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4th DECEMBER 2025

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P09



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Women in the heat pumps industry: Sarah Prutton

P28



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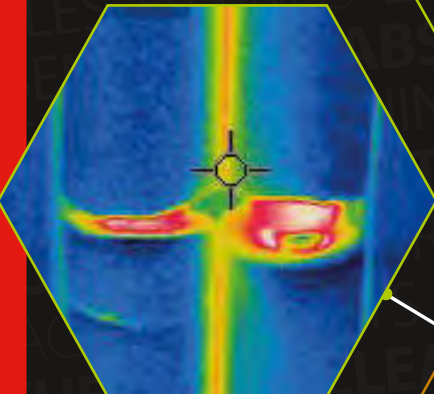
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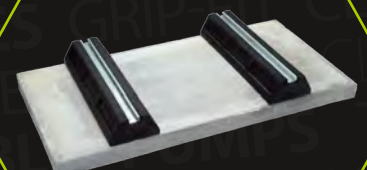


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**PUMP
HOUSE**

Welcome to the November issue of Heat Pumps Today

It's been an extremely busy time of year, with a steady stream of press events and launches – a selection of which are covered within this issue. It doesn't look like this trend will start to subside. This has got to be positive news for the sector; a plethora of new and innovative products are being released into the market. Recruitment is high and upskilling is still a main focus for most businesses' agendas.

With the influx of investment into new technology and products, the timing of the 'open for entries' update for the National ACR & Heat Pump Awards couldn't be better.

Visit www.acrjournal.uk/national-acr-heat-pump-awards for the full list of categories.

Juliet

Juliet Loisele Finstr, Editor/Publisher

CONTENTS

INDUSTRY NEWS

- 04** Keep up to date with the latest heat pump news.

CHANGING FACES

- 08** New appointments are announced by Lochinvar and Navien UK

MODERN HVAC SYSTEMS

- 08** A brand-new whitepaper from Daikin, sheds light on how HVAC systems can help boost return on investment in the hotel industry.

ASSOCIATION MERGER

- 09** A look at the merger of the Heat Pump Association (HPA), Ground Source Heat Pump Association (GSHPA), and Heat Pump Federation (HPF) into a single, unified Heat Pump Trade Body the Heat Pump Association UK (HPA UK).

RENEWABLES

- 10** We explore how Navien UK is diversifying its product offering to help accelerate the development of renewables within the industry.

HEAT PUMP AFFORDABILITY

- 12** Graham McCracken, discusses how Government incentives, cheaper electricity, and better installer training are all essential to making heat pumps more affordable.

OUT AND ABOUT

- 14** A look at the BESA Annual Conference and Awards, held at The Brewery London on the 16th October.

- 15** We hear about the amazing visit to the fully upgraded and expanded Panasonic factory in Pilsen, Czech Republic.

- 18** A visit to Weatherite headquarters in West Bromwich for a factory tour and product launch.

INDUSTRY OPINION

- 21** A call to UK policy makers to smooth the road to net zero, while improving living conditions for some of the UK's most vulnerable residents.

CASE STUDY

- 22** Vital Energi have moved on to a second phase of works on seven of the City of London Corporation's iconic buildings to further accelerate their journey to net zero.

- 23** We take a look at the Compass Project that has transformed the former Aberdeen Waldorf School campus into a pioneering centre for healthy, sustainable lifestyles.

RENEWABLE ENERGY SMART HOME

- 24** James Galloway, explains why installers are perfectly positioned to lead the move to smarter home energy use – and why open standards and forward-thinking training will be key to their success.

WOMEN IN HEAT PUMPS

- 29** Sarah Prutton, shares how her passion and curiosity have shaped her career and her determination to train and support the next generation of skilled heat pump installers and engineers.



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Samsung Climate Solutions officially opens newest training facility for installers in Chertsey



Jaimeet Alang, Technical Trainer at Samsung Climate Solutions, delivering a technical installer training session at the Chertsey Training Centre

Samsung Climate Solutions has opened its newest training facility in Chertsey, Surrey. Over the next year, Samsung is aiming to train around 1,000 installers at its 3,000 square foot centre to expand its training provisions following increased demand. This centre will cater to installers in the south of the country, complementing Samsung's Manchester Training Centre which opened in 2024.

The courses available at the centre will provide heat pump and air conditioning installers with hands-on training in installation,

commissioning and maintenance. The training is designed to give all installers and engineers the confidence to fit and service all equipment in line with manufacturers' guidance. The centre is also a regional hub to connect installers in the area, and to meet Samsung's team from sales representatives to technical after-sales support.

Samsung's Chertsey Training Centre has been designed to provide engineers and installers with a comfortable and inviting environment to learn and develop their skills. The facilities include dedicated spaces to showcase Samsung's latest products – including its WindFree™ air conditioning units, R290 Monobloc series of air to water heat pumps and new FN AI Home Controller – as well as its latest smart control solution including SmartThings and SmartThings Pro.

Face-to-face training sessions at the Chertsey Training Centre are now available to book through Samsung's own training platform, the Samsung Business Academy. Samsung will also be offering bespoke training programmes, tailored to meet the wide variety of requirements, needs and skills required for today's evolving HVAC technology and market. Training courses are open to apprentices and trainees as part of Samsung's commitment to upskilling the next generation of installers.

<https://samsung-climatesolutions.com/gb/b2b/professionals/training.html>

From hot dogs to heat pumps: How coaching helped Monster smash £1M and solve seasonality

Monster, the rebranded heating and cooling business formerly known as Gas Monster, has broken the £1 million revenue barrier for the first time, a milestone that began with hot dogs, a recession, and a personal mission to fix what others couldn't.

Founded by **Wayne Bell** in 2011, Monster started as a one-man boiler installation service. But Wayne's entrepreneurial journey began in a very different place: running a food franchise. When the 2008 recession hit and retail declined, Wayne began to reflect on his future direction. A poor boiler installation experience sparked an idea, to offer a service that prioritised the customer and always delivered on the job.

He retrained, bought a cheap van, and launched Gas Monster, named after a friend's suggestion and an ode to an old nickname. The business grew quickly, but like many individuals starting up, Wayne struggled with the operational side. That



(L to R) Wayne Bell, Monster and Martin Oakley, Owner of TAB Cambridge

was until a friend introduced him to The Alternative Board (TAB), and owner of TAB Cambridge, **Martin Oakley**.

TAB's peer board and one-to-one coaching helped Wayne shift from technician to confident business leader. One of the biggest breakthroughs came when Wayne tackled the seasonality of his heating business. With demand peaking in winter and plummeting in summer, TAB

helped Wayne revise his business strategy to incorporate air source heat pumps and air conditioning.

The rebrand to Monster in March 2025, helped the business become a trusted regional name in both heating and air conditioning.

With warmer weather arriving earlier each year, Monster is seeing a shift in customer habits. Many homeowners installing heating systems for winter are now planning ahead, ordering air conditioning units in anticipation of early summer heatwaves. It's a trend that reflects Monster's year-round approach, meeting seasonal needs before they peak, and helping customers stay comfortable whatever the forecast.

To read the story in full visit:

www.acrjournal.uk/heat-pumps/from-hot-dogs-to-heat-pumps-how-monster-solved-seasonality

Plumbing and heating training provider announces rebrand

Smart Gas has announced it has been renamed Smart Energy in recognition of the changing face of the industry and the move towards more sustainable energy sources.

The training provider also revealed the introduction of a Level 3 Low Carbon Heat Pump Engineer Apprenticeship, aimed at teaching new recruits the skills needed for the future or offering people already in the industry the chance to upskill.

Meanwhile, learners can also access the Level 4 Greener Futures Project Management Apprenticeship via Smart Energy's parent company, Realise Training Group and its Business Skills



Smart Energy
Part of Realise Training Group

unit. The qualification can be utilised by energy leaders charged with reducing environmental impact in their organisation.

Smart Energy's rebrand and new apprenticeship offerings were unveiled at the Energy & Utility Skills Conference at Hilton Birmingham Metropole.

To read the story in full visit:

www.acrjournal.uk/heat-pumps/plumbing-and-heating-training-provider-announces-rebrand

A hole-in-one for district heating at a championship venue

The Renaissance Club is a place etched in the sport's history. It's where the Scottish Open has been held since 2019. For those fortunate enough to live on its grounds, the Club offers a rare blend of luxury, exclusivity, and natural splendour.

Thanks to a carefully engineered heating solution delivered by REHAU and Culbertson Renewables, 16 new luxury residences on the estate can enjoy sustainable heating, without compromising the pristine landscape that makes this course so special.

The project involved expansive private homes positioned either side of the golf course. This rural location presented challenges of its own, combined with the need to preserve the Renaissance Club's visual appeal.

REHAU was brought in by the project's consulting engineer in July to specify products and consult on how barriers such as no

access to mains gas could be overcome. The Scottish Open in July added further pressure to the project, as it was imperative all works be completed ahead of the event.

The solution was a district heating network powered by a large central heat pump located 60-to-70 metres from the nearest dwelling. This system needed to deliver reliable performance and would be connected to the homes via a robust and efficient pipework network.

As part of this, REHAU recommended RAUPIPEX pre-insulated district heating pipe and CLIP-FLEX shroud system – products known for their durability, thermal efficiency, and ease of installation.

To read the story in full visit: **<https://bs.rehau.com/uk-en/renaissance-heat-network>**



New Refrigeration & Air Conditioning Engineers Society (RACES) is launched

A new society which has been created by engineers, for engineers has recently been launched.

