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Welcome to the September issue of Heat Pumps Today

This month's issue covers much on myth busting and training. Training, in particular, is an area where this industry must continue to move forward. Installation numbers are increasing, as shown on pages 05 and 08. However, in keeping with this incremental growth, focus on servicing is paramount. We need more service engineers. Without which, consumers and end-users won't benefit from warranties.

Poor installs in the past, and the lack of proper servicing has left us a legacy and reputation that 'heat pumps don't work'. I'd love to hear from you and what steps you are taking to increase the number of service engineers within your businesses – turn to page 19 for an article on upskilling.

For my part, I can say categorically Heat Pumps do work. As an example; earlier this year, we did a retrofit on our property, which included the installation of a heat pump, underfloor heating, solar panels, batteries and an EV charger. This has culminated of savings in excess of £600 pcm for household heating and hot water requirements, along with cost of fuel for previously owned diesel vehicles.

As always, I'd like to provide a huge thank you to David Crowson, Digital Editor who has helped enormously with bringing together this month's issue of Heat Pumps Today.



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

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Heat Pump Association announces next vice chair

The Heat Pump Association (HPA) is pleased to announce the appointment of its next Vice Chair, **Chris Taylor-Hamlin**, Senior Environment Research Manager at Daikin, who will officially enter post in September 2025.

Chris brings a wealth of experience in the renewable heating sector and within trade associations and has been an active member of the Heat Pump Association. His assistance in leading the HPA is expected to further strengthen the Association's strategic direction and industry influence at a pivotal time for the UK's transition to net zero.

Commenting on his appointment, Chris said: "It's an honour to have been voted in by the members as Vice Chair of the HPA. The HPA is one of the most proactive associations I have had the pleasure of working with. There remains a lot of work to do via the HPA to aid governments, the regions and the country as a whole to reach the necessary decarbonisation targets. I intend to repay the trust placed in me by my fellow HPA members by impartially representing the whole heat pump sector."

Craig Dolan will remain Chair of the HPA until September, after which **Mark Wilkins**, current Vice Chair, will become the Chair, with Chris taking over as Vice Chair. The HPA looks forward to working with Chris in his new capacity and continuing to champion the growth of the heat pump sector.

www.heatpumps.org.uk

Cleaner Safer Group (CSG) appoints new CEO

CSG - parent company to independent not-for-profit organisations, HETAS and Woodsure - have appointed **Barry Cope** as its new Chief Executive Officer.

Barry takes the reins from **Bruce Allen**, who has been in the role at HETAS since 2006, and at Woodsure since 2017. Bruce will remain with the organisations until he retires in September, working with Barry for a smooth transition period.

Barry brings a wealth of experience in the building and construction and air quality industries, specialising in testing and compliance. He will now turn his attention to continuing to drive HETAS and Woodsure forward, expanding their services and offerings, supporting stakeholders, and growing CSG into new markets.

www.cleansafergroup.co.uk

Gedling Green ready for future home standard with Panasonic heat pumps

Panasonic heat pumps have been installed into 33, two, three and four-bedroom new build homes as part of a "Homes England" research project to provide innovative zero carbon ready homes. Gedling Green, a regenerative housing project in Nottinghamshire has been developed on an old coal mining colliery site by open-market affordable housing developers, Keepmoat Homes. Panasonic's Aquarea J Series units with smart controls were selected for the research project by Keepmoat. The installations were completed by electrical contractors M. A. Broughton and plumbing company, Nigel Smith.

Birmingham City University's (BCU) Centre for Future Homes has been commissioned to carry out research to provide data on the energy and carbon efficiency of the homes to ensure the chosen technology adopted can be scaled up for future developments.

New legislation is due to be introduced later this year (2025) to make all new homes "zero carbon ready." Looking to meet the government's Future Homes Standard, Keepmoat Homes received investment from Homes England to promote the advanced delivery of homes designed to the anticipated Future Homes Standard, as well as additional funding from both Halifax and Leeds Building Society to support the evaluation of in occupation feedback from customers.

The Future Homes Standard building regulations will require new homes to produce 75-80% lower CO2 than current standard builds. To prepare for this transition, all homes on the site have been fitted with air source heat pumps, solar PV panels, increased insulation levels, electric vehicle charging points and smart hot water cylinders.

To read the story in full visit: www.acrjournal.uk/heat-pumps/gedling-green-ready-for-future-home-standard/

REHAU expands commercial plumbing and heating sales team

REHAU UK has appointed **Matthew Edney** to Regional Sales Manager for the South of England, with a focus on expanding its commercial plumbing and heating solutions product category.

He joined REHAU's Building Solutions team in March 2025 following over 20 years' experience in the construction industry working in sales and operations management, where he has predominantly worked with premium brands.

Matthew's appointment provides REHAU with a highly specialised skillset from a varied HVAC technical sales career. With a strong focus on HVAC specification, he will be working with consultants and contractors on securing specifications of REHAU polymer products.

As part of his new role, Matthew will be focusing on showcasing REHAU's expanding product range, particularly promoting its premium commercial plumbing portfolio.

<https://bs.rehau.com/uk-en>

Green Skills surge as low-carbon tech rewires uk homes and careers

According to new research from Uswitch.com, the comparison and switching service, the UK's shift to clean home energy is accelerating, and it's opening the door to thousands of green job opportunities. Energy Performance Certificate (EPC) data shows a 145% rise in the proportion of homes listing a heat pump as their main heating source since 2020, alongside a 129% increase in homes with solar panels and a 36% rise in wind turbine installations.

This rapid uptake of low-carbon technologies is fuelling demand for skilled workers who can install, maintain and optimise these systems. From solar and heat pump engineers to retrofit assessors and building performance experts, the technologies appearing on EPCs today are directly linked to some of the fastest-growing careers in the UK's green economy.

Job search data reflects this growing interest. Online searches for heat pump engineer roles have risen by 29% in the past year, with similar growth seen in thermal insulation engineer (+28%) and solar panel installer (+11%) searches. Strategic green roles are also on the rise: sustainability analyst searches are up 30%, and sustainability manager searches up 23%.

Table 1: Fastest growing green job searches

Job role	Monthly searches	Trending %
Sustainability analyst jobs	210	30%
Heat pump engineer jobs	260	29%
Thermal insulation engineer jobs	320	28%
Sustainability manager jobs	480	23%
Sustainability consultant jobs	590	19%
Ecologist jobs	1,900	14%
Wind turbine technician jobs	1,300	11%
Solar panel installer jobs	880	11%

Employers are actively recruiting to meet this demand. More than 4,300 UK job adverts mention "building performance", while "energy management" (2,430) and "clean technology" (2,427) appear in thousands more. Leadership and compliance skills are also in high demand, with over 1,000 listings each for terms like sustainable development (1,320), environmental compliance (1,197) and sustainable business (1,405).

