



Pressemitteilung

Press release · Communiqué de presse

Vechta, November 2017

6.2-MW Biogas Project Enables Sustainable Growth in Uruguay

WELTEC BIOPOWER Expands Biogas Plant of Milk Powder Manufacturer

The German plant manufacturer WELTEC BIOPOWER recently signed the contract for a biogas plant extension of the milk powder producer Estancias del Lago (EDL) in Uruguay. From late 2018, the plant with its eight digesters will generate a rated thermal input of more than 6 Megawatt from cattle manure and fodder leftovers. The company will use the biogas for drying and steam generation purposes in the production process.

Founded in 2007, the agricultural company EDL now farms an area of about 37,000 ha. On this area, the South Americans grow maize, sorghum and soya as feed for their approximately 14,000 dairy cows. The company foundation was accompanied by the establishment of a huge site in Durazno, north of the capital Montevideo. Apart from the cowsheds with milking centres and feed silos as well as the biogas plant, the premises now host a dairy and a grain mill. In Durazno, Estancias del Lago produces about 20,000 t of milk powder a year for export. Most of the milk solids are sold to China, Brazil and the Middle East.

In 2013, WELTEC had set up the first 800-kW biogas plant for EDL. Back then, expansion plans were already being considered. First, however, more cattle were needed. In the meantime, the number has therefore been stocked up from 8,000 to 14,000 cows. Now, 1,365 t of cattle manure plus 8.4 t of feed leftovers are available for the energy generation.

In view of the dimensions of the AD plant, the structural preparations already started in September 2017. In early 2018, WELTEC BIOPOWER will begin installing the six new 5,000-m³ stainless-steel digesters and the two 1,050-m³ pre-storage tanks for the slurry. With WELTEC's custom-developed process control system CeMOS, the entire biogas plant will be fully automated from the end of 2018.

„As was the case back in 2013, the main reasons why the company opted for us were the high requirement profile and quality standard“ explains Jens Albartus, Director of WELTEC BIOPOWER. For the plant expansion, the customer thus again wants to make use of stainless steel. „We wanted to work with an experienced manufacturer with industrial expertise“, explains Franz Cifuentes, Director of EDL. Equipped with experience gained in the construction of large biomethane parks such as the one in Könnern, Germany, WELTEC is in charge of the entire building site management in Durazno, including the ancillary work.

Two gas boilers use part of the 30,000 standard m³ of biogas that is produced every day to generate heat for the biogas process. Most of the biogas is transferred to the close-by milk powder production facility via a pipeline. The biogas covers up to 35 percent of the heat required for the drying process. 100 percent of the steam needed is generated with biogas.

All operational units of the entire site are run in a very sustainable way. EDL contributes to this by growing its own fodder. The digestate from the biogas plant is used as fertiliser. Moreover, the cycle is closed by raising its own dairy cows and processing the milk on site. At the facilities located just 150 m from the cowsheds, the milk is processed to powder within four to eight hours. Another synergy has been established between EDL's fuel production and other parts of the business: Apart from soya oil for the biodiesel plant, the oil mill yields press cake that is fed to the animals.

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Organic energy worldwide

By means of plant extension, EDL can use its huge supply of raw material to establish a smart synergy between its agricultural and industrial operations. This is exemplary especially in view of the fact that this strategy is pursued throughout the country. Meanwhile, energy efficiency and renewable energies are the main drivers of the diversification of Uruguay's energy mix. The efforts are promoted by progressive environmental laws. In relation to the share of the primary energy, renewable energies already accounted for 57 percent in 2017. To further boost this share, the government in Montevideo has formulated the goal of using a growing portion of the agricultural leftovers for the generation of energy. The project Estancias del Lago is a fine example of how this can be achieved.

Pictures/Captions



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Company Portrait

WELTEC BIOPOWER GmbH is one of the world's leading enterprises in the field of stainless-steel biogas plant construction. The company has planned, developed and built anaerobic digestion plants since 2001. Today, the medium-sized company has about 80 employees at the headquarters in Vechta, Germany, and has established more than 300 energy plants in 25 countries worldwide. The global distribution and service network spans six continents. The range of customers includes businesses from the agriculture, food, waste and wastewater industries.

The strength of **WELTEC BIOPOWER** lies in custom-tailored design and technically mature solutions for projects up to 10 megawatt capacity. In this context, the high proportion of internally developed components is a key success factor. The company also owes its leading edge to the use of stainless steel. This enables the input of a diverse range of feedstocks, a fast and economic assembly and a consistently high quality standard – regardless of the location.

After a biogas plant goes live, **WELTEC BIOPOWER** offers additional support through its experienced mechanical and biological service team. 24/7 availability and an in-house lab contribute significantly to the efficiency of the plant.

Nordmethan, a subsidiary company of **WELTEC BIOPOWER**, addresses another business area: The operation of biomethane plants and the provision of heat through energy contracting. In this way, the WELTEC Group covers the entire value chain of energy generation with biogas and biomethane – from the plant construction to the plant operation.

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