RACES is the new voice for professionals working in the Refrigeration, Air Conditioning and Heat Pump sector – created for the people who do the work: installers, service engineers, design & sales engineers, educators, students, and more.

A not-for-profit organisation, RACES was created by **Michael Smart** and **Graeme Fox** after many months of planning, and in collaboration with an advisory board drawn from a cross section of the industry covering some of the leading lights of the RACHP sector.

Michael explained, “I was frustrated by the lack of representation that ordinary refrigeration engineers had in the industry from the existing bodies. Many engineers, like myself, have never considered joining an industry body, such as the IOR, for example, because it wasn’t interested in what those of us in the front line were doing. Most of the technical guidance was either out of date or not relevant. Ordinary engineers felt they needed a different approach to representation and I reached out to Graeme to help me turn this dream into a reality.”

The main driving role for the new society will be to support small businesses in their refresher and upskilling training courses needed over the next few years to prepare for the wider transition to alternative refrigerants.

Graeme explained, “The industry these days has a huge majority of small and micro businesses operating as contractors – over 90% of contractors have less than 5 engineers per company – that’s a massive change in the demographic from where we were 30 years ago when I learned my trade. The requirement to send your engineers away for even one- or two-day courses presents a comparatively huge financial and operational strain on small businesses as against the traditional larger contractors, and we have set out



R.A.C.E.S.
REFRIGERATION & AIR CONDITIONING
ENGINEERS SOCIETY

to provide access to free or reduced cost access to the kind of training courses these engineers will be needing in the coming years.”

RACES brought together an advisory board representing wholesale outlets (both national and privately owned), large refrigeration consultancies and respected contractors to ensure it was set up to best address the concerns that Michael first identified.

Howard Noble, Innovation & Marketing Director at founding sponsor BeijerRef said, “The Beijer Ref Academy is pleased to support the development of RACES. The founding principles of the society are aligned with our own passion to support engineers through training. This new society has identified the industry’s need to improve support services available to engineers and we believe RACES will help fulfil this.”

RACES has already secured sponsorship from some of the industry’s biggest names and are now organising training courses for their members to take advantage of. The plan is to hold training courses across the UK giving better geographical spread to their availability, and to support any regional groups or branches that currently exist in the sector as well as support any regional groups wanting to start up.

“We’re creating a real community for the sector here,” Michael added, “and we welcome all in our industry to join us and help us deliver what our sector has long needed.”

Joining fees for membership start at £65 and with an up-to-date technical library already in place, and developing every week, RACES is expected to quickly become the main representative body for engineers in the RACHP industry.

www.races.org.uk

Heat pump ‘giveaway’ aims to boost engineers' skills and expertise

Nesta, the UK’s research and innovation foundation, is calling on heating engineers across Britain to use its Start at Home initiative to fit a government-funded heat pump in their homes. The aim is to give them the confidence and know-how to install heat pumps for customers and ensure they are ready for Britain’s changing heating needs.

Heating engineers who are interested in a funded heat pump can find and register for a Start at Home scheme that works for them at: startathome.org.uk.

The programme is being rolled out in partnership with a wide range of providers across England, Scotland and Wales.

Heat pumps are more efficient than gas boilers, producing three to four times more heat from the same amount of energy input. This means that in addition to being greener, for households on the right energy tariff that install a heat pump, they can lower energy bills. Heat pumps also tend to require less maintenance and last much longer, keeping homes warm for years. Some 360,000 homes in Britain are already heated by them.

As part of Government targets to cut greenhouse gases by 2050, the Climate Change Committee projects that Britain needs to install roughly 450,000 heat pumps in existing homes per year by 2030. To do this, we’ll need roughly 38,000 more installers trained and confident to install heat pumps before 2030. A previous survey by the Department for Energy Security and Net Zero revealed that only 27% of newly trained heating installers completed a heat pump installation within a year of training, due partly to a lack of confidence in the technology and the installation process.

Nesta is on a mission to address this. Heating engineers across England, Scotland and Wales are being urged to upgrade their home heating with the latest technology and expert support, to learn the ropes before fitting heat pumps for customers, all while cutting costs and paperwork.

To read the story in full visit:
www.acrjournal.uk/heat-pumps/heat-pump-giveaway-aims-to-boost-engineers-skills-and-expertise

New CIBSE guide: Understanding embodied carbon in office HVAC systems

Understand and reduce the embodied carbon of HVAC systems in office buildings.

The CIBSE TM65.4 guide provides vital insights into the life cycle embodied carbon impact of heating, ventilation, and cooling (HVAC) systems typically used in UK office buildings.

Developed by Introba and sponsored by CIBSE and Introba, this research helps engineers, designers, and sustainability professionals to make informed decisions that support net zero design goals.

This publication analyses embodied carbon at both product and system levels, drawing on data shared by manufacturers

and calculated using the CIBSE TM65 methodology. It compares HVAC systems across two timeframes, a typical building service life (60 years) and a tenancy period (12 years), to show how design strategies influence carbon outcomes over time.

What will you learn from this guidance?

- Gain a clearer understanding of how different HVAC choices affect embodied carbon.
- Utilise results from the early design stage to inform the selection of low-carbon systems.

- Build on a consistent framework that aligns with the wider CIBSE TM65 series.
- Support net zero office design through evidence-based decisions.

The publication is a first step towards understanding the embodied carbon implications of different HVAC design strategies in an office environment. If no EPDs are available, the results of this study can be used at the early design stage, but they should not replace project-specific calculations once a design has become more detailed.

To download the guide visit:
<https://tinyurl.com/y2bb65ay>



HotGreen Solutions secures £1.2M Pre Seed to reduce energy bills for the Food and Beverage industry with ultra-efficient heat pumps

A UK clean-technology startup is developing ultra-efficient high-temperature heat pumps to electrify industrial process heat. The Pre Seed round led by Empirical Ventures includes strategic participation from Coca-Cola Europacific Partners (CCEP), First Imagine! Ventures, The Conduit Impact Fund, and Almanac Ventures.

Industrial process heat accounts for more than 20% of global CO₂ emissions, yet has been historically overlooked by innovation. With industry facing significantly higher energy bills in recent years, there is an urgent need for solutions that cut operational costs while meeting climate commitments. The company's heat pump technology provides a commercially viable pathway for industries to reduce both energy consumption and costs. Crucially, these heat pumps integrate seamlessly with existing infrastructure at legacy industrial facilities, and are more efficient than traditional boilers, enabling immediate impact without requiring costly facility overhauls.

Each installation takes 3-5 days and could help a typical industrial facility, such as a Brewer, Distiller or Dairy processing plant, save €0.5M annually on energy bills, while also avoiding 3,000 tonnes of CO₂ emissions¹ each year. With energy savings of this scale, facilities typically achieve payback in under two years, making this a financially compelling investment that delivers both immediate cost savings and long-term environmental impact.

"This funding milestone is a significant step toward our mission to help industrial plants save cost while cutting carbon. My co-founder and I built HotGreen Solutions out of frustration for the lack of affordable solutions industry had to decarbonise profitably. We saw a clear unmet need for a low-carbon, commercially-viable solution that industry could adopt at scale. Despite rising energy bills and its substantial carbon footprint, industrial heat has seen little innovation. It's the elephant in the climate-tech room, but also a major market opportunity. Our isothermal compressor technology delivers a heat pump solution with clear cost and operational benefits for sectors struggling with energy costs and emissions" said **Georgia Ware**, CEO and co-founder of HotGreen Solutions.

"We see real impact potential in HotGreen Solutions' approach to decarbonisation – which aligns with our own sustainability ambitions. We're excited to trial their technology in our operations and see how their innovation can help accelerate us towards our 2040 net zero targets", said **Sashidar Rajendra**, associate director, Coca-Cola Europacific Partners Ventures.

www.hotgreensolutions.com

Source

1. Numbers provided are estimates based on projected product performance and operational data from a typical facility with 2MW thermal requirements.

Lochinvar: Introducing Andy Sims, Heat Pump Specialist – North

Lochinvar have announced the appointment of **Andy Sims** as their new Northern Heat Pump Specialist. Andy joins the team with a wealth of experience in the HVAC sector, having joined the industry almost 20 years ago.

In his new role, he will focus on liaising with consultants to provide expert selection and design support for Lochinvar's range of heat pump and renewable products. He will work closely with our Area Sales Managers to support heat pump projects and ensure specifications across the North are delivered with the most effective solutions to meet client needs.

As part of this technical sales position, Andy will also collaborate with key industry stakeholders — including major contractors and clients — to build strong relationships and deliver in-depth technical assistance throughout the development of project plans and proposals.

To read the story in full visit:

www.acrjournal.uk/heat-pumps/lochinvar-introducing-andy-sims-heat-pump-specialist-north



Andy Sims, Northern Heat Pump Specialist at Lochinvar

Navien UK appoints Greg Banham as new Commercial Director

Navien UK has announced the appointment of **Greg Banham** as its new Commercial Director, succeeding **Graham Parkes**, who will retire after a successful tenure steering the company's commercial growth across the UK heating market.

Greg brings more than 25 years of experience within the heating and plumbing industry, having held senior commercial and leadership roles across a range of well-respected businesses. With a deep understanding of installer needs, merchant



(L-R) Greg Banham and Graham Parkes

relationships and the evolving route-to-market landscape, he joins Navien with a strong track record of driving sustainable growth and building trusted partnerships.

To read the story in full visit:

www.acrjournal.uk/heat-pumps/navien-uk-appoints-greg-banham-as-new-commercial-director/

Daikin publishes whitepaper to boost ROI for the hotel sector

Daikin, has launched "Enhancing Return on Investment Through HVAC System Upgrades", a brand-new whitepaper that intends to shed light on how HVAC systems can be the answer to boosting return on investment for the hotel industry.

