



# Decarbonising home heating in social housing



# Introducing Ecodan – affordable, renewable heating for social housing

At Mitsubishi Electric, we understand the challenges faced by housing associations and tenants. The rising cost of fossil fuels and poor energy efficiency are making it increasingly difficult for tenants on low incomes to heat their homes, so housing associations are looking for cheaper and greener alternatives.

Our award-winning Ecodan air source heat pumps are an excellent sustainable solution. They provide affordable, energy-saving, renewable heating for all types of social housing.



Benefits of Ecodan for social housing:

- More energy-efficient than fossil fuel heating systems
- Reduces carbon emissions
- Improves the comfort, health and well-being of tenants
- Suitable for new build and retrofit projects
- Requires only water and an electric connection
- Smart control and remote monitoring via the MELCloud Home App
- Dedicated online support portal for Ecodan home users
- Eligible for the Social Housing Decarbonisation Fund
- Expert technical support before, during and after installation
- Service plans available

**There's an Ecodan for every home, whatever the size or age of your housing stock.**

“The benefits of the Ecodan system, both short and long term, played a big part in our decision to upgrade the heating system at Bowling Court. Its flexibility, easy operation, low noise levels and, perhaps most importantly, low running costs will prove popular with tenants.”

*Mark Salmon, Procurement Manager at Hightown Housing Association*



# ecodan®



## Made in Britain, to British standards for British homes

MITSUBISHI ELECTRIC FACTORY – SCOTLAND

**Founded in 1921, Mitsubishi Electric is a leading global supplier of energy-efficient heating equipment. We are proud of our manufacturing prowess, innovative solutions and quality products that are making a world of difference.**



“Mitsubishi Electric Quality” – The unique, 100-year-old Quality that Mitsubishi Electric has become renowned for, every single compressor, component, nut, screw and wire is guaranteed to meet our stringent quality standard.

In the UK, Mitsubishi Electric has been at the forefront of sustainable home heating systems for more than 15 years and is the UK's largest exporter of renewable technologies.

We focus on providing products that lower energy use, reduce carbon emissions and help the UK reach net zero.

Ecodan air source heat pumps are designed for UK homes to meet the latest legislation and regulations and are manufactured at our Scottish factory to the highest quality standards.

# There's an Ecodan for every home

The Ecodan range includes all the advanced features you would expect from Mitsubishi Electric:



A+++ heating efficiency for low running costs



A+ hot water efficiency for minimised energy consumption



Ultra-quiet noise levels for flexible product placement



High and low flow temperature options



Reduced carbon emissions to help tackle the climate crisis



MELCloud Home App enabled for remote control, monitoring, maintenance and technical support



**NEW  
R290  
REFRIGERANT**

210L, 250, 300L



150L, 170L



150L, 170, 210L



200L



5kW, 6kW, 8.5kW, 11.2kW, 14kW



5kW, 6kW \*8.5kW, \*10kW, \*12kW



PRE-PLUMBED SLIMLINE



PRE-PLUMBED SMALL



PRE-PLUMBED LARGE



PACKAGED













\*Certified for ultra-low noise levels



### Wireless remote controller

The stylish flat panel design Ecodan wireless remote controller allows up to 8 wireless controller transmitters to be used per system. The user-friendly icons are easy to navigate.



### i-Life2 Slim radiator

This fan-assisted radiator maximises the efficiency of an Ecodan air source heat pump by distributing heat more evenly than a traditional radiator and keeping energy consumption to a minimum. The i-Life2 Slim can replace existing radiators on current pipework. It's simple to use, and with a few clicks on the digital display, tenants can set their ideal temperature without wasting precious energy.



For more information  
on the Ecodan range,  
scan the QR codes.

# Suitable for new builds and retrofit projects

Mitsubishi Electric is working with housing associations across the UK to install Ecodan air source heat pumps in new and existing properties.



