Case study - Commercial

Adams Foods boosts green performance with ENER-G

Adams Foods, Leek, Staffordshire

Dairy products company Adams Foods is achieving impressive carbon performance at its factory in Staffordshire thanks to combined heat and power (CHP) technology supplied by sustainable power group ENER-G.

The 150kW CHP unit is part of an environmental management programme at the factory. Since full commissioning of the CHP system in June 2010 it has achieved carbon savings of 476 tonnes equivalent to the environmental benefit of 47,600 trees.

Adams Foods, which was formed when The Kerrygold Company merged with North Downs Dairy in October 2010, is the UK's leading pre-packed cheese business, with 30% share of the UK retail market. The business is also world famous for its Kerrygold Pure Irish Butter, sold in 60 countries globally, and marketed and distributed in the UK from the Staffordshire site.

The state-of-the-art factory and office complex, in Leek, Staffordshire, was designed to be the most efficient and environmentally friendly cheese packing facility in Europe.

Occupying 15,500m^2, the new facility employs 550 people and operates 24 hours a day.

The ENER-G CHP system generates 150kW of electricity and provides 225kW of heat to pre-heat water for washing and cleaning.

CHP technology converts gas into both electricity and heat in a single process at the point of use. The technology works by generating electricity on-site and recovering the majority of the heat created in the process. Its high efficiency contrasts with conventional power stations where heat is lost into the atmosphere through power station cooling towers, and further losses occur when transmitting the electricity along many miles of electrical distribution cables to customers.

By using a CHP to generate electricity the Leek site can use the heat generated for its hot water requirements, while creating substantial carbon savings.

The CHP unit was acquired using ENER-G's capital purchase scheme and features an ENER-G Premier maintenance contract that includes all services and call out.

Energy centre containing the ENER-G 150 unit at Adams Foods

The benefits of CHP in the manufacturing sector:

- Offers financial savings over conventional energy supply
- Avoids Climate Change Levy
- Primary energy savings deliver lower energy bills
- Higher efficiency offers reduced greenhouse gas emissions offsetting the impact of the Carbon Reduction Commitment
- Greater security of supply and plentiful hot water
- Flexible procurement options
- Zero CAPEX required
- VAT savings
- Possible grant funding

Adams Foods has also implemented a number of other energy saving techniques at its Leek facility to reduce costs and lower carbon emissions. These include sun pipes, passive infra red (PIR) lighting controls, photovoltaic cells, and free cooling to the production hall using roof mounted air fans and inverter driven motors on pumps and fans.

The ENER-G Group is a leading distributed power generation and energy management company and its UK manufactured CHP systems reduce carbon emissions by around 20% while cutting electricity costs by approximately one third. They are used by the British Royal family at Buckingham Palace and Windsor Castle, as well as in hospitals, hotels, leisure centres, supermarkets, factories and other buildings worldwide. They can be powered by natural gas, diesel, biodiesel, propane, biofuels or biogases.

ENER-G helped pioneer CHP technology more than 25 years ago. Its advanced technologies assist organisations across the world in reducing their collective carbon emissions by five million tonnes each year.

Today, ENER-G is Europe's leading supplier of cogeneration systems from 4kWe to 10MW. The company delivers whole life cycle cogeneration projects - from initial design to long term care of the installation. The company's solid financial status and independence provides the freedom to finance capital projects. The company pioneered the Discount Energy Purchase scheme, which means it installs, operates and finances the cogeneration installation without capital outlay and sells the energy at a discounted rate.

ENER-G's Quality Management System provides international best practice in design, manufacture and service. Customers are offered a flexible aftercare solution, including a variety of service packages to meet precise requirements. CHP on-board computer systems provide a two-way communication channel to the company's 24/7 remote monitoring centre. This means that engineers can diagnose and resolve issues before they become problems – providing proactive, predictive maintenance that enables customers to minimise downtime and prolong system life.

About ENER-G

Across the ENER-G group our services include sustainable technologies such as combined heat and power (CHP), heat pumps, energy from biogas and energy from waste. We can also offer efficient lighting, controls and metering and data solutions.

This is accompanied by our wide range of energy and water consultancy and procurement services. With flexible finance models, we offer access to our energy solutions without the upfront capital expenditure normally required.

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