Table 2: Most in-demand sustainability skills in UK job adverts

Skill mentioned	# Job adverts
Building Performance	4,329
Energy Management	2,430
Clean Technology	2,427
Sustainable Business	1,405
Sustainable Development	1,320
Environmental Compliance	1,197
Automation Systems	1,116
Environmental Technology	1,050



Table 3: Average salaries for green energy roles

Job title	Average salary
HVAC Technician	£41,358
Thermal Insulation Engineer	£39,536
Solar Engineer	£39,447
Wind Turbine Engineer	£39,447
Green Building Consultant	£38,880
Retrofit Assessor	£38,216
Heat Pump Engineer	£37,469
Sustainability Consultant	£36,789
Smart Meter Installer	£33,202
Retrofit Coordinator	£32,448
Solar Installer	£30,693
Heat Pump Installer	£24,300

Salaries for green roles are often competitive, reflecting the technical expertise required. HVAC technicians top the chart at £41,358, followed by thermal insulation engineers (£39,536) and solar and wind engineers (£39,447). Even newer roles like retrofit assessor (£38,216) and sustainability consultant (£36,789) offer attractive earning potential. Heat pump installer roles, a key entry route into the sector, average £24,300.

Ben Gallizzi, energy expert at Uswitch.com comments:

"The way we heat and power our homes is evolving, bringing new opportunities in green jobs and skills.

"From heat pump engineers to sustainability analysts, there's growing demand for people who can help make homes cleaner and more efficient. And with solar, wind and insulation tech becoming more mainstream, now's the time to plug into a career that powers real change.

"It's also important to remember that making green savings doesn't always mean installing new technology, simple changes in how we use energy, or switching to greener tariffs, can make a real difference."

Uswitch.com

Warmflow strengthens its team with two new Area Sales Managers

Darryl Hedges has been appointed as New Area Sales Manager for South-West England



Warmflow is pleased to announce the appointment of **Darryl Hedges** as the new Area Sales Manager for South-West England. Darryl joins the team with extensive experience in the plumbing and heating industry, bringing enthusiasm and a strong customer-focused approach to the role.

Based in the south-west region of England, Darryl will be responsible for supporting existing customers, developing new business opportunities, and working closely with merchants and installers to promote Warmflow's innovative range of Agentis Oil Boilers, Zeno Heat Pumps, and Nero Hot Water Cylinders.

Speaking about his new role, Darryl said: "I'm excited to join Warmflow at such a pivotal time for the heating industry. The company's commitment to innovation and sustainability really stands out, and I look forward to building strong relationships across the South-West and helping customers find the right solutions for their needs."

Warmflow continues to expand its team to provide localised support and technical expertise across the UK, reaffirming its commitment to customer service and sustainable home heating.

www.warmflow.co.uk

Warmflow appoints Ryan Gazzard as Area Sales Manager for South-East England



Warmflow also welcomes **Ryan Gazzard** as the new Area Sales Manager for South-East England. With a strong background in sales and a deep understanding of the heating industry, Ryan joins the team ready to drive growth and deliver tailored support to merchants and installers across the region.

Known for his proactive approach and dedication to building lasting partnerships, Ryan is focused on helping customers navigate the evolving landscape of home heating solutions, including Warmflow's market-leading oil boilers and growing range of renewable technologies.

Commenting on his new role, Ryan said: "It's a great time to join Warmflow, with such a strong product portfolio and clear vision for the future. I'm looking forward to working closely with our partners in the South-East and supporting them with the tools and knowledge they need to succeed."

Warmflow continues to strengthen its regional sales network, ensuring customers across the UK receive expert advice, responsive service, and support tailored to their needs.

www.warmflow.co.uk

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MCS UPDATE

Record number of renewables being installed into UK homes

According to data from MCS, the UK's quality mark for small-scale renewables such as solar panels and heat pumps, there were a record 170,000 certified renewable installations in the first six months of 2025. This is a 37% increase on the equivalent period last year, and a 33% increase on the previous highest start to a year in 2023.

The record number of installations is fueled by three technologies: solar panels, battery storage, and heat pumps.

- There were 120,000 certified solar panel installations in the first six months of 2025, a 36% increase on the same period for last year and 13% higher than the previous Jan-June record which was set in 2012.
- Battery storage saw almost 20,000 installations, a 130% increase on the same period last year.
- There were 30,000 certified heat pump installations – a 12% increase on last year's record start to a year.

MCS data shows that there were almost 50,000 renewable installations on new build properties – accounting for 28% of the total for the year so far. This is almost double the figure for January - June 2024, where 21% of certified renewables went onto new builds. With the Future Homes Standard set to mandate solar panels and low carbon heating in new build homes from 2027, this highlights the massive potential for growth in the industry as the government works towards key housebuilding targets.

One of the key drivers behind the increasing number of renewable installations is financial support from government, through schemes such as the Boiler Upgrade Scheme (BUS), Home Energy Scotland Grant and Loan, the Social Housing Net Zero Fund, and ECO4. For example, data from the Department for Energy Security and Net Zero (DESNZ) highlights the impact that government incentives are having on heat pump uptake. The latest figures available (January - March 2025) show that 11,737 heat pump installations were government-supported (either wholly or partially), which equates to about three quarters of total heat pump installations.

MCS holds the most comprehensive repository of data on the uptake of small-scale renewable technologies across the UK on The MCS Data Dashboard. For near-real-time updates on renewable installations, you can sign up for free to The MCS Data Dashboard by visiting: <https://mcs-certified.com/low-carbon-landscapes/mcs-data-dashboard>.

Heat pumps: Time to ditch the myths and make the switch

Darran Burrage, commercial director at CTC-UK, busts outdated myths about the cost, performance, and installation of heat pumps, stating that education and clearer communication are key to increasing uptake and meeting climate goals.

The climate change debate may be largely settled, but turning awareness into real action is proving to be the bigger challenge. While most people agree that we need to cut emissions, persuading households to make greener choices still requires a major push.

The UK Government has set an ambitious target of heat pump installations: 600,000 installations a year by 2028. Yet despite record growth in 2024, the actual figure was still only about one-tenth of what's needed. So, with generous grants now making heat pumps as affordable, or sometimes even cheaper, than gas boilers, the pressing question remains: what will convince more people to make the switch?

