HEAT PUMPS TODAY

ESSENTIAL INFORMATION FOR INSTALLERS 🚳 🙃 🧑







Leeds United Football Ground, Elland Rd, Leeds



UPSKILLTO ecodan

Helping you to deliver net zero

As more and more homes switch to air source heat pumps, now is the time to invest in your business and partner with Mitsubishi Electric for success. Upskill to Ecodan via our online courses and get hands-on experience at our Livingston, Manchester or Hatfield Training Centres.

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



Find out more on why Mitsubishi Electric and Ecodan are the best choice for your business ecodan.me.uk/HPT0824







26th September 2024

Leeds United Football Ground Elland Rd, Beeston, Leeds LS11 OES

SPEND A DAY NETWORKING WITH INDUSTRY PROFESSIONALS
SHOWCASE YOUR LATEST PRODUCTS/PROJECTS





REGISTER FOR FREE!



VISITORS WILL AUTOMATICALLY BE INCLUDED WITHIN OUR POPULAR RAFFLE

PLATINUM SPONSORS

































Welcome to the August/September issue of Heat Pumps Today

The heat pump sector is on a positive trajectory.

Notable interest in the technology and the number of installations is on the rise. Even the number of visits and subsequent conversations we had on our stand at Installer Show 2024 helped demonstrate this. There is still much confusion and misinformation out there for consumers (home owners) and some small business owners. Commerical/Industrial heat pump clients, even social housing decision makers have, on the whole, been very clear on the benefits for some time now. With this in mind Heat Pumps Today will be providing an opportunity for engineers, manufacturers and industry bodies to help inform and educate consumers who are desperate for clarity on what's available to them. I'll revisit these plans through our digital platforms/e-newsletters in due course. Subscribe for FREE: www.acrjournal.uk/heat-pumps

The next regional ACR & Heat Pumps Expo takes place on the 26th of September at Elland Road, Leeds. Climalife will also be holding their Breakfast Briefing so lots to see and hear on F-Gas updates and Heat Pump technology. To register for your EXPO FREE place and/or exhibit (single stand) for only £400 contact hayleyc@warnersgroup.co.uk or visit www.acrjournal.uk/regional-exhibitions for further detail.

The ACR & Heat Pumps Trainee of the Year Awards is now open for entries. Do you know anyone who should be recognised within the following categories?

- 1. Project Engineer
- 2. Sales & Support Services
- 3. Heat Pump Service/Installation Engineer
- 4. Air-conditioning & Refrigeration Service/Installation Engineer
- 5. Marketing Personnel

Visit: www.acrjournal.uk/acr-trainee-of-the-year to enter.

Finally, I'd like to thank David Crowson, Heat Pumps Digital Editor for his support producing this issue.

Juliet Loiselle MinstR Editor/Publisher

CONTENTS

05 INDUSTRY NEWS

GREEN ENERGY

12 Rising demand for green energy as heat pumps lead in popularity

INDUSTRY COMMENTS

- **14** A new era for low-carbon heating
- **22** Why a one-stop shop can drive the renewable heating revolution

NATURAL REFRIGERANTS

18 Five things you need to know about natural refrigerant heat pumps

WOMEN IN THE HEAT PUMPS INDUSTRY

20 Stacey Evans, Commercial Manager of ICG Heat Pumps shares with us her inspirational journey

CASE STUDY

- 16 Talking to a couple about the reality of life with a heat pump.
- **24** Panasonic partners with Together Housing to deliver sustainable heating solutions
- **25** Lochinvar takes care of heating and hot water at Lavender Fields

OUT AND ABOUT

26 Heat Pumps galore at the InstallerSHOW



Editor

Juliet Loiselle CompCIPHE/MInstR Julietl@warnersgroup.co.uk

Multimedia Sales Executive

Victoria Brown

01778 395029

victoria.brown@warnersgroup.co.uk

Design

Development Design

Production

Kate Goulding

01778 391104

production@warnersgroup.co.uk

Publisher

Juliet Loiselle CompCIPHE/MInstR 01778 391067

julietl@warnersgroup.co.uk

Published by:

Warners Group Publications Plc The Maltings, West Street, Bourne, Lincs, PE10 9PH 01778 391000 01778 394748

www.warnersgroup.co.uk

© Copyright 2024



This publication is printed by Warners Midlands PLC Telephone: **01778 391000**









LT Hydratech Unrivalled Heat Transfer Fluids & Expert Engineering Services

A key objective since Hydratech's formation in 1998, has been the establishment of technical partnerships with industry leading renewable energy consultants, contractors, and installers. Working with those responsible for heat recovery system design, installation and operation, Hydratech's engineers, chemists and analysts implement a fully integrated approach to thermal fluid selection and management - which in turn, maximises performance, reduces operational costs and delivers significant return on investment.

Hydratech Products

Specified by industry experts, Hydratech's innovative non-toxic heat transfer fluids and water treatment products are at the heart of the UK's leading housing, manufacturing, and agricultural renewable energy projects.

Hydratech's antifreeze solutions have been formulated to optimise thermal efficiency, reduce pumping energy, extend operational life, and provide effective frost protection - for all industrial, commercial and domestic projects.

A non-toxic fully inhibited heat transfer fluid, with antifreeze function. DTX represents a major step forward in heat transfer and pumping efficiency, providing >10% reduction in operating costs when compared with propylene glycol based fluids.

Contact us today

find out how Hydratech can help your business improve system efficiency and save energy.

Hydratech Services

The Hydratech Services division provides specialist engineering and maintenance services to customers installing, commissioning, operating or optimising heat pump systems.

By combining expertise in water treatment chemistry, fluid thermodynamics and mechanical engineering, Hydratech Services delivers a fully integrated fluid selection - fluid monitoring - fluid management approach to process and hydronic system optimisation. This in-turn helps to ensure long-term system efficiency and deliver significant energy savings.



01792 586800



info@hydratech.co.uk www.hydratech.co.uk



UK General Election 2024: Environmental Investigation Agency (EIA) sets out key green policies for the next Government



As UK political parties hit the campaign trail in earnest for the General Election, the London-based EIA released its manifesto of key policy recommendations.

The 16-point action plan Our Planet, Our Problem was released against the backdrop of the mounting triple planetary crisis of climate change, biodiversity loss, and pollution.

EIA marks its 40th anniversary since it began investigating, exposing, and campaigning against environmental crime and abuse. The charity believes the next UK Government has a key role to play in international efforts to secure a viable future.

EIA Campaigns Director Julian Newman, delivered copies of Our Planet, Our Problem to the major political parties before the General Election and said: "The urgency for taking action cannot be overstated. Our key policy recommendations to the parties who were contesting the election will, if acted upon, ensure that the country's next Government implements progressive policies and takes strong actions to show leadership, both at home and internationally, to safeguard the future of our planet." Key asks in EIA's manifesto include:

- \circ cancel all new oil and gas licences and join international calls for a managed phase-out of fossil fuels
- recommit to the obligations of the 2015 Paris Agreement,
 substantially strengthening measures to rapidly reduce emissions
 and achieve net zero emissions in the early 2040s
- advocate for an adjustment of the Kigali Amendment of 2016 to accelerate the global phase-down of climate-harming hydrofluorocarbons refrigerants under the Montreal Protocol

To read the manifesto in full visit: https://tinyurl.com/mr7enzxx www.eia-international.org



Ongoing Government support to play a key role in renewables uptake, as latest data shows rise in heat pump installations

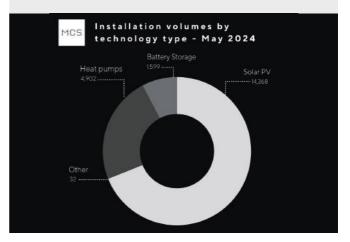
Ian Rippin, CEO at MCS said: "The latest MCS data shows that the number of certified small-scale renewables installed in the UK has surpassed 1.8 million, with May being the best month of the year so far with over 19,000 certified installations. This continues the 2024 trend of each month being better than the last, at a time when the UK's transition to net-zero was a key issue in the General Election.

"With significant focus now on the importance of decarbonising homes and providing access to affordable, low-carbon heating, it's great to see consumers are embracing technologies such as heat pumps to upgrade their homes. There were almost 5,000 certified heat pump installations in May, making it the second-best month ever in MCS Scheme history for the technology. It brings the average monthly heat pump installations for 2024 to 4,400, which is a 36% increase on the average monthly count in 2023 (which was itself a record-breaking year).

"Government initiatives such as the Boiler Upgrade Scheme (BUS) – which requires installations to be MCS certified to qualify for the £7,500 heat pump grant – remain a critical part of the drive to make low-carbon heating more accessible and affordable. The latest government figures show that the number of BUS applications are also increasing with each month in 2024, with April seeing a 93% increase compared with the same month last year. While this is still some way short of the target of 600,000 annual heat pump installations by 2028, it shows that by supporting homeowners through grants and funding there is progress being made.

"As the decarbonisation of UK homes gathers pace, it's crucial that industry and homeowners are supported in delivering this transition. Government incentives and a commitment to developing the skills required to meet increasing demand will be critical in ensuring homeowner confidence in renewable technology continues to grow."

https://mcscertified.com







HEATPUNK

Next-generation software for heat system design, project specification and purchase of your complete kit.

