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Reducing social housing energy costs with off-peak tariffs and Dimplex low-carbon technology

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South Kesteven District Council in Lincolnshire want to ensure their social housing tenants have access to the lowest energy costs. During the refurbishment of an off-gas, 3-bed end-of-terrace property, the council took the opportunity to install Dimplex <u>Quantum high heat retention storage heaters</u> providing access to low-cost energy tariffs. These were paired with the low-carbon <u>Edel hot water heat pump</u> to provide an energy efficient solution for both heating and hot water.

The council had experienced an increase in enquiries from tenants with old storage heaters looking for the best options to reduce their energy bills. With around 1,500 off-gas social housing properties to manage, they were keen to look for electric heating and hot water solutions that would meet expectations. This Dimplex solution provides the council's social housing tenants with full control over thermal comfort helping to reduce their energy bills.

The council is monitoring the energy consumption and energy cost of the property to evaluate the savings which will benefit all future tenants. The upgraded property's first tenant looked for the best deals available form leading energy suppliers. One quote that they received estimated the monthly heating cost at £50, some £48 a month cheaper than those without the economy 7 off-peak rates.

This is an encouraging sign and Jordan James, Mechanical Contract Manager for South Kesteven Council, commented: "We arrange a retrofit assessment before carrying out an installation of a low-carbon heating system. This assesses the property's condition and current energy performance to ensure the system meets the requirements of the property. The assessment also helps identify other building performance areas that may need improving, such as insulation and ventilation. This ensures we are offering our tenants a more efficient heating and hot water solution to provide the best value across our social housing portfolio."

What Dimplex solutions were installed to help reduce social housing energy costs?

The council were familiar with upgrading the old storage heaters used in this off-gas dwelling with Dimplex Quantum high heat retention storage heaters as part of the refurbishment of void properties. Five Quantum heaters were installed, one in the downstairs kitchen, one in the living room and one in each of the three upstairs bedrooms. Their installation was straightforward with standard dual-supply wiring to enable the units to take advantage of off-peak tariffs. Quantum utilises a highly insulated core to retain the energy stored overnight from off-peak electricity. Then, a state-of-the-art intelligent, adaptive control system delivers just the right amount of this stored lower cost heat to match the room's climate conditions, individual lifestyle and comfort requirements in the most economical manner.

A 200 litre Edel was situated under the stairs and replaced the existing direct acting electric cylinder that supplied hot water. Edel has an energy efficiency of up to 324%, so produces significantly more energy than it draws through the meter. Its user friendly and intuitive controls include a boost mode for periods of high-water consumption.

The property did not have an internet connection, so this was provided by the council using a 5G dongle. A Dimplex Control Hub was installed as well as a smart meter. This combination of linked devices gives tenants the option of signing up to low-cost energy tariffs. In this way, Quantum can be charged up with low-cost electricity when it is cheapest on the grid to reduce heating costs for the tenants.

This technology also allows the council, with permission of the tenant, to collect data to see the extent of the energy and cost savings and look for any areas where further energy efficiencies might be made. Remote support with settings via the Dimplex customer care team is also now possible if needed.

Jordan James comments on the reaction of the tenant who moved into the property when she was asked if she would share her data from the Dimplex solution: *"If sharing my usage data creates a pathway to help more social housing tenants reduce their bills then I want to help."*

How can Dimplex solutions help reduce energy costs in off-gas social housing?

Those social housing tenants in off-gas properties are often tied to the higher costs of electricity when compared to gas. This creates a challenge for social housing providers who are trying to provide their tenants with a home that is both comfortable and affordable to heat, without access to cheaper gas.

Installing Quantum and Edel hot water heat pumps allows social housing providers to give their tenants access to cheaper forms of electricity through discounted tariffs.

The highly efficient Edel, with its low-carbon technology, provides hot water to deliver even more energy savings for social housing tenants.

Both the Quantum and Edel are in Appendix Q of SAP so their benefits can be easily incorporated within an RdSAP calculation to help improve the EPC rating of the refurbished property. Both are easy to install and provide a cost-effective refurbishment solution with intuitive controls for ease of use.

David Patrick, Head of Specification Marketing at Dimplex, sums up the appeal of using Dimplex solutions when refurbishing off-gas social housing properties: "Local authorities and housing associations recognise that Dimplex offers their tenants access to one of the most affordable heating tariffs in the UK energy market and highly efficient hot water provision, helping to cut energy bills and alleviate fuel poverty."

If you are undertaking a social housing refurbishment and would like to find out more about our Dimplex solutions <u>contact</u> one of our Dimplex HVAC design experts.





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