MITSUBISHI ELECTRIC

# enjoy an extra *warm feeling*

ecodan®

Renewable Heating Technology

# Thousands of UK households are already benefiting from reliable, renewable heating with Ecodan air source heat pumps

From the Isle of Skye to the Isle of Wight, in flats, bungalows, houses and even stately homes - **there is an Ecodan to suit your needs**.

Whether in new-build or an existing home, working on its own or in conjunction with an existing heating system, Ecodan can help cut your energy bills **AND** earn quarterly payments from the Government's Renewable Heat Incentive (RHI) scheme.

# feel good savings

## Heat your home for less

**The Ecodan Selection tool** provides you with an indication of the potential cost saving benefits of installing Ecodan in your home; including total running costs, carbon emissions as well as the all-important RHI payment figure.

**Simply visit:**

heating.mitsubishielectric.co.uk/ecodanselectiontool

## QUALIFIES FOR

A++

# 7 years

## RHI PAYMENTS*

* The Domestic Renewable Heat Incentive (Domestic RHI) is a Government financial incentive to promote the use of renewable heat. People who join the scheme and register receive quarterly payments for seven years for the amount of clean, green renewable heat it's estimated their system produces.

# You've already been using a heat pump in your home for decades... your fridge!

**The technology inside an air source heat pump is very similar to that of a domestic fridge - transferring heat from one place to another - the back of your fridge is warm because it is removing heat from the food inside the fridge out into the room.**

An Ecodan air source heat pump sits outside your home and extracts warmth from the outdoor air. It upgrades this renewable heat energy and transfers it inside the home to provide hot water and heating for radiators and / or underfloor heating. The self contained unit only requires electric and water connections.

Like your fridge, it will do this quietly and reliably, all year round, **even in sub-zero temperatures down to -20°C**.

# EARN MORE from Ecodan


**In addition to low running costs, Ecodan is classified as a renewable energy source because it captures free energy from the air.**

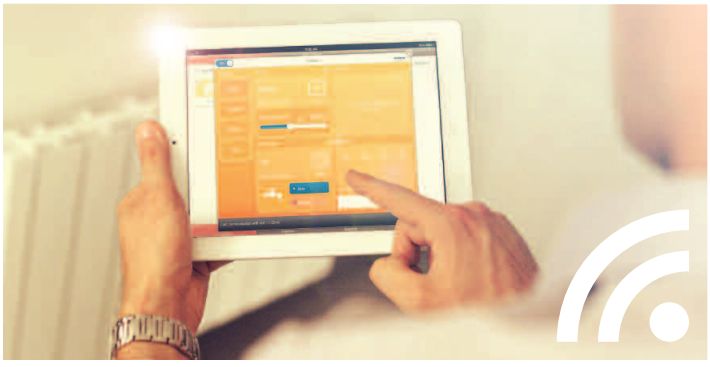
For every 1kW of electrical input power, Ecodan harvests and upgrades renewable heat energy from the outdoor air to provide the home with an average of at least **3kW** of heat output*. This **'free' 2kW of renewable energy** is then eligible for seven years of payments from the RHI. With an average 3-bed family home in the UK needing around 15,000kWh of heating per year, you can quickly see how the RHI payments can really make a difference.

You can increase these quarterly payments even further by adding a **Metering & Monitoring Service Package** (MMSP). This makes you eligible for an **additional £1610** payment over the 7 years of your RDF funding.

* The overall system efficiency and energy savings will depend on the comparison with your current heating system, satisfactory system design and installation, and operational setting i.e. how you use the heating system.

# enjoy added benefits

- **Modern control**
  In-built smart controls put you in total control whether you are in your armchair, at work, or on the way to the airport.
- **Performance**
  With the highest energy rating (A++) available, you can be sure that Ecodan is working hard to minimise your energy bills.
- **Whisper-quiet**
  Ecodan is endorsed with the Noise Abatement Society's Quiet Mark.
- **Incentivised**
  UK-manufactured and approved for the Microgeneration Certification Scheme (MCS) making it eligible for government incentives (RHI).
- **Financial**
  Don't have the funds to replace your existing heating system - just look at our hybrid option, where the Ecodan works with your existing boiler, meaning you can often keep the current radiators.
- **Reassurance**
  Full service and maintenance packages include remote diagnostics so any issues can often be resolved with one phone call to provide you with complete peace of mind.