Specify your complete heat system with ease using Heatpunk. Build accurate floor plans, run heat loss and performance calculations, compare system options, and complete paperwork—all in one place.

Heatpunk is FREE to use or sign up to Heatpunk Pro for the latest specialist features. heatpunk.co.uk





Kit Builder

Specify, build, and purchase a perfect heat pump system in three easy steps



midsummerwholesale.co.uk

Shrunk Punk sits on YOUR website, working tirelessly to generate leads and enquiries for your business. Find out more at **heatpunk.co.uk**



Carrier's ambitious climate and net zero targets validated by the science based target initiative (SBTi)

SBTi's Target Validation Team has validated Carrier's near- and long-term greenhouse gas emission reduction goals as in line with a trajectory to limit global warming to 1.5°C. Carrier's specific SBTi-validated targets are:

- Reduce absolute scope 1 and 2 GHG emissions 42% by 2030 from a 2021 base year.
- Reduce absolute scope 3 GHG emissions 25% within the same timeframe.
- Reach net-zero greenhouse gas emissions across the value chain by 2050. Hakan Yilmaz, Senior Vice President, Chief Technology & Sustainability Officer, Carrier, said: "Having our climate and net-zero targets validated by SBTi's comprehensive process confirms that Carrier is doing our part to address climate change.

"The heating and cooling of buildings and homes, together with food waste, contribute an estimated 25% of annual carbon emissions and play a significant role in global warming and climate change. Our industry has both the opportunity and the obligation to be part of the solution. As we continue to distinguish ourselves as a climate and energy solutions leader, we are strategically transforming our portfolio through electrification, integration and resilience and helping our customers achieve their sustainability goals."

The SBTi targets advance Carrier's goal of helping customers avoid more than 1 gigaton of greenhouse gas emissions by 2030 and further support decarbonisation efforts. In accordance with these targets, Carrier unveiled its road map¹ to achieve net-zero greenhouse gas emissions across its value chain by 2050.

Carrier's products, services and digital capabilities help customers meet their energy, carbon and food-waste reduction goals. Energyefficient heat pumps, all-electric refrigeration and building solutions, lower GWP refrigerants and connected technologies are just a few of the ways Carrier is improving efficiencies in buildings, in homes and across the cold chain.

www.corporate.carrier.com



Source

1. www.corporate.carrier.com/corporate-responsibility/road-map-to-net-zero

Baxi and Freedom Heat Pumps announce new distribution partnership

Freedom Heat Pumps, a UK heat pump distributor, has chosen Baxi to forge a new strategic partnership. Chris Higgs, Managing Director of Freedom Heat Pumps, said: "I'm proud to represent a highly regarded British brand like Baxi and we're excited to support Baxi's growth in this increasingly important part of the heating industry."

Freedom Heat Pumps was founded in 2010 and has established its reputation for a full range of heat pumps, complementary accessories and cylinders. By selecting Baxi to sit alongside other top brands, the partnership is a statement of confidence in Baxi's role and opportunity in the heat pump market and

sustainable energy solutions, says the company.

www.freedomhp.co.uk www.baxi.co.uk



Hometree acquires renewable energy installer IMS Heat Pumps to support the home decarbonisation revolution

As the UK phases out gas boilers in new homes by 2035, many consumers are investing in renewable energy sources to power their homes including heat pumps, solar panels and electric batteries. With targets set to have 600,000 heat pumps installed by 2028, Hometree is capitalising on this switch to renewables by acquiring

Hometree Founder and CEO Simon Phelan said: "I'm incredibly excited to be partnering with Emma Bohan and the IMS team and look forward to helping them scale the company significantly. If the UK is to achieve its net zero ambition, we will need an army of installers right across the country and we're committed to bringing together these skills, supported by financing and in-life repair and maintenance services, to make Hometree the first choice for homeowners who want to do the right thing by the planet."

Emma Bohan, Managing Director of IMS Heat Pumps said: "We've been installing heat pumps for over 25 years and we've watched the renewable home energy industry grow and grow in that time. By partnering with Hometree, we can bring our specialist expertise to many more homeowners and look forward to working closely with the Hometree team to drive uptake of sustainable heating solutions across the country."

www.imsheatpumps.co.uk www.hometree.co.uk









NFWS

New partnership to revolutionise renewable energy solutions in UK homes

The collaboration between STIEBEL ELTRON UK and Solarwatt UK & Ireland will offer a holistic approach to the implementation of renewable technologies across dwellings, maximising energy efficiency, cost savings, and delivering sustainable homes across the UK.

Combining STIEBEL ELTRON's heat pump systems with Solarwatt's solar panel technology, battery storage solutions, and Manager flex energy management system, the two companies will create a single renewable energy package.



Mark McManus, STIEBEL ELTRON, Managing Director

"The combination will revolutionise the adoption of sustainable technologies across the country's homes by providing a comprehensive, end-to-end solution for renewable energy," Mark McManus, STIEBEL ELTRON Managing Director, said.

Providing a pairing which leads to greater energy independence, the partnership integrates all the necessary components of heat pumps and solar panels together in a seamless fashion, with smart-capabilities which utilise energy in the most efficient way.



Pol Spronck, Solarwatt UK & Ireland Managing Director

Pol Spronck, Solarwatt UK & Ireland Managing Director, said: "When it comes to heat pump technology, STIEBEL ELTRON is second to none. We've already had great success from our partnership with them in Germany, so our joint venture into the UK is a natural next step.

"This partnership will connect state-of-the-art technologies to bring forward an all-encompassing, holistic approach to implementing renewable energy and represents the future for delivering sustainable homes across the country."

www.stiebel-eltron.co.uk www.solarwatt.co.uk

Baxi opens new 10,000sqft flag-ship training facility at Warwick HQ



Baxi has opened its new 10,000 sqft Solutions Academy at its Warwick HQ, increasing its annual installer training capacity on the site from 600 delegates in 2023 to 2000 in 2025.

For the first time, a Baxi training facility will have a dedicated solutions training room, allowing installers to get hands on with Baxi's complete residential and commercial product portfolio under one roof.

The extensive new facility also includes a fully equipped digital studio to support Baxi's new e-learning platform, to be launched later this year. Installers will benefit by being able to access live virtual training and pre-learning, as well as being able to extend their in-person training with follow up out-of-class sessions delivered to enrich their overall learning experience. Baxi says the digital platform will give greater accessibility to its content, and will allow people to move forward in their careers at their pace and convenience.

The nationwide team is expanding to 10 expert trainers, operating out of our four wholly owned facilities and 13 satellite centres based in third-party education facilities. It expects to have the capacity to physically train 10,000 installers a year by 2025, with an additional 5,000 installers benefiting annually through Baxi's e-learning platform.

The purpose built facility opened just as the UK Public Accounts Committee reported its concerns that critical targets for heat decarbonisation will be missed. At the same time, a report from the consumer rights group, which? concludes that the successful decarbonisation of buildings will only be possible if professionals are equipped with the right skills. It recommends that installers sign up to a mandatory accreditation scheme, designed to create a universal high standard of skills to work with new technologies that will give confidence to homeowners to make the change to clean heat.

Baxi believes its role is to be part of the solution and ensure that installers are equipped with the right skills and knowledge to help customers decarbonise heat and hot water, and just as importantly, to inspire the next generation of installers to be part of the clean heat transition in the years ahead.

For more information on Baxi's training visit: https://tinyurl.com/2yh8e6j2



DESIGN QUIETER HEAT PUMPS

MINIMIZE VIBRATIONS, Reduce Noise.























AIR CONDITIONING & WATER HEATING **SPONSORS**











Leeds Marriott Hotel 4 Trevelyan Square, Boar Lane, Leeds





6th MARCH 2025

Scan to book a table





Scan to enter

THE MIDLAND

16 PETER STREET, MANCHESTER, M60 2DS

















Visit www.acrjournal.uk/information/national-acr-heat-pump-awards or email Hayley Comey on hayleyc@warnersgroup.co.uk to find out more

NACR&HP AWARDS 2025 CATEGORIES

- ACR CONTRACTOR OF THE YEAR
- 2 AIR CONDITIONING PRODUCT
- 3 REFRIGERATION PRODUCT
- 4 AIR CONDITIONING PROJECT
- 5 REFRIGERATION PROJECT
- 6 TRAINING PROVIDER
- WHOLESALER/DISTRIBUTOR
- 8 HEAT PUMP INSTALLER
- 9 DOMESTIC HEAT PUMP PRODUCT
- 10 COMMERCIAL HEAT PUMP PRODUCT
- GROUND SOURCE PROJECT
- 12 DOMESTIC AIR SOURCE PROJECT
- 13 NON-DOMESTIC AIR SOURCE PROJECT
- 14 ANCILLARY PRODUCT OF THE YEAR
- 15 BEST IAQ INNOVATION
- 16 RACHP WOMAN OF THE YEAR
- 17 PHIL CREANEY'S ACR CHAMPION

If you have any queries regarding entering please contact hayleyc@warnersgroup.co.uk

THANK YOU TO OUR SPONSORS









































Rising demand for green energy as heat pumps lead in popularity

New research from Confused.com has revealed that there are 95,454 searches on Google for heat pumps each month in the UK, making heat pumps the most in-demand green energy source in the country.

