EnviTec Biogas

The biogas plant in Wiltshire (UK)

Planning

Construction

Start-up

Operation

Service

← 500 kW biogas plant in harmony with the 500 cow dairy unit.

→ 3000 cubic metre anaerobic digester producing biogas from the cow's slurry and sustainable break crops.

Fact sheet

Location:	**Stowell Farms, Wiltshire**
Capacity:	**499 kW_{el}**
Commissioned:	**2012**
Input volume:	**15,000 tonnes a year**
Feedstock:	**Cow slurry and sustainable crops**
Highlights:	**Complements the 500 cow dairy herd by processing slurry and providing a valuable fertilizer**

Digestion facility brings in revenues and helps boost the image of agriculture

Stowell Dairies required capital investment to improve the dairy unit at East Stowell and to meet amended slurry regulations. EnviTec Biogas UK worked with them to design a biogas plant that would produce 4.1 million kWh of electricity and 3.55 million kWh of surplus heat. The facility is part of a new development of 500 dairy cows with state of the art milking and handling facilities. The project also incorporates a viewing gallery and education room overlooking the parlour, and new welfare facilities. In addition, finance went towards feed storage buildings and silage clamps, ensuring Stowell is self-sufficient in feedstock. Return on investment is expected within seven years, and as a result of the additional income and the wider capital investment, the existing workforce has been preserved and additional jobs created.

The plant is fed with maize silage, grass silage, waste feed and slurry, all of which are produced on the 1,315 hectare beef, sheep, arable and dairy operation. There is now no need for a lagoon, which aids odour control. Inputs are pumped into a sealed digester tank. The material is heated, and the resulting bacterial activity produces biogas – about 60 per cent of which is methane. The biogas fuels a Combined Heat and Power unit which drives a generator at 499kW output. The engine cooling system produces hot water, some of which is used to heat the digester, while some heats farm buildings. There are plans to transfer surplus heat to local schools and a leisure centre. Electricity produced by the plant will be used on the farm and surplus sold to the grid under the 20-year Feed in Tariffs. Digestate produced during the process is separated into liquids and solids and stored as high quality fertilisers allowing application in a more targeted manor, as required. The unit is used to promote integrated agriculture to schools, bankers and the general public. EnviTec Biogas worked with the farm at every step to deliver a tailored facility to suit the business needs.

EnviTec Biogas UK Ltd.
Colton Road, Rugeley
Staffordshire, WS15 3HF
Tel. +44 (0) 18 89 58 44 59

EnviTec Biogas AG
Boschstraße 2
48369 Saerbeck, Germany
Tel.: +49 (0) 2574 8888-0

info-uk@envitec-biogas.com
www.envitec-biogas.com