



# The biogas plant in Bakum / Germany

Planning

Construction

Start-up

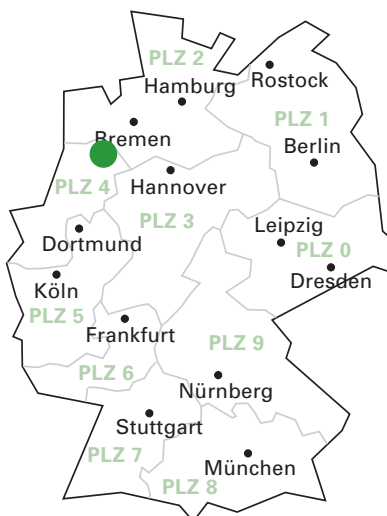
Operation

Service



← The different substances are mixed to form a homogeneous mass in the large technical building.

→ The solid component coming out of the separator is used as high-quality fertilizer.



## Fact sheet

<b>Location:</b>	<b>Bakum / Germany</b>
<b>Capacity:</b>	<b>500 + 896 (526 + 370) kW<sub>el</sub></b>
<b>In operation since:</b>	<b>08/2005 und 10/2009</b>
<b>Input materials:</b>	<b>Pig and chicken manure, renewable raw materials</b>
<b>Features:</b>	<b>Separate combined heat and power plant supplies public and private building with heat, better handling of the residual effluent through residual effluent separation</b>

## The biogas plant in Bakum (Germany)

Bernhard Stricker commissioned EnviTec Biogas to build the first 500 kW<sub>el</sub> biogas plant in 2005. Four years later the decision to build a second plant was implemented, and an additional plant with total electrical power of approximately 900 kW<sub>el</sub> was erected. Today the two plants together generate approx. 1,400<sub>el</sub>.

The first biogas plant consists of three containers, the gas-tight fermenter, two effluent storage tanks and an operations building. The CHP, the mixing equipment and the electrical equipment are housed in the operations building.

The biogas plant is operated with pig manure, chicken manure and renewable raw materials. The slurry and the manure are supplied from neighbouring farms.

The second biogas plant has three tanks: an 800 m<sup>3</sup> receiving tank for preliminary storage of the slurry, a 5000 m<sup>3</sup> fermenter, and a gas-tight residual effluent storage tank. Mixing equipment, electrical equipment and a CHP are housed in the technical building. An additional CHP is located in a separate technical building near the school. This is where the micro gas network transforms biogas into electrical power. The waste heat occurring in this process is used to heat the school and tennis court building, an indoor swimming pool, and private households. The material in the fermenter is divided into fluid and solid components by a separator. The solid components can be cost-effectively further transported as concentrated nutrient fertilizer. The fluid components are used locally for agricultural purposes.

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