When conducting the research
Confused.com looked at the UK's most
in-demand renewable energy sources
based on consumer search data and
amount of media mentions. Interestingly
they also found the UK locations with
the most renewable energy installation
companies to reveal which area is the most
prepared for renewable energy adoption.

This research comes as Brits continue to pay hundreds of pounds each month in energy bills. And while the energy price cap has decreased since 2021, the current price cap, which sits at £1,928, is still 64% higher than 4 years ago¹. Although the switch to renewable energy may come with initial installation costs, government initiatives are encouraging people to make the switch to not only save money but improve carbon emissions.

Heat pumps are the most in-demand green energy source in the UK

Confused.

In the period between November 2022 and December 2023, heat pumps were the most searched energy source in the UK. On average, they gained 96,000 Google searches per month, totalling over 1 million searches over a year.

As well as searching for the alternative heating system on Google, people seek information on TikTok (57,900 monthly searches). Additionally, they begin the purchase process on Amazon (120,000 monthly searches) and eBay (62,100 monthly searches).

The reason for the high demand for heat pumps may be a result of the UK government's current Boiler Upgrade Scheme. This offers a £7,500 grant for the

cost and installation of an air source and ground source heat pump. You can buy these for between £8,750 to £14,050². Therefore, people are increasingly seeking information on heat pumps to decide whether to switch before the grant ends in 2027.

Solar panels take second spot, gaining 68,187 searches per month in 2023. This is unsurprising considering that on average it takes just 1.6 years to offset their carbon footprint, as solar panels save over 9kg of CO₂ each year³.

Additionally, electric radiators (39,323**), wind turbines (23,515**) and underfloor heating (37,400**) are also in high demand. While Google searches each month are considerable, Amazon searches for these

| Rank | Heat source | UK Google search volume* | UK TikTok search volume* | UK Amazon search volume* | UK eBay search volume* | Number of annual published articles |
|------|--------------------|-----------------------------|-----------------------------|-----------------------------|---------------------------|-------------------------------------|
| 1 | Heat Pump | 96,454 | 57,900 | 120,000 | 62,100 | 2,359 |
| 2 | Solar Panel | 68,192 | 47,300 | 97,800 | 50,800 | 1,975 |
| 3 | Electric Radiator | 39,323 | 25,900 | 53,500 | 27,800 | 89 |
| 4 | Wind Turbine | 23,515 | 17,300 | 35,800 | 18,600 | 699 |
| 5 | Underfloor Heating | 37,400 | 25,900 | 53,500 | 27,800 | 230 |
| 6 | Portable Heater | 14,292 | 9,500 | 19,600 | 10,200 | 520 |
| 7 | Smart Thermostat | 10,049 | 6,300 | 13,100 | 6,800 | 73 |
| 8 | Hydrogen Boiler | 2,277 | 1,500 | 3,200 | 1,600 | 48 |
| 9 | Biomass Boiler | 6,792 | 4,200 | 8,700 | 4,500 | 27 |
| 10 | Geothermal Heating | 825 | 560 | 1,200 | 600 | 33 |

^{*} Average monthly search volume (November 2022 - December 2023)



energy sources were higher. For example, searches for electric radiators on Amazon were 31% higher than Google searches last year. Wind turbine and underfloor heating searches were 41% and 35% higher on Amazon, this shows that Brits are looking to buy renewable energy installations.

** Average Monthly Google searches between Nov 2022 - Dec 2023

Heat pumps, solar panels and wind turbines have received the most media attention in the past year

The topic of renewable energy is likely to hold a strong conversation in the media over the next decade. That's as the country ramps up its efforts in adopting green initiatives to become net zero by 2050.

In total there have been 2,359 articles published on heat pumps, 1,975 on solar panels, and 699 on wind turbines alone in the past year. While generally, these 3 green energy sources are developed and well known, media mentions continue to show them in a positive light.

Specifically, articles covering heat pumps have mainly covered the rising demand, skyrocketing sales and the long-term cost benefits. Reports of solar panels have recently been dominated by new developments in solar panels which provide 30% more efficiency. News on wind turbines is largely dominated by reports of new wind farms, the public has mixed feelings on these.

Readers are also interested in articles about renewable energy sources. Articles on solar panels were the most popular with readers. A total of 160,534 people clicked on these articles over a year. 30% of all engagement came from articles on the adoption of solar panel installation in western states of America. Here, this type of energy source is not only able to power millions of homes but could create thousands of jobs⁴.

Aldershot has the most renewable energy companies per 10,000 population

While it's evident that demand for renewable energy sources is high, supply for the installation of green energy is lacking. Only 17% of all UK towns and cities have at least 1 renewable company per 10,000 population. In 12% of locations there are no renewable energy installation companies registered at all.

However, the number of companies specialising in green energy is likely to grow significantly. That's because the demand for green energy is continually growing as the country works to create energy security and heads towards net zero. A government initiative is supporting this by providing £200 million to help people across the country launch careers in key industries, including green energy⁵.

That being said, at present Aldershot is leading the way in sustainable energy. This Hampshire town has 6.5 renewable energy installation companies per 10,000 population.

Chatham takes second place with 4.2 renewable installation companies per 10,000 people. Crawley's population is

35% larger than Chatham, this reduces the number of available renewable installation companies to 2.7 per 10,000 people.

All UK renewable energy installation companies offer an excellent service

There's not a huge amount of renewable energy installation companies in the UK. But the ones that do exist generally provide a quality service. None of the companies in the 59 locations analysed had an average customer rating of below 4, showing their knowledge of green energy.

Plymouth's sole renewable insulation company has received a rating of 5 stars. Southampton, Bournemouth, Exeter and York all have an average rating of 4.97 for the services that these companies provide.

However, in the top 10 rated locations for renewable installation companies, Reading stands out. It has 20 renewable companies registered in the area, these maintain an average rating of 4.96.

Info www.confused.com

| Rank | Location | No. of Renewable energy installation companies | Renewable energy installation companies per 10,000 population |
|------|-----------------|--|---|
| 1 | Aldershot | 26 | 6.5 |
| 2 | Chatham | 32 | 4.2 |
| 3 | Crawley | 32 | 2.7 |
| 4 | Slough | 30 | 1.9 |
| 5 | Basildon | 31 | 1.7 |
| 6 | Southend-on-Sea | 29 | 1.6 |
| 7 | Worthing | 18 | 1.6 |
| 8 | Luton | 28 | 1.2 |
| 9 | Reading | 20 | 1.1 |
| 10 | Cambridge | 16 | 1.1 |

Source

- 1. www.uswitch.com/gas-electricity/guides/price-cap
- 2. www.greenmatch.co.uk/heat-pumps/cost
- 3. https://tinyurl.com/37cdkcp9
- 4. https://clean-energy.thebusinessdownload.com/solar-panels-are-the-midwests-new-cash-crop-as-green-energy-booms/
- $5.\ www.gov.uk/government/news/skills-training-to-be-transformed-with-innovative-projects$









A new era for low-carbon heating

Labour's win presents a pivotal opportunity for a new Government to demonstrate its commitment to accelerating the UK's transition to low-carbon heating. As **Ian Rippin**, CEO at MCS explains, the next few years will be critical in driving consumer confidence in renewables through high-quality installations, Government funding, and the redeveloped MCS.

Heat pump data from the MCS Data Dashboard - reference for small-scale, renewable energy installations in the UK - shows that we're on track for a recordbreaking year for heat pumps. There were 4,568 MCS certified heat pump installations in June, which makes it the fourth month running to exceed 4,500 installations. The average monthly installation count for 2024 is now 36% higher than the average monthly count for 2023 (which was itself a record-breaking year). It's evidence that more homeowners are making the switch to low-carbon heating, bolstered in part through Government initiatives such as the Boiler Upgrade Scheme (BUS).

Boiler Upgrade Scheme driving heat pump uptake

The BUS remains a critical part of the drive to make low-carbon heating more accessible and affordable. It provides £7,500 towards the installation of a heat pump, and contractors must be MCS certified to qualify for the BUS grant. This ensures that all installations under the BUS are carried out by quality MCS certified contractors, who install to industry-recognised standards.

The latest Government figures show the number of applications to the BUS continues to rise, with almost 3,000 applications made in May 2024. This is up from the 2,380 applications in the previous month, which was itself an increase on the 2,138 applications made in March.

This shows that an increasing number of homeowners are taking advantage of the incentive, and when you compare the latest Government BUS figures with those of last year, the results are even more encouraging. BUS applications in May 2024 were more than double May 2023, and when comparing Jan-May 2024 with the same period last year, applications are up by 71%.



Ian Rippin, CEO at MCS

We hope the continued success of the BUS demonstrates to the new Government that increasing the accessibility and affordability of heat pumps is key to driving uptake, whilst ensuring a seamless transition to low-carbon heating that works for everyone.