# How a typical Ecodan system works

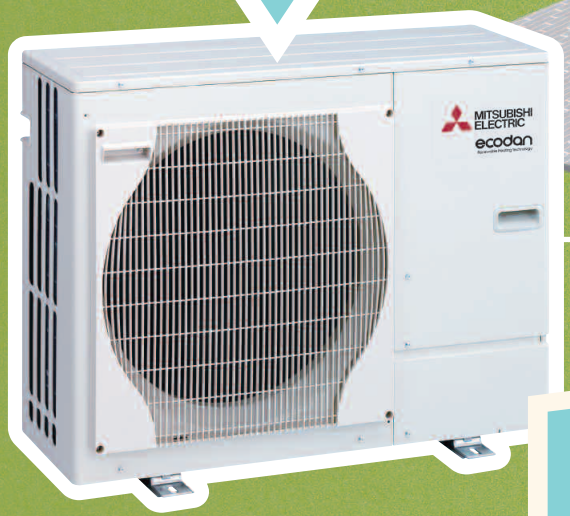
**Installing an Ecodan air source heat pump system in your home to provide low cost, low carbon heating and hot water all year round is as easy as 1, 2, 3...**

## 1 OUTDOOR UNIT

**Only requiring electricity and water connections, the ultra quiet, low maintenance Ecodan outdoor unit is easy to install and can be situated discreetly outside your home or in your garden.**

Ecodan upgrades freely available heat energy from the air and transfers it to the home to provide hot water and heating for radiators and / or underfloor heating

You can receive quarterly RHI payments for every kilowatt of renewable heat your Ecodan produces.




*No need for gas supplies, flues or ventilation*

# 2 HOT WATER CYLINDER

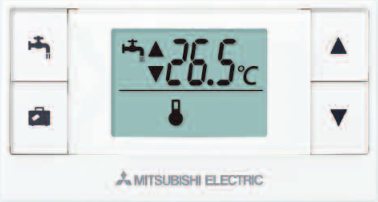
**The Ecodan outdoor unit provides your home with a continuous supply of hot water via a dedicated hot water cylinder.**

These pre-plumbed cylinders are specifically designed to integrate with the outdoor unit and offer optimum performance and faster heat up times through the use of advanced plate heat exchanger technology.


In some cases, Ecodan can work with your existing hot water cylinder

# 3 ENERGY EFFICIENT CONTROL

## IN THE HOME




Ecodan's advanced **wireless controller** includes intelligent temperature control to provide efficient, comfortable heating regardless of the season. Fully programmable, holiday mode and simple room control all as standard.

## ON THE MOVE

Control your home's heating and hot water from your smartphone, tablet or computer via the internet with Mitsubishi Electric's **MELCloud app**.

### Solve your heating issues with just one phone call

MELConsole provides remote maintenance & technical support, via the MELCloud app, allowing Mitsubishi Electric to interrogate and often fix any heating issues without the need for a visit from an engineer.

# Choose an Ecodan system that suits you best

## Typically installed in less than 2 days, our Ecodan heating systems are available in a range of sizes to suit almost any home.

To understand which system is right for you, factors such as the age of your property and current heating system; the levels of insulation and the way you use your heating will all affect the final choice.

That is why we recommend getting in an expert, and why we encourage our heating partners to attain MCS Accreditation*. A skilled heating engineer or plumber will be able to assess your home and advise you on the best system to suit both your lifestyle and your budget. That may be a Hybrid system that works in conjunction with your current heating; or a brand new system designed to work with radiators or underfloor heating.

**For further information please visit**
**ecodanerp.co.uk**

*Three basic choices:*

All eligible for RHI payments

1 REPLACEMENT SYSTEM

2 NEW / SELF BUILD SYSTEM

3 HYBRID SYSTEM


## 1. REPLACEMENT SYSTEMS

**If you're looking to replace your existing heating, our award winning Ecodan PUHZ system is the perfect solution for a large range of property types.**

Ecodan is available in three sizes, with a variety of cylinders and smart controls.

- **Self-contained unit, only requiring water and electric connections**
- **No need for gas supply, flues or ventilation**
- **Low maintenance and quiet operation**

