

Merlin Housing



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Social tenants anticipate 'exceptional' savings with heat pumps

Switching 50 off-gas properties to air source heat pumps brought immediate cost savings for South Gloucestershire social housing tenants and saw their landlord, Merlin Housing Society, shortlisted for a renewable energy award within weeks of completing the refurbishment project.

As part of an ongoing programme to upgrade its housing stock, Merlin targeted about 60 homes for conversion from electric storage heating or oil-fired systems to heat pumps. The society chose the Daikin Altherma Monobloc heat pump as the basis of the upgrades.

Although the project was not a winner at the British Renewable Energy Awards 2016, it was with Merlin's tenants – some of whose heating bills were forecast to fall from as much as £80 a week to just £20.

"We're getting feedback on the tenants' costs, and it's pointing to exceptional savings in some cases," says Tim Grimshaw, special projects surveyor at Merlin. "The Daikin Altherma

Monobloc will certainly help to alleviate the risk of fuel poverty for these people."

And, he says, the savings don't stop with the tenants as some of the society's capital costs will be recouped through the government's renewable heat incentive. This is currently paid to the property owner over seven years at 7.51p per kWh of renewable energy produced.

The project involved a mix of bungalows and semi-detached houses, in two and three-bedroom configurations and built between the 1950s and the 1970s. All were below modern standards for insulation and heating, according to Tim Grimshaw.

Before the project was launched, Daikin staged a series of roadshows in three strategic locations, giving the Merlin tenants a chance to learn about the heat pumps and the benefits they could expect from them.

Year of installation

› 2016

Project requirements

- LT Split
- LT Mono
- HT Split
- Hybrid
- Combustion
- Smart Controls
- Solar Thermal
- UFH
- Heat Pump Convactor

Installed systems

› Low Temperature Monobloc

Tim Grimshaw says:
 “The residents are mostly older people who tend to be sceptical about new technology. The Daikin roadshows convinced people that the changes we were proposing would be in their best interests.”

Depending on the size of the properties, 5kW or 7kW Daikin Altherma Monobloc systems have been installed. These compact systems include all the necessary hydraulic components and are simply connected to the heating water circuit and a power supply.

“The tenants seem very pleased with the new systems, which they are finding very simple to use,” says Tim Grimshaw.

The properties have also been fitted with 200-litre Daikin hot water cylinders. As the heat pumps are low temperature units, the systems have the optional back-up heaters. These raise domestic hot water to the required temperature – and can also supplement the heat pumps at times of extreme heating demand.

The targeted properties are part of Merlin’s stock of more than 8,200 units, mostly in rural south Gloucestershire and in the Bristol-Bath region. It currently provides homes to more than 16,300 people, 5,400 of whom are older than 55. The waiting list for social housing in Merlin’s main operating areas is more than 19,000.

Richard Hopkins, head of property investment at Merlin, says: “We’re committed to improve the energy efficiency of our customers’ homes. Fuel poverty is sadly a real issue for some of our customers, so it’s important that we provide them with homes that are energy efficient.”



Kit List

Code	Description
EDLQ-CV3	Daikin Altherma Monobloc heat pump
UK.EKHWSU-B3V3	Unvented hot water cylinder
EKMBUHC3V3	Back up heater