WE BUILD COMPLETE

BIOGAS SOLUTIONS
Biogas is generated when organic material is broken down in an anaerobic process without access to oxygen. The process provides a renewable energy source that can be used as fuel for vehicles or for electricity and heat production.
BIOGAS PROVIDES RENEWABLE ENERGY

BIOGAS SYSTEMS builds biogas solutions. We have been doing this since 1985. Today, we are a well known player with the experience and resources for biogas extraction within all imaginable fields and applications.

• LANDFILLS

A core part of our business is our unique, biogas collection systems for landfills. Using our own technique, we can take advantage of harmful methane gas and convert it to green energy for electricity and heat production. A smart, holistic solution that transforms a troublesome environmental problem into a lasting and sustainable source of revenue.

• DIGESTION GAS PLANTS

We are also a strong partner for building digestion gas plants. With our skills and experience, we can handle simple subprojects or complete contracts including, for example, gas storage facilities, digestion tanks, gas torches and pressurization systems. We can handle everything from planning to manufacturing, installation and service.

• SEWAGE TREATMENT PLANTS

An important target group includes sewage treatment plants which have large potential for biogas production. We are responsible for contract work, subprojects, construction and servicing of complete systems.

• SERVICE OCH SUPPORT

Service and support is an important part of our work. We have our own service organization for both gas facilities as well as for gas engines, turbines and boilers. We also have a well thought-out, web-based service system.

The majority of the systems are produced in our factory in Sunne. We have our own resources for all mechanical preparations, and we can install the necessary electronics and electrical systems on-site.

We can take care of the entire value chain, from analysis, estimates and design to installation of turnkey facilities.

With our own service organization, we can also ensure functioning operations over the entire lifecycle. Our customers are found in the energy sector and include municipal and private waste management companies. We have operations across the entire globe.
LANDFILL GAS IS A VALUABLE RESOURCE

At landfill sites across the world, environmentally damaging methane gas is being generated. The gas is harmful to the environment and has a greater impact on the greenhouse gas effect than, for example, carbon dioxide. EU statutory requirements specify that gas from landfills must be prevented from spreading out into the surrounding environment. BIOGAS SYSTEMS has developed a technique that collects the gas and - at a profit - converts it to “green” energy for electricity and heat.

LANDFILLS PROVIDE A VALUABLE RESOURCE

Modern landfills have very little in common with old fashioned dump sites, where the garbage was dumped in a pile, without any limiting environmental regulations. Strict standards currently regulate which substances are permitted to be released into the environment.

At BIOGAS SYSTEMS, we developed a technique that converts harmful methane gas to natural energy. A holistic solution that transforms a troublesome environmental problem into a lasting and sustainable source of revenue.

CUSTOMIZED SOLUTIONS

Our systems are based on a patent-pending technique with specially developed components and subsystems that are combined to create complete, customized solutions. The solutions include wells and pipes as well as control systems, cooling systems and the necessary peripheral equipment. The gas collection systems are connected to gas engines, gas turbines and gas boilers that are responsible for electricity/heat production using biogas from landfills as the fuel.

SPREADING ACROSS THE WORLD

Our customers are found in the energy sector and include municipal and private waste management companies. We are currently active in large parts of Europe as well as in Asia, Africa and South America.
Our solutions include wells and pipes as well as control systems, cooling systems and the necessary peripheral equipment. The gas collection systems are connected to gas engines, gas turbines and gas boilers that are responsible for electricity/heat production using biogas from landfills as the fuel.
BIOGAS SYSTEMS designs and builds digestion gas facilities for safe, profitable and environmentally friendly energy production. We have expertise in the entire process, from planning and design to production and service.
Increasingly common

Digestion processes for extracting biogas are becoming increasingly common around the globe. European economies are leading the way in development, and the number of plants is growing quickly. In developing countries, application of the technique is less widespread, but the need for functioning solutions is accelerating quickly.

For digesting food and household waste, the plant is often located in connection with a landfill. There are also joint digestion facilities where stakeholders optimize the exchange process by mixing in organic material from household and agricultural waste.

We are part of all of it

BIOGAS SYSTEMS is an experienced partner in designing and building digestion facilities. On our own, or together with customers and partners, we are responsible for new plant construction or plant renovation.

Our part includes the entire chain, from planning and design to manufacturing and installation of e.g. gas storage facilities, digestion tanks, gas torches and pressurization systems.

With our own organization, we are also a reliable and qualified partner for ongoing service and support.