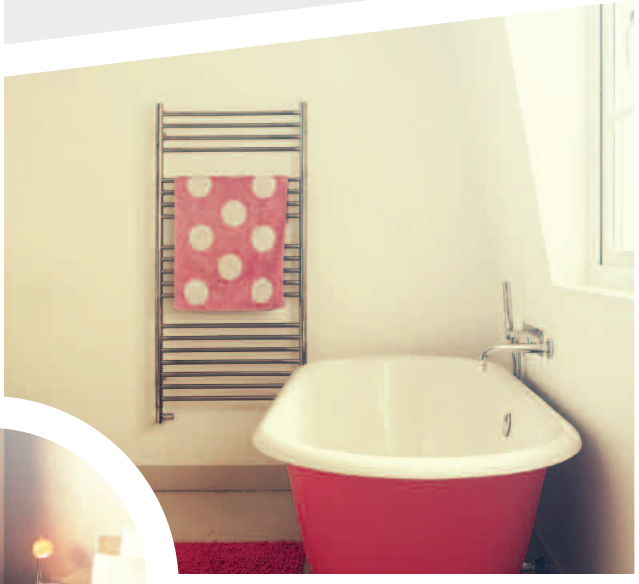
*MCS is a nationally recognised quality assurance scheme

# 2. NEW / SELF BUILD SYSTEMS

**The unique, award-winning Ecodan QUHZ is the ideal solution for new build homes.**

The QUHZ has been specifically designed to operate with exceptionally high efficiency in the production of hot water, whilst still providing renewable space heating for the home all year round.

- **High efficiency hot water heating performance via a dedicated Thermal Store**
- **Low noise operation**
- **High hot water capacity for both large and small homes**

# 3. HYBRID SYSTEMS

**Our Hybrid Ecodan heating systems deliver efficient, renewable heating in tandem with an existing boiler, which can make you eligible for seven years of RHI payments.**

A hybrid system allows the heat pump to deliver the majority of heating with the existing boiler providing peak output if needed.

- **Improves energy use leading to lower running costs and $CO_2$ emissions**
- **Smart controls choose which system to use to maximise efficiency**
- **Suitable for gas, oil and LPG applications**
- **Lower capital cost**

# The Renewable Heat Incentive Scheme (RHI)

**The RHI is the world's first long term financial support for the generation of renewable heat. Homeowners who have their Ecodan installed by an MCS-Accredited heating engineer or plumber, will then be eligible to apply for RHI payments.**

RHI cash payments are made quarterly over seven years. The amount you receive will depend on a number of factors - including the technology you install, the latest tariffs available and - in some cases - metering.

For more information on how to apply for RHI visit: **ofgem.gov.uk**

TAKE ADVANTAGE OF A **33%** INCREASE IN RHI PAYMENTS*

* 33% increase refers to HM Government's proposed increase in Domestic RHI payments for air source heat pumps available to those applying to the scheme on/after 14.12.16 and subject to Parliamentary approval.

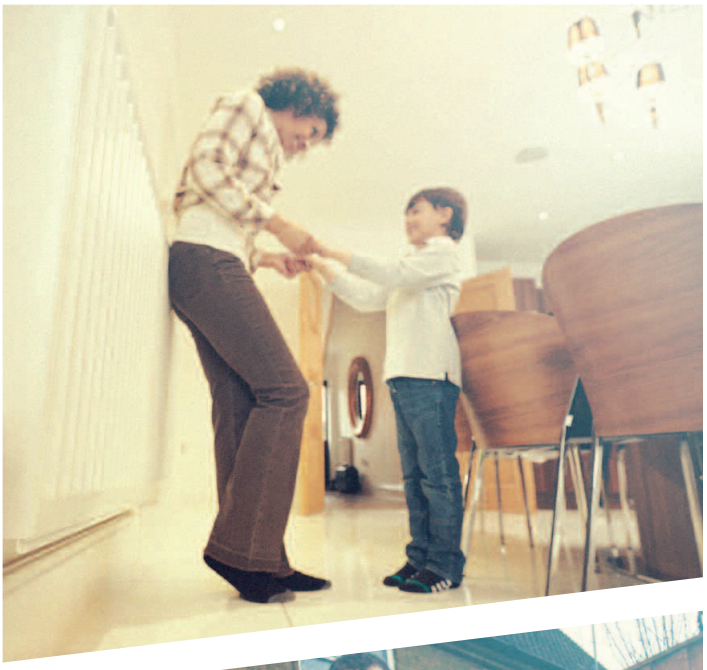
# Earn more from Ecodan with a Metering and Monitoring Service Package

**The RHI Scheme has helped promote the growth of low carbon heating since its introduction in 2011 and the Government has continued to look for ways to enhance the Scheme.**

Purchasing a Metering and Monitoring Service Package (MMSP) from your heat pump installer now makes you eligible for an additional **£1610 payment over the 7 years of your RDF funding.**

An MMSP package will give you complete peace of mind that your Ecodan is working as expected and can also allow for remote diagnostics on your system, should it ever be needed.

A Wi-Fi connection is required at the property for MMSP. Wi-Fi access also enables you to control your heating from anywhere using the MELCloud remote control app.




