

Smart energy creates smarter retail

The Centrica Business Solutions Combined Heat and Power (CHP) solution delivers cost savings, energy efficiency, and carbon reduction for leading UK retailer's distribution centres.



Reducing energy costs, 'greening' the supply chain

This customer is one of the UK's largest supermarket retailers, with stores and warehousing nationwide. The business has a dual focus on energy: it wants to be smarter in the way it generates and consumes energy in order to reduce costs, and must meet strict new government regulations around carbon reduction.

The retailer's warehouses are a particular area of concern. The huge spaces tend to be energy inefficient. It is both difficult and expensive to maintain a consistent temperature with rising energy costs. Also, the business is tasked with 'greening' its supply chain.

Stable and resilient energy supply

Centrica Business Solutions delivers an innovative, multi-faceted solution for one of the retailer's largest UK warehouses. The main component is a containerised ENER-G 1.5MWe Combined Heat and Power (CHP) unit, with an MTU genset. The hot water from the MTU units will be used to supply all on-site water, and power the heating systems.

In addition, Centrica Business Solutions will supply a special Exhaust Gas Heat Exchanger which has been designed for this special application. This will drive the ammonia chiller to produce -32 degrees chilled water, keeping the distribution warehouse cool.

The results

The Centrica Business Solutions products will deliver the necessary savings on energy and cost, and help the retailer meet its carbon reduction commitments. The current modelling estimates annual cost savings of £400,000, with 11,637MWh displaced from the grid. The solution is expected to save 5,775 tonnes of CO₂.

The approach provides a blueprint for the retailer's other warehouse locations in the UK. In addition, the relationship with Centrica Business Solutions enables the retailer to explore further innovation around energy consumption, conservation and generation.



Displaced from the grid per annum



kWh electricity savings per year



Gross savings annually

Why Centrica Business Solutions?

- Provides an innovative, multi-faceted solution
- Ability to build and deliver bespoke features and applications.
- Opportunity to explore further innovation around energy consumption, conservation and generation.