HEAT PUMPS & RENEWABLES

HEATING | SOLAR | STORAGE | EV

NOVEMBER 2026



Training for tomorrow:

Why digital skills matter for renewable installers

Turn to page 58 for the full story



STORAGE

Making battery storage easier to sell, install and manage

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SOLAR

Plug and play: 7 million want plug-in balcony solar

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HEAT PUMPS

The challenge of decarbonising off-grid homes

Page 32

ECOFLOW

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Introducing the **EcoFlow OCEAN 2 8kWh Battery.**

Designed for the demands of modern homes, the new EcoFlow OCEAN 2 8kWh Battery delivers greater storage capacity per module, helping installers create powerful, scalable energy solutions with fewer components.

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- Scalable storage configurations
- Advanced 10-layer safety architecture
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Welcome to the November issue of Heat Pumps & Renewables Journal

Thank you to everyone who has taken the time to share feedback with us. Your comments are invaluable, and it's always encouraging to know that we're delivering the content, news and insights that matter most to you, our readers.

The renewables sector continues to go from strength to strength, bringing with it a busy calendar of industry events, awards ceremonies and press launches. The HPR team has been out and about, supporting as many as possible and keeping up with the latest developments across the sector.

I'm particularly pleased to have been invited once again to judge the Building Engineering Services Association (BESA) Awards. Held last month at The Brewery in London, the event welcomed more than 450 members and guests for a fantastic celebration of the building engineering services sector, recognising excellence, innovation and the next generation of talent.

I'd also like to extend my thanks to the Electrical Contractors' Association (ECA) for their kind invitation to the ECA Annual Awards. This year was especially significant, as the ECA and its members celebrated the association's 125th anniversary. It was a wonderful evening recognising the achievements and contributions of those working across the electrical contracting industry. Turn to page 11 for more.

This issue is packed with thought-provoking features, industry news and practical insights. Training and skills development are particularly prominent, with a focus on why experienced engineers should not delay in embracing renewables and expanding their expertise. We also explore how the UK is tackling the heat pump skills gap, including the work being undertaken by the New Green Skills Academy, Jersey Electricity and Highland College. And, as electrification continues to gather pace, we ask an increasingly important question: are we heading towards a capacity crisis?

I was also delighted to attend the presentation of the Baxi 2026 Installer Skills and Attitudes Survey, held in Westminster earlier this month. This promises to provide some valuable insight into the challenges, opportunities and attitudes shaping our industry. We'll be bringing you full coverage in the December issue of HPR.

As always, I hope you enjoy this issue and find plenty to inform, inspire and encourage discussion.

Happy reading!

Finally, my sincere thanks to the entire HPR team, and particularly to David Crowson, Digital Editor, for their invaluable support and contribution in bringing this latest issue together.

Juliet

Juliet Loiselle FinstR, Editor/Publisher



Events: National ACR & Heat Pump Awards – Entries now open

Entries are now open, bringing together industry leaders, manufacturers, contractors, consultants and innovators from across the HVACR and renewables sectors.

Taking place at **The Midland Hotel, Manchester, on 3 March 2027**, the awards will recognise the outstanding achievements, innovation and excellence that continue to shape and advance our industry.

For full details and to enter, visit: **www.acrjournal.uk/national-acr-heat-pump-awards**

