

# Domestic Heating

**Case Study**  
1950s Family Home  
January 2011

Making a  
World of  
Difference



**RENEWABLE SOLUTION PROVIDED**  
Running costs reduced by 38% - saving over £213 over the first 23 weeks of 2011 - compared to controller without load compensation

## 1955 home benefits from third generation controller with improved load compensation

Already happy with the efficiency of their Ecodan air source heat pump, the residents of this 1950's house are impressed with the additional savings a new smart controller has brought them.

As Government agencies place increasing importance on reducing both the running costs and the CO<sub>2</sub> emissions of domestic heating systems, field trial data shows the load compensation of the new Mitsubishi Electric Flow Temperature Controller 3 (FTC3) can be relied upon to achieve both.



Air Conditioning | Commercial Heating  
Domestic Heating | Photovoltaics

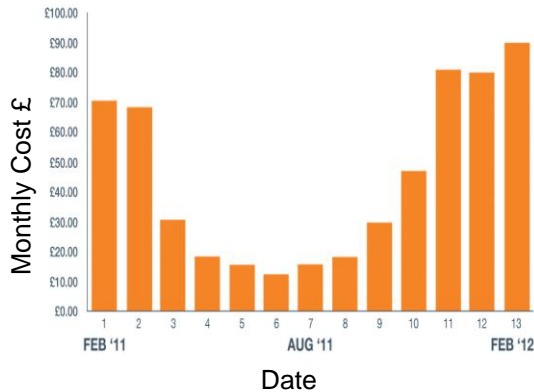


**ecodan**<sup>®</sup>  
Renewable Heating Technology

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### Installation Summary

1955 3-bed semi-detached house with a total living space of 102m<sup>2</sup>

Mains gas supply available

1970's 60% efficient gas boiler removed

8.5kW Ecodan, larger radiators fitted with TRV and 140 litre indirect unvented cylinder installed

Installation time: 2 days

Controller upgraded to FTC3 in January 2011

The environmentally aware occupants of the house were keen to take advantage of a sustainable system that would readily satisfy all the heating and hot water demands of a family of five whilst still being able to bring down costs and emission levels.

Unlike the ageing gas system that was previously installed, the Ecodan air source heat pump uses the latest technology to harvest renewable energy from the outside air and use it to provide central heating and hot water for the house. Easy to install, the advanced efficiency of Ecodan is perfect for this 1950's home.

**The replacement of an inefficient gas boiler and the installation of larger radiators which work with lower flow temperatures, means that this home now enjoys constant comfort levels for a fraction of the cost of running the old gas boiler.**

Capable of supplying all the heating and hot water this property needs, Ecodan is the ideal, low carbon solution the homeowners were looking for.

**Changing to Ecodan cut the property's carbon footprint by 45% and the improved efficiency of the new heating system significantly reduced its annual running costs. However, the addition of the FTC3 controller has achieved a further energy saving of 38% over the previous control system.**

Low cost, low noise and minimal maintenance make Ecodan and the FTC3 an efficient\* and viable alternative to a gas system.



Changes for the Better

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Certificate Number: MCS HP0002  
Product Reference: PLHZ-W50VHA-(BS)  
PLHZ-W50VHA2-(BS), PLHZ-HW140VHA2/YHA2-(BS)



www.greengateway.mitsubishielectric.co.uk  
Mitsubishi Electric's commitment to the environment

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Flow Temperature Controller 3 (FTC3)

The FTC3 incorporates an intelligent operating system which uses a series of sensors to monitor the temperature inside and outside the home. These sensors constantly talk to each other and tell the system when it needs to adjust the output from the air source heat pump to compensate for outside conditions.

This means that the system can respond quickly to changes in the weather and the unit does not need to be pre-set to ensure a consistent and comfortable temperature is achieved in the home.

A 7 day timer and energy saving holiday mode allows the homeowners to select when they do not require hot water or central heating, which allows the system to be tailored to work with their particular lifestyle.

It even has different access levels for the homeowner, the installer, and for maintenance checks, so anyone can operate the controller simply and easily.

Performance data for this house and other FTC3 sites are available live on the internet at [www.dashboard.mitsubishielectric.co.uk](http://www.dashboard.mitsubishielectric.co.uk). This dedicated website enabling visitors to see how the system performs at various temperatures and operating conditions.

*\* For every 1kW of electricity fed into the outdoor unit of an Ecodan heating system you could get at least 3kW of heating energy. The overall system efficiency and energy savings will depend on how it compares to the heating system it replaced, satisfactory system design and installation, the operational settings and how the heating system is used.*



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Certificate Number: MCS HP0002  
Product Reference: PUHZ-W50Y1A4-(B)S  
PUHZ-W50Y1A2-(B)S, PUHZ-HW140Y1A2Y1A2-(B)S



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