

# OUR VISION FOR BIOMETHANE

# CH<sub>4</sub>

Biomethane is the most cost effective, scalable and sustainable renewable gas available today<sup>1</sup>. Biomethane has a long-term role to play in the future climate-neutral energy system, to meet the “Fit For 55” reduction of GHG emissions target (55% by 2030). Furthermore, biomethane contributes to sustainable agriculture, rural jobs that are hard to displace and recovery of waste streams. Biomethane therefore should be scaled up rapidly across the EU. This requires increased investments, policy support, cost reductions and optimising overall revenues for producers.

## Biomethane finds use across the economy and has a particularly high energy system value in:

- industry (for high temperature heat that cannot be electrified, or for biogenic carbon feedstock);
- power (to balance the grid with storable and dispatchable energy);
- transport (for long distance heavy transport and maritime that cannot easily be electrified);
- buildings (in existing buildings with gas connections through hybrid heat pumps).

We, the undersigned companies and associations, seek to mobilise the biomethane supply chain to highlight the benefits and opportunities related to biomethane and to partner with public stakeholders to ensure support for a large, Europe-wide scale-up and use of sustainable biomethane. We collectively have the ambition to scale up biomethane application in Europe. We believe that 350 TWh<sup>2</sup>, or 33 billion cubic meters, by 2030 is achievable, avoiding about 110 Mt CO<sub>2eq</sub> emissions<sup>3</sup>.

This scale-up can be achieved through collaboration along value chains, partnerships on large and innovative investment plans and by reducing production costs, and to make such projects visible. We wish to partner with European and national institutions to optimise the role of biomethane in achieving climate targets and to remove regulatory barriers. We look forward to cooperating with all interested stakeholders to boost biomethane in Europe.



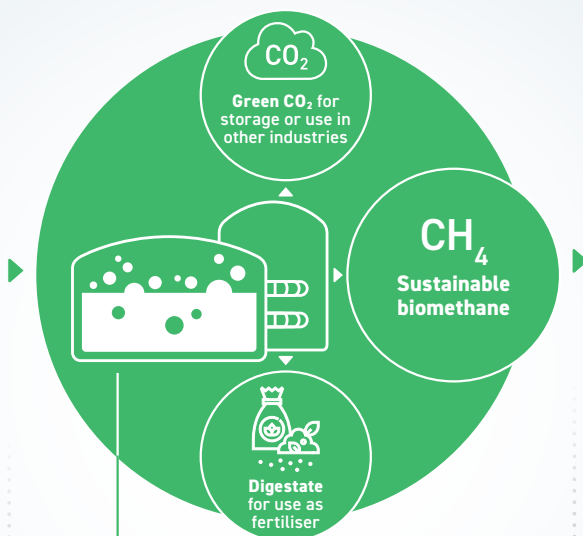
<sup>1</sup> We consider renewable methane from various sources, such as via anaerobic digestion, gasification and as synthetic methane produced from renewable electricity and carbon dioxide.  
<sup>2</sup> This equates to around 10% of projected natural gas consumption in 2030. Based on European Commission (2018) 'A Clean Planet for all' communication.  
<sup>3</sup> Savings are based on a comparison of lifecycle emissions, and result from avoiding emissions from natural gas production and use, avoiding alternative waste treatment, avoiding fossil fertiliser production, increasing soil carbon accumulation and capturing carbon dioxide. Depending on the set-up of production pathways, the total savings could even be higher.

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- + Increases **soil carbon and biodiversity** by applying sustainable agricultural practices, such as cover crops and application of biogas digestate to fields
- + Increases **rural employment**, providing additional market and income opportunities for farmers
- + Provides an attractive and efficient **waste management** solution, supporting resource circularity
- + Promotes **energy self-sufficiency and security**

- FEEDSTOCKS**
- Sequential crops<sup>4</sup>
  - Plant by-products
  - Animal by-products
  - Biowaste from households
  - Industrial and municipal organic wastes and sludges
  - Woody by-products



- END USE**
- Replacing natural gas with biomethane for decarbonisation of **buildings** with hybrid heat pumps
  - Biomethane provides high temperature heat and climate neutral carbon for **industrial processes**
  - Future **power** system requires dispatchable power. Biomethane provides flexibility and high value
  - Decarbonisation of maritime and heavy long-distance **road transport**

## BIOMETHANE POTENTIAL IN EUROPE



## SELECTED CASE STUDIES

**Consorzio Italiano Biogas (CIB)** develops greener and efficient low carbon farming practices that integrate multicropping systems, smart nutrient recycling approaches and sustainable soil management with the production of biomethane. The CIB calls this Biogasdoneright, an approach that demonstrates how production can be increased while sustainability actually improves. Biogasdoneright can be replicated across Europe and become a cornerstone in sustainable biomethane production scale-up.

Danish company **Nature Energy** focuses on local food waste, industrial waste and agricultural waste to produce biogas and biomethane close to where the feedstock arises, thereby contributing to rural development. Technical innovations allow Nature Energy to increase scale and decrease costs. With 12 plants currently in the EU, Nature Energy have ambitious growth plans to invest 4.7 billion Euros by 2030 on additional plants in Europe and abroad to enhance the green transition. Nature Energy trades and markets the biomethane across Europe to both utilities and industry.

Biomethane finds application in many end-use sectors including long haul heavy transport. **Scania** the Swedish truck and bus company, has long been developing trucks and buses running on alternative energy, like biomethane. Many international transport operators, and several major cities, operate Scania biogas vehicles. Scania aims to have 50% of all Scania EU heavy-duty gas trucks and buses biomethane powered by 2030.

<sup>4</sup> Sequential cropping (multicropping) is the cultivation of a second crop before or after the harvest of the main food or feed crop on the same agricultural land during an otherwise fallow period. Sequential cropping does not impact existing food or feed markets as no existing food or feed is used for biogas production.

<sup>5</sup> European Commission (2018) 'A Clean Planet for all' communication.