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

QUALIFIES FOR 7 years RHI PAYMENTS*

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.

George Clarke
Ecodan Brand Ambassador

TV presenter, architect, lecturer and writer, George Clarke is a passionate advocate of design excellence and high levels of quality in the construction industry.

> **The way we design, build, heat, power and recycle our homes needs to change, and change quickly, and renewable heating is an important part of our future.**
>
> I'm therefore delighted to associate myself with **Ecodan, the market-leading brand of heat pumps built here in the UK** and which can help reduce energy bills and lower emissions for almost any home.

READ MORE FROM GEORGE ON THE 'THE HUB', OUR AWARD-WINNING BLOG
thehub.mitsubishielectric.co.uk

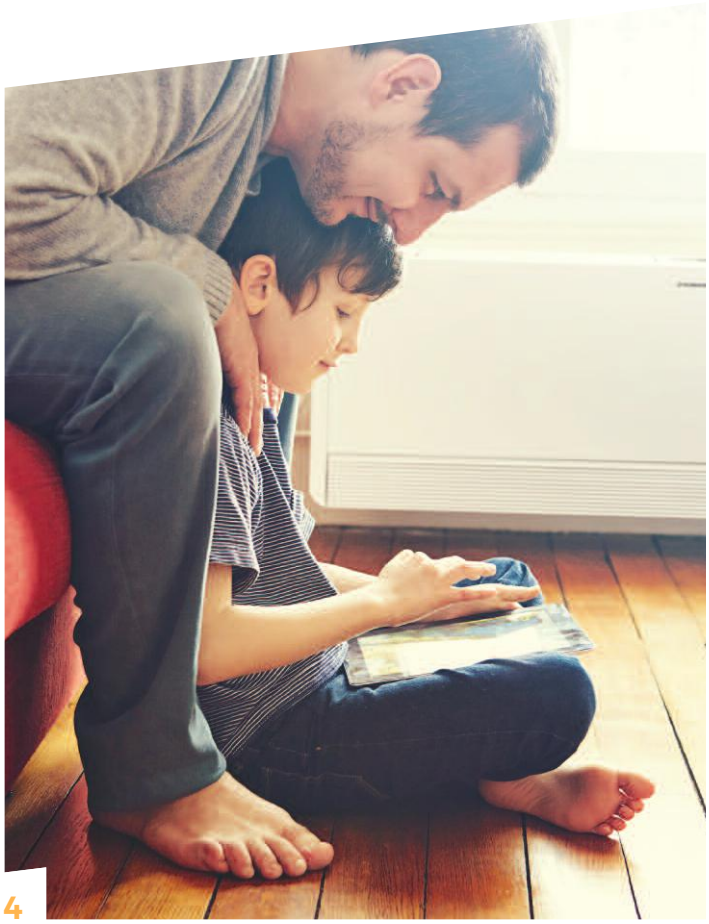
* The Domestic Renewable Heat Incentive (Domestic RHI) is a Government financial incentive to promote the use of renewable heat. Homeowners receive quarterly payments for seven years for the amount of clean, green renewable heat their system produces.

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 your kitchen.

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.

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



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

Incentivised
UK-manufactured and approved for the Microgeneration Certification Scheme (MCS) making it eligible for renewable heat incentive payments (RHI).

Flexible
Don't have the funds to replace your existing heating system - our **hybrid option** works with your existing boiler, meaning you can often keep your current radiators.

Reassurance
Full service and maintenance packages include remote diagnostics to provide you with complete peace of mind.

& 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 can provide the home with an average of **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, **which would pay £7000 under the scheme**, 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 RHI 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.

How a typical Ecodan system works

Installing an Ecodan air source heat pump system in your home to provide low cost, renewable 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.