Renewables a nation can trust

It's important to recognise that the uptake of low-carbon heating isn't just about incentives, but also about giving consumers confidence in low-carbon heating technologies. This is where MCS has a key role to play, because it creates and maintains the standards that allow for the certification of low-carbon products, installers and their installations. These standards are created by industry, for industry, with input from MCS Technical Working Groups that are composed of a diverse range of contractors, manufacturers, trade associations and certification bodies from across the small-scale renewables sector.

This ensures they are fair, accurate, rigorous, and ultimately raise standards across the industry.

It's therefore encouraging that more consumers than ever value the importance of using an MCS certified installer, especially when many are investing in technology that is often unfamiliar to them. These consumers understand that MCS certified installers hold the necessary skills to install technologies like heat pumps to industry-recognised standards.

A skilled renewables workforce fit for the future

As more consumers invest in low-carbon technologies for their homes, demand for skilled and competent installers will only increase. Labour's Green Prosperity Plan pledges to create 650,000 jobs across the country by 2030, and we'd hope to see the creation of a wealth of jobs in support of cultivating a skilled renewable energy workforce that is fit for the future.

If we're to hit Government targets of 600,000 heat pump installations per year by 2028, it's critical that we have dedicated training pathways to develop a generation of renewable heating installers, who know how to design and fit low-carbon heating systems to the highest possible standard.

Last year MCS helped to develop the UK's first ever dedicated Low Carbon Heating Apprenticeship in collaboration with the Institute for Apprenticeships and Technical Education (IfATE), as well as a trailblazer group of heat pump installers. Apprentices on the course are learning the knowledge, skills and behaviours to design, install and commission low carbon heating technologies, such as air source heat pumps and solar heating, to industry recognised standards. Dedicated training pathways like this are crucial in ensuring the renewables industry has the capacity to meet future



demand, and there are details on how contractors can get funding support on the Government website¹.

The new MCS

As the UK's quality mark for renewable technology, MCS has an important role to play in the future of low-carbon heating by raising standards and building consumer confidence. In Summer 2023, we ran a consultation on a series of proposed changes to MCS that are designed to make the Scheme clearer, fairer, and more transparent. We received feedback from a wide range of stakeholders, including consumers, trade bodies and installers. Based on this feedback, we are now making the final preparations ahead of the launch of the new and improved MCS in January 2025.

The new Scheme will make it as easy as possible for installers to understand how they can continue doing what they

do best, which is delivering high-quality installations to their customers. The new Scheme will therefore move away from paperwork-heavy assessments towards an emphasis on 'delivered quality'. Compliance assessments will focus on capturing the evidence that an installer's quality processes and controls are delivering installations that work effectively, are technically sound and are compliant with our Standards.

This all comes back to consumer confidence – we want to make sure that everything we do has a positive impact on the quality of installations, as the next few years will be critical in driving consumer confidence in renewables.

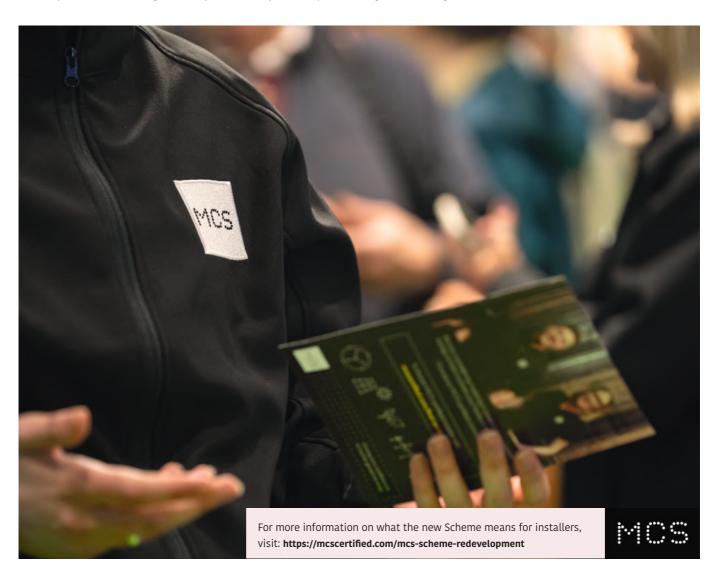
What now?

We are in the process of finalising the Scheme documents and continue to work closely with Certification Bodies to ensure they are ready to hit the ground running when the changes launch in January. In the autumn we'll publish all of the new Scheme documents, alongside guidance and support to help installers get ready. 2025 will be a transition period as we move everyone over to the new Scheme design, so installers should continue with current Scheme requirements until their Certification Body gets in touch to transfer them over.

Over the next few years, we anticipate continued demand and growth for low-carbon heating technologies, and hope to see the new Labour Government demonstrate their commitment to accelerating the UK's transition to cleaner and greener energy.

Source

1. www.gov.uk/employing-an-apprentice/get-funding











What it's really like to live with a heat pump

Increasing the uptake of heat pumps is vital to accelerate the transition to clean heat, but inaccurate criticism could be deterring homeowners from making the switch. **Corey Gooding**, Strategic Account Manager at Baxi, talks to one couple about the reality of life with a heat pump.

With a national target for net-zero emissions enshrined in law, the direction for travel for heating and hot water in UK buildings is clear. And heat pumps, along with heat networks and hybrid or multivalent heating systems, are seen as the favoured technologies to support the shift from fossil fuels to cleaner, low-carbon heat.

But if we are to keep on track for 2050 net zero, it is important we actively encourage the uptake of heat pumps and that means dispelling any false criticisms. One couple who can set the record straight is Jonathan and Emma Sayes who have been living with a heat pump since last December.

Quiet, comfortable and effective

When Jonathan and Emma Sayes began designing their 2,600 sq ft three-bedroom house in Peasenhall, Suffolk, deciding on the best heating system for their new home was key, as with any property build. Like a third of properties in the county,



Corey Gooding, Strategic Account Manager at Baxi



Luke Nichols with Jonathan Hayes

their self-build is off the mains gas network, so a renewable heating system seemed the natural solution to providing energy-efficient heating and hot water. A local heat pump installer, Luke Nichols from Renew East, worked closely with heating and hot water specialist Baxi to fit one of its latest ASHP solutions.

"Discussing our options with Renew East," said Jonathan, "a heat pump seemed the obvious sustainable choice for heating and hot water in the type of home we were building."

The installation

As an experienced heating engineer, Luke knew he needed to select a solution that would deliver high comfort levels while maximising energy efficiency and carbon-saving capabilities. After carrying out detailed heat loss calculations on the property. Luke recommended the Baxi HP-40 11kW ASHP with a 250-litre hot water cylinder. The solution feeds underfloor heating, which can emit 11kW of heat even on the coldest days of British winter. The system control panel has a user-friendly interface which aided the commissioning process by allowing Luke and his team to view the performance of the outside unit from within the property. At the same time, the heat pump's connection to Baxi's uSense smart room thermostat ensures Jonathan and Emma have complete control over the temperature in their home.

Myth 1:

heat pumps don't work in cold weather

The family moved into their home in December and have spent the subsequent months living with an air source heat pump (ASHP).

The first of the criticisms levelled at heat pumps that has proved utterly false is that they supposedly don't work in cold weather.



"It's been great!" said Jonathan. "We've found it to be really effective - even in the cold winter months."

It's well established that the Nordic countries have the highest heat pump uptake in Europe - and the coldest climates. And that's for a reason. Even when outside temperatures drop to as low as -20C, ASHPs like Baxi's can still heat your home effectively.

Myth 2:

ASHPs won't be able to keep homes warm

Related to the previous myth is the misplaced notion that heat pumps will not be able to keep a home warm.

In fact, the opposite has proved the case for the Hayes family. While they have noticed a different style of heating, the result has been highly positive, as Emma explains. "A heat pump with underfloor heating has given us a more consistent type of space heating to previous properties we've owned with gas boilers," she said. "There's a really good distribution of heat throughout the house - no more hot spots or draughty areas - and the temperature has never dropped below a comfortable 18°C. Our programmed heat schedule means we are always comfortable and don't even notice it is on."

Jonathan and Emma have complete control over the temperature in their home through the smartphone app which results in optimal, even space heating throughout the day as required.

Myth 3:

ASHPs are noisy

Misguided discussion around noise levels from the outdoor unit of a heat pump can be a reason why some homeowners are reluctant to explore the solution. Having lived with the ASHP system through a cold winter, however, the Hayes family is pleasantly surprised to find that this is not an issue in their home.

"We were a bit concerned that noise would be an issue, but in fact we hardly notice it's on, even in the winter months," Emma explained. "It's actually quieter than the boiler in our previous house!"

While ASHPs do generate some noise, due to the fan circulating air around the outdoor unit, the reality is that well-installed modern units like the Baxi ASHP are very quiet and barely noticeable.

Myth 4:

ASHPs are expensive to run

Another potential perceived barrier for homeowners looking to introduce a heat pump into their home is the running cost. At the Hayes home, care has been taken to reduce heat loss as much as possible through insulation and air tightness to suit the low flow temperature of the heat pump solution. This has kept electricity consumption in the property to a minimum.

