

Case Study - CHP at Abbeyfields

Affordable, efficient heat and power for Abbeyfields

Swale Housing Association is showing its commitment to providing affordable, easy to heat homes at its new sheltered housing scheme in Faversham, Kent. Abbeyfields has a revolutionary new mini combined heat and power unit (mini CHP) which is economical for residents and kind to the environment.

How it works

The mini CHP supplies constant, low-cost hot water, heating and electricity and reduces emissions of carbon dioxide. Unlike conventional power stations, which lose heat to the atmosphere when generating electricity, the heat is captured to produce hot water and central heating.

Reducing costs

Operation of CHP generates low cost electricity and heat, providing ongoing savings. Swale Housing Association was also able to gain grant funding towards capital costs. A grant of £2500 was secured through Energy Efficiency Commitment (EEC) funding. An interest free loan was provided for a further 75% of the capital and installation cost, through CEN's Energy Saving Trust funded CHP support service.

The system

The EC Power CHP unit is incorporated into the centralised heating system as lead boiler, with condensing boilers providing back-up heat.

The system consists of a gas-fired engine to generate electricity. Heat produced in the process is reclaimed and fed into the heating and hot water system. The electricity is sold to residents, with any additional electricity requirement met by the national grid. The reduced energy costs mean that Swale Housing Association will be able to sell electricity to the 39 residents at 20% less than the local electricity suppliers.

Key Points

Technology
12kWe CHP system

Benefits
Predicted annual generation:
60,000kWh electricity
137,500kWh heat
CO₂ reduction: 12,000kg per year

Funding
10% EDF
75% Interest free loan

Collaborators
Swale Housing Association
CEN
EC Power Ltd
EST

Want to know more?

To find out more about the Abbeyfields project or to discuss your own project please contact the CHP team at Creative Environmental Networks on 020 8683 6677.

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