## ① ClwydAlyn is delivering efficient, renewable heating to new homes

ClwydAlyn, a leading housing association in Wales, is installing air source heat pumps in all new-build properties to decarbonise its housing stock and reduce fuel poverty for tenants.

The new Glasdir development in Ruthin has 63 energy-efficient properties, including apartments, adapted bungalows, semi-detached and detached homes. This innovative, low-carbon housing scheme was built in partnership with the Welsh government and Denbighshire County Council.

Every home on the site has an Ecodan air source heat pump, as well as other sustainable technologies like solar panels with battery storage and electric vehicle charging points. The Mitsubishi Electric team was involved at every stage of the process, from design and planning to installation, commissioning and tenant handover.

Today, tenants are benefitting from energy-efficient heating and lower bills, while ClwydAlyn has reduced the carbon footprint of its housing stock.



Watch the full case study with George Clarke



Scan to read the full case study.





## ② Retrofit installations are cutting energy bills and making homes warmer

Saffron Housing Trust, working with installers Dodd Group, retrofitted 15 Norfolk properties in 2022. They replaced inefficient electric storage heaters with Ecodan air source heat pumps to cut energy costs for tenants and improve their comfort, health and well-being.

The old storage heaters provided a blast of heat in the morning but were cold by the evening. Tenants wanted cheaper bills, constant warmth and a system they could control.

Ecodan air source heat pumps were the perfect solution. Dodd Group had previously installed them in other properties, so knew they were robust and reliable, as well as quick and easy to install.

The retrofit installation has made a huge difference to tenants, who would highly recommend Ecodan to others.

[Watch the full case study](#)



## ③ Sovereign Housing tenants no longer have to choose between fuel and food

Sovereign Housing is committed to using renewable technology to benefit tenants and reduce carbon emissions. Its Homes and Place Strategy focuses on upgrading existing properties and building new homes that are energy-efficient, to make all housing stock carbon neutral by 2050.

The company is replacing old fossil fuel heating systems and equipping new homes with air source heat pumps. Around one-third of its 60,000 properties are in rural areas and Ecodan is the ideal product for off-gas locations.

Sovereign tenants Anne and Alan struggled to afford their previous heating system and the house was cold and mouldy. Since the installation of an air source heat pump, they no longer need to choose between fuel and food, the house is warm and dry, and their energy bill and carbon emissions have almost halved.

[Watch the full case study with George Clarke](#)

# Expert servicing and after-sales support

We advise regular servicing, not only to comply with our warranty conditions, but to maximise an Ecodan's performance, maintain efficiency and improve its lifespan.

Our service plans provide complete peace of mind that your tenants' heating systems will be professionally maintained by Ecodan Expert Engineers.



Find out more about  
Ecodan service plans for  
housing associations.



# Dedicated support before, during and after installation

“We had Mitsubishi involved right from the start. They were here with us to design the systems, and we agreed what products we would use. They came down in the middle of the project to make sure it was going OK, and at the end, when we were commissioning, they were always at the end of the phone if we needed help.”

*Rob Minney, Dodd Group installer for Saffron Housing Trust*



“One of the things we like about the way Mitsubishi work is that they support us and they support the contractor putting them in. So, three or four weeks after handover, we re-visit with the people from Mitsubishi to make sure tenants are understanding the systems and getting the best use out of them.”

*Stuart Hughes, Development Project Manager at ClywydAlyn*



## We're here to help

From day-to-day operational enquiries, to more technical questions we have dedicated support teams available to help with yours and your tenants' queries. Plus, we have a whole host of online support available 24/7 including support guides and how-to videos accessible via our Ecodan Home Portal.

**Call: 0161 866 6089**

**Mon-Fri 08:00-18:00, Sat 08:00-12:00.**  
(including bank holidays)



Find out more.