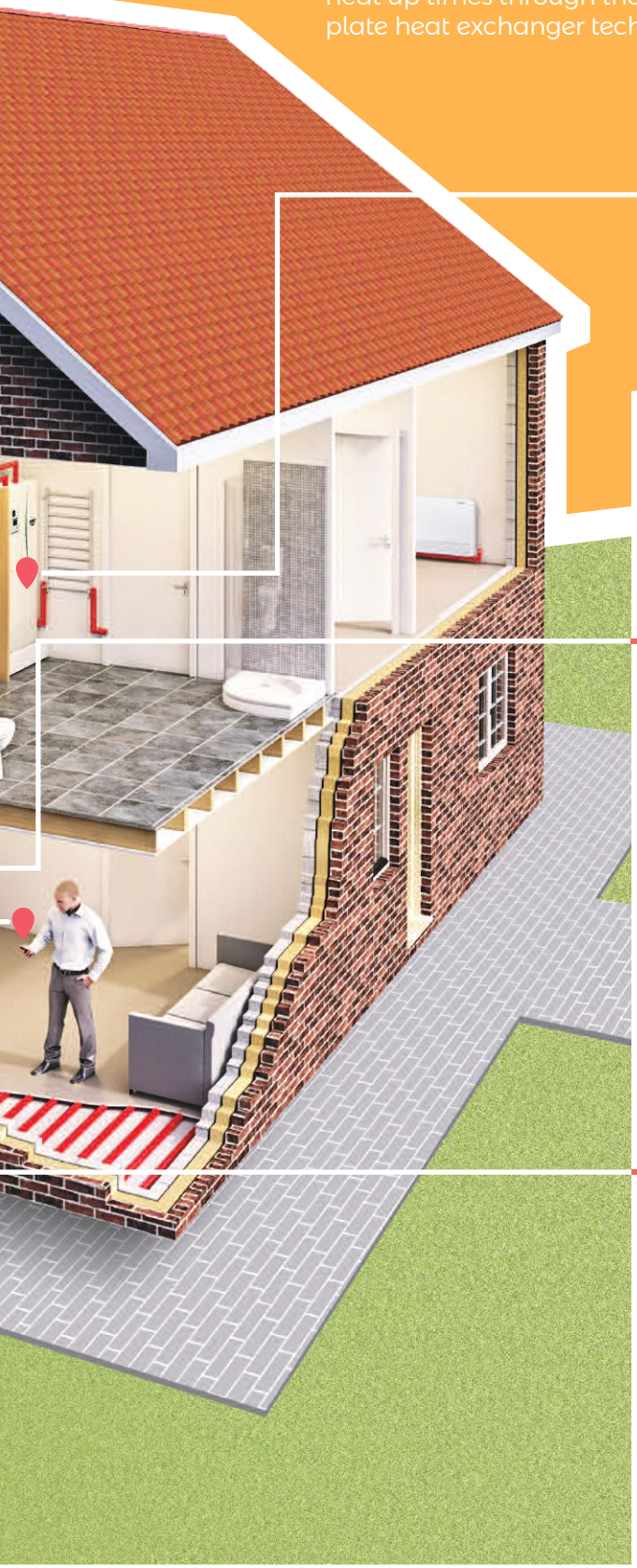
NO NEED FOR GAS SUPPLIES, FLUES OR VENTILATION

MCS

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.



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 come as standard.

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

OR ON THE MOVE

MELCloud

20°C

Enhance your heating system with the i-Life2 Slim Fan Assisted Radiator

We also have a radiator product which has been designed to work seamlessly in your home. Suitable for connection to a variety of different heating systems including an Ecodan air source heat pump. Connecting it to an Ecodan heating system helps to maximise the efficiency, even helping you receive higher Renewable Heat Incentive payments.

Like a traditional radiator i-Life2 Slim takes heat from the water pipes. A small integrated fan is used to quietly blow warm air round the room, helping to distribute heat more evenly and keeping energy consumption to a minimum.

FINGERTIP CONTROL

How it can fit into your home

The i-Life2 Slim can replace existing radiators on existing pipework. This can allow individual radiators to be replaced.

The i-Life2 Slim is also easy to use and with a few clicks on the digital display, you can achieve your desired level of comfort quietly and quickly, without wasting precious energy.

* Compared to a conventional double panel steel radiator.

enjoy a breath of fresh air

Ventilation at home

In order to improve the indoor air quality of a home, especially for modern homes with high insulation afforded by double glazing and cavity insulation, we recommend a **Lossnay Mechanical Ventilation with Heat Recovery** (MVHR) system.

The unit is simultaneously able to extract stale air and ventilate, whilst recovering heat energy to minimise energy use for space heating. The benefit is stale air is replaced with fresh air whilst maintaining the indoor temperature of the home.

These systems can be fitted into loft spaces and connected via ductwork to the required rooms, or wall mounted in a single room.

They are energy efficient solutions for the whole house and provide a clean, fresh air supply.

WALL MOUNTED LOSSNAY UNIT

Lossnay

Choose an Ecodan system that suits you best

Typically installed in 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, 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 installers to attain Microgeneration Certification Scheme (MCS) Accreditation*. Our heating installers will be able to assess your home and advise you on the best system to suit both your lifestyle and your budget. This may be a hybrid system that works in conjunction with your current heating system; or a brand new system designed to provide all your hot water and heating needs.

