



**RENEWABLE  
SOLUTION PROVIDED**

Cost and energy  
efficient heating and  
hot water for semi-  
detached family  
home.

## **ECODAN<sup>®</sup> PROVIDES HERTFORDSHIRE FAMILY WITH SUBSTANTIAL ENERGY SAVINGS**

Katy French and her family were struggling to keep their three bedroom semi in Wild Hill, near Essendon, warm, especially when the temperatures dropped below freezing.

Electric night storage heaters fitted in the house were proving expensive to run and with no way of controlling the system Ms French could not programme the heating for the times they needed it most.



Air Conditioning | Heating  
Ventilation | Controls



**ecodan<sup>®</sup>**  
Renewable Heating Technology

# Heating

## Case Study

### Welwyn Hatfield Community Housing Trust June 2013

Making a  
World of  
Difference



**Ecodan can be used to replace any existing heating system to provide a comfortable, even temperature throughout the home and significant reductions in running costs, particularly over oil and direct electric systems.**

The rising energy bills were becoming a strain on the family's household budget, but with three young children to care for, piling on the layers and turning the heating off just wasn't an option.

When Welwyn Hatfield Community Housing Trust became aware of Katy's difficulties it was determined to find a solution to the problem. Having researched the options the Trust was keen to fit an Ecodan® air source heat pump to the property.

Following a competitive tender process the Trust selected Tony Owen of AOS Solar Ltd to advise them on the installation and carry out any work to the property. Mr Owen said: "For us it was simple, our extensive experience of working with renewable technology meant that we knew without a shadow of a doubt that an air source heat pump would be much more energy and cost efficient for the French family than their current storage heaters.

"In fact, we believe that when you live in an off-gas area and your options are limited it's the most effective source of heating and hot water you can get."

Ecodan can be used to replace any existing heating system and can offer significant reductions in installation and running costs, particularly over oil and direct electric systems. Maintenance on an Ecodan is easier than a gas system and a professionally maintained Ecodan heat pump unit has an average lifespan of 15 – 20 years, so annual maintenance costs will also be less.



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Certificate Number: MCS HP0002  
Product Reference: PUHZ-W50VHA-IBS)  
PUHZ-W80VHA2-IBS)  
PUHZ-HW140VHA2/YHA2-IBS)



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Heating is delivered to the property via a wet system using energy efficient radiators.

“The project went well for us and we’re really impressed with the results,” said Steve Button, Building Maintenance Surveyor for Welwyn Hatfield Housing Trust. “It’s great being able to offer our tenants an affordable, efficient heating system that can help lower their heating bills. I really enjoyed being involved with something so beneficial and innovative.”

Air source heat pumps provide a sustainable, energy efficient alternative to electric storage heaters that will reduce a building’s CO<sub>2</sub> output. They offer the added benefit of allowing organisations like the Trust to part fund a project using the Renewable Heat Premium Payment (a Government scheme which helps with the purchase of renewable heating technologies) and CERT funding designed to help social housing landlords achieve carbon reduction.

AOS Solar’s team also fitted a Mitsubishi Electric 200 litre stainless steel water cylinder specifically designed to work with the Ecodan air source heat pump. The cylinder comes pre-wired and pre-plumbed which made installation really easy and reduced the installation time by about 70% compared to a bare cylinder installation.

The cylinder is WRAS (Water Regulations Advisory Scheme) approved, and includes a large surface area coil, primary circuit along with hot water tank expansion vessels, filter, electric booster and immersion heaters and all necessary control and safety valves.



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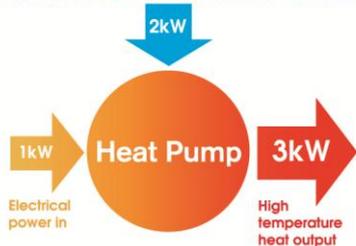
# Heating

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Low temperature renewable heat  
energy recovered from the environment



The French's new system is controlled with an FTC-3 (Flow Temperature Controller) which is so easy to program it makes operating the system really simple and also speeds up the commissioning process.

An integral 7-day schedule and holiday mode option has given the French family outstanding control of their heating and hot water system and the settings can be easily adjusted to suit their requirements.

“Despite wall cavity and loft insulation our old system simply couldn't cope. The house was an uneven temperature throughout with some rooms much colder than others,” said Katy. “This included the bathroom which made bath time for the kids an ordeal rather than a pleasure. But worst of all was getting ridiculously high energy bills we just couldn't keep up with. Since having the air source heat pump the energy bills are much more manageable - which is such a relief.”

For further details about the Welwyn Hatfield Community Housing Trust visit <http://www.welhat-cht.org.uk> or call 01707 357 796.

For further information on AOS visit <http://www.aossolarenergy.co.uk> or call 0199 263 0483.

For further information on Mitsubishi Electric's air source heat pumps including Ecodan visit <http://heating.mitsubishielectric.co.uk> or call 01707 282 666.

## Installation Summary

### Application type

3 bedroom semi-detached house

### Product:

Ecodan Air Source Heat Pump  
Water cylinder

### System capacity:

1 x 8.5kW Ecodan  
1 x Mitsubishi Electric 200 litre cylinder

### Heat delivery method:

Radiators

### Thermal properties:

Double glazing and loft insulation



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