



# The biogas plant in Veendam (Netherlands)

Planning

Implementation

Commissioning

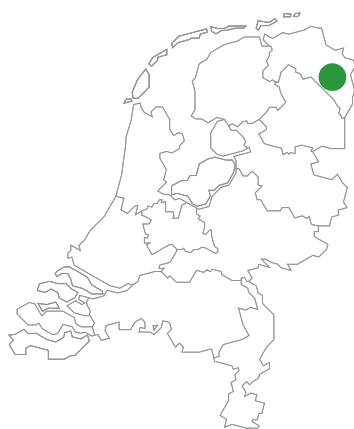
Operation

Service



← Two CHPs with a capacity of 836 kW<sub>el</sub> each are part of the plant.

→ The plant in Veendam was EnviTec's first project abroad.



## Fact sheet

<b>Location:</b>	<b>Veendam / Netherlands</b>
<b>Capacity:</b>	<b>2 x 836 kW<sub>el</sub></b>
<b>In operation since:</b>	<b>12/2006</b>
<b>Input materials:</b>	<b>Maize, liquid manure, fats</b>
<b>Features:</b>	<b>Conversion of an old manure storage and transfer plant to a modern biogas installation</b>

## The biogas plant in Veendam (Netherlands)

The biogas plant in Veendam was EnviTec's first project abroad. EnviTec Biogas refurbished an existing transshipment for animal manure to a biogas plant in 2006.

Three existing concrete tanks have been reconstructed and transferred to digesters. The rest of the existing tanks are used for storage of manure and the digestate. Manure is pumped from a storage tank (1800 m<sup>3</sup>) to one of the two mixing tanks. The maize silage and the separated solid fraction is taken from the storage on-site and added to one of the two feeding bunkers, which is equipped with a walking floor. The walking floor and connected screw feeders feed the input substance into the mixing tanks. The mixing tanks are constructed in such a way that different products can be accepted (for example Glycerine).

In the mixing tanks the biomass will be mixed whereby recirculate from the digesters is added. After mixing the biomass is pumped to one of the three digesters (3500 m<sup>3</sup>). The entire process is monitored from a central control room and by special designed software.

The biogas produced in the digesters is incinerated in one of the CHP's (2x 836 kW<sub>el</sub>) where the gas will be converted into electricity and heat. The electricity will be fed into the grid and the heat will be partially used for the fermentation process. The fermented biomass flows over into a small buffertank whereof the digestate will be separated to a solid and liquid fraction. The solid fraction will be fed again to the digester and the liquid fraction is stored in tanks (3x 3500 m<sup>3</sup>) till it can be dispatched to one of the local farmers in the region.