# Find a Mitsubishi Electric Partner

We recommend you select a Mitsubishi Electric Heating Accredited Installer or Heating Business Solutions Partner from our nationwide network Partner Programme. We train all of our Partners so they understand our technology. They will work with you to design the optimum Ecodan heating solution for your housing stock, carry out the installation, and commission the systems so that they run at the highest efficiency.

## Mitsubishi Electric partners must:

- Be financially solvent
- Adhere to Mitsubishi Electric's corporate social responsibility and health and safety policies
- Share Mitsubishi Electric's philosophy, integrity and high standards

## By using a Mitsubishi Electric partners, be assured of:

- A high level of technical expertise
- High standards of after-sales service and support
- Up to a seven-year warranty (option to purchase an extended warranty)

We have over  
**1000**  
accredited installers  
ready to help  
with your project.



Find your nearest Mitsubishi Electric Partner.

**PARTNER**  
Programme





## Upskill your preferred contractors to Ecodan

At Mitsubishi Electric, we recognise that some housing associations have an existing preferred contractor base. As the market leader in renewable heating technologies, we can work with you and your trusted supplier network to provide Ecodan air source heat pump training to heating engineers, plumbers and electricians.

### Our courses

- Online Ecodan Part 1 - Design and Application
- Online Ecodan Part 2 - Installation and Commissioning
- Online Ecodan Part 3 - Service and Fault Finding
- In-house Ecodan Hands-on Training

*“Great content, lots of drawing and examples, practice questions were good. Instructor on video was very informative and friendly.”*

*Installer who attended Ecodan online training*



Find out more about our Ecodan courses.



**MELCloud  
HOME**

# Effortless control and support from anywhere

Our MELCloud Home App gives tenants full control of their heating and hot water from a smartphone, tablet or computer, while housing associations enjoy remote diagnostic control and support.



## Benefits of the MELCloud Home App

- Adjust the temperature
- Prioritise hot water
- Switch the Ecodan on/off remotely
- Set holiday mode
- Monitor energy use
- Remote diagnostics
- Technical support
- Compatible with Amazon Alexa

 amazon alexa

## Remote diagnostic support

In the unlikely event that something should go wrong with a tenant's system, Mitsubishi Electric can log into the system, diagnose the fault and often fix the problem remotely via the MELCloud Home App.



Find out more about the  
MELCloud Home App.

**86%**  
*of issues are resolved over  
the phone without needing  
an engineer's visit.*



**£3.8bn**

is available to support the installation of energy performance.



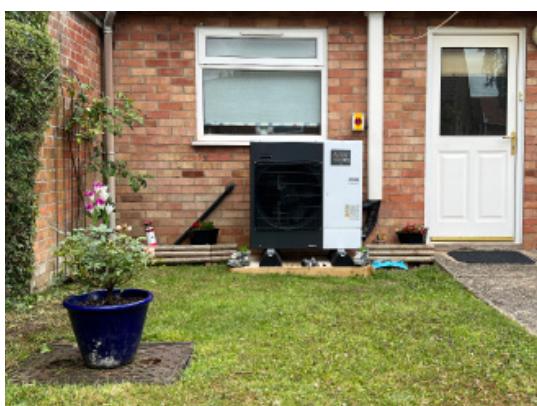
## Support to help you switch

**The UK government offers financial support to improve the energy performance of social housing in England.**

### **The Social Housing Decarbonisation Fund**

The Social Housing Decarbonisation Fund is a UK government initiative to help housing associations install energy-efficient upgrades to housing stock that is currently below an Energy Performance Certificate (EPC) C rating.

Around £3.8bn is available to support the installation of energy performance measures in social homes in England and facilitate the widespread adoption of low-carbon heating systems, such as heat pumps.



**Find out more about the Social Housing Decarbonisation Fund.**

# Frequently asked questions from tenants

## What is an air source heat pump?

Air source heat pumps are a low-carbon alternative to traditional fossil fuel heating systems. They upgrade free heat energy from the outside air and use it to provide renewable heating and hot water in the home using a small amount of electricity. This means properties can be heated for less while cutting carbon emissions.