# Ecodan case studies

# Ecodan reduced this homes heating bills from £2,000 to around £400 per year

**The owners of a large family home in Essex have reduced their energy bills with the addition of a renewable heat pump to their existing heating system.**

The five-bedroom detached property in Shenfield has had an 11.2kW Ecodan monobloc air source heat pump installed to meet the house's heating requirements.

With the gas boiler and Ecodan unit working independently, the home owners do not need to rely on metering to establish Renewable Heat Incentive payments. With the house set up this way, those payments can be guaranteed by the deemed RHI calculation based on the house's Energy Performance Certificate (EPC).

By working in this way, the initial investment can be kept low, whilst still delivering a significant contribution to savings on household energy costs and taking advantage of RHI.


## Hybrid installation summary:

- **11.2kW Ecodan monobloc air source heat pump installed**
- Existing boiler retained for hot water provision
- Existing radiators used
- MELCloud installed for controlling the system either locally or remotely by PC, tablet or smartphone via the internet

# Lower heating bills whilst caring for the environment

**When Mark Christian was looking for a heating system for his new family home, he wanted a renewable system that would help reduce energy consumption.**

"We selected our Ecodan heating system as it is priced competitively and offers higher efficiencies compared with other brands".

"It's very simple and easy to control," he explained. "We have kept it switched on at a constant temperature and it has been working really well. There's also an energy meter which keeps a record of the energy input and heat output, so we can see how efficient and effective it is".

"It is on 24 hours a day, seven days a week, maintaining a certain temperature, and it cost us around **£10 a week to run** during the winter period".

**"We have definitely saved money on our energy bills since the heat pump was installed, even with the cold weather we've had since the start of the year".**

## PUHZ installation summary:

- **8.5kW Ecodan air source heat pump installed to deliver heating and hot water**
- The standalone system works with a 250 litre solar hot water cylinder

# New-build home is first to use cutting-edge Ecodan QUHZ

**This spacious 3-bed, detached home is built to exceed current UK building standards, paying particular attention to high levels of insulation and air tightness.**

With the space heating energy requirement lower than the hot water energy requirement, the heating system has to be able to cope with hot water production as the dominant load.

The Ecodan QUHZ has been specifically designed with new-build standards of insulation and lower heating loads in mind. "We time clock the hot water to come on at intervals to meet our needs".

**"The heat pump runs at night and we are very impressed with how quiet it is"**, explain Jon and Maureen Fox, the homeowners.

"The ground floor is lovely and warm when we get up in the morning and we've hardly needed the heating on upstairs as the eco-house retains such a lot of heat".


## QUHZ installation summary:

- **Ecodan QUHZ Monobloc 4kW air source heat pump installed**
- The system delivers heating via underfloor heating throughout the ground floor and to traditional radiators upstairs
- The outdoor unit delivers water at 70°C to a packaged 200 litre thermal store
- Built-in energy monitoring, using MELCloud, the internet-based system which allows full control and monitoring from anywhere in the world

# Join the quiet revolution

**The way we heat our homes is changing - it has to, and this has already been recognised by the Government which is encouraging the installation of heat pumps as a low carbon alternative to gas, oil and LPG heating.**

Mitsubishi Electric has developed the advanced range of Ecodan air source heat pumps over the past decade to deliver a variety of choice for homeowners, regardless of location or property type. And we've already seen tens of thousands of Ecodan units installed around the country, from new-build developments, to refurbished social housing; from terraced homes to country mansions.

## See for yourself:

Visit our YouTube channel to hear first-hand customer testimonials from people living with Ecodan renewable heating.

**mitsubishielectric2**

enjoy an extra *warm feeling*

**heating.mitsubishielectric.co.uk**

MITSUBISHI ELECTRIC
*Changes for the Better*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**Note:** The fuse rating is for guidance only. Please refer to the relevant databook for detailed specification. It is the responsibility of a qualified electrician/electrical engineer to select the correct cable size and fuse rating based on current regulation and site specific conditions. Mitsubishi Electric's air conditioning equipment and heat pump systems contain a fluorinated greenhouse gas, R410A (GWP:2088), R32 (GWP:675), R407C (GWP:1774) or R134a (GWP:1430). *These GWP values are based on Regulation (EU) No 517/2014 from IPCC 4th edition. In case of Regulation (EU) No.626/2011 from IPCC 3rd edition, these are as follows. R410A (GWP:1975), R32 (GWP:550), R407C (GWP:1650) or R134a (GWP:1300).


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