Myth 1: "Heat pumps don't work in cold weather"

This is perhaps the easiest misconception to demolish. Norway, the coldest mainland country in Europe with an average annual temperature of just 2.9°C, has the highest heat pump uptake, 635 per 1,000 homes. Finland and Sweden, also far colder than the UK, follow close behind.

By contrast, Britain's average temperature is a relatively mild 10°C, yet we've only installed 15 heat pumps per 1,000 homes. The evidence is clear, if Scandinavia can thrive with heat pumps through freezing winters, so can we.

Myth 2: "They're too expensive to run"

It's true that UK electricity prices are among the highest in Europe, while gas is unusually cheap. On the surface, that might suggest heat pumps cost more to operate. But this ignores their efficiency advantage.

The latest models are up to four times more efficient than gas boilers, meaning that in practice, running costs are already similar. And the financial case is only set to improve as more households shift to renewable electricity, unit costs will



Darran Burrage, commercial director at CTC-UK fall, while gas, used by fewer people, will inevitably rise, even before factoring in carbon taxes.

So not only are heat pumps environmentally smart, they're also a sound long-term investment.

Myth 3: "They're only for new builds, and the installation is a nightmare"

Another common belief is that heat pumps only work in brand-new homes, or that installing one means moving out temporarily. Both claims are wide of the mark.



CTC Cube GSHP, an innovative R290, inverter-driven, externally mounted ground source heat pump

Take the example of Enfield, North London, where 400 flats across eight tower blocks were retrofitted with heat pumps. The work was completed in just 12 months, with residents staying put the entire time, and they're now enjoying energy bills up to 50% lower.

As for disruption, modern installations are far smoother than many assume. The "faff factor" is more myth than reality.

Other barriers: Planning rules and noise concerns

A survey by Octopus Energy found that one in three households are deterred by planning restrictions. That's why the Government's move to scrap the rule preventing heat pump installations within one metre of a neighbour's boundary is so significant. But the public needs to hear about these changes.

Then there's the noise myth. In reality, heat pumps produce no more sound than a standard fridge, hardly the disturbance some fear.

A turning point

The Government's Warm Homes Plan signals a real shift: doubling funding for the Boiler Upgrade Scheme, loosening planning rules, and offering major grants to housing associations and public facilities. All of this underscores a clear commitment to speeding up the transition.

But success won't come just from policies and funding, it will hinge on communication. If the UK can replace outdated myths with proven facts, more households will see heat pumps for what they really are: affordable, reliable, and essential for a greener future. 🏠

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A woman in a black dress presents a Gold award to Ben Wyatt, a man in a black suit and white shirt. The background screen displays "2024 GOLD Ben Wyatt Pump Engineer Heat Pumps" and the MAS Heat Pumps logo.



Revolutionising home heating: How R290 exhaust air heat pumps tackle noise, efficiency and regulation

By **Paul Smith**, Managing Director, NIBE Energy Systems Limited

The UK's journey to decarbonise home heating is gathering pace, with heat pumps now widely recognised as a key technology in delivering net zero. There are however, three homeowner concerns that continue to influence choice:

1. Noise
2. Efficiency
3. Compliance with evolving regulations



Paul Smith, Managing Director,
NIBE Energy Systems Limited

Government policy, from the Future Homes Standard to the tightening F-Gas rules, is driving the industry toward low-GWP refrigerants and higher efficiency standards. Exhaust Air Heat Pumps (EAHPs), using R290 refrigerant, deliver a compelling answer. They combine quiet operation, strong thermal performance and future-proof refrigerant choice, making them a smart fit for new builds and suitable retrofits alike.



Many homeowners are surprised to learn that EAHPs can operate at sound levels quieter than a typical household refrigerator. Because they recover heat from the building's extracted indoor air, rather than using large outdoor fans, they generate very little external noise. This makes them particularly well-suited to urban areas, apartments and noise-sensitive developments, where maintaining a peaceful living environment is just as important as achieving energy efficiency.

Quiet Mark

As an example; NIBE is one of the few heat pump brands to have multiple models accredited by Quiet Mark, the independent international certification for low-noise products. This recognition covers a range of our products, including the NIBE S735 exhaust air heat pump. Quiet Mark certification provides both homeowners and specifiers with a clear, trusted benchmark, giving confidence that low-noise performance has been independently verified.

Efficiency isn't simply about the seasonal performance figure though, it's about delivering consistent comfort at the lowest possible running cost, across a range of real-world conditions.

Higher flow temperatures

R290 refrigerant (propane) has thermodynamic properties that allow higher flow temperatures without significant efficiency loss. In practice, that means exhaust air systems can produce comfortable heating and hot water, even in colder conditions, without relying excessively on electrical back-up.

Because EAHPs harvest heat from ventilated indoor air (which is already warmer than the outside environment), they can achieve higher coefficients of performance (COP) more consistently. This makes them particularly attractive in well-insulated new builds with mechanical ventilation, where waste heat recovery is optimised.

As energy prices remain volatile, and as the Future Homes Standard pushes for tighter building envelopes, this type of integrated heating and ventilation approach could prove a strong route to meeting both environmental and cost saving goals.



F-Gas phase-down

Regulatory change is perhaps the strongest driver for refrigerant innovation in the UK and Europe. The ongoing F-Gas phase-down is rapidly reducing the availability of high-GWP refrigerants: under recent international and regional agreements, developed countries are committed to reducing HFC production and consumption by around 85% by 2036 (effectively to roughly 15% of earlier baseline levels), a timetable that is pushing manufacturers towards low-GWP alternatives such as R290.

R290, with a GWP of just 3, comfortably meets this requirement. By adopting it now, manufacturers and installers are effectively future-proofing systems against further regulatory tightening.

Outdoor noise sources

Noise regulation is another consideration, particularly in urban areas, and here exhaust air units again score highly. By minimising or eliminating outdoor noise sources, they can help projects comply with planning requirements without the need for complex acoustic mitigation.

The combination of low-GWP refrigerant and quiet, compact operation puts R290 EAHPs in a strong position to thrive in the next wave of UK building regulations.

The UK housing stock presents a mix of opportunities and challenges for heat pump adoption. Exhaust air units are best suited to properties with good insulation and mechanical ventilation, common in new builds, but increasingly achievable in deep retrofits.

They require no outdoor space, making them ideal for apartments or terraced homes where garden space is limited. Their ability to integrate heating, hot water and ventilation into a single appliance also reduces installation complexity and footprint.

