

Biogas Plant HOTTELN



Location	Sarstedt, Germany
Construction Period:	2006, extension 2012
Input substrat:	Corn silage, other energy crops
Fermenter:	Concrete tank 2,200 m ³ , 3,000 m ³
CHP	Gas engine 536 kW _e , 2 x 250 kW _e (satellite CHP)
Extension:	2012: Extension of the biogas plant: Increase of substrate amount by 20,000 t/a; conversion of a storage tank into a digester; construction of a new storage tank with a capacity of 6,000 m ³ ; connection of two external CHP (2 x 250 kW _e)
Specials	Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up

The HOTTELN biogas plant was built and is operated by Bioenergie Hotteln GmbH & Co. KG. Two concrete tanks operate as digester. One is equipped with a top mounted mixer, the other is a flat tank and is equipped with a double membrane gas holder roof. Each year a total of 20,000 t energy crops is fed into the two digesters by a solid input device. The produced digestate is stored in a big storage tank, which is also equipped with a gas holder roof. The digestate is used in agriculture and replace mineral fertilizer.

The biogas is used in three gas engines. In the generator the mechanical energy is converted to electrical power and heat in cogeneration. The electricity is fed to the public grid. One CHP is located on site and has a capacity of 500 kW_e. The heat, produced in cogeneration is used in an ORC which convert heat to additional electricity. The two other CHP are located in the village Hotteln as satellite CHP. The heat generated in cogeneration is distributed in a local heat network and is used by private households and two hotels.

The start-up of the biogas plant took place in 2006.

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Responsibility of Krieg & Fischer Ingenieure GmbH:

Basic evaluation, pre-, draft-, approval and execution planning, tendering, participating in contract awarding process, site management/project controlling, start-up