HVAC systems are essential to hotel operations, ensuring guest comfort is maintained across various areas. However, evolving legislative changes and continuous technological advancements mean holding onto outdated HVAC systems is in fact costing hotels more per year than they realise.

The whitepaper features real-world examples and expert insights, all intended to highlight how modern HVAC technology can help hotels reduce running costs, meet tightening environmental regulations, and future-proof their buildings.

Technological advancements are pushing older system parts out of circulation as newer systems rise in favour, generating higher maintenance costs and degradation



of systems. As a result, guest comfort is compromised, energy bills become higher and rooms are out of service for longer periods of time, leading to decreased revenue.

Meanwhile, legislative changes are requiring a move to more efficient systems with lower energy usage, meaning older systems are quickly falling out of compliance with regulations. All of these issues point

towards the need to replace these ageing systems with the latest, highly efficient systems.

Harry Whitehead, Corporate Clients Division Manager at Daikin, commented: "The release of this whitepaper is crucial as it exposes the misconceptions around the impact HVAC systems have on profit in the hotel sector. Ageing HVAC systems tend to be overlooked, but they can burden the profitability of hotels. By discussing the consequences of ageing systems on return on investment and guest experience, whilst also highlighting the modern systems Daikin offer that solve these concerns.

To download the whitepaper visit: **<https://tinyurl.com/bdfvxcnf>**

Heat pump sector to unite in new unified trade body, HPA UK

Marking a pivotal move for the UK's low carbon heating industry, members of the Heat Pump Association (HPA), Ground Source Heat Pump Association (GSHPA), and Heat Pump Federation (HPF) have officially committed to merge into a single, unified Heat Pump Trade Body; Heat Pump Association UK (HPA UK). Launching in January 2026, this organisation will bring the sector together to provide one powerful voice.

With heating accounting for approximately 25% of the UK's carbon emissions in 2023, accelerating the transition to low carbon heating across the domestic, commercial and industrial sectors is vital to reducing carbon emissions but also to deliver cleaner, cheaper and more secure energy to British homes and businesses.

The merger marks the growth and maturity of the sector, as it readies to play its role in accelerating the deployment of heat pumps and low-carbon heat networks to enhance the UK's energy security by reducing our dependence on volatile overseas gas markets.

By streamlining governance and combining decades of expertise, the new body will provide:

- Strong, consistent representation to government and stakeholders
- Clear messaging and greater visibility for heat pumps
- Streamlined governance and enhanced services for members
- A single point of contact for industry collaboration and engagement

To celebrate this unification, the HPA, which will rebrand as HPA UK in January 2026, is offering **free membership for the remainder of 2025** to all new members who commit to a membership for the 2026 calendar year. This offer is designed to welcome new voices to the united body ahead of the launch, and showcase the value of the Association.

Commenting on the announcement, **Emma Bohan**, Vice Chair of the Ground

Source Heat Pump Association said: "Having received an overwhelming mandate from our members, I am delighted that the GSHPA will be uniting with the HPA and the HPF into one powerful voice for the heat pump sector.

For ground source, it means stronger advocacy, clearer messaging, and a seat at every table where low-carbon heating decisions are made."

Introducing:

HPA UK

A unified trade body for the heat pump sector launching **January 2026**



Mark Wilkins, Chair of the Heat Pump Association said: "We are delighted to have received a unanimous mandate from our members to deliver a strong, unified Heat Pump Trade Body for the sector. We are in a pivotal time for the UK heat pump market which has shown strong growth over recent years, and it's time to stand together to collectively navigate the future of heating in the UK."

Bean Beanland, Director for Growth & External Affairs said: "The merger of the heat pump trade bodies demonstrates the ambition that the sector has to support Ministers and policy makers in pursuit of an increasingly bold approach to the electrification of heat across the domestic residential, commercial building and industrial markets. Decarbonisation, economic growth and national energy security are interwoven, with heat pump technologies core to all three, and to the country's long-term prosperity."

To sign up for your free membership for the rest of 2025, visit: www.heatpumps.org.uk/membership/application-for-hpa-uk-membership-form-2/

View our FAQ documents on the new organisation by visiting: www.heatpumps.org.uk/wp-content/uploads/2025/10/HPA-UK-FAQs-October-2025-FINAL.pdf



Navien's journey into renewables

With heightening demand for manufacturers to support net-zero ambitions, **Greg Banham**, Commercial Director for Navien UK, explores how they are diversifying their product offering to help accelerate the development of renewables in the industry.

The UK's heating sector is undergoing its most significant transformation in decades. With renewables and heat pump technology now central to net-zero targets, the government aims to increase heat pump installations significantly as well as expand renewable energy capacity, both are key pathways to reducing emissions and dependence on fossil fuels. From its foundations in boilers, Navien has consistently invested in advanced heating solutions, from its NCB ON range of boilers and now to the launch of the PEM750 heat pump in the UK – the decision has been made to expand into the renewables space with a new strategy and advanced technologies, following its recognition of market demand and policy direction.

The PEM750 heat pump marks Navien's entry into renewables, addressing installer concerns over installation ease, reliability, and support, while meeting homeowner demands for efficiency, comfort, and savings. Combining design and performance, it reinforces Navien's decade-long UK commitment to innovation and sustainability. The Monoblock design simplifies setup, and the Navien Heat Pump app enables remote control and diagnostics. Using eco-friendly R290 refrigerant with a GWP of just three, the PEM750 achieves up to 75°C for hot water with superior efficiency, showcasing Navien's dedication to future-proofed, energy-efficient, and environmentally responsible heating solutions.



Greg Banham, Commercial Director for Navien UK

Breaking down barriers

Driven by rising energy costs, evolving regulations and a growing number of government-backed incentives; installers and homeowners are feeling the pressure to switch to greener heating solutions. Fortunately, new regulations which came into effect on the 20 May, have made the installation of heat pumps simpler and more flexible than ever before, meaning there has never been a better time for installers and homeowners to take the plunge into a more renewable heating system.

Part of the governments Warm Home Plan, the new regulations remove restrictions such as the 'one-meter rule' and allow for larger units, making installations

more accessible – particularly in urban areas. Supporting the government's 2028 target for 600,000 annual installations, they have also abolished planning restrictions and increased funding for the Boiler Upgrade Scheme to £295 million committed for 2025/26. This provides a £7,500 grant for eligible homeowners and landlords to help offset the cost of installing a heat pump.

These changes remove significant barriers to installation, and by doing so, these measures should boost the transition to low carbon heating and help the UK to meet its ambitious net-zero targets by 2050. By simplifying the installation process, removing regulatory barriers and providing monetary support, this may be the push that the industry needed to accelerate the deployment of heat pumps across the UK.

A transition for Installer's

While the advancement of heating technologies continues to support the transition to renewable energy, many traditional oil and gas installers are left uncertain about what this shift means for their future. From navigating unfamiliar system designs to adapting installation methods and keeping up with evolving regulations, the transition can seem complex and daunting.

Nonetheless, change is clearly underway. In 2025, the UK was one of only three European markets to see growth in heat pump sales, with a notable 56% increase

recorded last year. This signals strong momentum toward an established heat pump market. However, the sector faces a significant workforce challenge. The Heat Pump Association estimates that nearly 40,000 full-time installers will be needed to meet the UK's deployment targets – yet, as of 2024, only around 9,000 installers had completed the necessary heat pump training qualifications.

To support installers with navigating the transition to renewable heating solutions, Navien has partnered with Ultimate Renewables Supplies, to offer practical training and access to essential resources. The programme focuses on understanding the system design and the installation of the new PEM750 heat pump, with installation kits provided on completion of the training. Ultimate Renewables will also assist installers through their MCS Umbrella scheme and offer ongoing service for the systems they help design – ensuring long-term support.

In addition to the new training scheme, the manufacturer will also be working with air source heat pump specialists from across the UK to ensure that installations of the heat pump are carried out to a high quality from day one of its launch.

The right balance

As a business, it is recognised that the success of renewables lies in the balance between advancing technology and in equipping installers with the tools and knowledge that they need to help accelerate the shift.

The manufacturer is also exploring the possibility of hybrid systems. A lower carbon alternative for home heating, this typically consists of a gas or oil boiler and an air to water heat pump. The heat pump is expected to generate heat for 70-80% of the time and, during colder months, the boiler acts as a top-up, giving all year-round comfort. This would be the ideal solution for properties where a standalone heat pump may be unsuitable. 



Info

<https://navien.co.uk>

STIEBEL ELTRON launches cascade units: one flow and return for up to 6 heat pumps

As part of their hpnex generation of heat pumps STIEBEL ELTRON have announced an accessory for their new air source range that allows up to 6 units to be joined in cascade with only one flow and return and one electrical connection into the building. The AHP-CM cascade units, which exist in variants for 3,4,5 or 6 connections, help simplify and speed installation and make for



Cascade unit on tall feet kit

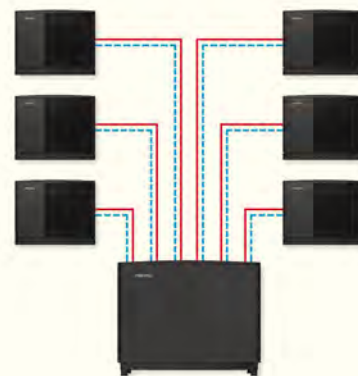
a sleek finished look with less damage to the building envelope and less piping.

In addition to the advantages of faster, neater installation the AHP-CM is also increases system efficiency. They lower energy use because they allow the use of smaller pumps than otherwise would be required.

