





Anaerobic Digestion (AD) Plant Crowland

United Kingdom

Client Decoy Farm Power Ltd.
Location Crowland, Cambridgeshire, UK

Commissioned 201

Input (feedstock) Agricultural/organic waste (pumpable), chicken muck,

whole crop rye, maize silage

Total processing capacity 45,000 t/a

Raw biogas production \sim 1,050 m³/h or the equivalent of \sim 2.8 MW_{el}

 $\begin{array}{ll} \text{Digester} & 1 \text{ x 4,550 m}^3 \\ \text{Post-Digester} & 2 \text{ x 3,520 m}^3 \end{array}$

Liquid digestate storage $1 \times 7,000 \text{ m}^3$ piled foundation CHP $1 \times 1.2 \text{ MW}$ and $1 \times 800 \text{ kW}$

An AD plant with piling of the tanks and concrete secondary containment

The AD plant at Decoy Farm, Crowland near Peterborough in Cambridgeshire, UK was fully commissioned in early 2016 and generates 2.8 MW of electricity which is sufficient to power approx. 6,000 homes.

The construction site in a polder required extensive piling and a secondary containment of concrete to protect the groundwater against any potential spills. As a consequence, all piping was above ground and required additional measures against frost protection. The close cooperation between Agraferm and the construction companies was facilitated by Agraferm's experience in managing large & complex projects, know-how in engineering, piping and machinery, as well as handling large quantities of gas and liquids.

The AD plant biology is formed by a 3-stage digestion process for consistantly high gas yields. As with the previously built AD plants, this AD plant is also characterised by its optimum output relative to the space the plant takes up. This is made possible by the high dry matter organic loading rate and high degradation of the feedstock thanks to the patented agitators in smaller size tanks. Agraferm plants are also well known for their low electricity consumption and low maintenance costs.

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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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