



Wealden District Council

For many years, the search for a reliable, efficient and long-standing renewable energy solution has been at the top of the agenda for social housing providers, councils and communities alike. Renewable technologies not only provide a cleaner, safer and more efficient heating and hot water solution, but these technologies are, above all, cost effective.

Social Housing benefits from Panasonic renewable technology

Whilst all renewable technologies can protect tenants from the growing risk of fuel poverty, certain systems are better suited to different properties. It is crucial for installers to specify the right system for each project, allowing the tenants to enjoy maximum benefits. A great example can be found at the Wealden District Council. In fact, Ecosphere Renewables has been awarded a top prize in Panasonic's PRO Awards, winning the Best Residential Project in the Social Housing category for its ambitious project with Wealden District Council. This project has already seen 110 Panasonic Aquarea air source heat pumps and tanks successfully installed, delivering significant benefits to both the council and the tenants.

In August 2013, Wealden District Council launched a £291,000 pilot scheme, grant-funded by the Department of Energy and Climate Change (DECC). The aim was to update the heating systems of 110 village properties to meet the Government's energy efficiency targets by 2015.

The Brief

Led by Abdul Hussain, Wealden Home Energy Efficiency Officer, East Sussex based installer Ecosphere Renewables, signed a ten year contract to replace the solid fuel heating and electric storage heaters with a reliable, efficient and durable renewable technology solution within these properties.

“Despite using other large manufacturer-branded air source heat pumps in the past, it was obvious that switching to Panasonic’s Aquarea Mono-Bloc units would be more beneficial to our customers and the environment,” explained Abdul Hussain. “At the end of the day, cost, reliability and COP performance is essential for meeting council objectives and ensuring that our residents are in a well-heated, happy environment. Panasonic’s Aquarea heat pumps offer just that, and are fully compatible with solar PV panels. Heat pump technology is also eligible for payments through the Government’s Renewable Heat Incentive (RHI).”

Originally, 60 units from another manufacturer were trialed alongside two Panasonic Aquarea units. After extensive comparisons, the Panasonic units delivered better value and higher efficiencies. With an impressive co-efficiency performance rating of 5.08 and compatibility with solar PV panel technology, switching to the Aquarea air source heat pumps improves performance for the Council’s tenants – as well as the surrounding environment.

Challenges

This project had major challenges as there was a significant variety in the types of properties requiring new systems. The houses were mainly rural buildings, built from the 1900’s to 1990’s, with differing construction materials, insulation and existing heating systems.

An additional challenge to be addressed was the variety in the tenants themselves, from families with small children to persons of an elderly age.

With little knowledge of renewable technologies, a number of tenants were unsure about replacing their existing, traditional heating system with a new renewable technology. Therefore, over a series of days, Panasonic took its fully working Aquarea air to water demonstration trailer to the Wealden district, allowing visitors to see the system first hand, hear how quiet it is, and appreciate its compact size.



Representatives from Panasonic, Wealden District Council and Ecosphere were on hand to answer any questions and explain the benefits of having a heat pump installed. That same day, over 40 residents signed up to the Wealden District Council’s programme.

Now, 110 Panasonic Aquarea air source heat pumps and Panasonic tanks have been installed, with the project continuing for a further eight years. The systems specified include the Aquarea Mono-Bloc in 6, 9 and 12kW, along with ten Bi-Bloc units, which are installed across a block of ten flats.

Outcome

“This is one of the largest projects we have ever worked on - with strict budgets, hundreds of tenants relying on our install and tight deadlines to work to, we had no room for fault when specifying our choice of technology. We have installed Panasonic’s heat pumps for many years and have always found its systems to be one of the most reliable and efficient technologies on the market today,” says Sam Phyll, Renewable Energy Manager at Ecosphere. “We are proud of the impact our installs have had on the community already. One family of five had their solid fuel back boiler with separate immersion heater replaced with an Aquarea unit - they are now saving £150 a month on their heating bills compared to before.”

Panasonic’s Aquarea air source heat pumps have a COP of 5.08, meaning for every one unit of heat the pump consumes, a further 5.08 units of heat is created. This will reduce the Wealden District’s carbon footprint by an impressive 5000 tonnes over the next seven years and, on average, will save tenants £500 a year on heating bills. By replacing oil boilers and inefficient storage heaters, Wealden District Council has also seen a significant reduction in maintenance costs and breakdown call outs.

Panasonic’s heat pump technology qualifies for the government’s RHI scheme, meaning the council will benefit from an average pay of £700 per property per year over seven years. As a result, Ecosphere Renewables has helped Wealden District Council reach its targets under the Home Energy Conservation act. The council is now considering heat pumps for all its off-gas small properties and flats within the Wealden District.



WEALDEN DISTRICT COUNCIL

System: Aquarea Mono-Bloc

CO₂ Savings: 5000 tonnes over 7 years

Energy Savings: on average, £500 a year

Requirement: Social Housing Heating & Hot Water

Installer: Ecosphere Renewables

Location: Wealden District