The units are designed to match the new design aesthetic of the hpnex range so that they are visually harmonious with the rest of the external plant.

“These cascade units are just one of the many unique design improvements and accessories that make our hpnex series stand out in the market,” said **John Felgate, Managing Director of STIEBEL ELTRON.**

“With an R290 refrigerant, higher than ever efficiencies and lower than ever sound values we’re really excited to introduce our partners to a completely new platform across all our ranges. Performance improvements mean that units can cover a wider than ever range of buildings and projects with higher flow



Cascade Module

temperatures and lower modulation points.

“Thought has been given to every design decision to make installation easier and more attractive. Over 40,000 hours of lab testing and 3 years of field testing mean we are delivering a proven, robust and safe solution that has been refined to maximise every benefit for both installers and end customers.

“As an example of the attention to detail, the cascade unit has been given not only the same look at the heat pumps, but the same footprint, so that the feet kits needed to raise the unit up in snow drift or flood prone areas can also be used for the cascade unit.”

For more information and to book into a live online briefing on the full hpnex range, visit: <https://www.stiebel-eltron.co.uk/hpnexlaunch>

ADVERTORIAL

Why are more incentives needed to train installers and promote heat pump adoption

Heat pumps can significantly cut heating costs, but high upfront prices remain a key barrier to adoption. **Graham McCracken**, Managing Director of Freedom Heat Pumps, discusses how Government incentives, cheaper electricity, and better installer training are all essential to making heat pumps more affordable.

Heat pumps should be saving households money, and with the right reforms, they could.

From what I see every day, cost remains the biggest barrier to heat pump uptake, with homeowners put off by the upfront cost to purchase and install. This was reflected in a recent Which? survey¹ which suggests that heat pumps are still too expensive for a third of homeowners who want one.

It comes less than two months after another study revealed heat pumps could halve heating bills with an energy system reform².

This analysis really hits home - it sheds light on what it truly takes to make progress in adopting sustainable heating solutions. Too many households are put off because electricity pricing doesn't make heat pumps as affordable as they should be.

Government reform is vital here. By offering incentives and supporting local manufacturing to make clean electricity cheaper, Governments can help bring down both upfront and running costs.

The industry has a big role to play, making sure installers have the right training, ensuring products are reliable, and building the confidence to recommend heat pumps as the default choice.

I joined Freedom Heat Pumps as Managing Director in August after a decade of working in strategic leadership and customer insight at Certas Energy, the UK's largest independent distributor of fuel.

It's an exciting time to step into the role, as the sector is growing, technology is evolving, and more consumers and



Graham McCracken, Managing Director of Freedom Heat Pumps

businesses are looking to heat pumps as a viable heating solution for them.

It's encouraging to see more plumbers and heating engineers trained in low-carbon technologies, but hitting the Government's target of 600,000 heat pump installations a year by 2028 is ambitious.

Progress is being made, for example, with all new builds being built with low-carbon heating systems from 2025 onwards.

However, to reach this installation target, I'd love to see further incentives that would benefit installers themselves and encourage the trade to move away from prioritising traditional gas boilers.

We need to encourage installers to get trained in heat pumps by helping to shape policy and provide clear, consistent incentives, alongside practical guidance on installation and maintenance.

Source

1. www.telegraph.co.uk/money/net-zero/heat-pumps-still-too-expensive-for-third-of-homes/
2. www.theguardian.com/environment/2025/aug/28/heat-pumps-could-halve-heating-bills-with-energy-system-reform-study-finds

Our goal is to provide dedicated technical support that empowers installers to work safely and efficiently, taking away the uncertainty that comes with a new product.

Research shows households could halve their heating bills by moving to heat pumps with the right support, so it's a win-win if we can make it easier for people to make the switch.

Our role is to provide the knowledge, products, and practical solutions that underpin those incentives and help homeowners and businesses feel confident in their investment.

As part of the future homes standard, new build developers will need to meet energy efficiency regulations.

Innovation ratings can give these developers real confidence that they're making a good financial decision that's going to meet these regulatory needs.

But it's not just about being greener, it's also about saving money month after month. If a property clearly shows it will cost less to run because it has

a heat pump, people see the benefit straight away.

For installers, that's a real benefit. When buyers or tenants can see the benefit, the decision to choose a heat pump feels easier, which means less convincing and more demand.

I've always worked with data and championed its use in business development, and that's something I want to bring to improve and grow the team at Freedom.

When installers and homeowners have access to detailed information on energy savings, running costs, and system performance, it builds confidence to invest.

We've always combined product knowledge with practical guidance, and layering in data insights only makes that support more powerful. It's about turning uncertainty into certainty, which is what gets more people on board with low-carbon heating.

As an independent distributor, we stock heat pumps, cylinders and accessories and

offer next-day delivery with more than £1m worth of equipment on our warehouse shelves to meet installer's requirements.

Freedom, launched in 2010, and distributes heat pump systems to installers, merchants and housing developers for major brands including Samsung, Hitachi and Midea.

We offer low-cost, green alternatives to rising domestic heating prices and were the first Samsung distributor in the UK, and have plans to introduce new products and innovations to the market in the future.

We're reaching a crucial stage of Britain's push to reach Net Zero and it's clear that heat pumps are still too expensive for many households.

However, in order to hit the Government's ambitious heat pump target we must offer incentives that would benefit installers and encourage more to move away from prioritising traditional gas boilers. 🔥

Info
www.freedomhp.co.uk

Expand your business with OFTEC

Demand for heat pumps is growing, so now is the perfect time to take full advantage with OFTEC's heat pump training courses and registration options.

Heat pump training and scopes of registration:

- OFT21-504A - Air source heat pumps.
- OFT21-504G - Ground source heat pumps.
- OFT21-504D - Design of heat pump systems.

OFTEC registration enables you to **self-certify work*** and your installations are covered by our **free workmanship warranty**. You'll also be listed on our **'find a technician'** web search, have access to our **technical support**, and get all the **latest industry news**, together with a range of other valuable benefits.

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For more information visit
www.oftec.org



*In England, Wales, the Channel Isles and Isle of Man



BESA Annual Conference

Heat Pumps Today attended the BESA Annual Conference 2025, held at The Brewery London on the 16th October.

As a media partner, we are keen to support the BESA Annual Conference as it brings together key players such as contractors, specifiers, engineers and more; to discuss some of the most thought-provoking topics affecting the sector.

The theme for 2025 was about the Race to the Top and included topics such as Net Zero, AI, Technology, Building Safety and more.

Drive out 'disinterested third', says BESA chief executive

A third of people in construction and its related disciplines are not interested in making the industry better, safer and more sustainable so should be driven out, according to Building Engineering Services Association (BESA) CEO **David Frise**.

Speaking at the Association's annual conference, Frise said one third were highly professional, competent and compliant with legislation and best practice, the next third wanted to reach that standard and just needed help to get there, but the rest "simply don't care".

"We can try to drag them up...or drive them out of the industry," he told the 300 delegates gathered at The Brewery in London. "Just doing enough is not good enough. We need to take control and change the things we can change so we can have a better industry, but to get there we need competent people".

BESA launched its Member Pledge initiative during the conference with several prominent members signing an agreement to put competence and compliance at the heart of their operations and encourage their supply chains to do the same.

Frise said this would create a powerful incentive for clients to specify BESA members because of their ability to prove their competence through the Association's technical audit process. He pointed to the fact that the Association expelled 14 members earlier this year for failing to reach the standard required.

BESA celebrates winners

Almost 150 companies and individuals were recognised across 26 award categories. As a judge and media partner of this event, Juliet Loisselle, Publisher of Heat Pumps Today, ACR Journal and Renewable Energy Installer was proud to present the Supplier of the Year Award 2025 to Gripple.



The Awards Dinner and after party sponsored by Mitsubishi Electric, were held at the historic Brewery, Chiswell Street, London and followed the Association's Annual Conference at the same venue earlier in the day.

The event was hosted by celebrity magician **Ben Hanlin** and celebrated the people and companies deemed to have gone "above and beyond the call of duty" for the greater good of the industry. Categories covered the full supply chain from manufacturers and distributors through contractors, engineers, and clients, and reflected the industry's efforts to get to grips with today's big issues like competence and compliance, indoor air quality, and decarbonisation.

The finalists in this year's WorldSkills UK competition (Refrigeration, Air Conditioning and Heat Pump category) sponsored by BAXI were guests of honour at the dinner. BESA is the organising partner of the competition, which celebrates both emerging and existing technical skills.

Apprentices and young engineers from right across the industry were also out in force with their talents showcased in a series of awards including the Rising Star of the Year sponsored by Tilbury Douglas. There was the usual wide range of specialist apprentice categories culminating in the overall Apprentice of the Year sponsored by Gratte Brothers Group.



Info
www.thebesa.com



Investing in Europe

Heat Pumps Today visits the fully upgraded and expanded Panasonic factory in Pilsen, Czech Republic.

Panasonic has invested EUR 320 million into the expansion and refurbishment of the facility in Pilsen, increasing the factory's production capacity by 250% to a total of 140,000 m².

This large expansion project transfers production and R&D from South-East Asia to Europe as Panasonic increases capacity of heat pumps being produced locally and will be capable of producing up to 1.4 million indoor and outdoor heat pump units per year from 2030 onwards, for supply throughout Europe.

Aligning with the Panasonic GREEN IMPACT long-term environmental vision, this also ensures a reduction in carbon footprint through local production for local customers and their specific local requirements and their move towards non-fossil heating & cooling technology. As a, Net Zero factory, the facility is run using a combination of green energy purchases and its own 1 MW photovoltaic power production on the roof of the factory.