R290 exhaust air systems offer a rare combination of solutions: They are quiet enough for even the most acoustically sensitive sites, efficient enough to keep running costs competitive, and compliant enough to sail through the most stringent future regulations.

For installers and specifiers, they represent a product choice and a strategic alignment with where UK home heating is headed. As regulations tighten and customer expectations rise, the quiet revolution of R290 EAHPs is one the industry can't afford to ignore. 

Info
nibe.co.uk

Energy efficiency: From silos to systems - rethinking heating & cooling thermal management in industrial processes



Jose La Loggia, Group President EMEA at Trane Technologies, discusses how a unified thermal approach can provide many benefits by managing heat and cold as one thermal energy ecosystem.

Most industrial facilities still treat cooling and heating as siloed, disconnected systems. This outdated mindset results in wasted energy, higher greenhouse gas emissions, and unnecessary costs. By shifting to a unified thermal management approach, where heat and cold are part of the same thermal energy ecosystem, industries can unlock major gains in efficiency, sustainability and performance.

The current landscape

Heating and cooling processes account for a major share of global energy consumption and industrial emissions. According to the European Environment Agency, the industrial sector's heating and cooling contribute around 20-25% of the Europe's CO2 emissions¹. For decades, these systems have operated in silos, often installed and managed independently. As a result, valuable energy – whether rejected heat from the cooling process' condensation or waste heat from the heating process – is frequently lost. But this doesn't have to be the case.

The opportunity

Rethinking how thermal energy is produced, recovered and reused offers a clear path toward decarbonised operations, enhanced efficiency, optimised energy use and lower operational costs across the industries. Integrated thermal management systems challenge the traditional mindset, enabling industrial plants to recover, repurpose, and balance thermal energy across their processes. This system level

thinking is key to reducing emissions, cutting cost, and moving towards truly decarbonised operations.

A fundamental principle

The first law of thermodynamics states that “energy cannot be created or destroyed; it can only be changed from one form to another.” This fundamental law highlights the opportunity: when we think “thermally”, we see how energy rejected in one place i.e. by the chiller can become useful heat elsewhere in the processes.

In food and beverage manufacturing, cooling and heating are vital for ensuring food safety, maintaining product quality, and extending shelf life. Proper temperature control prevents the growth of harmful bacteria and pathogens, ensuring products are safe for consumption. Precise heating and cooling also preserve the desired texture, flavour, and nutritional value of food and beverages, contributing to consistent product quality. In other sectors, cooling and heating enable process stability, material integrity, or safe storage. These needs can be met far more efficiently when approach holistically, with an all-electric thermal management system.

Converting siloed heating and cooling plants into thermal systems

According to a McKinsey report, industry consumes more energy than any other sector globally: 149 million terajoules in 2017. Fuel consumption, including

generation of heat for industrial processes accounts for almost 45 percent of that total². Data from the European Heat Pump Association (EHPA) shows that out of the 2,388 TWh of final energy industry uses for heating and cooling purposes, most of it is for process heating³.

Traditionally, heating has come from boilers burning fossil fuels, while cooling relied on electric chillers. These systems are designed and operated separately, ignoring the thermodynamic link between them. Consider the following:

- Industrial processes often require simultaneous heating and cooling
- Chillers generate heat as a by-product of the cooling process, which is often rejected into the atmosphere or surrounding environment: There are often additional sources of waste energy that can be repurposed by heat pump technology: excess heat/cooling of compressed air, decentralised refrigeration systems, and ventilation systems.

This design, where chiller and boiler plants work alongside each other as standalone, separate systems, is no longer justifiable. Existing technology, like heat pumps, makes it possible to repurpose that waste heat for low and medium temperature requirements – without additional fossil-fuel consumption. Existing technology, like heat pumps, make it possible to repurpose that waste heat for low and medium temperature requirements – without additional fossil-fuel consumption.

CASE EXAMPLE: Organon

Pharmaceutical manufacturer Organon, based in Oss, the Netherlands, has adopted a thermal management mindset, demonstrating how integrating decentralised heat pumps can replace central heating boilers and improve energy efficiency.

As part of its sustainability efforts, Organon is gradually installing Trane heat pumps across various buildings. The first project, completed in May 2024, involved installing two water-to-water heat pumps (RTSF 070 G) in a manufacturing facility, providing cooling for compressed air treatment and recovering the heat, which is then distributed to the central heating network.

This project saves 7,700 gigajoules of energy annually, roughly equivalent to 243,000 cubic metres of gas. Organon plans further improvements, including adapting air handling units for low-temperature heating, to reduce reliance on gas and become climate neutral by 2035. These changes mark a significant mindset shift: from fuel-based heating to electrified, balanced energy flows.

Turning waste heat into a resource

Waste heat is not a nuisance to be eliminated, it's an energy source waiting to be tapped. There is an abundance of free energy all around us, and thermal management systems enable us to capitalise on this, opening the door to completely eliminating the need for fossil fuels for heating. Thermal management systems allow industries to rethink their relationship with heat, transforming what was once discarded into a valuable input.

Heat pumps, although the concept itself is over a century old, have evolved through continuous advances in thermodynamic design, low-global warming potential (GWP) refrigerants and compressor and control technologies. This has allowed the industry to make heat pumps more viable, more efficient and more reliable. Today, they provide a clean alternative to fossil-fuel heating in manufacturing processes requiring low to medium temperatures.

Heat pumps like the Trane RTSF HT can boost the recovered energy up to 110°C, which covers a wide range of process needs beyond space or storage heating or preheating hot domestic water. Fully electrified thermal systems deliver both hot and chilled water for heating and cooling processes and can recover and repurpose energy without generating on-site carbon or NOx emissions.



Simultaneous heating and cooling systems are three to four times more efficient than the traditional methods, positively impacting the bottom line. A modern heat pump can generate three to four kilowatts of useful energy from one kilowatt of energy input, achieving an average efficiency ratio of 300 - 400% - more than three times the efficiency of a boiler.

The benefits go beyond performance: by combining cooling and heating systems, facilities reduce upfront investments, save space, and cut operating costs. This is the systems approach in action.

Shifting perceptions, overcoming barriers

Given the process-heavy nature of the industrial landscape, getting a firm grip of a plant's temperature control systems can quickly reduce energy consumption, carbon emissions and utility bills. While traditional concern and scepticism around the industrial use of heat pumps persist, benefits far outweigh the obstacles. Common concerns – about complexity, cost, or site limitations – often reflect legacy thinking rooted in siloed systems.