For further information please visit
heating.mitsubishielectric.co.uk

Three basic choices:

1 REPLACEMENT SYSTEM

2 NEW / SELF-BUILD SYSTEM

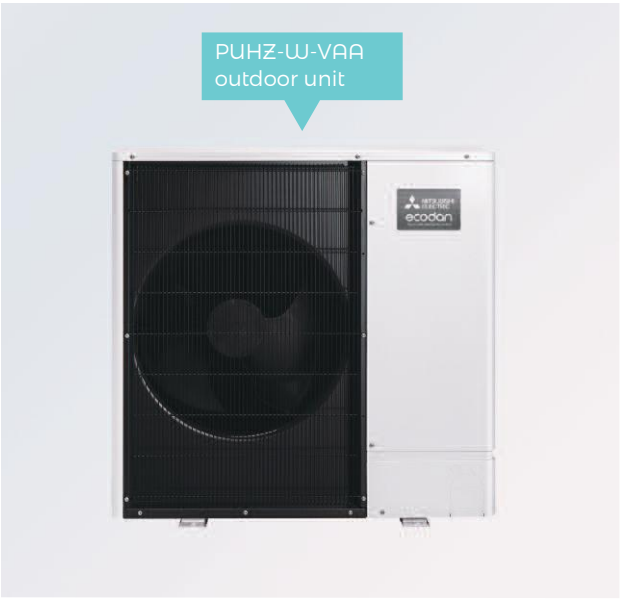
3 HYBRID SYSTEM

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 four sizes, with a variety of cylinders and smart controls.

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



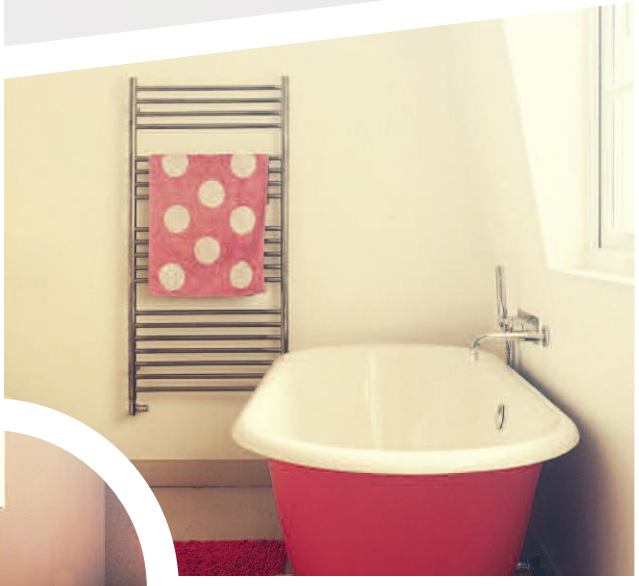
*MCS is a nationally recognised quality assurance scheme backed by the Government.

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.

- Self-build eligible for RHI payments
- High efficiency hot water heating performance via a dedicated Thermal Store
- Low noise operation
- High hot water capacity for both large and small homes
- Can also be used as a replacement system



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

Why you should choose a Mitsubishi Electric accredited heating installer

Mitsubishi Electric has a UK network of accredited heating installers. Along with our UK-based technical support staff, who are available via a Homeowner Support Helpdesk, our accredited heating installers provide a high quality, professional service and can help you throughout the process of choosing the right Ecodan system for you.

By using a heating installer endorsed by Mitsubishi Electric, you are assured of a reliable standard of service and installation. Our heating installers are all trained by us so they understand the technology and can install and set up your system so that it runs at its highest efficiency and are on hand too should you need anything repaired. Our installers have the design support of our highly qualified team of pre-sales engineers and also offer expert service and maintenance that will greatly increase your systems lifespan.

Many of our installers are Microgeneration Certification Scheme accredited.
MCS is a nationally recognised quality assurance scheme, supported by the Department for Business, Energy & Industrial Strategy. MCS is an eligibility requirement for the Government's financial RHI incentives.

The Mitsubishi Electric Homeowner Guarantee

The Mitsubishi Electric Homeowner Guarantee for our domestic heating products means that you can be assured that during the guarantee period the claim process will be hassle free.

Our Homeowner Guarantee is dependent on the product(s) being registered within 3 months of them being installed and commissioned.

The length of our Homeowner Guarantee depends on what product is registered and who has supplied and fitted it. If the product has been installed and registered by one of our accredited heating installers the guarantee period will be at least three years.

enjoy total piece of mind

SOLVE YOUR HEATING ISSUES WITH JUST ONE PHONE CALL

MELConsole from Mitsubishi Electric allows owners of an Ecodan heating system with MELCloud to interrogate and often fix their heating issues without needing a visit from an installer.

