



Pressemitteilung

Press release · Communiqué de presse

Vechta, December 2015

South Korea Opts for Green Energy

WELTEC BIOPOWER Erects Second Biogas Plant in South Korea

In October 2015, the construction work for an anaerobic digestion plant from German manufacturer WELTEC BIOPOWER started in South Korea. The plant site is located about 80 km north of the capital Seoul, in Gyeonggi-do province. The 450-kW biogas plant is to go live in the early summer of 2016. The highly developed technology with smart control will ensure a high level of efficiency of the second South Korean WELTEC plant.

In South Korea, major investments are made in the energy sector, and the development of renewable energy sources has been a top priority for several years. For good reason: The republic with its population of 51 million is one of the world's 10 largest power consumers. However, the country does not have any significant fossil resources and is forced to import 97 percent of its conventional energy sources.

One of the reasons why WELTEC BIOPOWER attracted the attention of the transformer manufacturer, who assumes the role of investor and operator of the new biogas plant, was that the German plant manufacturer had already built a biogas plant in the south of the country back in 2012. However, the customer's final decision in favour of WELTEC was based on the fact that the technical plant concept for the new project is custom-tailored to the region's special needs and South Korea's ecological goals. "The sustainable waste disposal concept and the efficient processing of the input substances into high-nutrient fertiliser were decisive factors", explains Harro Brons, the project manager of WELTEC BIOPOWER.

Starting from the early summer of 2016, the operator will supply the stainless-steel digester with its capacity of almost 4,000 m³ with 100 tons of organic waste a day, whereof 70 % are pig manure. This feedstock will be converted into biogas and high-quality fertiliser by anaerobic digestion. Subsequently, the fertiliser will be stored in two stainless-steel digestate storage units of 5,590 m³ each until it is used. The generated biogas will be used to operate a combined heat and power plant with an electrical output of 450 kilowatt. The power will be fed directly into the power grid. The heat will be used for heating the company buildings and for internal processes.

Doubtlessly, the key to the high performance of this biogas plant is the deployed technology. In South Korea, the optimum function of the components will be controlled by the PLC-based LoMOS control, which is custom-developed by WELTEC. The precise plant control enables a high degree of automation and optimum remote maintenance. To make the user interface as user-friendly as possible, a special detail has been taken into consideration: "For this project, we programmed the control in Korean", says Harro Brons. Thus, the basis has been established for the smooth operation and the first steps to achieve South Korea's energy goals.

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Organic energy worldwide

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. In addition, since 2008 the company has ensured certified internal quality and environmental management in accordance with the ISO 9001 and 14001 standards.

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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