- **Initial costs:** While the upfront costs for integrated technologies and renewable energy systems can be higher, these costs are offset by long-term savings. All-in-one (heating/cooling) thermal management systems often have paybacks of only 2-3 years due to greater energy efficiency and operational savings.
- **Complexity:** Designing a net zero facility does require careful planning and coordination among architects, engineers, and contractors, but the core infrastructure and technologies exist. The focus should be on converting to thermal systems plants and gaining market acceptance
- **Site Constraints:** Around 80% of current projects are retrofits, not new construction – proof that existing facilities can adopt this model.

Moving from separate to integrated systems doesn't mean reinventing the plant. It means rethinking how energy flows through it.

Looking ahead: From equipment to strategy

Redefining how heating and cooling systems are managed is vital for energy efficiency and sustainability. Thermal management is no longer just about choosing the right boiler or chiller. It's a strategic partnership for energy optimisation, decarbonisation, and operational resilience.

As manufacturers across Europe explore new ways to meet net-zero goals, the case for integrated thermal systems grows stronger. But the biggest step is mental: shifting from a model of disconnected systems to one where energy is seen as continuous, recoverable, and independent.

Reimagining heating and cooling as part of a single thermal system is not just a technological shift – it's a leadership one. By replacing siloed thinking with systems thinking, industrial operators can reduce energy waste, cut emissions and future proof their operations. The mindset is already underway. It's time to scale it. 🏠

Info

www.tranetechnologies.com/en

Source

1. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quarterly_greenhouse_gas_emissions_in_the_EU
2. <https://tinyurl.com/t8nd49p8>
3. <https://www.ehpa.org/technology/heat-pump-applications/industrial-applications/>



Showcasing confidence in clean energy

Bo Lindeman, Director of Harvard Renewables reinforces his commitment to low-carbon heating.



Bo Lindeman, Director of Harvard Renewables

Supporting growth

The UK's renewables sector continues to grow, but Bo and co-director Billy Taylor is clear that for Harvard, the focus is on trust and quality, and not volume.

"We're not trying to be the biggest," says Billy. "We want to be the most trusted. Every customer we work with speaks to us directly. We're there from the first conversation to aftercare. That personal touch is what sets us apart."

It's a refreshing approach in a market where some homeowners are being let down by inexperienced or unaccredited installers.

Billy adds: "That's why we put education and transparency at the heart of everything. We're here to help homeowners make informed decisions, not just push products."

Cost is one of the biggest concerns for homeowners considering heat pumps. Thanks to the Boiler Upgrade Scheme, thousands can now access £7,500 toward the cost of installation. The grant is available for MCS-approved systems installed in homes and small non-domestic properties in England and Wales.

Harvard Renewables not only helps homeowners navigate the process but also supports local jobs and training.

"We're committed to the future of the industry," Billy says. "That means apprenticeships, local subcontractor partnerships, and building skills in the region."

Bo concludes with a clear message for the future of Harvard Renewables and the global shift to cleaner energy: "This isn't just about heating. It's about doing what's right for your home and the planet. Installing a heat pump in my own house is just one way of showing our customers that we believe in what we do." 

For thousands of households across the UK, the move toward cleaner, more efficient central heating is no longer a future ambition. It's happening now.

At the heart of that shift are companies like Harvard Renewables, a family-run business helping homeowners across Greater London and the Southeast transition away from fossil fuel heating.

Committed to affordability, education, and trust, the team is guiding customers through the Boiler Upgrade Scheme while also leading by example.

Their latest installation took place at the home of co-director, Bo Lindeman, in Belvedere, Greater London.

"I've always believed in the technology, but I wanted to go one step further," says Bo. "By installing a heat pump at my house, I can show customers exactly how it works, how quiet it is, and how it integrates into everyday life. It's the ultimate demonstration of what we stand for."

Case study

Bo's 1930s semi-detached property had previously relied on an ageing gas boiler. With a goal to future-proof his home and reduce his family's environmental impact, the Harvard Renewables team designed a tailored system to meet the needs of the household.

"We take a whole-house approach," Bo explains. "There's no one-size-fits-all. We look at insulation levels, usage patterns, and budget before designing a system that fits the customer's life, and in this case, mine."

The installation featured the Baxi HP40-11-1, a monobloc air source heat pump. The unit was mounted on concrete blocks with gravel beneath to allow for drainage. Rubber feet were fitted to minimise any sound disturbance. At just 53dB(A) at one metre, the system runs quietly in the background.

The heat pump delivers strong performance across temperature ranges, with a SCOP of 4.67 at 35°C and a solid 3.34 at 55°C. It also includes an integrated 8-litre expansion vessel and circulating pump. All components are designed for easy access, making future servicing straightforward.

As a trusted Baxi partner, Harvard Renewables is proud to install systems backed by decades of British heating expertise.

"Baxi has been a fantastic partner," Bo says. "They bring that same engineering excellence from their boiler range into the world of renewables. We know that when we install a Baxi system, it will perform exactly as it should."



Info

www.harvardrenewables.co.uk

From waste to wealth: Energy sharing for more livable cities

Pier Mattia Barina, senior product manager for chillers and heat pumps at HiRef, shares views on how heat recovery commercial processes such as data centers can achieve both environmental and economic benefits.

To achieve carbon neutrality by 2050 we must significantly reduce CO₂ emissions, particularly in high-impact areas like heating and cooling, both domestically and commercially. Simultaneously, as electricity demand grows faster than renewable energy production, it's vital to reduce consumption through more efficient systems.

What is heat recovery anyway?

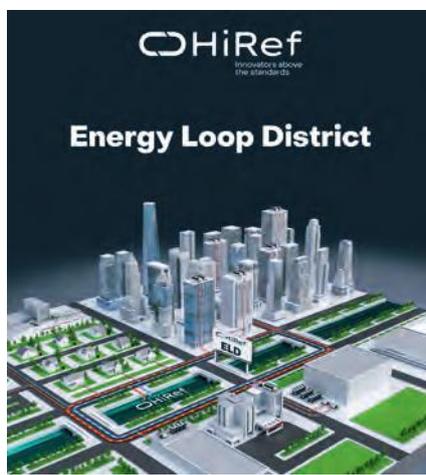
The potential of heat recovery to achieve the benefits of a symbiotic relationship, whereby a heat generator, like a data center operator can sell excess heat to nearby communities. Residents, particularly during winter, benefit from this waste heat, which offers a more affordable alternative to traditional heating methods like gas boilers or air-to-water heat pumps. Altogether, it exemplifies the principles of a circular economy.

