



LUTOSA, the Belgian potato processing factory - Leuze-en-Hainaut (Belgium)

Lutosa is a Belgian family company with expertise in the potato sector going back over four generations. For a long time, the company pays particular attention to environmental protection and natural resources preservation. In 1986, a first biogas installation was set up to reduce the organic charge of factory effluents. The biogas produced from the fermentation of waste from the anaerobic purification station was burned by a flare. But in 2002, Lutosa launched the largest biogas cogeneration plant in Belgium, in close co-operation with Electrabel in order to enhance the energy yield of biogas production. Currently, the cogeneration plant is able to cover a big part of the factory's energy requirements. Heat (hot water and steam) are totally re-injected into the factory process. The major part of electricity production is feeding into the public grid.

The biogas plant is made of a buffer tank intended to transform the organic matter of factory waste into volatile fatty acid and three digesters with a total volume of 4300m³.

key data

Start of Operation	Biogas production: 1986 - Cogeneration: 2002
Type of corporation.....	Public company
Amount of gas produced	800 - 1000 Nm³ per hour, or 19200 – 24000 m³ per day
Investment costs	Cogeneration: 2 000 000 €

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Production data

Feedstock : Waste water from potato transformation/conditioning process.....	1 400 000 m³ per year
Available area for the output of the biogas fertilizer.....	No use of digestate as fertilizer
Thermal power rating of the gas engine.....	3340 + 2561 kW
Generated thermal energy.....	-
Utilisation of heat.....	Stream is injected in the factory process (washing, peeler, drum,...)
Electrical power rating of the gas engine.....	2250 kW
Generated electrical energy.....	5 920 351 kWh per year (2007)
Annual power consumption (electricity) of the plant itself.....	137 481 kWh per year (2007)
Annual delivery of electricity to the (national) electric grid company.....	5 782 870 kWh per year (2007)
Name of the (national) electric grid company.....	Electrabel

Plant technical description

Bunker silo.....	-
Digesters (3).....	1500 + 1500 m³
Gas storage tank.....	-
Digested manure storage tank.....	-
Residence time in the digester.....	10 hours
Temperature of the anaerobic digestion (operational temperature).....	38° C
Average expenditure of human labour per day.....	-

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Biogas Regions Shining Example



Financing : collaboration with Electrabel

Involved Companies: Electrabel (Belgium), Biotim (Belgium)


For further Information, please visit [the plant's webpage](#) or contact:

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