



BIOGEST is an international manufacturer and operator of biogas plants with its headquarters in Austria and subsidiaries in France, Italy, Romania, Serbia, the Czech Republic, the United Kingdom and the United States. With a team of more than 80 highly qualified employees, **BIOGEST** has already completed more than 180 methanisation projects, producing electricity or biomethane all over the world. The complete supply chain is designed to ensure efficient plant operation.

Most of the units are located in Europe, Asia and North America, with the global market served by licensed partners. The biogas engineering activities span the entire biogas value chain, including project development and design, co-investment, turnkey construction and operation of biogas plants of various capacities. In addition to engineering, **BIOGEST** owns and operates biogas and biomethane plants (OPO- Own Plant Operations).

BIOGEST recognises the need to convert organic waste into clean, renewable energy due to increasing global waste production and energy demand. With the products, they can make a significant contribution to meeting climate targets through the use of renewable raw materials. Unlike fossil resources, the production of biogas does not release an amount of CO₂ equal to the renewable resources drawn from the atmosphere during their growth.

The core business is designed to be a valuable contribution to society and they are proud of their social and societal responsibilities. By partnering with **BIOGEST**, you can feel the same satisfaction. **BIOGEST** treats their customers and employees equally, regardless of their ethnic origin or gender. **BIOGEST** is proud to provide outstanding levels of support to charitable organisations.

BIOMETHANE (renewable natural gas) is a source of methane generated by biogas purification, with the same characteristics as natural gas. The purification process opens up a whole new world for biogas recovery. Biomethane offers a variety of new end consumers ways of greening their energy sources - it can be injected into the natural gas network or used to fuel vehicles.



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With the unique PowerRing digester, **BIOGEST** can produce biomethane from a wide range of different feedstocks. Thanks to the optimal mixing technology, the feedstock is used in the most efficient way and **BIOGEST** units demonstrate higher degradation rates than conventional digesters. The compact

design and concrete roof ensure that the entire digester is insulated, which minimises self-consumption of thermal energy, reducing the amount of gas consumed to heat the digester. This significant difference translates directly into an increase in the quantity of biomethane injected, which leads to revenue for the project.

BIOGEST has worked with many manufacturers of gas purification systems and has already installed numerous methanisation units around the world, including several producing biomethane. **BIOGEST** respond to the needs of each specific project by evaluating the different technological options with each customer.

| BIOGEST biomethane reference units | |
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| Southridge, US: 476 Nm ³ /h CH, (153,500 MMBTU/an) | Enerfee, FR: 400 Nm ³ /h CH, (119,590 MMBTU/an) |
| Fearn, UK: 1000 Nm ³ /h CH, (298,976 MMBTU/an) | Loué, FR: 130 Nm ³ /h CH, (38,867 MMBTU/an) |
| Fontaine Agrigaz, FR: 250 Nm ³ /h CH, (74,744 MMBTU/an) | Métha des Bosquets, FR: 140 Nm ³ /h CH, (41,857 MMBTU/an) |
| Full Circle, US: 323 Nm ³ /h CH, (155,788 MMBTU/an) | Wittersheim, FR: 380 Nm ³ /h CH, (113,611 MMBTU/an) |
| Mill Valley, US: 138 Nm ³ /h CH, (70,266 MMBTU/an) | Métha Confolentais, FR: 125 Nm ³ /h CH, (37,372 MMBTU/an) |
| Congrier, FR: 140 Nm ³ /h CH, (41,857 MMBTU/an) | Willand, UK: 550 Nm ³ /h CH, (199,838 MMBTU/an) |
| Oak Valley V, US: 108 Nm ³ /h CH, (32,289 MMBTU/an) | Pollybell, UK: 550 Nm ³ /h CH, (199,838 MMBTU/an) |
| Oak Valley I Extension, US: 140 Nm ³ /h CH, (41,857 MMBTU/an) | Burton Agnes, UK: 550 Nm ³ /h CH, (199,838 MMBTU/an) |
| Oak Valley I, US: 281 Nm ³ /h CH, (84,012 MMBTU/an) | Frogmary, UK: 550 Nm ³ /h CH, (199,838 MMBTU/an) |
| Bouy sur Orvin, FR: 460 Nm ³ /h CH, (137,529 MMBTU/an) | Bilthorpe, UK: 550 Nm ³ /h CH, (199,838 MMBTU/an) |
| | Enfield, UK: 550 Nm ³ /h CH, (199,838 MMBTU/an) |

Reference Biomethane Projects

BIOGAS, produced by the anaerobic digestion of organic matter, is a high-calorific fuel that can be easily converted into electricity and heat by a biogas engine (called a co-generator). It generates regular income by operating 24 hours a day, 365 days a year, while promoting decarbonisation through the recovery of organic waste.

BIOGAS is produced in a digester using the 4-stage anaerobic biochemical digestion process: (1) hydrolysis, (2) acidogenesis, (3) acetogenesis and (4) methanogenesis. Carbohydrates, fats and proteins are converted into methane (50-70%) and carbon dioxide (30-50%).

Fermentation is complete when the substrate has passed through all the stages. Each of these stages has a specific physiological microbial population. The main process parameters

are temperature and the time spent by the substrate in the digester (hydraulic retention time). Most agricultural methanisation units operate at a mesophilic temperature (35-42°C - 95 to 108°F). The residence time depends on the type of feedstock and varies between 20 and 70 days.



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Anaerobic digestion can be used to transform almost any type of organic matter into biogas. The only exceptions are vegetable matter with a high lignin or cellulose content (e.g. wood). Organic waste (sewage sludge, livestock effluent, municipal and industrial waste), agricultural by-products and energy crops are

used as raw materials in these methanisation units. The different crops have different energy contents and yields per hectare. The wide range of eligible feedstock reduces the need for the

monocultures required by other biomass technologies (biodiesel and bioethanol).

Has **BIOGEST** gotten you interested in green investment? Investments often bring benefits, but lack sustainability. **BIOGEST** offers investors projects that can do both. With the expertise, secure and sustainable investments go hand in hand. Thanks to the agricultural know-how of their partners and the proven extensive experience, BIOGEST projects promise a combination of operational expertise, exceptional efficiency and an attractive return on investment.

If you would like to have more information about **BIOGEST**

Please visit the company's website: <https://www.biogest.at/>



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