One phone call to our Technical Helpdesk provides instant remote access to full monitoring and fault diagnostics, meaning that issues with your heating can often be resolved over the phone.

MELConsole is a service of the MELCloud App, the cloud-based solution for controlling Ecodan heating systems, either locally or remotely.

MELCloud

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 installer will then be eligible to receive RHI payments.

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

Installing a Mitsubishi Electric Metering & Monitoring Service Package (MMSP), homeowners can enjoy an additional one off payment of £805 plus annual payments of £115 for the full term of their RHI funding.

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

* 33% increase refers to HM Government's increase in Domestic RHI payments for air source heat pumps available since 14.12.16.

enjoy financial support

How to apply for the Renewable Heat Incentive

The Renewable Heat Incentive scheme is only available in England, Scotland and Wales.

Our **step by step guide** can help you through the process of applying for these payments which are claimable for 7 years.

In order to apply for the RHI scheme you need to provide personal information and bank details to Ofgem.

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

STEP 1 Check the installer of your Ecodan system is MCS accredited - From your installer you will receive an MCS certificate listing the commissioning date of your system.

STEP 2 Obtain an Energy Performance Certificate (EPC) assessment on your property from a registered energy assessor.

STEP 3 Install any energy saving measures that may be required such as loft insulation as outlined in your EPC.

STEP 4 Apply for the Renewable Heat Incentive within 12 months of the commissioning date.

Earn more from Ecodan with a Metering and Monitoring Service Package

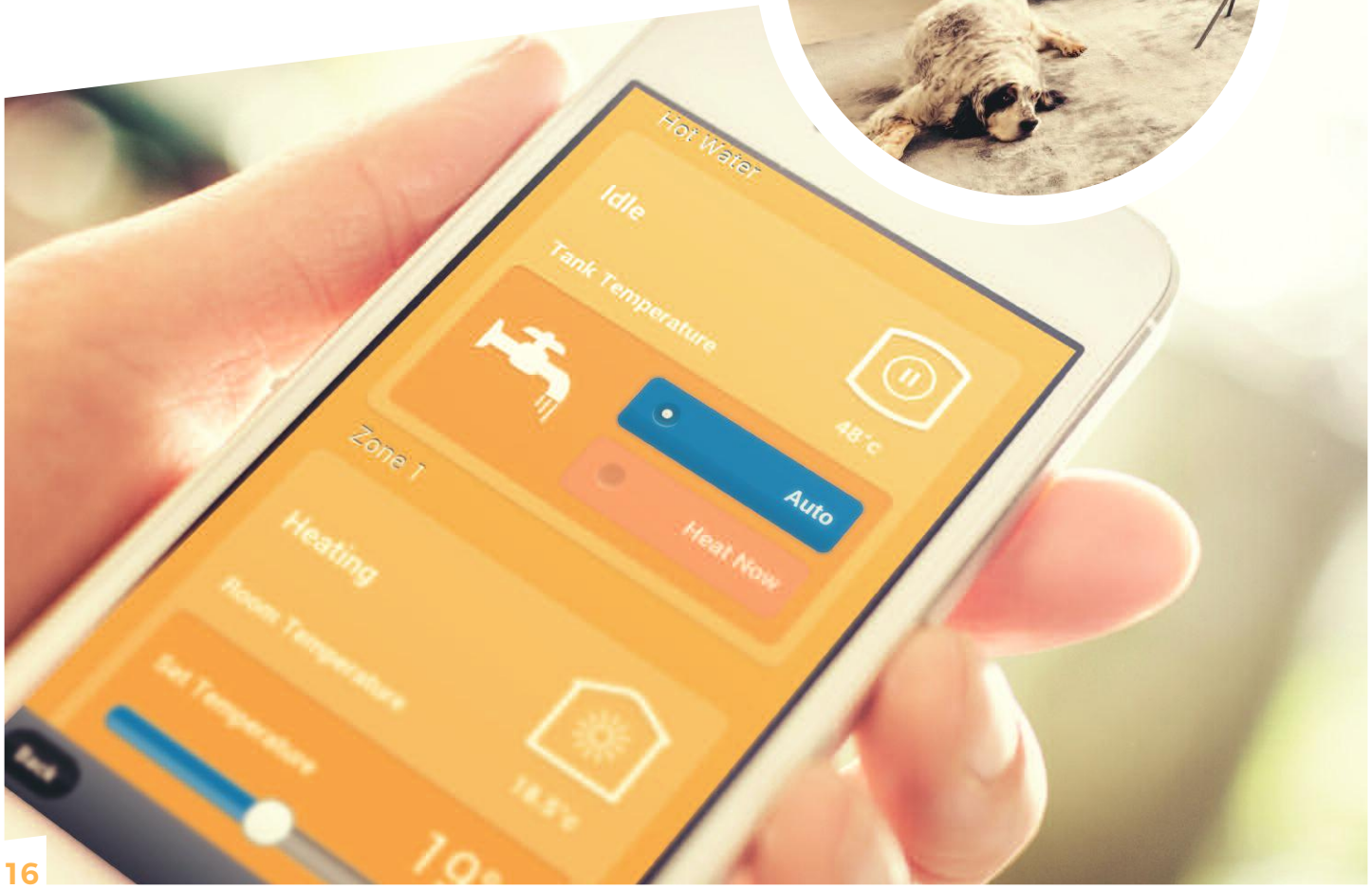
Purchasing a Metering and Monitoring Service Package (MMSP) from your heat pump installer now makes you eligible for an additional £1610 payment over the 7 years of your RHI funding with £805 paid in the first quarter.