Heat pump production and R&D in Europe, for Europe

A shift from fossil-based energy towards electrification and renewable energy is rapidly taking place in Europe. Panasonic is committed to supporting Europe's climate goals, and as part of these efforts, is working to meet growing demand across the region for renewable energy solutions. In 2024, the European heat pump market size was estimated at EUR 12.2 billion, and is expected to reach over EUR 71 billion by 2034 (Global Market Insights).

"At Panasonic, we see Europe as particularly advanced when it comes to sustainability, and therefore the acceptance of sustainable energy solutions. We're seeing a marked uptick in interest in heat pumps in the European market, and we are anticipating this to be reflected in demand in the next few years. Our investment into the Pilsen factory demonstrates both our confidence in the growth of the market and our ability to

anticipate and meet future demand," said **Toshikatsu Fukunaga**, CEO, Panasonic HVAC Europe.

The new production complex will be capable of producing up to 1.4 million external and internal heat pump units per year from 2030 onwards for residential and commercial applications, for supply throughout Europe, making the Pilsen factory one of the largest producers of heat pumps in Europe by capacity. In 2024-25, the facility has more than doubled its production output, and momentum is increasing.

In addition, in cooperation with a local university, a state-of-the-art R&D center focused on future heat pump developments has also been established in Pilsen at the factory. As a key partner in the establishment of the R&D facility, the Technical University of Ostrava has completely designed and is due to build one of the research laboratories. By 2028, the Pilsen R&D team will manage the



full heat pump development lifecycle, in coordination with the product planning division in Japan – ensuring the complete development of air-to-water heat pumps in Pilsen, from scratch to the final product.

Additional investments

The Pilsen facility is also investing significantly in robotics, automation and AI technology, as well as synergising with other global Panasonic factories in these areas. This will enable it to reach peak production capacity, drive efficiency and support the workforce. The factory currently has 80 robots deployed on site, and the factory layout has been optimised for the future deployment of automated guided vehicles (AGVs) and autonomous mobile robots (AMRs) for material supply and finished product transport. In future, the facility plans to achieve 100% automation in component manufacturing.

Paul Kenny, Director General of the European Heat Pump Association, comments: "The heat pump sector is boosting Europe's energy security, our economy and our path to decarbonisation by replacing fossil fuel imports with a clean, locally made and locally powered solution. Today's factory reopening is both a big step forward on that journey and a clear message to decision-makers from one of the world's

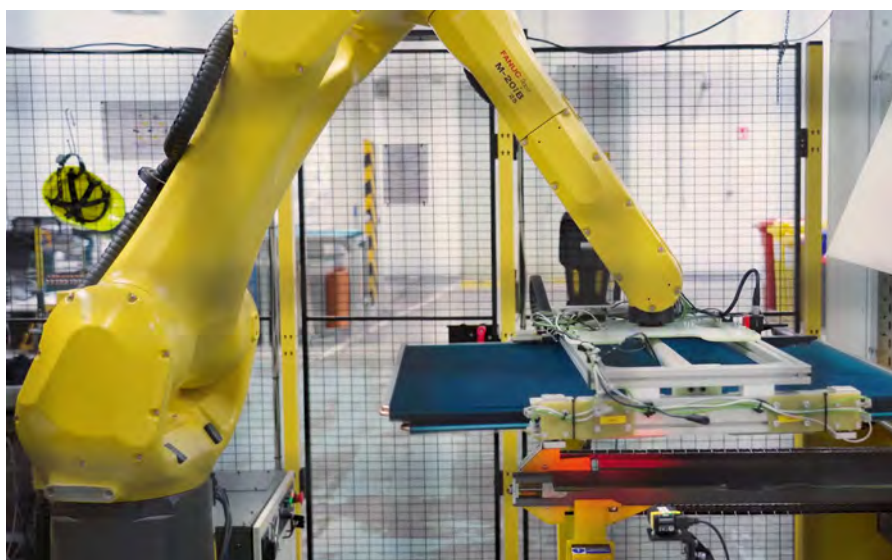
leading companies, that the future is bright in European manufacturing and that heat pumps will inevitably be at the heart of our future global energy system."

Commitment to sustainability

As part of its GREEN IMPACT commitment, Panasonic has set itself the target to achieve Net Zero across its own business operations globally as a Group in 2030, and across the entire value chain in 2050. Following the Panasonic concept, a Net Zero factory is achieved through the

reduction of energy consumption, the generation of renewable energy onsite, and the procurement of energy from renewable sources. Currently, Panasonic has 46 Net Zero Factories globally, including Pilsen.

Pilsen is Panasonic's second Net Zero factory in Europe, following the opening of the facility in Cardiff, UK, in 2024. As a Net Zero factory, the Pilsen facility will make a significant contribution to the ongoing reduction of Panasonic's CO₂ emissions in its own business operations (known as Scope 1 and 2 emissions), such as energy





consumption at our facilities including electricity, heating and lighting.

The factory is powered by a 1 MW photovoltaic roof system in addition to the purchase of green electricity and heating energy.

The facility's smart building management (BMS) system intelligently controls ventilation, heating and lighting (including sensor LED lighting throughout the facility), and ensures waste is minimised. Meanwhile, the facility reuses waste heat from ventilators and compressors to heat the building and help reduce energy consumption, and water waste is minimised via a retention reservoir on the roof of the facility, which catches and reuses rain water – avoiding city drainage systems.

In addition, starting in 2026, the facility's vehicle fleet will move to Electric Vehicles (EVs) to further reduce carbon footprint.

Supporting the local economy

The local Pilsen region will benefit from the addition of high-value-added employment opportunities that utilise local talent, helping to prevent “brain drain” in the area. Panasonic's long-standing cooperation with academia – in particular, the University of West Bohemia – is helping to promote science and engineering education in the area, as well as providing practical training for students.

Enrique Vilamitjana, Managing Director of Panasonic Heating & Cooling Solutions Europe, says: “As a company with a strong European presence, Panasonic is committed to advancing clean heating and cooling solutions and supporting policies that enable the widespread adoption of heat pumps. A stable regulatory environment and ambitious climate targets are essential for accelerating the green energy transition and ensuring robust business cases for clean technologies. This is vital not only for the planet, but also to ensure robust business cases for clean technologies.” 🇪🇺



Celebrating excellence in HVAC: Panasonic announces PRO Awards Winners

After the factory tour, Panasonic held their bi-annual award scheme, now in its 10th year, which recognised outstanding HVAC+R projects across Europe that incorporate Panasonic technologies and demonstrate a strong commitment to sustainability and forward-thinking design.

“We are incredibly proud to celebrate the outstanding projects that have emerged through this year's PRO Awards,” said Enrique.

He said: “These projects not only demonstrate the high standards of quality and innovation associated with Panasonic products but also highlight our commitment to sustainability and excellence in the HVAC industry.”

The PRO Award Winners are:

- **Best Residential Single House Project:** Hungary with Júlia
- **Best Residential Multi Family House Project:** Poland with Radomskie housing estate
- **Best Commercial Project:** Poland with Orbit One
- **Best Hospitality Project:** Germany with Best Western

Special Recognition Award Winners are:

- **Best Innovative Project:** Spain with TORRES IKON
- **Best Green ImpACT Project:** France with Puellémontier Central Kitchen
- **Best Natural Refrigeration Project in Heating:** Germany with POFIN
- **Best Natural Refrigeration Project in Cold Chain:** UK with GKN Aerospace with installers Green Cooling
- **Best Indoor Air Quality Project:** Germany with Sternodrom.

Info

www.aircon.panasonic.eu



Factory tour showcases Weatherite's next generation heat pump

ACR Journal and Heat Pumps Today visit Weatherite headquarters in West Bromwich for a factory tour and ground breaking product launch.

Weatherite, a UK based manufacturer, recently launched its next generation R290 heat pump, specially engineered for commercial and light industrial applications, to the HVAC press at its headquarters in West Bromwich.

The new system reflects Weatherite's long-standing commitment to innovation, safety, and environmental responsibility, delivering a future-proof HVAC solution that aligns with the most pressing demands of today's market: performance, sustainability, and compliance.



“We are extremely proud to introduce this cutting-edge R290 heat pump to the market,” said **Michael Boyles** Sales Director at Weatherite. “It’s the result of intense research and development, conducted in collaboration with leading UK academic institutions. Our goal was to develop a low-carbon system that doesn’t just meet regulatory standards but sets a new benchmark for safety and real-world efficiency.”

A timely response to environmental and regulatory change

The launch comes at a crucial moment for the HVAC industry. With tightening environmental regulations, especially around the phase-down of high-GWP (global warming potential) synthetic refrigerants under the F-gas Regulation, the shift toward natural refrigerants like propane (R290) is rapidly accelerating. However, safety concerns, particularly around the flammability of R290 have created significant barriers to widespread adoption.

The new unit overcomes these challenges head-on. It has been meticulously designed to provide maximum safety without compromising on efficiency, cost-effectiveness, or scalability. This positions the product as a serious contender for organisations looking to decarbonise their heating and cooling infrastructure while future-proofing their operations.

Technical innovation meets practical application

At the heart of the new system is a high-efficiency, fully integrated heat pump using natural refrigerant R290. It combines:

- Fully hermetic compressors
- Optimised heat exchangers
- An advanced defrost cycle management system
- A custom-developed multifunctional safety architecture



This proprietary safety system provides layered protection, not just during routine operation, but also during maintenance and any abnormal conditions that may arise, offering peace of mind to facilities managers and HVAC engineers alike.