Jonathan said: "It's difficult to do a direct comparison of the energy costs of heating our new home and our old house, because the properties are different sizes, and we also need to exclude the cost of charging

our electric car. But we're confident that the monthly costs measure up well. The thermal efficiency of our home means the heating only really comes on when the outdoor temperature falls below 10°C. Providing the optimal conditions for a heat pump is key to achieving this, but with the right design and heat loss calculations, we have been able to heat our home very cost-effectively."

Experienced installers and heating solutions providers will be able to advise on the best approach for individual properties when installing ASHPs.

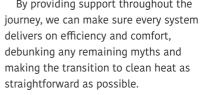
Support, training and guidance

To conclude, the new government faces an immediate challenge to address emissions reductions and set the groundwork for meeting Carbon Budget Five (2028-32) to keep the nation on track for 2050 net zero. Increasing the uptake of heat pumps to decarbonise UK buildings is key to achieving this.

Educating homeowners on the benefits of heat pumps is vital, and manufacturers, heat pump solutions providers, and industry professionals have an important role to play in providing expert guidance and support. Top of the list is the need to provide comprehensive training courses designed to close the skills gap and help create a high standard of skills that will instill confidence in homeowners to make the change to clean heat.

The aim should be to get installers comfortable using heat pumps - from initial design and application to installation guidance, commissioning, and supervision support. Where possible, the industry should also aim to simplify heat pump installations, as Baxi has set out to do by teaming up with Carno to offer its installers free access to sizing and heat loss calculation software.

By providing support throughout the





Jonathan and Emma Hayes

For more information, visit:

www.baxi.co.uk/professional/products/ air-source-heat-pumps/baxi-hp40monobloc-air-source-heat-pump









Five things you need to know about natural refrigerant heat pumps

Charlie Mowbray, Senior Product Manager at Ideal Heating – Commercial, sheds some much-needed light on five of the most frequently misunderstood aspects of natural refrigerants.



Charlie Mowbray, Senior Product Manager at Ideal Heating – Commercial

"Heat pumps are a widely suitable and cost-effective solution for decarbonising the UK's buildings and are vital to delivering Net Zero" states the UK government in its 'Heat Pump Investment Roadmap - Leading the way to net zero' published in April 2023. That's because heat pumps reduce the reliance on fossil fuels, produce zero local carbon emissions, and can be up to 400% more efficient than traditional boilers.

Heat pumps utilise the free energy in the air to heat water, even when that air temperature is as low as -20°C. When heat pumps are partnered with a renewable electricity supplier, heat generation is 100% carbon neutral.

The role of refrigerants within heat pumps

All heat pumps require a refrigerant, a bit like a fridge, but in reverse. In a heat pump, a fan passes ambient air over extremely cold liquid refrigerant. The refrigerant captures the heat from the ambient air and becomes a warm vapour. That warm refrigerant vapour passes

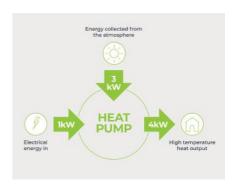
through a compressor which produces hot refrigerant and usable heat. The heat in the hot refrigerant is then transferred to the heating and hot water system through a heat exchanger. After the heat is transferred the refrigerant passes through an expansion valve which reduces its temperature, making it cold again and enabling it to capture heat from the ambient air, continuing the cycle. It's a neat solution and one that has been used successfully for many decades, only not until relatively recently in the UK.

The move to natural refrigerants

With heat pump technology being over 150 years old, there has understandably been a variety of different refrigerants used over the years. In the past three decades, the most popular have been R407c, R22, R410a and R32. But, as we have become more aware of the negative environmental impacts of many of these older refrigerants, the industry is moving to natural refrigerants in the form of R290 (Propane) and R744 (CO₂). These are refrigerants that occur naturally, as opposed to those that are synthetically made. At Ideal Heating Commercial, we have recently expanded our own ECOMOD commercial heat pump range to include natural refrigerants.

But with any change comes apprehension, and the word 'natural' has left many people assuming these refrigerants will not be as effective as their synthetic counterparts, which is far from the truth. That's just one of the misconceptions surrounding natural refrigerant-based heat pumps, but there are plenty more! Let's look at five of the most frequently misunderstood aspects of natural refrigerants and shed some muchneeded light.

5 things you need to know about natural refrigerant heat pumps



Performance

Contrary to what you might think, natural refrigerants can perform better than synthetic alternatives in heat pumps for two key reasons. Firstly, they can achieve a higher coefficient of performance (COP), making them more efficient. COP is the ratio of heat produced, relative to each unit of electricity consumed in the heat pump. Secondly, natural refrigerants can produce higher temperatures, making these heat pumps ideal for heating water. Our ECOMOD 290HT, for example, can achieve a maximum flow temperature up to 75°C. That said, designing a heating circuit to 55°C would make the system much more efficient, in line with the most recently published Building Regulations Part L.





Environment

Refrigerants are allocated a Global Warming Potential (GWP); those with a high GWP are extremely potent greenhouse gases that warm the planet. Older, synthetic refrigerants nearly all have a high GWP, and we expect them to eventually be phased out. R410a, for example, has a whopping GWP of 2088. Compare that to R290 at 3 and CO2 at just 1 and you can see why natural refrigerants are the environmentally friendly option.



Total cost of ownership

Moving to natural refrigerants is not only good for the planet, but also makes commercial sense now and in the future. As far as the present day is concerned, synthetic refrigerants are already more expensive than natural ones as the manufacturing process is more complex, and they are subject to the F-gas phase down. As their production declines, high GWP refrigerants will become increasingly scarce and therefore more expensive. Furthermore, over the life of the heat pump, if you opt for a high GWP refrigerant heat pump now, you may find yourself in the costly and inconvenient position of having a potential stranded asset in the not-too-distant future.

System design

If you can design a heat pump system which utilises a synthetic refrigerant, then you will have no trouble in doing the same with most natural refrigerant heat pumps. The system design for R290 in particular is straightforward. In fact, a natural refrigerant heat pump system often requires less amendment to the hot water cylinder, as they do not require immersion heaters for anti-Legionella cycles due to the higher temperatures that are achievable.



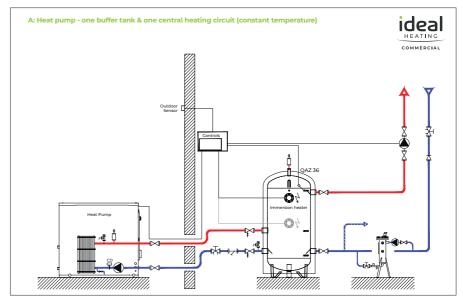
Training

As with all refrigerants and heat pump installations, appropriate training is required. If you have already undertaken heat pump training, then the good news is that no additional training is necessary for fitting R290 heat pumps (although product specific training is always highly beneficial). However, heat pumps that use CO₂ have a higher Delta T return temperature, so the system design differs slightly. Whatever training you undertake, be sure that it includes both theory and practical, hands-on training. Ideal Heating provides commercial heat pump training free of charge via our Expert Academy training team. We also strongly urge heating engineers to consider British

Plumbing Employers Council (BPEC)1 accredited training on heat pumps, which is recognised as a demonstration of competence for the Microgeneration Certification Scheme (MCS)2. It provides the foundation knowledge required to correctly install heat pumps in line with industry best practice and quidelines.

Natural refrigerant heat pumps are undoubtedly the way forward when it comes to commercial heating and hot water. They tick all the boxes, sometimes outperforming synthetic refrigerants, with their low GWP, getting us one step forward to that important net zero goal.

https://idealheating.com



Source

- 1. https://bpec.org.uk
- 2. https://mcscertified.com











WONEN INTHE HEAT PUMP INDUSTRY

The involvement of women in the heat pumps industry is vital for its continuous improvement and success. **Stacey Evans**, Commercial Manager of ICG Heat Pumps shares with us her inspirational journey into the Heat Pump industry.

How did you get into the heat pump industry?

My first job was in IT recruitment, this was my first 'front-line sales role'. I remember vividly being handed a Yellow Pages (for the younger generation a telephone directory, printed on yellow paper and listing businesses and other organisations in your area), a script, a telephone, and off I went. Fortunately, I've always been a people person and love to talk so I fully embraced this role and that's when I started my love affair with sales and networking.

I started working in Heating, Ventilation, and Air Conditioning (HVAC) in 2010. When I first started 90% of what I was doing was air conditioning and the other 10% heat pumps. In recent years the market has moved in the opposite direction as we all strive to achieve the Governments net zero target by 2050 and implement 600,000 domestic and commercial heat pump installations a year by 2028. When the opportunity to join ICG heat pumps arose, I knew that it was the right move for me...

What does your current role involve?

I have a really varied role which I love!
My current role involves assisting
Mechanical Engineers to select the right
heat pump for commercial applications.
Once assisted I will then follow that specific
project through the supply chain and
support with the evolution of the project. In
addition, I provide support and education to
Consultants and Mechanical, Electrical and
Plumbing (MEP) contractors on topics such
as the F-Gas phase-down and introducing



Stacey Evans, Commercial Manager of ICG Heat Pumps

new products to them that utilise natural refrigerants, that ties in nicely with the net zero strategies. I feel a real benefit of working for an independent distributor is that we have aligned ourselves with multiple manufacturers so we really can offer the best solution for the project, we often suggest several viable options for the project to give the client a choice. Business Development and networking also form a large part of my role and is something that I enjoy and am extremely passionate about.

