

Biogas Plant NEISSETAL



Location:	Griessen, Germany
Construction Period:	2010/11
Input:	Pig manure, cattle manure, cattle dung, alfalfa silage, corn silage, sugar beets
Digester:	Glass-coated steel tank , 3,033 m ³
CHP:	Gas engine, 716 kW
Special Features:	Heat usage, mesophilic operation, gasholder above secondary digester and storage tank, agricultural biogas plant
Cost:	Approx. EUR 2.9 million

The NEISSETAL biogas plant was built and is operated by Vattenfall Europe New Energy GmbH. Start-up was in 2011. This biogas plant is a pure energy crop-fermentation design with mesophilic operation. About 9000 t of renewable energy crops and 27000 t of manure from nearby farms are used to produce biogas for a gas engine with a capacity of 716 kWel. The engineering of the biogas system is configured as a single-stage system with an upright digester (glass-coated steel tank) with top mounted mixer and a secondary digester with a double membrane gasholder roof. The produced digestate is stored in a tank with closed roof. The fully automated feeding system, consisting of a solid input device and a buffer tank in combination with a hopper feed pump, is used for inputting the liquefied manure and other fermentation substrates. The electricity produced is fed into the German public grid and is paid in accordance with the German renewable energy tariff system. Heat produced in cogeneration is used for surrounding pig stables and for drying of silage.