Northern European countries, which depend heavily on district heating, are leading efforts to reduce emissions due to their colder winters. With new technologies, they are upgrading systems with modern heat pumps and refrigeration units that have the lowest possible global warming potential (GWP), minimising CO₂ emissions from electricity production and consumption.

HiRef, is exploring various applications for heat recovery, whether for district heating, utility providers, or industrial use, with heating needs ranging from 70 to 120°C. Moreover, HiRef R&D department is working on developing a new high-temperature heat pump prototype to reach up to 160°C hot water production, increasing the industrial sectors in which to use heat recovery technology.

Why should I care?

For many, exploring sustainable solutions in heating and cooling can seem daunting. While heat recovery technology exists, its potential is meaningless if people are unaware of it. It is important to raise public



awareness about heat recovery as a viable sustainable heating option: In northern European countries, where temperatures fluctuate more dramatically than in southern regions, during winter district heating systems may require up to 80-90 °C, while the ambient air drop as low as -25°C in the winter.

In this symbiotic relationship, communities benefit from lower heating costs as data centers generate residual heat year-round. There is even potential to store heat during the summer, providing increased heating and domestic hot water in the colder months. This recovered heat has broad applications, from heating offices and buildings to warming swimming pools and supporting farming operations.

Beyond the environmental and economic advantages, heat recovery can also play a role in reducing noise pollution. By replacing individual household heat pumps with centralised district heating, the collective noise from residential units is eliminated, offering a quieter urban environment. This presents a valuable opportunity for collaboration between data centre owners and municipalities, particularly in city centres where noise reduction is most impactful.

Energy communities as a concept

Building on the idea of heat recovery, the term “energy community” is becoming increasingly common in sustainability discussions. An energy community is a network of stakeholders – including a process heat producer, such as data centres, together with residents, commercial, institutional and industry owners, and others – who benefit from shared heating resources across various applications. This concept revolves around an “energy loop¹,” which facilitates a flexible exchange of energy between utilities using a shared reserve.

In this system, when one utility needs additional heat, it can draw from the network, while another utility focused on cooling can release its excess heat into the loop. This creates a shared energy pool that ensures efficient use and distribution. The future of energy will rely on this model of energy sharing.

By fostering such energy communities, we can maximise the benefits of heat recovery, making sustainable solutions more accessible and effective for local communities.

To optimise the use of electricity for producing high-temperature hot water in people's homes, there are an increasing number of heat pumps capable of producing temperatures to match an old-fashioned gas fired system. New hydrocarbon refrigerants like propane is one option, but there are other low GWP refrigerants available. If there are projects where the low flow and return temperatures prescribed by the new building regulations are causing issue, you simply have to ask your heat pump supplier about the solutions they can offer.

<https://hiref.com/products/heat-pumps/kvw> 

Source

1. <https://www.youtube.com/watch?v=fn5kCVU1RSA>



From gas to heat pumps, why now is the time to upskill

Mark Krull, Director of Logic4training, explains the incentives, opportunities and tools that are making the heat pump market more attractive than ever before.

For heating engineers, the growing heat pump market brings both opportunity and challenge. Support has never been stronger: the Heat Training Grant funds courses in installation, retrofit and low-carbon technologies, while schemes inspired by Nesta's Start at Home initiative let installers fit a heat pump in their own property for free with expert backing. Combined with manufacturer training and finance schemes, gas engineers now have a number of practical, low-risk routes into the sector – clear stepping-stones towards confident, competent work.

A market on the rise

With nearly 100,000 heat pumps sold in 2024, the heat pump market is growing at pace. Recent figures from the Boiler Upgrade Scheme (BUS) show that uptake is climbing steadily, with thousands of homeowners and landlords keen to explore low-carbon alternatives. BUS grants, offering up to £7,500 towards installations, have already made heat pumps financially viable for many households, and proposed changes will broaden eligibility to include air-to-air systems and heat batteries.



Mark Krull, Director of Logic4training

This growth represents a clear and unprecedented opportunity. Properties previously unsuitable for traditional air or ground-source heat pumps now have options, while finance schemes reduce upfront costs and make adoption more appealing to a wider demographic. The challenge is bridging the skills gap – knowing how to install and maintain these systems safely and efficiently.

Using your own home as a training ground

Closing the disconnect between training and real-world installation is often a sticking point for new entrants. One of the most practical ways engineers can gain hands-on experience is through their own properties. Nesta's Start at Home project, run in partnership with the Scottish and Northern Ireland Plumbing Employers' Federation (SNIPEF), enabled qualified installers to fit an air source heat pump in their own property – giving them valuable, low-risk, hands-on experience – and a free heat pump!

The research showed this approach boosted confidence and technical knowledge, particularly around system design, heat loss calculations and commissioning. Living with a heat pump day-to-day also gave participants opportunities to monitor performance, optimise efficiency, and gain insights into the user experience – knowledge they could share with future customers. For some, the home installation provided credible evidence towards MCS certification, while for all it strengthened their ability to

promote heat pumps with authenticity and assurance.

Marry this with formal training, and engineers can quickly build the confidence and competence needed to operate effectively in the retrofit heat pump market.

Logic4training qualified heat pump engineers can take advantage of versions of the 'Start at Home' initiative through either Grant Engineering's 'Start with Grant' or Alto Energy's 'Alto Assured Start at Home' schemes. Installers who take part in 'Start with Grant' will be eligible to join Grant UK's G1 Scheme. Alto Energy offers a choice of heat pumps from a range of manufacturers, recipients will become 'Alto Assured Partners', with access to Alto's MCS Umbrella scheme.

Government-back financial support

For engineers looking to complete courses in heat pump installation, insulation retrofits and low-carbon technologies, the Heat Training Grant provides £500 towards the cost of training. For those used to gas boilers, these qualifications provide a structured learning path that aligns with recognised standards and MCS compliance requirements.

Combine discounted training with a free heat pump and you've really got an unbeatable incentive to become a heat pump installer.

Manufacturer-led courses: learning from the experts

While formal qualifications give you the theoretical foundation, manufacturer-led training ensures you understand the practical specifics of the equipment you'll be working with. Manufacturer training is usually free (offered as part of the aforementioned 'Start at Home' inspired programmes).

This approach provides two benefits. First, you learn the nuances of installation and maintenance directly from the people who design the systems. Second, you gain a stamp of credibility with your customers – showing that you are trained and endorsed by the manufacturers themselves. In a market where trust and reliability are paramount, this can be a significant differentiator.