What do you see as the challenges facing the industry?

On the domestic side, I would say insufficient qualified installers to meet the Government's target of 250,000 heat pumps installed per year by 2025. When it comes to commercial, I would say that the biggest barrier to uptake is the disparity between the cost of electricity and gas. The Public Sector Decarbonisation Scheme (PSDS) which provides grants for public

Stacey with her colleagues from ICG Heat Pumps at the 2024 National ACR & Heat Pumps Awards



sector bodies to fund heat decarbonisation and energy efficiency measures is working as a good accelerator for uptake in this sector, the building regulations are driving uptake for new build, but when it comes to existing buildings, we aren't going to see mass uptake until there is a benefit from an operational expenditure point of view. We need action from the Government on this, or some special heat pump tariffs from energy companies. When it stacks up for businesses, we will see the mass uptake!

What would you say to other women who are considering coming into the heat pump industry?

We need you NOW! Heat pumps are the future. As I have mentioned, there is huge growth in the sector, which means amazing career opportunities and a need for more people to achieve the desired targets and continue to educate the commercial and domestic markets. I can't emphasise enough what a great time it is to get on board!

Any hobbies, what do you like to do outside of work?

Like many people, work keeps me busy; however, a good work-life balance is crucial. In my spare time, I enjoy keeping fit by going to the gym and running. I believe a healthy mind is a happy mind. I love to travel with my husband and two lovely children to anywhere that's warm and sunny.











Embracing the future -Why a one-stop shop can drive the renewable heating revolution

John Felgate, Technical Director at STIEBEL ELTRON UK, discusses the benefits of a one-stop shop and asserts that organisations adopting this approach will truly drive the future of the renewable heating industry.

Consumers are increasingly turning towards renewable heating solutions as they look to do their part in rising to the most urgent and pressing environmental challenges. As a result, this has led many to seek out sustainable alternatives to traditional fossil fuel-based systems, particularly when it comes to heating their home.

Advancements in technology have made this possible, with sustainable heating solutions, such as heat pumps, representing a viable substitute for gas boilers, offering a more efficient experience that can result in long-term energy cost savings and dramatically decarbonising a dwelling.

But traditionally, renewable heating systems have been sold separately, which can present challenges for both consumers and installers. Requiring various skills and multiple technicians for installation and maintenance, consumers are often faced with coordinating between different service providers for components such as heat pumps, ventilation systems, and underfloor heating, which in some cases can prolong installation times and may elevate the risk of compatibility issues.

However, with consumers increasingly looking to implement renewable technologies, a transformative shift across the industry in the way it delivers its heating products is occurring. The demands of consumers and the operational preferences of installers are now converging towards a unified, streamlined solution: the one-stop shop for renewable heating products and services.

This evolution is not just a trend but a necessary adaptation to meet the growing expectations for convenience, efficiency, and sustainability.

Today's consumers are becoming increasingly well-informed and they seek comprehensive solutions that simplify the



John Felgate, Technical Director at STIEBEL ELTRON UK

complexities of renewable energy systems. The desire for a one-stop shop, where all necessary components for heating, ventilation, and cooling are available in a single package, is increasing exponentially.

An holistic approach

By offering a holistic approach, organisations in the sector can not only reduce the logistical challenges associated with multiple tradespeople, but also ensure seamless integration of technologies. Those in the industry will benefit from this shift too, being able to offer a complete suite of products and services which will enhance their efficiency and allow them to focus on delivering quality installations.

Products

By bringing products to the market which incorporate everything, companies can minimise the coordination issues between different service providers, reduce installation times, and ultimately, bring about greater customer satisfaction.

A product which incorporates all elements of a heating system, which streamlines the process, and makes sustainable

solutions more accessible and attractive to consumers, is quite simply the future of the renewable heating sector.

The easier businesses make the transition to renewable heating, the more seamless it will be for people to adopt it. This is something STIEBEL ELTRON has embraced with its LWZ 8 CS Premium system, which brings an innovative, integrated approach to the market. Combining several critical functions into a single, compact unit, the appliance offers ventilation, heating, hot water, and cooling functions. It features advanced inverter technology for improved efficiency and quieter operation too, as well as holding the ability to be combined with a solar system.

But an all-encompassing product is only one part of the one-stop shop equation. Take heat pumps for example. Currently, there are only about 3,000 well-trained engineers capable of carrying out heat pump installations across the UK. To meet the government's target, this number needs to increase to approximately 27,000. Simply put, the UK needs more heat pump installers.

Training

Crucially though, the UK is not short of skilled heating engineers. There are around 120,000 gas boiler installers, many of whom possess the fundamental skills required for heat pump installation. While many of these do not have training or the recognised expertise in installing heat pumps specifically, their knowledge of heating systems and building units means they are well placed with the capacity to quickly adapt to the information required for installing heat pumps.

To truly drive the adoption of renewable energy solutions among consumers, comprehensive support for installers is





crucial. Industry leading organisations should commit to offering extensive planning and commissioning services, ensuring that each installation is executed with precision and expertise which are second to none.

Organisations should develop training programmes which are designed to equip those in the industry of all levels with the knowledge and skills they need to effectively deploy these systems.

Meanwhile, the creation of post-training packages ensures qualified installers are

supported in delivering an experience that works for consumers. This ongoing assistance helps trainees tackle any challenges they may face, ensuring they are well-prepared for the field.

Giving trainees valuable hands-onexperience with the latest industry technology, training should offer a broad range of ground and air source heat pumps which vary in size and shape, and are used in different situations and projects, such as in commercial settings, houses, or flats. As a result, installers will be armed with a rich knowledge which can be applied to a range of varying projects.

Training programmes should go beyond technical skills. It should cover legislation, market drivers, and opportunities within the low carbon economy, ensuring that installers are well-versed in all aspects of the industry. Trainees should also receive updates on the latest product developments, new sizing calculators, marketing programmes, and extended warranty options.

Organisations who invest in new training facilities and a finely-honed training program will lead the charge when it comes to inspiring the next generation of installers. In doing so, they will not only ensure an influx of well-trained, qualified installers onto the market, they will provide the installation of heat pumps as a viable career path for those who are new to the industry, and also for those who work with traditional gas boilers. It is something we have placed an onus on at STIEBEL ELTRON as we look to drive the adoption of heat pumps across the UK.

Moving forward

The industry's shift towards one-stop shop solutions in the renewable heating industry is more than a market response; it is a step towards a sustainable future. By making renewable heating solutions more accessible and easier to install, we are paving the way for greater adoption among consumers, which in turn leads us to a cleaner, greener future.

By investing in these technologies, and by embracing cutting-edge advancements, the industry can take a proactive approach which supports environmental goals, but also ensures that companies remain at the forefront of a market increasingly driven by eco-conscious customers.

It is those organisations who adopt the one-stop shop approach, looking at how to best serve consumers, who will truly drive the future of the renewable heating industry. It can ensure these sustainable solutions become the standard for households and businesses alike, and drive society closer to its environmental goals.

Info

www.stiebel-eltron.co.uk/en/home.html







Panasonic partners with Together Housing to deliver sustainable heating solutions

Greener social housing is vital to ensuring a sustainable housing sector and a secure future for all its residents. In this case study, the success of the newly installed heat pumps in over 1,200 social housing properties is evident, resulting in healthier homes, lower energy costs, and satisfied tenants.

Panasonic has partnered with social housing provider, Together Housing, to deliver sustainable heating solutions to over 1,200 properties across the North of England. To date, Together Housing has switched hundreds of homes from gas boilers to Panasonic J Series Aquarea Monobloc airto-water heat pumps. This year, the team is scheduled to retrofit a further 750 homes with many more to follow.

Panasonic is providing 5, 7 or 9 kW units to a range of 1 to 3 bedroom properties, primarily located in Yorkshire and Lancashire. Together Housing is one of the North's largest social landlords, owning and managing over 39,000 homes. Working in collaboration for over two years, Together Housing and Panasonic's shared net zero goals are the foundations for this partnership.

A holistic approach

With a holistic approach, each home has an initial survey and ventilation assessment to check if the home is suitable and if any additional insulation is required. This ensures that the homes gain maximum benefit from the energy efficiency of the Panasonic heat pump once installed.

Commenting on the advantages of switching to a Panasonic heat pump, one tenant, Eva, commented, "After only 6 weeks, I can already see a reduction in my energy bills."

Another tenant, Shannon, spoke on the ease of fitting and operating the new heat pump. She said: "The communication from the installers was very good as they kept me in the loop and explained each bit as they fitted it. When it was all finished, they showed me how to use it very clearly. The system is very easy to manage. There's



a Panasonic controller on the wall that has a timer, it's much easier to set the temperature than my old gas boiler and the pump outside isn't noisy at all." Shannon recommends other residents have an air source heat pump fitted if it's offered. She added, "I've already told my neighbours."

