO₂ in the biomethane, which is necessary to prepare the gas for liquefaction (bio-LNG).

CH₄ polishing can be offered as a stand-alone add-on to an existing upgrading plant or offered as an integrated amine upgrading and polishing plant.

System integrated CH₄ polishing



Integrated upgrading and purification for bio-LNG



Advantages of Ammongas biogas upgrading



Tailored solutions

We collaborate closely with clients to deliver the optimal configuration for each project.



Robust design

Our CO₂ separation system is engineered to handle high concentrations of H₂S, ensuring durability and performance.



Energy efficiency

Only CH₄ is compressed, reducing electricity consumption compared to other technologies.



Long lifespan

Our plants are built to last, in stainless steel, with premium components.



Cost savings

With high heat recuperation and effective solvent regeneration, our CO₂ separation plant minimizes operational expenses.



High CO₂ separation

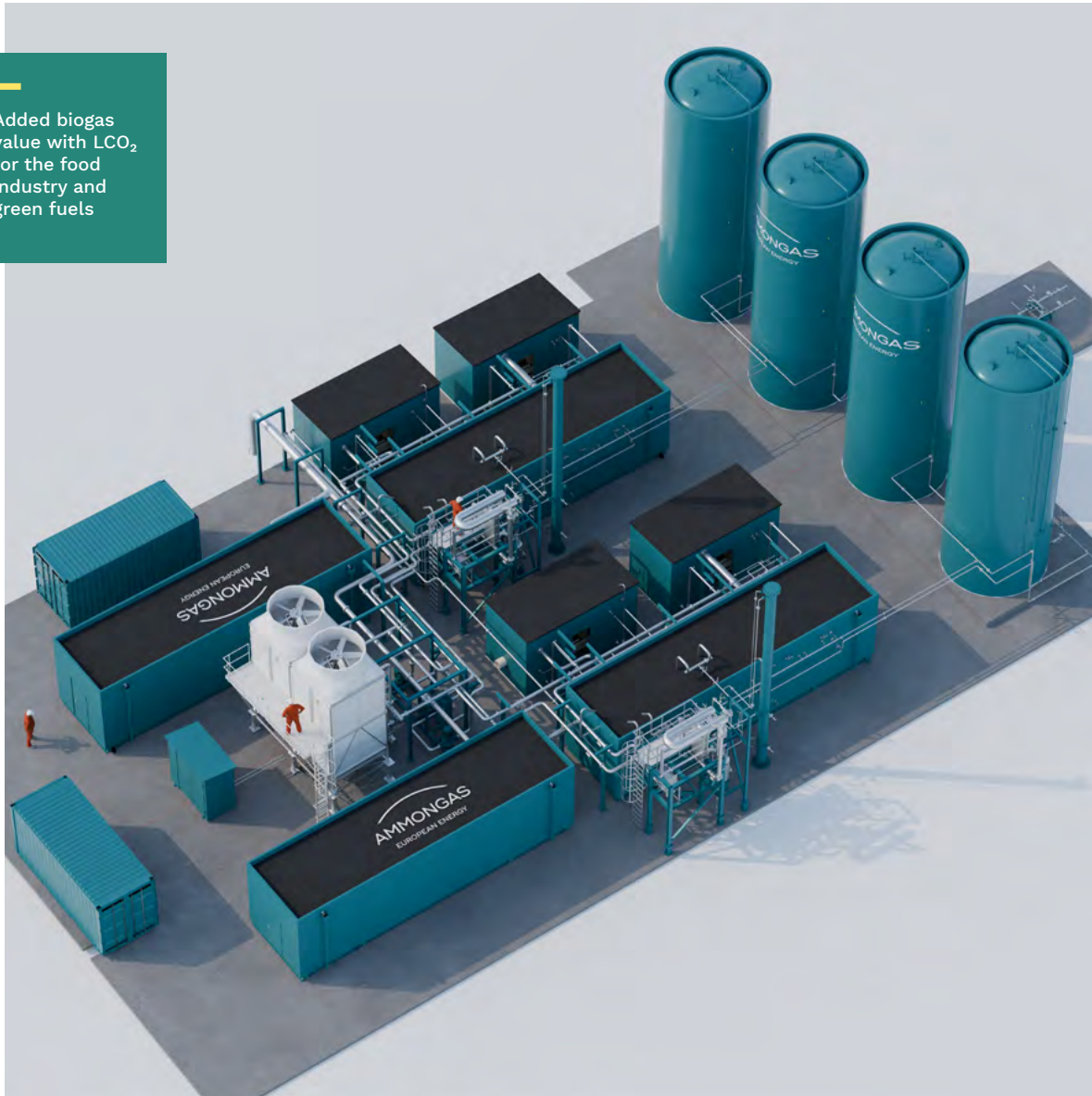
Achieves CO₂ levels below 1% in the biomethane, with options for further purification to below 50 ppm for liquefaction applications.



Minimal methane slip

Methane slippage remains under 0.05%, ensuring maximum methane recovery and profitability at lowest climate impact.

Added biogas
value with LCO₂
for the food
industry and
green fuels

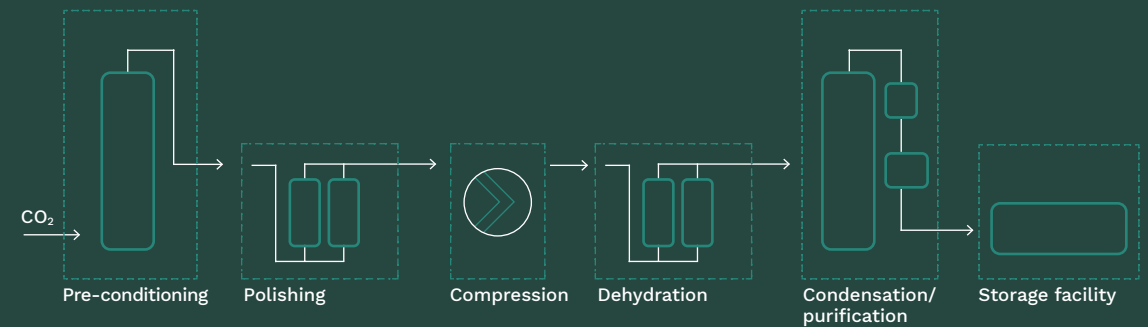


Liquefied CO₂

Ammongas offers a solution for CO₂ liquefaction. The inlet raw CO₂ entering the liquefaction plant is pre-conditioned and polished prior to compression, dehydration, and condensation before final storage.

Depending on the end-use, the CO₂ can through the Ammongas LCO₂-plant be delivered with a quality of +99% CO₂ for sequestration and up to food-grade or Power-to-X quality.

CO₂ Liquefaction plant



Transforming biogas into opportunity

Ammongas is your trusted partner in biogas upgrading, CH₄ polishing, carbon capture, and CO₂ liquefaction. With over a decade of expertise focused on CO₂ separation, we collaborate closely with clients to deliver customized, high-efficiency solutions.

Today, nearly half of the biomethane in Denmark's national gas grid is processed through an Ammongas plant.

Founded in 2002, Ammongas is powered by a team of 35 dedicated professionals committed to helping you reach ambitious sustainability goals.



Optimize carbon efficiency and revenue with Ammongas' solutions



Upgrading plants
in Brande,
Denmark
1500 m³/h and
3000 m³/h raw
biogas



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