## How do air source heat pumps work?

Air source heat pumps essentially take the heat from the air – even if the temperature outdoors is below freezing and transfers this energy to heat the water for your home. You will simply need an outdoor unit, which only requires electricity and water connections, this heats the water inside your home, via a hot water tank, giving you an efficient and cost-effective heating solution.

## Why are heat pumps energy-efficient?

Heat pumps are one of the most effective technologies for decarbonising home heating, reducing greenhouse gas emissions and helping the UK reach net zero. For every 1kW of electricity it consumes, an Ecodan air source heat pump can create 3.2kW of heat, making it more than 300% efficient. Most oil and gas boilers can only achieve a 90% efficiency.

## Do heat pumps work in cold weather?

Designed specifically for UK conditions, Ecodan heat pumps work effectively down to at least -25°C, so they can provide heating and hot water all year round.

## Are heat pumps noisy?

Ecodan are among the quietest heat pumps on the market. In most instances, you would not even realise the heat pump is running because it is so quiet.

## How long do heat pumps take to install?

Most heat pump installations should take little more than a couple of days. Mitsubishi Electric works closely with housing associations and approved installers to keep tenants involved and informed throughout the process.

## Can heat pumps be fitted in older properties?

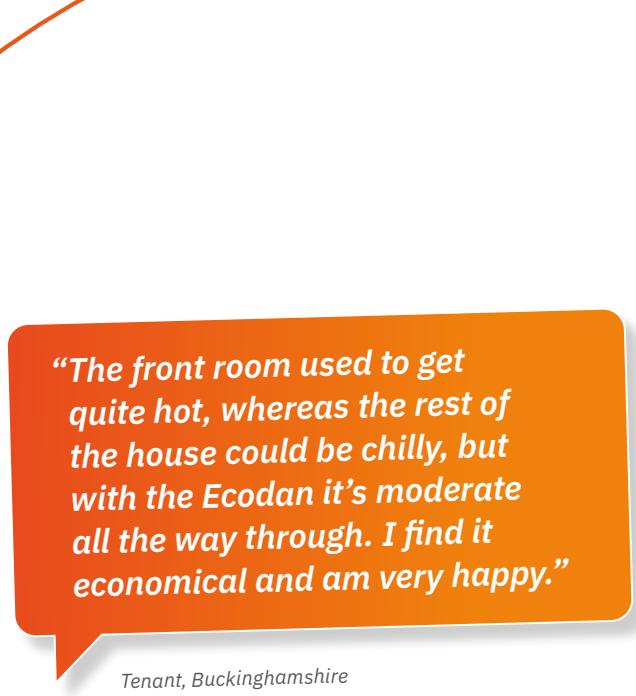
Yes, air source heat pumps are suitable for both older properties and new builds. Housing associations installing Ecodan are eligible to apply for the Social Housing Decarbonisation Fund, a UK government initiative to help improve the energy performance of older social housing in that is currently below an Energy Performance Certificate (EPC) C rating.





*“I can feel the difference, it's miles better. The heat is retained and it is lovely and warm in the morning in the whole apartment.”*

Tenant, St Vincent's House



*“The front room used to get quite hot, whereas the rest of the house could be chilly, but with the Ecodan it's moderate all the way through. I find it economical and am very happy.”*

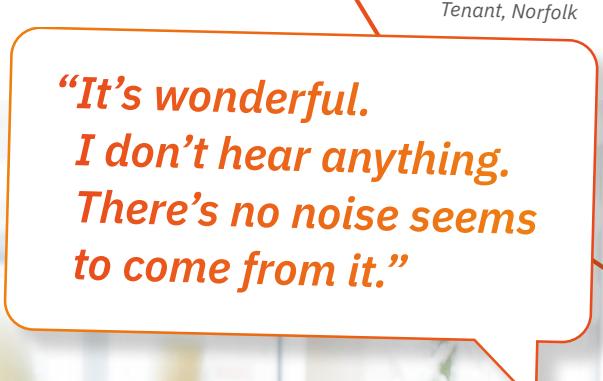
Tenant, Buckinghamshire



*“We can keep all the radiators on and the cost has dramatically gone down.”*

Tenant, Isle of Wight

Tenant, Norfolk



*“It's wonderful. I don't hear anything. There's no noise seems to come from it.”*