Go Green Together

Ensuring support throughout this transition period, Panasonic is working with Together Housing on an education initiative, 'Go Green Together', a portal providing learning resources for residents. Guidebooks explaining energy bills, meter readings, available tariffs, smart meters, setting tenants' heating, and financial support are available online. Tenant Liaison Officer's (TLO's) are on hand to help with any questions and support with the behavioural change required for the transition. All residents are offered a standard thermostat and programmer for easy-to-understand controllability of their heating system, in addition to the support team's remote smart diagnostic tool.

Jose Alves, Regional Director for Panasonic UK, Ireland, and the Netherlands said, "Panasonic and Together Housing are setting the roadmap to net zero, but we are also building it as we go. As leaders in this commitment, we recognise the importance of a holistic approach to deliver energy efficient buildings and to provide residents with a collaborative solution for improved comfort and performance."

Forward-thinking Executive Director of Property at Together Housing, Patrick Berry said, "Moving towards energy efficient and greener social housing is vital to ensure we can provide a sustainable future for all our residents. As well as improving the energy performance of our existing housing stock and helping our most vulnerable residents to live in warmer, more comfortable homes, we're also leading the way to deliver more environmentally friendly communities across the north of England. Panasonic's support and response to challenges has been second to none. We plan to share our lessons learned with other housing associations so they can follow in our example."

Lobbying to improve efficiency
One of the biggest stumbling blocks
preventing fast progression is the need to
gain approval for heat pump installation
from the area's Distribution Network
Operators (DNO). This process slows down
installs not pre-approved on the DNO
database. Together Housing has been
lobbying the government to improve this
process to ensure each installation can
be delivered effectively. The Panasonic
Aquarea J Series 5, 7 and 9kW are
pre-approved for Connect & Notify, allowing
for a faster and more straightforward
installation process.

To find out more, please visit: www.aircon.panasonic.eu/GB_en/



Lochinvar takes care of heating and hot water at Lavender Fields

Collaboration provides a new luxury care home with a fully integrated heating and hot water system which is in tune with the care village's wider ambition of being a "fully sustainable community".

Lochinvar has provided a complete heating and hot water system powered by four air source heat pumps for a new luxury 72-bedroom care home set in the rolling Yorkshire countryside.

The home is the latest addition to the retirement community at Lavender Fields Care Village, which also includes 24 privately owned bungalows near the picturesque village of Barmby Moor. It is three miles from the famous market town of Pocklington in the spectacular East Riding, and the 72 luxury bedrooms enjoy views over the countryside and the community's landscaped gardens.

Lochinvar was specified to provide a fully integrated heating and hot water package including energy-saving heat pumps, a thermal store, two storage vessels, and ancillaries.

The system, which was designed and installed by Leeds-based mechanical services contractor, Sayes, and overseen by the main contractor Firecrest Construction, is managed by a priority control system that

keeps energy use low while ensuring the right balance between hot water production and the home's underfloor heating system.

The heat pumps were chosen from Lochinvar's Amicus HT air-to-water heat pump range which can provide hot water at up to 63degC giving a highly efficient low-carbon method of supplying domestic hot water in existing and new build properties.

Prioritise

The system at Lavender Fields uses a threeport priority demand function which allows the system to prioritise hot water, in line with the specific demands of a care home, and then switch to heating mode when the hot water demand has been met.

This highly energy-efficient approach is further boosted by using a thermal store that helps to smooth out the peak loads and reduces the number of times the compressor starts and stops – so helping to prolong operational life and improve reliability.

The Lochinvar system also includes cascade control which allows the system to

closely manage the operating patterns of the four heat pumps to match demand. This is very energy efficient and is, therefore, in tune with the care village's wider ambition of being a "fully sustainable community".

The system was chosen because, to be successful, the project needed a fully integrated solution with all the separate components working in close co-ordination. The design team praised the technical and after-sales support provided by the manufacturer, particularly mentioning the high levels of communication during the specification and installation processes.

Lochinvar's Amicus HT range comprises 34 separate models with heating capacities up to 219kW. They can operate in ambient temperatures as low as -20°C in heating mode and can also achieve a coefficient of performance (COP) above four.

Info www.lochinvar.ltd.uk











WOW! Heat Pumps galore!

Editor, **Juliet Loiselle**, and some other impressed exhibitors share their thoughts on the 2024 InstallerSHOW.

The ACR Journal & Heat Pumps Today team had an incredible few days. The show, held at the NEC in Birmingham from June 25th to 27th, was bigger and better than ever, with 50% more space and over 600 exhibitors!

The event attracted more than 20,000 installers, specifiers, and decision-makers from the heat, water, air, and energy sectors. There was so much to see at the show: loads of new products, innovations, learning opportunities from live sessions, and of course, a great chance to meet the movers and shakers of the industry.

We currently run some regional expos around the country, historically, they were mostly focusing on Air conditioning & refrigeration. However, responding to visitor and exhibitor requests at the show, we have now included heat pump, and ancillary product stand opportunities. The next one is held at Elland Road, Leeds on the 26th of September. If you wish to attend or exhibit, contact Hayley Comey, Events Manager

Hayleyc@warnersgroup.co.uk

Over the three days, the show had an incredible vibe - positive, energetic, and buzzy - that surpassed anything we've experienced previously. Personally, I never tire of meeting like-minded individuals from our industry. As a team, we have so many favourite moments - from meeting other exhibitors and seeing their amazing stands, to having great conversations with

visitors who were very avid readers of Heat Pumps Today Journal.

As an exhibitor, we were also invited to join Vaillant's 150-year celebration, where the band was amazing, and so were the cocktails! The dancing spanner was a firm favourite, busting some great moves around the aisles.

It sounds like many others found the show extremely worthwhile too. So, we asked some of the exhibitors we met to share their thoughts.





OUT AND ABOUT









Thoughts on the show and showcased items

We caught up with **José Alves**, Regional Manager at Panasonic. José had this to say about the show: "We were very happy to be at InstallerSHOW in order to introduce our new solutions to the Installers and house builders, but also to meet them in person. It's a great way of building better relationships with them, and better understand their needs in order to develop new products and explore opportunities.

"It is a great platform for us to present our new products, such as the new Aquarea M Series range of air source heat pumps with TCAP technology, an industry game changer developed to meet the decarbonisation challenge. The new range uses R290 refrigerant which has a low GWP of only 3. It comes with capacities 9, 12, 16, 20, 25 and 30kW with the option of 300kW in cascade configuration. It

Panasonic

heating & cooling solutions

is ideal for installations in individual domestic homes, multifamily or light commercial buildings.

"Amongst many other things, we also wanted to share that we have been investing heavily in HVAC&R future engineers to tackle the industry's skills shortage. Panasonic's four Centres of Excellence and its partnerships with fifteen FE colleges are helping younger engineers face the changing landscape head-on. A fifth Centre of Excellence has now been planned for 2024/25.

"Panasonic's
presence at
InstallerSHOW
2024 highlights our
focus on building
a greener and
more sustainable
future through our



partnerships and collaborations."

To find out more about the Aquarea M Series range visit:

https://tinyurl.com/tsr8htde www.aircon.panasonic.eu/G

Stephen Duck, UK Sales Director of Aalberts hydronic flow control told us at the show: "It's a roaring success for Flamco. By displaying one of our packaged plant rooms, we have been able to neatly showcase our capabilities in the sector, combined with the high-quality workmanship and products, which are well-known for reliability and levels of innovation. Due to the scope of the event, Aalberts hydronic flow control can cover several of our customer bases,





from the smaller domestic plumbing and heating engineer up to large commercial contractors, all under one roof.

"As the premier installer event in the UK and drawing in installers from a wide area, we are delighted with the quality of visitor, with lots of engagement and interest."

https://flamco.aalberts-hfc.com/uk-en









OUT AND ABOUT

We spoke to **Lee Kenny**, Sales and Country Regional Manager for UK and Ireland at Henco at the show and he said: "The footfall we've had has been more than exciting.

"We are thoroughly enjoying connecting with industry professionals and I am particularly enthused by the quality of plumbers coming through. We have been showcasing our latest range of popular and sustainable underfloor and wall

heating systems. They are engineered to residential, commercial, and industrial spaces. The system is designed so that every cm2 in each can be utilised for optimum efficiency. By utilising advanced pipe networks embedded in floors or walls, the range ensures a comfortable and cosy environment, free from cold spots or drafts.

provide even heat distribution throughout

"Our knowledgeable team has also been offering advice and solutions based on individual installers' requirements. This tailored guidance aims to enhance the visitors' understanding and usage of Henco's product range.

"There has been a buzz on the stand as all day, every day the visitors have also been taking part in our two exciting challenges to gain hands-on experience with the products. One challenge is the 'Pro-Fit Showdown' where the contestants have demonstrated their speedy piping and joining skills to replicate a specific Henco piping system on display. Each day the fastest has won a gift box containing a selection of high-quality Belgium Beers. The second challenge is 'Beat the buzzer'. Guide the metal loop along the curved multilayer pipe but don't touch the wire with the loop and set off the buzzer! Each day the fastest has won a Henco Toolkit.

"One thing I do know is we'll be back next year with a bigger presence."





After the show STIEBEL ELTRON UK told us they put on its largest stand at the show to date, presenting attendees from the heating and ventilation sectors with a variety of technologies.

The expansive and meticulously designed space allowed them to showcase a comprehensive range of technologies, including air and ground source heat pumps, electric heating solutions, and advanced water heating systems.