In parallel, the intelligent defrost cycle ensures superior stable performance in real-world weather conditions, reducing system downtime and energy waste. The result is a robust, high-performing system designed for retail, commercial, and light-industrial environments where heating and cooling demand is both constant and critical.

Supporting the UK Manufacturing Sector: Made in Britain

Weatherite is a proud member of the Made in Britain initiative, which champions UK manufacturers and promotes domestic craftsmanship, innovation, and sustainability. As such, the new R290 heat pump has been designed, tested, and built entirely in Britain, supporting local jobs, skills development, and green growth in the HVAC sector.

This British-made engineering excellence offers more than just a quality guarantee, it allows clients to shorten their supply chains, benefit from local after-sales support, and contribute to the UK’s broader net-zero ambitions.

“Our participation in the Made in Britain initiative is more than a badge, it’s a promise,” added Michael “It reflects our investment in UK-based design, manufacturing, and partnerships that deliver tangible economic and environmental benefits for our customers and for the country.”

Designed for compliance today and tomorrow

The R290 unit has been developed in full anticipation of future legislative changes, including potential updates to the F-gas Regulation and more stringent carbon emissions targets. This forward-thinking approach ensures that customers who adopt the system today won’t face expensive retrofits or replacements in the near future.

By aligning product development with predicted regulatory changes, Weatherite enables businesses to make smart, long-term HVAC investments that meet their ESG targets while supporting energy efficiency and operational cost reduction. 🏡



 **Weatherite**

Info
www.weatheritegroup.com



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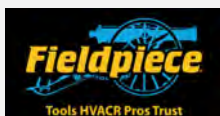
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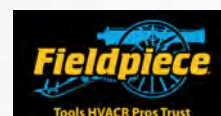
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It's time to learn from our past and look to the future

Mark Krull, Director at LCL Awards and Logic4training, urges UK policy makers to learn from previous mistakes in order to smooth the road to net zero, while improving living conditions for some of the UK's most vulnerable residents.

At the time of writing, we are awaiting confirmation of the much-delayed Future Homes Standard (FHS), a set of regulations that will transform the new build market, heralding an era of housing that supports the path to net zero, while creating comfortable, healthy and cost-effective living environments and homes. What's important now is that we maintain the momentum, avoid U-turns and learn lessons from the past.

Roll back ten years and things looked a little different. In 2015 the Zero Carbon Homes regulations were scrapped, resulting in 1.5 million homes being built to standards so poor, to bring them up to modern efficiencies will cost on average £20,000 each – a total of £30 billion. Today, the cost-of-living crisis and rising electricity bills, means many of us are 'feeling the pinch'. The need to tackle climate change is more present than ever. One can't help but feel more than a little annoyed that in 2015 the government at the time felt keeping housebuilders happy was the number one priority.

Some of these sub-standard properties may have 'benefitted' from ECO4 and the Great British Insulation Scheme, designed to provide subsidised energy efficiency upgrades to low income and/or households with occupants suffering from health complaints such as asthma. Sounds great? It seems we can't get this right either; a recent report identified that 98% of homes with external insulation installed under government schemes need repairs, leading to some becoming uninhabitable due to ventilation issues and subsequent mould – a shocking statistic that is even more stark following the recently passed, 'Awaab's law'. The result of the tragic death of Awaab, a two-year-old boy who died from mould exposure in a poorly maintained social housing home, the new law is designed to bring landlords to account; ensuring homes



Mark Krull, Director at LCL Awards and Logic4training

are built and maintained to a high standard is not just about net zero.

What's clear to me is that we need to extricate greed and politics from decisions about how to improve the places where we spend most of our lives. The focus must be on quality and integrity. Backtracking on carbon reduction targets and introducing schemes to improve efficiency that result in buildings being in a worse state than when they started is a scandalous false economy. In almost all of these examples, it is the most vulnerable in society that suffer with the unscrupulous profiteering from their misfortune.

Renewables in particular are continually used as a political football, with constant 'U-turns' impacting the livelihoods of the businesses that invest in new market opportunities, while shaking people's confidence in the benefits of moving away from fossil fuels. Recent delays to The Warm Homes Plan is just the latest example. The 'green economy' offers much promise to UK plc. It is creating jobs for now and countless career opportunities for the next generation, while encouraging innovation. Net zero should be a win-win scenario if the policies that facilitate it are well thought out and long lasting, they should be embedded in broadly supported law, rather than running the risk of being overturned with each new government.

Building for the future means sticking to policy, investing in skills to ensure that every new home is fit for the decades ahead. It means supporting the sector and resisting the temptation to backtrack when the going gets tough.

The Future Homes Standard represents a chance to get it right. If it has been published by the time you read this, I urge policymakers, builders, and industry leaders to seize the opportunity. Let's build homes that are energy efficient, comfortable, and affordable to run. Let's avoid repeating the mistakes of the past and create a legacy we can be proud of. The stakes are high, but the rewards are greater. By learning from our missteps and committing to quality, we can deliver homes that meet the needs of today and tomorrow – without leaving future generations to pick up the bill. 🏠

Info

<https://lclawards.co.uk>

www.logic4training.co.uk

City of London Corporation accelerates net zero strategy with second phase of decarbonisation works

Following the successful delivery of energy efficiency projects across seven of the City of London Corporation's iconic buildings, Vital Energi have moved on to a second phase of works to further accelerate its journey to net zero.

Together, both phases will deliver annual carbon savings of over 1,500 tonnes and financial savings of £1.25m, forming a key part of the City Corporation's ambitious strategy to achieve net zero carbon emissions across its operational estate by 2027, before reaching net zero across all its activities by 2040.

Bespoke decarbonisation plans have been developed for each building, incorporating the latest renewable technologies and energy conservation measures. These upgrades are designed to improve energy efficiency, reduce heat loss, and lower energy bills, while respecting the heritage and operational needs of each site.

Featured buildings:

- **Mansion House:** Built in the 1700s, this Grade I listed building serves as the official residence of the Lord Mayor of London. Air source heat pumps will be installed, along with energy conservation measures (ECMs) including Building Management System (BMS) upgrades, draught proofing, insulation upgrades and cooling improvements.
- **Walbrook Wharf:** Air source heat pumps and a range of ECMs will be installed at this safeguarded freight wharf in the heart of the City of London, next to Cannon Street station.
- **Guildhall School of Music & Drama:** Founded in 1880 and located in the Barbican Centre, it has over 1,000 students from 70+ countries. The lighting will be elevated through LED lighting upgrades, including performance venue and theatre lighting.
- **Heathrow Animal Reception Centre (HARC):** Air source heat pumps, solar PV, and a range of ECMs will be installed at HARC, the only UK border control post licensed for all animal species, which handles over 28 million fish, 100,000 reptiles, 22,000 cats and dogs, and 400 horses annually.

- **The Warren (Epping Forest):** A Grade II* listed site and headquarters for Forest Keepers. Upgrades include air source heat pumps, LED lighting, insulation improvements, and other ECMs to support sustainable woodland management.
- **The London Archives:** The largest county record office in the UK, which is home to over 3.5 million historical documents, will benefit from solar PV installed on its roof, allowing the generate their own green electricity.



Mansion House



Walbrook Wharf



Guildhall School of Music & Drama

Alderman **Alison Gowman**, Climate Action Lead at the City of London Corporation, said: "The built environment sector is the largest source of carbon emissions in the Square Mile, so our work with Vital to decarbonise City Corporation buildings is crucial for meeting our own net zero goals, as well as supporting the wider Square Mile net zero goal.

"Energy use is central to this challenge. By improving efficiency and investing in low-carbon energy solutions, such as heat pumps and solar power, we can make a real impact on the City Corporation's energy emissions. We can also show it's possible to make historic and operationally complex buildings part of a low-carbon future: Practical steps that turn climate ambition into tangible progress.

"Since launching our Climate Action Strategy in 2020, we have made strong progress in cutting carbon emissions and reducing climate risks – meaning we remain on track for net zero across our full value chain and the whole Square Mile by 2040."

Scott Lutton, Regional Director at Vital Energi, said: "We're proud to be continuing our partnership with the City of London Corporation to deliver the next phase of decarbonisation works across some of the capital's most iconic and historically significant buildings.

"By combining renewable technologies with tailored energy conservation measures, we're not only helping to reduce carbon emissions and energy costs, but also supporting the Corporation's bold commitment to achieving net zero across its own operations by 2027. Each building presents unique challenges, and our bespoke decarbonisation plans ensure that sustainability goes hand-in-hand with heritage and operational excellence."

Learn more about phase one of the project visit: <https://tinyurl.com/2en7eyaw>

Info
www.vitalenergi.co.uk

The Compass Project: A heating solution that embodies its values while providing reliable and efficient service

We take a look at the Compass Project which is an ambitious scheme that has transformed the former Aberdeen Waldorf School campus into a pioneering centre for healthy, sustainable lifestyles.

Led by the Camphill Wellbeing Trust (CWT), this initiative serves the local and wider community in Aberdeen City & Shire, offering inclusive spaces focused on health, wellbeing, and sustainability.

The building was in a poor state when CWT took it over in 2020 after lying vacant for six years, requiring extensive renovation works that took over a year to complete.

Initially, the client planned to install a conventional gas boiler for the heating system. However, this approach didn't align with Compass's core mission of demonstrating practical solutions for sustainable living.

The project needed a heating solution that would:

- Support the site's sustainability ethos
- Provide reliable heating and hot water for multiple community facilities
- Serve diverse spaces including a village school, doctors' surgery, bakery, and dairy
- Ensure continuity of service for vulnerable community members
- Work within the constraints of a historic building.