By aligning yourself with a particular manufacturer you may also be eligible to long warranties, technical support and MCS umbrella schemes.

"COMBINED WITH MANUFACTURER TRAINING AND FINANCE SCHEMES, GAS ENGINEERS NOW HAVE A NUMBER OF PRACTICAL, LOW-RISK ROUTES INTO THE SECTOR – CLEAR STEPPING-STONES TOWARDS CONFIDENT, COMPETENT WORK."

Digital tools make the transition easier

A growing suite of digital tools simplify design, compliance and commissioning. Smart apps allow engineers to model property heat loads, select appropriately sized units, and even demonstrate cost and efficiency savings to customers in real time.

Many systems now offer remote diagnostics and commissioning guidance, making it easier to install systems correctly first-time and reduce call-backs.

By incorporating these tools into your workflow, you not only save time but also position yourself as a tech-savvy installer who can offer seamless, end-to-end service. Installers familiar with traditional boiler systems might see this as a big change – but in practice, it's a matter of learning to integrate software into your existing processes, ultimately saving time and improving the accuracy of often complex tasks.

Finance models: helping customers take the plunge

Even with grants, the upfront cost of heat pumps can be a barrier for many households. This is where flexible finance schemes come into play. Options such as hire purchase, leasing, and on-bill repayments allow customers to spread costs over months or years, often offset by energy savings. For installers, understanding these models is vital: you'll need to explain the options, structure proposals, and liaise with BUS-approved finance partners.

In practical terms, it means more work opportunities, particularly with demographics who previously couldn't afford a full installation: flats, rented properties, and homes with limited equity. By becoming familiar with finance pathways, engineers can expand their customer base and increase uptake of low-carbon technologies.

Upskilling for emerging markets

The low-carbon sector isn't just for early adopters. New customer types are emerging:

- Private landlords face Minimum Energy Efficiency Standards (MEES) regulations that require higher EPC ratings. Retrofitting A2A heat pumps or heat batteries can be a cost-effective compliance solution.
- Social and affordable housing providers are rolling out large-scale retrofit programmes, creating opportunities for teams that can deploy multiple technologies efficiently.
- First-time buyers and young professionals often need smaller-scale solutions and low-entry finance options – a niche where compact air-to-air systems and heat batteries fit perfectly.

Tapping into these emerging markets requires more than technical ability; it requires understanding the broader energy ecosystem and how different technologies integrate. Training, manufacturer engagement, and digital tools all play a part in positioning your business to serve these new clients effectively.

Start now, don't wait

For engineers willing to invest in learning and embrace technology, the opportunities are vast. You can diversify your services, attract new customer groups, and contribute to the UK's net-zero ambitions – all while future-proofing your business.

The transition to heat pumps doesn't need to be daunting. With grants, training, and even free heat pumps, the tools and incentives are there to make the move in manageable steps. Start now, build confidence, and you'll be ready to meet growing customer demand with the skills that set you apart. 🏠

Info
www.logic4training.co.uk

WOMEN IN THE HEAT PUMP INDUSTRY

Melissa Goodman, National Accounts Manager at Carrier Solutions UK, shares her journey in the heat pump industry and her strong message to other women considering a career in the heat pump industry: Go for it! But come prepared, organisation is key, always be honest, and finally, be bold!

I started my career in travel and tourism, working at Heathrow Airport, which gave me a great foundation in people skills, working under pressure and adaptability. But when I met my husband, Jez, the long commute became too much. So, I opened the newspaper, started circling ads and saw a job opening at a climate equipment company.

I started off in internal sales, but I soon realised sitting behind a desk wasn't for me. When the external salesperson left, I jumped at the chance to get out on the road. Car, phone, client meetings... I loved it! It was a natural fit.

It wasn't long until a few clients recommended me for a role at a major manufacturer and before I knew it, I was building a career in HVAC. Joining Carrier was a fantastic opportunity. It's given me the chance to build strong and lasting relationships with my clients and be part of a business that's driving real innovation.

What does your current role involve?

I'm the National Accounts Manager at Carrier Solutions UK, working predominantly with end-user clients in the retail and commercial space. That means I'm often the first point of contact for major brands when they're looking to install or upgrade their HVAC systems, whether that's across stores, offices, gyms or distribution centres.

It's very much a business development role. I attend industry events where I meet prospective clients and follow up with them after initial meetings. From there, I support them through the tender process, introduce them to our technical



Melissa Goodman, National Accounts Manager at Carrier Solutions UK

teams and help shape solutions that meet their requirements.

Once a customer is on board, I coordinate with contractors and our wider teams to ensure projects run smoothly. There's a lot of relationship-building, a lot of problem-solving and no two days are the same. One day I might be putting together a presentation for a prospective client, the next I'm visiting a site or liaising with the supply chain.

What do you see as the challenges facing the industry?

The biggest shift in HVAC right now is the move towards lower-GWP refrigerants and the wider push for electrification.

Whether you're looking at heat pumps, air conditioning, or hybrid systems, the goal is the same: greater efficiency and reduced environmental impact.

We're also seeing rising demand for air-to-water heat pump systems, especially in the residential and light commercial sectors. We're well-positioned to respond to that at Carrier, thanks to our expanded portfolio, which includes Toshiba and now Viessmann, which we've recently brought into the group. It's really strengthened our capabilities and positioned us well for the future.

But alongside all of that, one of the biggest ongoing challenges is simply staying ahead. Ahead of legislation, of customer expectations and of technological change. That's what makes it exciting, but it also means you've got to be on your toes!

Did you have any mentors or anyone in particular who inspired you?

From my early days, my synchronised swimming coach, Kerry Shacklock, was a big influence. She was so graceful, disciplined and committed. Watching her train and perform made me want to be better. She showed me what focus and consistency could achieve.

I've had managers along the way who've really supported me, saw potential in me and gave me the space to grow. Jamie Brown, our Senior Business Development Manager and Dave McSherry, our UK Sales Director, have allowed me to be myself. They trust me to get the job done, which helps me feel confident in my role. That support means a lot.



Melissa and her family

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

Go for it! But come ready. This industry needs more women and there's so much opportunity, but it does demand a certain type of energy. You've got to be switched on, responsive and not afraid to get stuck in.

Organisation is key. I can't stand seeing customers left waiting. If I'm copied on an email and someone hasn't replied, I'll step in, because that's the level of service I'd expect for myself. Customers notice that kind of thing.