The stand's size and layout facilitated detailed demonstrations, interactive sessions, and one-on-one consultations, ensuring that attendees left with a thorough understanding of the benefits and applications of their products.

The increased footfall underscored the growing interest in sustainable heating solutions and the trust that professionals and consumers place in STIEBEL ELTRON's renewable heating offerings.

Among the highlights was a cryptic riddle challenge which drew considerable attention, with participants challenged to decode a complex puzzle which was

cracked by three individuals who each won a HOT 2.6 N 1600 Premium + 3in1 instant boiling water tap.

Mark McManus, STIEBEL ELTRON UK Managing Director, said: "Every year the show gives us a platform for us to connect with industry professionals and showcase our latest innovations.

"This year was no different, and the enthusiasm we've seen, especially for our interactive challenges, was great

to see, and shows continued interest in renewable energy technologies which increases year on year.

"Our participation in the show was a resounding success, marked by high engagement, increased visibility, and a memorable interactive challenge which was enjoyed by all. We're looking forward to next year already."

www.stiebel-eltron.co.uk



OUT AND ABOUT/PRODUCTS & SERVICES

Reflecting on the highly successful InstallerSHOW 2024, Graham Parkes, commercial director at Navien UK, shares his insights on the event's standout achievements, notably the successful launch of the Navien R290 Heat Pump.

We were thrilled with the exceptional response to our showcased products and services at InstallerSHOW 2024, especially the reception of the Navien R290 Heat Pump. This event significantly enhanced our visibility, strengthened relationships with our valued customers, and attracted

Installers got the first sneak peek of our R290 for residential and commercial use, which features a SWEP plate heat exchanger for optimised heat transfer efficiency and boasts an outstanding A+++ energy efficiency rating - meeting today's performance and installation expectations.

The event offered installers a fantastic



opportunity to gain hands-on experience with the latest innovations and solutions while enabling them to enhance their knowledge and understanding of Navien's products.

Other key highlights included the NaviCircTM recirculation technology and Smart Plus ON AI Controller, which integrates cutting-edge AI technology for unparalleled convenience and efficiency, ensuring consistent comfort and peak performance. Our latest HVO-ready oil boiler was celebrated for its energy efficiency and advanced functionalities, such as flow adjustment and auto-mixing valves.

Attendees at InstallerSHOW also learned about Navien Choice Plus, our enhanced loyalty programme, which offers installers more opportunities to earn points in exchange for various rewards.

Following a positive reception of our 10-minute Navi Talks sessions, we were able to delve deeper into the advantages of our products, such as the benefits of our heat pump, and demonstrate how Navien's solutions help streamline installations while enhancing reliability.

www.navien.co.uk 🍕



The Innovation Zone

The guide to what's new for Heat Pumps Today readers, offering vital industry news. To advertise your product in 'The Innovation Zone' section please contact victoria.brown@warnersgroup.co.uk

Hamworthy heating introduces new high temperature heat pump range with natural refrigerant.

Hamworthy Heating, has launched the Tyneham 290HT commercial heat pump range with natural refrigerant, designed to achieve high flow temperatures of up to 75°C whilst benefiting from a low GWP of three.

It offers a co-efficiency of performance (COP) of

up to 4.94 for optimum efficiency. The range also features an invertercontrolled compressor that can control the building temperature based on specific requirements of space.

Quiet in operation, with noise levels as low as 64db(A), specifically designed for use in commercial buildings. Available in five outputs from 15kW through to 50kW, the Tyneham 290HT can be cascaded to achieve higher outputs and also combined with alternative Hamworthy Heating products to achieve a low-carbon hybrid heating system.

It can also perfectly fit various Domestic Hot Water (DHW) applications.

For more information, please visit: www.hamworthy-heating.com or call 01202 662 552.

NO SPACE? NO PROBLEM. FERNOX ADDS NEW **FILTER TO ITS PRODUCT RANGE**

The new sealed and ultra-compact TF1 Sigma Mini, provides a practical filter solution for smaller-volume systems with restricted space. With an excellent collection capacity to capture system contaminants, it is simple to install and service. By adding the TF1



Sigma Mini to the extensive Fernox portfolio, installers can now find a filter option to suit every requirement.

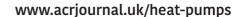
The magnetic TF1 Sigma Mini is ideal for social housing, new build properties and smaller volume heating systems. The filter comes ready to install and is easy to fit in under two minutes thanks to its slip socket manifold design. Ideally installed horizontally on vertical pipework, the sealed filter can be installed in tight spaces as it only requires a 106mm pipework footprint.

The TF1 Sigma Mini is available with 22mm pipework connections, from merchants nationwide. For more information visit: www.fernox.com/tf1-sigma-mini









PRODUCTS & SERVICES

MODUTHERM LAUNCHES JUNIPER HP PLUS: THE NEXT-GENERATION HEAT PUMP WATER HEATER

Modutherm has expanded its popular range of sustainable heating and hot water products with the launch of the Juniper HP Plus indoor heat pump water heater.

Available in left- or right-handed versions, the Juniper HP Plus cleverly integrates an efficient air source heat pump with a high-quality stainless steel cylinder for powerful and convenient hot water production perfect for electric-only residential or light commercial projects. The unit transforms 'free' energy from the outside air or waste heat from within the property into a low-cost, renewable domestic hot water source. For larger properties, or where there's a need for additional domestic hot water, multiple Juniper HP Plus water heaters can be installed in parallel.

To underpin its quality, the Juniper HP Plus has a five-year tank and two-year parts warranty. For more information visit: www.modutherm.co.uk



Hamworthy heating expands low carbon range with new Tyneham CO2 natural refrigerant commercial heat pumps

Now available from Hamworthy Heating, is the new CO2 and CO2Q range of Tyneham monobloc heat pumps with natural refrigerant, to help future proof investments.



Designed to achieve high temperatures

of up to 70°C with ultra-low global warming potential (GWP) of just one thanks to the use of R744 (CO2) refrigerant, they are the perfect fit for both new build projects needing an efficient and low carbon solution.

Featuring a co-efficient of performance (CoP) rating of up to 3.4 and include an invertor-controlled compressor to match the heat demand of the building accurately and efficiently.

Suitable for larger heating and domestic hot water (DHW) commercial applications and is available in six models with outputs from 65kW to 130kW in normal and low noise options (Q). Units can be cascaded to achieve even higher outputs in larger applications.

For more information visit: https://tinyurl.com/mvah7zcj



Taconova launches new TacoTherm Fresh Nano2 specifically designed for heating systems of the future

Taconova has launched a new sustainable Heat Interface Unit (HIU) that encourages the transition from gas-powered communal heating systems to a modern central heating system with minimal renovation work in apartments.

The new TacoTherm Fresh Nano2 has been specifically designed to connect to renewable energy sources, providing an environmentally friendly and significantly more energy-efficient and cost-effective solution for hot water and heating.

Whether it is connected to a heat pump, solar, or part of a district heating network, TacoTherm Fresh Nano2 is a true all-rounder. Existing wall-mounted gas boilers installed in apartments can be quickly and easily replaced with the compact hydraulic unit. The modular station heats water on demand and regulates the hot water outlet temperature without auxiliary energy through a proportional flow controller. Additionally, TacoTherm Fresh Nano2 distributes heating water to the radiators or underfloor heating.

Measuring 800mm (H) x 447mm (W) x 117mm (D), the compact design simplifies planning with multiple transmission capacities and a design cover on the base plate and meets the specific requirements for renovation in residential buildings The high degree of pre-fabrication makes installation easier and saves assembly time. Annual maintenance is recommended but involves significantly less effort than a gas boiler. The high-quality components, such as ball valves, heat exchanger, dirt traps, and fill and drain valves, ensure reliable operation.

It is available in two different sizes of high-performance plate heat exchangers. Thanks to low transmission losses, they ensure a high utilisation of the provided supply temperatures.

To find out more visit: https://tinyurl.com/bdcwbnve

www.taconova.com



Ecodan CAHV-R

Decarbonising building operations has never been more important. Mitsubishi Electric provides a comprehensive range of innovative solutions tailored for all building types—from residential settings to offices, schools, hotels, shopping centres, and more. Our cutting-edge products are designed to significantly reduce your carbon footprint and energy consumption, helping you meet your Net Zero targets.

With our extensive service and maintenance solutions, we ensure optimal performance and efficiency throughout the product lifecycle, giving you peace of mind and maximising your investment.

Discover our full product range at: les.mitsubishielectric.co.uk

Scan here









The new name in heating



Introducing the **NEW R290 Heating Range from Haier**. A full portfolio of solutions for space heating & domestic hot water. The range includes the new R290 A2W Monobloc, Hydro Split and All in One solutions to suit wide applications. Joining this range is the new R290 M7 Floor Standing and M8 Wall Mounted Heat Pump Water Heaters ranging from **80L - 250L.**

This new heating range from Haier delivers A+++ market leading energy efficiencies as well as 80°C high leaving water temperatures. Encompassed by an environmentally friendly refrigerant and full connectivity via the hOn application. A range that dedicates itself to providing the right solution for a variety of needs – setting the standard for the future of sustainable heating.