The solution

Stuart Sugden of Sugplumb convinced the client to install CTC heat pumps in a cascade configuration instead of the originally planned gas boiler. This innovative approach offered several key advantages:

- **Cascade system design:** The installation features multiple CTC EcoAir 622 heat pumps operating in a "master and slave" configuration. This means that if one heat pump fails, the others continue to operate, ensuring the site always has backup heating and hot water provision.



This aspect is crucial for a community facility serving vulnerable groups, compared to a single large unit where any failure would leave the entire site without heating.

- **Rapid installation:** Despite the complexity of the building works, the heat pump installation itself was completed in just three months from start to finish.
- **Scottish Government funding:** The project benefited from Scottish Government funding, recognising its value as a mental health charity serving the local community.

The results

The CTC heat pumps have now been operating successfully, providing reliable, sustainable heating and hot water for the entire Compass site. The cascade system has delivered on its promise of reliability, while significantly reducing the carbon footprint of this busy community hub.

The heating solution now supports Compass's diverse range of activities that improve the lives and wellbeing on many people in the local community.

Key benefits

- **Sustainability:** The heat pump installation perfectly aligns with Compass's mission to demonstrate practical solutions for sustainable living, eliminating reliance on fossil fuels.
- **Reliability:** The cascade configuration ensures continuous heating and hot water provision, essential for a facility serving vulnerable community members.
- **Community impact:** The system supports a thriving local sustainable village infrastructure, including educational facilities, healthcare services, and food production.
- **Heritage preservation:** The installation successfully integrated modern, efficient technology into a historic building dating back to 1897.

Conclusion

The Compass Project demonstrates how modern heat pump technology can support community transformation and sustainable development. By choosing CTC heat pumps in a cascade configuration over a conventional gas boiler, the project has created a heating solution that embodies its values while providing reliable, efficient service.

Stuart Sugden's knowledge in sustainable heating solutions proved instrumental in steering the project towards a heating system that will serve the community for decades to come, reducing carbon emissions while maintaining the comfort and functionality needed for Compass's vital community work. 🏡

Info
<https://sugplumb.com>

Power shift: Why the renewable energy smart home is the next big opportunity for installers

Homeowners are no longer just looking for solar panels — increasingly they want fully-integrated renewable energy systems that offer greater comfort, control and cost savings. **James Galloway**, Global Product and Supply Chain Director at Segen, explains why installers are perfectly positioned to lead the move to smarter home energy use — and why open standards and forward-thinking training will be key to their success.

Energy price volatility, growing climate concerns and evolving consumer expectations are just some of the factors prompting UK households to rethink their relationship with energy. As smart meters become more widespread and awareness of renewable technologies continues to grow, homeowners are increasingly realising they are not merely passive energy consumers, but can play a meaningful role in the clean energy transition. For many, the question is no longer if they should make their homes more energy efficient and future-ready, but how they can achieve it.

This shift is giving rise to a new kind of home energy setup: the renewable energy smart home — a connected energy ecosystem where solar panels, battery storage, EV chargers and heat pumps work together, intelligently coordinated by a Home Energy Management System (HEMS) to deliver greater comfort, control, sustainability and cost savings.

All of these technologies are readily available today — and demand is continuing to grow. For example, since adding heat pumps to the Segen portfolio last year, we've seen a consistent month-on-month increase in demand. However, the true value of these technologies doesn't come from individual performance — it comes from integration.

Imagine a solar system powering the



James Galloway, Global Product and Supply Chain Director at Segen

home during the day, while simultaneously charging a battery that stores excess energy for later use. As evening falls, that stored energy helps run a heat pump to keep the home warm and efficient — all

seamlessly managed by a central HEMS that intelligently balances generation, storage and demand in real time. For homeowners, this setup ensures optimal comfort, lower energy bills, and greater control over their energy use. For installers, it creates opportunities for higher-value projects, enables them to build longer-term customer relationships, and offers a competitive advantage over providers of standalone installations.

Policy is on your side

Importantly, it's not just consumer demand driving the adoption of renewable energy technologies in the home. Momentum is building through UK government initiatives aimed at making clean energy more affordable and accessible, especially for lower-income households.





This is one of the reasons we created the Segen Academy. It's designed to equip professionals with the real-world skills needed to move beyond single-technology installations and into whole-home system design. Whether you're an experienced renewables installer or coming into the industry from a plumbing or electrical background, the Academy delivers training that matches the realities of today's evolving energy landscape.

Real results: Smart integration in action

Despite these challenges, when all the pieces of the puzzle are put in place, the benefits of a renewable energy smart home are clear.

Take the recent retrofit of a 1960s semi-detached home we've been following. The upgrade included a 12.3 kWp rooftop solar PV system, an 11.7 kWh battery, and a smart-ready 13.9 kW heat pump — all coordinated through a central HEMS.

The system is programmed to prioritise solar use: powering appliances and the heat pump first, then charging the battery, and finally exporting any excess to the grid. When solar production drops, the battery supplies power before the grid is tapped.

As a result, the home now uses 43% less energy from the grid, significantly reducing energy costs. In addition, running the heat pump on solar energy has improved its seasonal performance factor (SPF) from 4.2 to 6.7 — a 60% efficiency gain. This translates into £430 in annual savings compared to a traditional gas boiler.

The future is bright

As this example shows, the renewable energy smart home isn't a future concept — it's already becoming a reality. But to unlock its full potential, we must continue advancing interoperability through open protocols and close the skills gap with forward-thinking training. Encouragingly, the pieces are starting to fall into place.

With continued technical innovation and greater cross-industry collaboration, renewable energy smart homes can become the backbone of a cleaner, more resilient energy future. 🔌

Info
www.segen.co.uk/info/

A flagship policy is the £6.6 billion Warm Homes Plan, launched in November 2024, which aims to lift over one million households out of fuel poverty by 2030 through measures such as installing renewable energy systems and low-carbon heating technologies. Complementing this are initiatives like the Boiler Upgrade Scheme (BUS), which provides upfront grants for installing heat pumps and biomass boilers. Another is the EV ChargePoint Grant, part of the wider 'Plan for Change' initiative, which covers up to 75% of the cost (up to £350) for home EV charger installation — supporting cleaner energy use and transport in tandem.

This public investment is helping to expand the customer base for renewable energy technologies far beyond early adopters and into the mainstream — and that means more opportunities for installers to grow their business.

The interoperability roadblock

Of course, as any new technology or solution emerges, so too do new challenges. Companies already installing integrated renewable energy ecosystems consistently highlight a common issue: ensuring that devices from different manufacturers work seamlessly together.

For a renewable energy smart home to function smoothly, its various components must communicate effectively. This hinges on interoperability — enabled by open protocols, or standardised communication languages, that allow devices from different manufacturers to "speak" the same language. When this happens, homeowners benefit from a truly integrated experience.

Historically, many manufacturers

focused on developing closed protocols that locked customers into proprietary ecosystems. Fortunately, that's starting to change. Momentum is building behind open protocols like Matter and Modbus, which enable cross-brand compatibility and foster greater industry collaboration. For installers, this shift means simpler commissioning, fewer support issues, and improved long-term reliability for their customers.

A skills gap that needs closing

Even with better device compatibility, integrated renewable energy ecosystems won't work without the right people to install them. And that's another challenge.

Traditionally, renewables installers have specialised in a single technology — such as solar PV, heat pumps, or EV chargers. But renewable energy smart homes demand a more integrated approach. Today's installers must not only be able to install and maintain multiple technologies, but also understand energy management, thermal performance and IT networking.

In the UK, there is already a critical shortage of qualified renewables professionals — and fewer still possess the cross-disciplinary skills required to design and install fully-integrated renewable energy ecosystems. The industry's long-standing siloed approach to training — solar-only or EV-only qualifications, for example — no longer meets the demands of modern smart homes.

To close this gap, education and training must evolve. Installers need hands-on, practical learning that reflects the interconnected nature of today's technologies.





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WOMEN IN THE HEAT PUMP INDUSTRY

Sarah Prutton, Training Manager, Panasonic Heating & Cooling, shares how her passion and curiosity have shaped her career and fueled her determination to train and support the next generation of skilled heat pump installers and engineers.

At the age of 16, I secured a modern apprenticeship with a large telecommunications company. It offered the best of both worlds, providing qualifications and further education while also allowing me to work and earn a wage. Unfortunately, after my three-year apprenticeship, the business was not in a good place and could not offer permanent employment.

At 19, I decided to shadow my brother, who is a gas engineer. I quickly realised that this was something I could do and build a career around. I was always the person asking questions like “Why isn’t that working?”, “How does this work?”, and “Why are we doing it this way?”, which drove my brother to distraction! But that curiosity helped me find my niche and paved the way for the Technical Trainer and Manager roles I went on to achieve.

I get a genuine sense of achievement from seeing others develop and gain knowledge. When that penny drops as I am explaining a concept, and those conversations spark with the “why?” askers, it reminds me that anyone can learn anything with the right trainer and the right method for each individual.

I continue to advocate for further education and have completed a Level 5 qualification in Operational Management. I believe in grasping every opportunity that comes my way and seeking them out when necessary.

I got into the heat pump industry as, being a gas and heating engineer by trade, it was quite a seamless transition. Throughout my 25-year career, I came across heat pumps intermittently, which sparked my curiosity and drive to



Sarah Prutton, Training Manager,
Panasonic Heating & Cooling.

understand more about the technology. During my time as a Technical Manager in a previous role, I took every opportunity to get involved with heat pumps, building my knowledge and experience in the field. Two years ago, I made the full transition from gas to renewable heating technologies, focusing solely on heat pumps when I joined Panasonic.