Digestion gas plants

Organic substrates, such as garden and household waste, is broken down in special digestion gas facilities and converted into energy-rich, combustible gas to use for the production of vehicle fuel or for heat and electricity production. BIOGAS SYSTEMS designs and builds digestion gas facilities for safe, profitable and environmentally friendly energy production. We have expertise in the entire process, from planning and design to production and service.
SEWAGE TREATMENT PLANTS

Waste water treatment plants are an important source of biogas. The excess sludge that is formed as a residual product when purifying sewage water is rich in organic material, which modern environmental technology can utilize to generate energy. Biogas from sewage treatment plants is currently used primarily for generating electricity and heating, but also to a large degree as vehicle fuel.

RESIDUAL PRODUCTS PROVIDE ENERGY

Biogas is extracted from the sludge that forms during the initial stage of the purification process. The sludge is processed and forwarded to specially-developed digestion tanks, where it is broken down in an anaerobic environment by microorganisms, producing an energy-rich gas, primarily consisting of methane.

The gas is collected and converted into electricity and heating using gas engines and turbines. The methane gas can also be upgraded to biomethane, which can be used as fuel for cars and buses.

Municipal sewage treatment plants currently account for nearly half of the biogas that is extracted in Sweden. At the same time, there is unexploited potential because a large number of Swedish sewage treatment plants have – so far – not invested in the technology. By modernizing existing digestion gas plants, the amount of extracted gas can also be optimized.

BIOGAS SYSTEMS HAS THE SOLUTION

BIOGAS SYSTEMS offers complete solutions for biogas extraction from sewage treatment plants. Our program includes important plant components such as gas storage facilities, digestion tanks, gas torches and high pressure systems, but we also have expertise in developing complete systems for piping, controlling and instrumentation.

MAIN CONTRACTORS OR TEAM PLAYERS

We are a reliable turnkey contractor with responsibility for the entire value chain, from planning to manufacturing and installation. We are also a good team player and a flexible partner for other players in terms of new plant construction or renovating plants.
The excess sludge that is formed as a residual product when purifying sewage water is rich in organic material, which modern, environmental technology can utilize to generate energy.
OUR EXPERTISE PROVIDES SECURITY

Service and support is an important part of our work. The facilities must be able to function, not just during delivery and start-up but also over time. BIOGAS SYSTEMS is your obvious partner for service and maintenance of biogas facilities. Our service team has a lot of experience, and we have long-term and well-functioning partnerships with several of Europe’s leading suppliers of gas-related equipment.

SERVICE PARTNER
BIOGAS SYSTEMS has its own service organization for gas facilities as well as for gas engines, turbines and boilers. The organization works across large parts of Europe. Comprehensive service agreements provide the facilities with the necessary maintenance for optimal operations.

On our website you can make service notifications, get support and easily get in touch with our service department.

TRAINING
Plant-specific courses are offered for operations personnel and managers at the gas plant, during both commissioning and on an ongoing basis thereafter.

We also have a range of general courses, e.g. for gas managers, which are available to the entire industry and provide broad knowledge of the opportunities for landfill gas as well as collection and extraction techniques.
COMPLETE PROGRAM FOR GAS EXTRACTION

BIOGAS SYSTEMS is a complete supplier of automated and well-functioning biogas facilities. The product range includes gas engines, gas turbines and gas boilers that are responsible for electricity/heat production using biogas as fuel. The systems also include control systems, cooling systems, gas torches and other peripheral equipment.

**GAS ENGINES**

The gas engine uses the energy content in the gas for generating electricity and heat. We supply gas engines from various manufacturers with varying effects in complete prefabricated stations.

**GAS STORAGE**

We supply and install complete gas storage facilities that are the right size and have the right design based on the customers’ specific requirements.

**GAS COOLERS**

We offer gas cooling from several manufacturers for drying biogas with properties that optimize gas use.

**GAS TURBINES**

Gas turbines generate electricity and heat. We offer complete turbine sets, including monitoring equipment with or without heat exchangers for hot water production.

**GAS BOILERS**

Gas boilers handle collected gas and generate heat. We supply gas boilers with varying effects in complete prefabricated stations.

**GAS COMPRESSORS**

We offer high-quality gas compressors from a number of manufacturers for pressurization or as stirrers in biogas reactors.

**DIGESTION TANKS**

Digestion tanks based on customer-specific requirements for technology, substrate, gas utilization, environment and price.

**GAS TORCHES**

Gas torches burn gas that can not be used in any other way. We offer torches for various applications in several sizes.
WORKING HARD FOR A SUSTAINABLE ENVIRONMENT

THE ENERGY ISSUE is without a doubt one of the factors that affects our environment the most. Researchers around the world wrestle on a daily basis with issues such as where we will get our future energy, and how we can use new technology and more efficient methods to make it last longer.

BIOGAS SYSTEMS develops solutions for taking advantage of biogas. Today, we are a well known player with the experience and resources for handling biogas within all imaginable fields and applications.