# Delivering a minimal disruption solution for social housing providers

The results of extensive research and a field trial study, led by **Sovereign Network Group (SNG)**, demonstrates effective installation and operation of Ecodan high temperature heat pumps in houses with microbore pipework.

Funded by the **Social Housing Decarbonisation Fund (SHDF)**, this project demonstrates that even legacy heating systems with traditional radiators and small diameter pipework (microbore), can be successfully upgraded to operate with Ecodan units.

This approach, which offers minimal disruption to tenants, with shorter installation times as a result of reduced adjustments to internal fabric, offers a practical solution to decarbonisation for social landlords and residents.

The result is a proven, **scalable retrofit approach** that delivers **reduced running costs, improved comfort, and lower emissions**, helping housing providers take another substantial step towards **net zero**.

Discover how Ecodan is transforming social housing retrofits.



Visit:  
[les.mitsubishielectric.co.uk/  
microbore](http://les.mitsubishielectric.co.uk/microbore)

Together with SNG, we've delivered a retrofit solution that's:



Installed  
in just two  
days



Minimises  
disruption to  
residents



Cuts costs and  
installation  
time



Improves energy  
efficiency and  
reduces fuel bills



Retains existing  
microbore pipework  
and radiators

Scan the QR Code  
watch the Case Study



# Notes

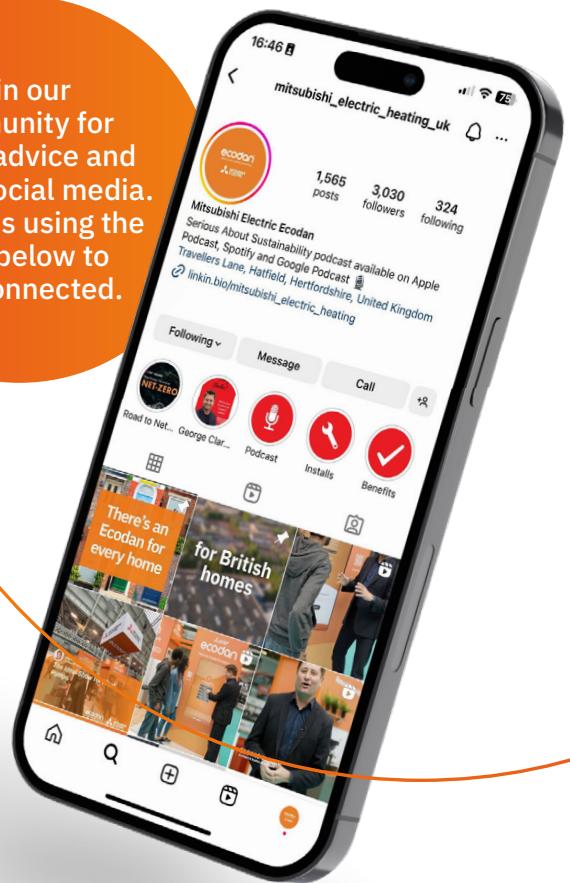
# Let's stay connected

## Keep up to date

For all the latest news about renewable energy, legislation, regulations and more, subscribe to our award-winning Hub.



Join our community for expert advice and tips on social media. Follow us using the links below to stay connected.



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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), R134a (GWP:1430), R513A (GWP:631), R454B (GWP:466), R1234ze (GWP:7) or R1234yf (GWP:4). \*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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