What does your current role involve?

I manage Panasonic’s training delivery, which covers our entire product range. I specifically deliver our Air to Water Accredited Installer Training Sessions and create bespoke technical training modules. Most of my training delivery is for installers, specifiers, and engineers. I travel all over the country to deliver sessions, as well as hosting multiple courses at our headquarters in Hertfordshire. I also facilitate our CO₂ refrigeration and Air to Air training courses.

We have a number of training locations across the UK, including Cardiff, Livingston, Sunderland, and many more. A key part of my role involves reviewing and updating training materials, particularly when new products are released. It’s essential to keep course attendees engaged with relevant and up-to-date information, so I often tailor each session depending on the audience. For example, if I’m working with a group of new build heat pump installers, we’ll spend more time focusing on commissioning.

What do you see as the challenges facing the industry?

I believe our biggest current challenge is the lack of trained, skilled, and experienced installers, as well as breakdown and maintenance engineers. Many engineers enter the heat pump industry by diversifying their existing skill set, for example gas engineers or plumbers who move into heat pump installation.

There are still too few specialist companies focused solely on heat pumps, which limits the available workforce. Plumbers and gas engineers are very well suited to the role, as they already possess around 70 percent of the required skills to install heat pumps but you would need three multi skilled installers for one heat pump specialist. I do have hope that this will change with the introduction modern apprenticeships in the renewable heating field.

Another challenge is the lingering effect of inaccurate or negative press around heat pumps. Much of this originated from poor installations in the early days and misinformation.

We actively discuss, challenge, and debunk these misconceptions during our training sessions to raise awareness of how heat pumps actually work. While they are not and never will be fossil fuel burning gas boilers, they are more than capable of providing a comfortable level of warmth all year round, with little or no increase in running costs.

Did you have any mentor's or anyone in particular who inspired you?

I often think about the many engineers I worked alongside in the very early days of my career, the look on their faces when I walked into the room, the rolling of the eyes (let's remember, we're going back 25 years). They soon came to realise my passion and thirst for knowledge, and I was quickly welcomed into the team. I would often double up on jobs whenever I saw a learning opportunity. Of course, my brother inspired me too, and he still does today.

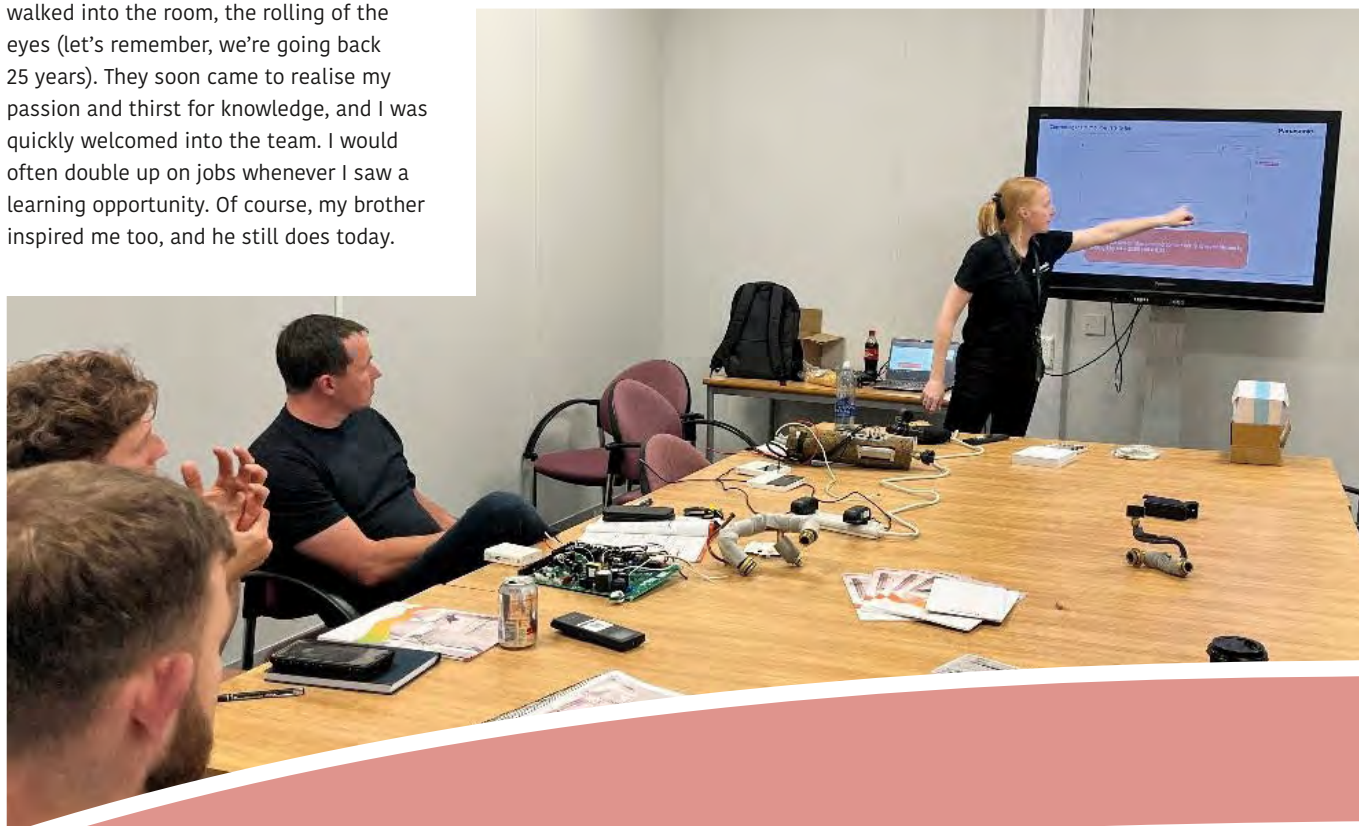
What would you say to other women who are considering coming into the heat pump industry?

Do it! Head over to Panasonic Pro Club, create an account, and book onto one of our A2W Accredited Installer Courses. We cover everything from key concepts to the role of the refrigerant in a heat pump (you do not need to hold an F-Gas qualification to attend the training). The course also takes you through the Panasonic range, which offers a solution for every installation capacity from 3 kW to 300 kW.

What do you like to do outside of work?

I have an 11-year-old son, so I enjoy spending time with him, whether it's going bowling, swimming, or just a bit of gaming at home. I also really enjoy cooking, although I am not great at following recipes — I consider them more of a guide and like to get a bit creative. For that reason, I really cannot bake! 🍪

Sarah delivering a training session at Panasonic's headquarters in Hertfordshire



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CAREL presents a webinar dedicated to digital tools for optimising HVAC/R software development

CAREL invites professionals involved in the development and design of HVAC/R solutions to join the free webinar "**STone Virtual Loop – Advanced emulation tool for HVAC/R software development**", scheduled for **2 December at 4pm CET**. The 45-minute session, held in English, will demonstrate how virtual emulation can make development teams' work more efficient and improve the quality of results.

During the webinar, **Matteo Galenda**, CAREL Application Specialist HVAC Residential, and **Simone Armano**, CAREL SSD HVAC & Food Retail Manager, will present STone Virtual Loop, the CAREL platform that enables testing and validation of software applications in a fully digital environment.

Thanks to virtual models of real thermodynamic units, it is possible to simulate the behaviour and interactions of HVAC/R systems, reducing development time and costs while improving code reliability. STone Virtual Loop, leveraging digital twin technology, provides advanced support for software development, validation and maintenance activities, reducing time and costs while increasing code reliability.

An opportunity to discover how virtualisation can transform development processes in the world of air conditioning.

Registration link to the webinar: https://carel.zoom.us/webinar/register/7017592425955/WN_uKOKHYaLQaCE1uiMmhMSKg



RINNAI Applied launches R290 Commercial & Industrial range of Heat Pumps

Rinnai Applied have made its first major launch with the introduction of its R290 range of commercial and industrial heat pumps. Rinnai Applied's new high efficiency and eco-friendly heat pumps arrives in a wide variety of sizes from 40kW to 410kW and uses the propane-based refrigerant R290.

The systems have variable water temperature deliver capability. Hot water rises to seventy-five degrees Celsius can be achieved making the commercial heat pumps ideal for high temperature applications.

The refrigerant R290 maintains a GWP (global warming potential) of 0.02 and is exempt from F-Gas regulation. Rinnai's R290 commercial and industrial heat pump boasts a market leading SCOP, BREEAM and LEED energy ratings and modular installation capability for the entire range, as well as the guarantee for an easy fitting due to a flexible footprint.

The contemporary design ensures high levels of operational efficiency even at partial loads and offers maximum accessibility to the refrigeration circuit compartment. They deliver lower total product life cycle costs that do not compromise on performance. They are also specifically purposed to reduce CAPEX and OPEX costs to a minimum.

The R290 range operates at low sound levels and is fully compliant with ECODSIGN (EU) standards ensuring ultra-low impact through design and operation. These heat pumps are tailored towards every site and task meaning a perfect fit for every application.

Flexibility and system versatility is a key feature of the R290 heat pump commercial and industrial heat pump range with the inclusion of smart control logic that can manage up to six units, five of which being controlled by a master unit. This arrangement prioritises system performance whilst minimising wastage.

To request a brochure on this new innovative range simply follow this link: www.rinnai-uk.co.uk/contact-us/ask-us-question



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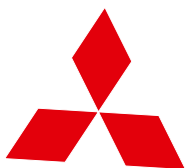


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