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

A Wi-Fi connection is required at the property for MMSP to operate.

Wi-Fi access also enables you to control your heating locally or remotely using the MELCloud remote control app.

MELCloud



Ecodan case studies

The renewable heating alternative to oil with Ultra Quiet Ecodan

When homeowner Nigel Furr was looking to convert a 2-bed bungalow into a 4-bed chalet, he needed to find a cost-effective heating system that would deliver reliable heating and hot water all year round.

Completed in November 2018, the Milton Keynes property is off the gas network but Nigel didn't want to use oil due to the high monthly running costs and ugly oil tank. After hearing from a neighbour that air source heat pumps have cheaper running costs and are environmentally better than oil he thought this was the best solution.

Nigel selected the Ultra Quiet Ecodan unit which has market leading sound performance. The system provides heating to the downstairs underfloor heating, upstairs radiators and hot water from a 300 litre pre-plumbed cylinder.

"Implementing the Ecodan was at the centre of our bungalow build, as it offers state of the art technology which produces a consistently warm ambient temperature throughout a 201m² footprint".

Installation summary:

- **11.2kW Ultra Quiet Ecodan**
- 300L cylinder
- The heating system is controlled via wireless MELCloud locally or remotely

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".

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 uses 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 schedule 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".

Installation summary:

- **Ecodan QUHZ Monobloc 4kW air source heat pump**
- 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

Ecodan reduces the heating bills of this large family home

The owners of a large family home in Essex have reduced their energy bills with the addition of an Ecodan to their existing heating system.

The five-bedroom detached property in Shenfield has had an 11.2kW Ecodan 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 for Renewable Heat Incentive payments. This set up means 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 the RHI.

Installation summary:

- **11.2kW Ecodan monobloc air source heat pump**
- 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

Ecodan Selection Tool

We have developed an Ecodan Selection Tool to help homeowners select their ideal heating system and get an insight into what a new Ecodan air source heat pump can deliver for their individual project.

By answering a few very simple questions we can now deliver a bespoke proposal for a project, including an estimate of running costs and carbon emissions against alternative systems.

The application interface is intuitive and goes on to deliver **Renewable Heat Incentive payment figures**, allowing you to see how making small adjustments to the system will affect the financial reward.

The Selection Tool is available online or as an app for tablets or smartphones:

Available on the App Store

ANDROID APP ON Google play

Windows Store

ecodanselectiontool.mitsubishielectric.co.uk

Quality assured manufacturing

Our manufacturing facility in Livingston, Scotland produces Ecodan air source heat pump controls and cylinders for the UK and European markets.

Mitsubishi Electric's manufacturing plants are all ISO14001 and ISO9001 registered, an international benchmark ensuring we meet and continually improve upon quality and environmental standards.

READ MORE FROM GEORGE ON THE 'THE HUB', OUR AWARD-WINNING BLOG
mitsubishielectric.co.uk/the-hub

By 2030, the Committee on Climate Change forecasts that heat pump installations will rise to over one million units per year.

> **"I'm proud to be one of those million people going for an air source heat pump and I hope you will be too."**

George Clarke
Ecodan Brand Ambassador

Choosing Ecodan from Mitsubishi Electric can help make a world of difference to your energy use today and beyond...

Join the quiet revolution

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

Mitsubishi Electric has developed their 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 from our brand ambassador **George Clarke** and testimonials from people living with Ecodan renewable heating.

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enjoy an extra *warm feeling*

heating.mitsubishielectric.co.uk

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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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Green Gateway®
www.greengateway.mitsubishielectric.co.uk
Mitsubishi Electric UK's commitment to the environment

FSC www.fsc.org MIX Paper from responsible sources FSC® C023471