



Pressemitteilung

Press release · Communiqué de presse

Vechta, October 2019

Massive UK biomethane plant went live after only six month construction time

Exemplary project of WELTEC BIOPOWER demonstrates successful use of waste-to-energy

With a construction time of only six months, the biomethane plant of Lanes Farm Energy near Pontefract, West Yorkshire, UK went live on time. "We are very happy and proud to hand over this plant to our customer within less than a year after signing the contract," says Wolfgang Bokern, head of project management at the German biogas plant manufacturer WELTEC BIOPOWER.

On October 14th, 2019 the anaerobic digestion plant delivered the first biomethane in the required quality to the UK gas distribution network. From now on the plant will deliver c7.3 million m³/year biomethane which is sufficient to supply about 9,600 households with sustainable energy, 24/7. The sustainability of the project starts already with the input material. Food leftovers account for more than half of the 80,000 tpa of substrate. Additionally, there is cattle and chicken manure as well as grass silage and hybrid rye.

Under consideration of the substrate structure, the solids are fed through two walking-floor feed hoppers with 110 and 220m³, and two **MULTIMix** units, which removes foreign objects, liquefies, shreds and macerates incoming solids to make them into an easily pumpable, easily mixed, easily digested liquid. Liquids are fed in controllable volumes directly to digesters from five pre-storage tanks, of which two are equipped with a stainless steel bottom. The gas production takes place in four stainless-steel digesters with a height of 8.8 m and an above-average capacity of 6,848m³ each. WELTEC has decided to implement membrane upgrading to transform the biogas into high-quality biomethane. In a separation process comprising several stages, the raw biogas is refined efficiently without methane slip.

Additionally, the biomethane production yields digestate, which is used as high-quality fertiliser, returning organic material and nutrients to the land. For this purpose, it's first be pasteurised and separated. For on-site electricity supply, WELTEC has integrated a 500 kilowatt CHP. The operator generates additional income from exporting excess electricity to the grid.

"This project will bring many benefits to the project developers Aqua Consultants as the technology is state of the art. Furthermore the fast construction time and the construction costs within the budget speak for themselves. We have to thank all involved parties for the good cooperation and hope that this project will be a role model for future waste-to-energy projects", Wolfgang Bokern sums up the successful commissioning.

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Organic energy worldwide

Pictures/Captions



Plant manager Tim Wright is happy about the first gas delivery to the grid.



The biomethane plant delivers enough gas to supply about 9,600 households with green energy.

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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 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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