Heating

Case Study

Oxfordshire Family Home
May 2013

Making a World of Difference

STILL REAPING THE BENEFITS OF ECODAN – MORE THAN TWO YEARS ON.

Two years after fitting a sustainable, low carbon heating and hot water system to their property Mike and Jenny Ballinger are still reaping the benefits of their energy efficient Ecodan® air source heat pump.

The Ballinger family live in Cropredy, Oxfordshire, in a late-1940s, brick-built terraced house with cavity insulated walls, loft insulation and a brick and plaster finish. The area is off-gas and many of their neighbours use oil fuelled systems for heating and hot water.

The couple began extensive renovations to the property as soon as they moved into their new home in 2010, which included replacing the existing heating and hot water system.

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The Ecodan heat pump serves 15 radiators installed in four independently controlled zones in the Ballinger's home.

They were keen to use the opportunity to fit the most energy and cost-efficient system possible to help future-proof them against rising energy bills, but needed it to be low maintenance too.

The Ballinger's are extremely energy conscious and decided to use renewable technology. To get some expert advice they called in renewable heating specialist, James Hood, Proprietor of J.E.Hood Heating, to ensure they purchased the correct system for their home.

Having visited the site to check the building was suitable, and find out what the family's heating and hot water requirements were, Mr Hood recommended the couple install a Mitsubishi Electric 14kW Ecodan air source heat pump and water cylinder.

"An Ecodan heat pump will replace an existing heating system," said Hood. "For those living in off-gas areas it provides a viable alternative to oil and can produce a significant reduction in running costs. Maintenance is easier than gas and the Ballinger's Ecodan will continue to give them great service over the next 15 to 20 years."

Air source heat pumps work by taking in the outside air and extracting the heat energy from it. This energy is then used to heat the water supplied to radiators within the home and for the property's sanitary hot water.

When the Ballinger's first moved to the property there were just 3 storage heaters fitted for the entire house. Hot water was provided by an immersion, which the previous owners had to leave on constantly in order to meet requirements.

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Changes for the Better

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APPROVED PRODUCT
Certificate Number: MCS HP0002
Product Reference: PUHZ-W50VHA-(BS) PUHZ-W85VHA2-(BS), PUHZ-HW140VHA2/YHA2-(BS)

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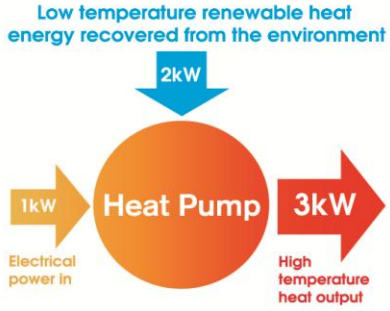

For every 1kW of electricity used to power an Ecodan heat pump up to 3kW of heating energy can be generated.

Six months later the Ballinger's had an efficient new heating and hot water system consisting of an Ecodan air source heat pump, servicing 15 radiators installed in four independently controlled zones, along with a 220 litre hot water cylinder.

The ground floor includes a large annexe with a playroom for their two young children, a shower room, conservatory, lounge and kitchen. Upstairs, three bedrooms and a bathroom are located.

Mr Ballinger and his wife have a good understanding of how air source technology works so they run their heating system constantly in order to maximise its energy and cost efficiencies.

"Jenny and I are truly delighted with our Ecodan system. We heat 14 rooms to a constant, comfortable temperature and a 220 litre water cylinder twice a day, for slightly less than it cost us to run three storage heaters and a small immersion tank," said Mike Ballinger. "We have monitored power consumption over the past 24 months and given that we now have extra rooms and our hot water cylinder is much bigger than the previous one, we find it simply incredible that the energy needed to run the new system is comparable to, if not less, than the energy we used for the old one.

"There has been no reduction in performance over the months and as we see it, having a warm, comfortable house and hot water 24/7 for no additional cost than a system which only partially heated the house for short periods of time, is a huge benefit."

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The heating system is run on constant in order to maximise energy and cost efficiencies.

The Ecodan unit has been keeping the Ballinger's home warm and cosy even throughout the harsh winters experienced by the UK in the last two years.

Mike and Jenny's energy supplier produces electricity that is 100% hydro, solar and wind generated which has helped to reduce the carbon footprint of the house to a minimum. The Ecodan air source heat pump system has also been enabled so that in the future a roof-mounted solar system to heat the water tank directly can be installed to provide even more energy savings.

Ecodan units are manufactured in the UK and certified by the Microgeneration Certification Scheme (MCS) which ensures that the product has passed rigorous and testing criteria. The MCS assessment covers both the manufacturing process and the materials used and certification signifies both quality and reliability.

With 5kW, 8.5kW and 14kW models available, the units can help a building to achieve Levels 3 and 4 of the Code for Sustainable Homes.

To contact J.E.Hood Heating call 01295 660 790, or email jameshood628@btinternet.com

For further information about Ecodan air source heat pumps visit heating.mitsubishielectric.co.uk

http://homeownerportal.mitsubishielectric.co.uk/

Installation Summary

Application type:
1940s brick built mid-terraced house

Product:
1 x 14kW Ecodan air source heat pump
1 x 220 litre water cylinder

System capacity:
14kW

Heat delivery method:
Heating via radiators

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