



Anaerobic Digestion (AD) Plant Kalsnava

Lithuania

Client	„Biodegviela“ SIA
Location	(Jaun)kalsnava, Madonas novads, Lithuania
Commissioned	2011
Input (feedstock)	Stillage
Total processing capacity	160,000 t/a
Raw biogas production	~ 1,000 m ³ /h or the equivalent of ~ 2.0 MW _{el}
Digester	1 x 4,200 m ³
Post-Digester	1 x 3,500 m ³
CHP	1 x 2.0 MW

Mono-digestion of stillage to produce power and steam

In the ethanol plant of Biodegviela SIA, about 160,000 m³ of stillage are produced each year as waste product to be recycled.

The stillage is recycled in the AD plant to generate energy from the digestion process. The digestion takes place in a digester with a downstream post-digester. The biogas produced is burned in **two combined heat and power units** to generate electrical and thermal energy. **Around 17 million kWh of electricity** is produced each year. The conversion of exhaust heat from the cogeneration units provides **an additional 1.5 t/h of steam for the ethanol plant**. The combination of electricity and steam generation makes it possible to reduce the **energy requirement of the ethanol plant**.

The residues after the digestion are subjected to a solid-liquid separation. The liquid phase is purified to surface water quality in a **downstream wastewater treatment plant** and **fed into a nearby river**. The solid phase is **used as fertilizer**.



Agraferm GmbH, which is based in Pfaffenhofen, Germany, designs and builds Anaerobic Digestion plants. It is one of the few full service providers of turn-key agricultural and industrial biogas plants in Europe, which operates internationally. Our portfolio includes project planning and construction as well as biological and technical services.

Agraferm biogas plants have the following distinctive features

- High reliability and maximum system availability
- A small footprint, i.e. high biogas production with a minimum of land use
- Use of robust components such as digesters, agitators and pumps, these reliable components prolong the operational life of the AD plant
- Stable digestion process
- Industrial-quality plant construction

The advantages for you

- Minimum operating costs
- Optimum level of substrate flexibility
- Minimal risk of downtime
- Maximum cost-efficiency and minimal power consumption

We are committed to the long-term success of our customers through

- Planning, construction and service from a single source
- Biological and technical support services
- Many years experience with CHP-units and biomethane gas to grid injection

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