Also, I'd say always be honest. If you don't know the answer to something, say so, and let them know you'll come back with the information. People respect transparency.

And finally, be bold! Don't shy away from walking into a room full of strangers or speaking up. This industry rewards those who show up, speak clearly and make things happen. You've got to be assertive, really, and bring your own personality to the role!

What do you like to do outside of work?

I was a synchronised swimmer for years, from the age of nine right through to my early twenties. I competed nationally and internationally and even appeared in a few magazine shoots and promotional films. It taught me so much about discipline, teamwork and how to perform under pressure.

Fitness still plays a big role in my life. I've done half-marathons and 10Ks and I go to the gym regularly. I'm also a big Formula One fan and go to Silverstone every year!

BMXing has become a big part of my life since I met my husband. He's been into it for years and now the kids, Nyah, who's 17, and Harrison, 15, are too. We take the bikes on holidays and to events and we take part in a charity ride through London just before Christmas every year to raise money for Evelina Children's Hospital. It's a great cause and such a fun day with everyone dressed up, riding around the city, singing carols.

We've recently landscaped the garden and we're getting ready for a big joint birthday for my 50th and my daughter's 18th. We love to entertain, barbecues, parties, the lot. I'm definitely someone who likes to make the most of life, both at work and at home!

Melissa at the 4 Cities synchronised swimming competition



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.liddington@warnersgroup.co.uk

Aspen offers the complete new 5th Gen Silent+ range

Aspen Pumps, a global market leader in condensate removal pumps, is proud to announce the launch of the next generation of its popular Silent+ Mini Orange and Silent+ Mini Aqua pumps. Quietly brilliant, these new additions complete Aspen's 5th generation of its mini condensate removal pump range, joining the Silent+ Mini White and Silent+ Mini Lime pumps. Now offering a full sweep of 'Quietly Brilliant' mini pumps, Aspen gives installers and end-users the quietest, smartest, easiest to install, most reliable, and versatile mini pumps on the market. Ticking all the right boxes, Aspen has a Silent+ mini pump to suit every domestic and commercial mini-split application.

Up to 90% quieter than its competitors, the 5th Gen Silent+ range operates at just 16dB(A), making it quieter than the quietest AC mini-split units, which run at 18dB(A). Designed for installers to fit with total peace of mind, the 5th Gen pumps are quietly brilliant, operating silently and efficiently behind the scenes.

The new Silent+ range, boasts the smartest mini pumps on the market too, all thanks to its proven intelligent 5th Gen pump technology. Featuring built-in AI technology that adapts to flow rates, the pumps only work as hard as they need to and even switch off before they run dry. Unlike pumps that rely on float switches, optical sensors or pressure sensors, Aspen's 5th Gen pumps' intelligent technology anticipates and adapts, delivering improved performance and low energy consumption (using 10 times less energy than their predecessors), as well as maximising reliability and extending pump life.



Offering rock-solid reliability, the range boasts the world's most reliable mini pumps. Aspen is also offering a 3-year warranty as standard. With zero maintenance required, each pump features a transparent reservoirs that include integrated copper mesh and outlet filter combined with a high-capacity internal bore, which is 50% larger than competitors', allowing the pumps to handle even more contaminated water with ease.

The Silent+ 5th Gen range is available in four distinct models to suit all installation applications. With the Silent+ Mini Orange and Silent+ Mini Aqua suitable for up to 35l/hr; the Silent+ Mini Lime suits up to 40l/hr, and the Silent+ Mini White 45l/h, this covers up to 46kW (157,000 Btu/h). Aspen has covered all domestic and light commercial air conditioning applications where sound levels and reliability are important.

www.aspenpumps.com

Warmflow launches Heat Pump Assist+ to Support non-MCS installers

Warmflow, a leading UK-based heating solutions manufacturer, has introduced its Heat Pump Assist+ programme, designed to support non-MCS (Microgeneration Certification Scheme) accredited installers in entering the growing heat pump market. This initiative is facilitated through an MCS umbrella scheme operated by Warmflow's accredited partner, Microgeneration Support Services (MSS).

Bridging the Accreditation Gap

The Heat Pump Assist+ programme enables installers without MCS certification to carry out MCS-compliant installations under MSS's accreditation. This arrangement allows homeowners to access government incentives, such as the Boiler Upgrade Scheme (BUS), which offers grants of up to £7,500 in England and Wales, and up to £9,000 through Scotland's Home Energy Scotland scheme. By partnering with MSS, installers can expand their services without the immediate need for individual MCS accreditation.

Comprehensive Support for Installers

MSS provides a full suite of services to ensure installations meet MCS standards, including system design, compliance documentation, and commissioning. This support allows installers to focus on the physical installation, while MSS handles the administrative aspects.

Enhancing Installer Capabilities

In addition to the Heat Pump Assist+ programme, Warmflow offers free air source heat pump training to empower installers with the necessary knowledge and skills. This training complements the support provided by



MSS, ensuring that installers are well-equipped to deliver high-quality, MCS-compliant installations.

For more information contact Warmflow on

01952 607750

salesgb@warmflow.co.uk

www.warmflow.co.uk



About Blygold

Blygold is an innovative and forward-thinking company offering unique and sustainable high-quality protection against corrosion. With over 40 years of experience, we have the know-how and state-of-the-art products and techniques to solve any corrosion problem.

What Are Heat Pumps?

Heat pumps are systems that move heat from one place to another by using a compressor and circulating a structure of liquid or gas refrigerant. Through this, the heat is extracted from outside sources and then pumped indoors. Pumping the heat tends to use a lot less electrical energy than typical methods of turning electricity into heat. Plus, during the summer months, the cycle can be reversed and the unit will act as an air conditioner instead, making it multi-functional.

The use of this particular energy source has been a lot slower in the UK than the rest of Europe. This is due to the fact that the government only recently introduced new schemes to make switching to green energy both easier and a lot more affordable. These moves have helped to increase the popularity of all renewable energy technology among the British public, and so it is starting to take off.

Heat pumps are actually the most efficient alternative to fuel, oil, and electrical systems when it comes to the process of heating and cooling. They supply a larger capacity of heating and cooling than the amount of electrical energy that is used to run it. In fact, the efficiency rate is able to go up to as high as 300%.

Advantages of Heat Pumps

- Heat pumps are much safer than systems that are based on combustion.
- They are cheaper to run than oil and gas boilers.
- The system reduces your carbon emissions & it has an efficient conversation rate of energy to heat.

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- Protecting the casing as well as the coil blocks.
- Extending the life of the equipment.
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