HEAT PUMPS & RENEWABLES

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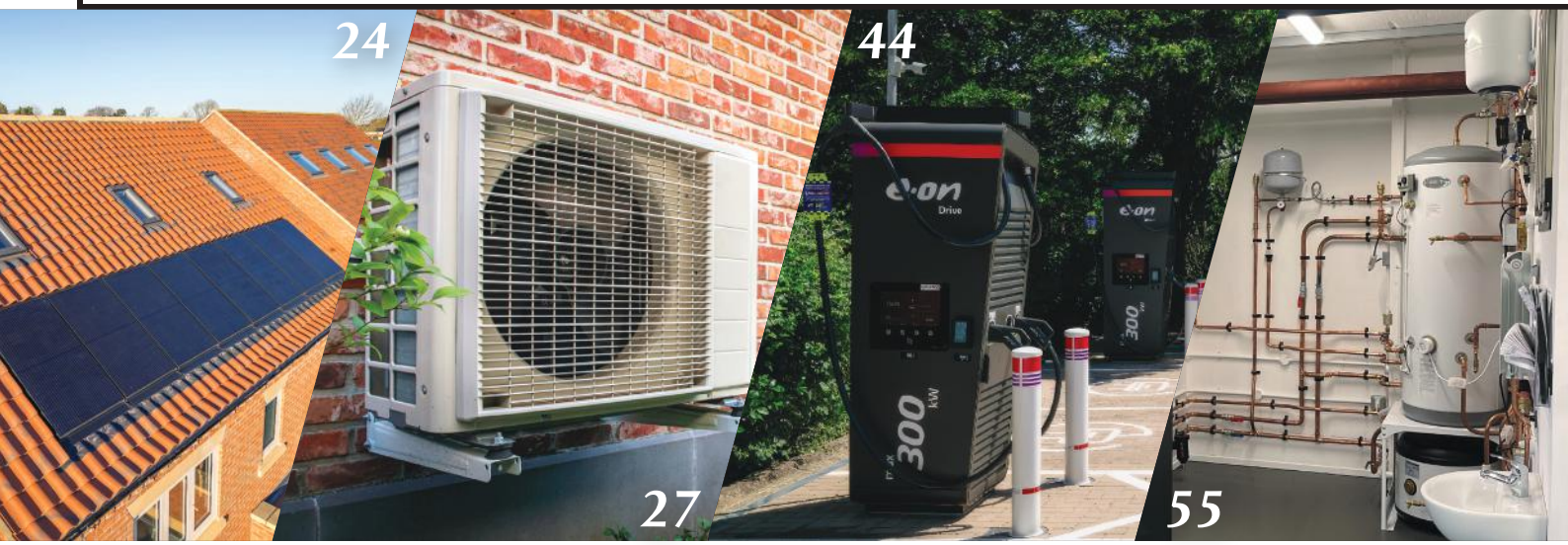
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NEWS



Aerial photo of the London stadium solar panels

London Stadium Hits 1 Million kWh solar energy milestone

London Stadium has generated more than 1 million kWh of clean energy since its solar panels went live in July 2025. This output provides enough electricity to match the annual power demand of more than 350 family homes while cutting 177 tonnes of carbon emissions.

The milestone comes as the iconic multi-purpose Olympic venue marks its first 14 months of generating renewable energy on-site.

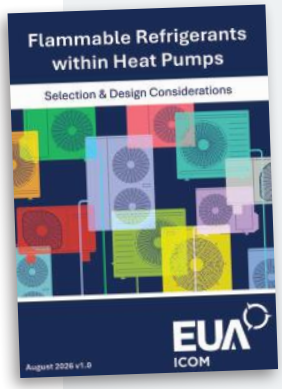
In that time the Stadium has welcomed more than two million spectators witnessing major moments at the venue, from **Josh Kerr's** world-record mile and the 20th anniversary of Soccer Aid to sold-out nights with Take That and Metallica.

In June 2026 alone, over 140,000 kWh of energy was produced, meeting 21% of the venue's demand for that month.

Powered by Ameresco UK, the 6,500m² membrane system features 3,350 solar panels integrated directly into the roof of London Stadium, creating one of the largest stadium solar installations in Europe.

The milestone demonstrates the potential for major venues to generate clean energy on-site while continuing to host some of the biggest sporting and entertainment events.

To read the story in full visit:
https://renewableenergyinstaller.co.uk/2026/10/london-stadium-hits-1-million-kwh-solar-energy-milestone/



ICOM launches new guide to flammable refrigerants in heat pumps

The Industrial and Commercial Heating Equipment Association (ICOM) has published a new guide 'Flammable Refrigerants within Heat Pumps – Selection & Design Considerations', providing practical guidance for consultants and specifiers navigating the changing refrigerant landscape.

With tightening F-gas requirements and increasing scrutiny around PFAS, the guide highlights the key factors that need to be considered when selecting refrigerants for HVAC and refrigeration applications. These include environmental compliance, safety, system design, installation requirements and the long-term viability of refrigerant choices.

The guide focuses particularly on R32 and R290 (propane), two refrigerants increasingly used in heat pumps. It explains their different classifications and properties, alongside the practical implications for system design and installation.

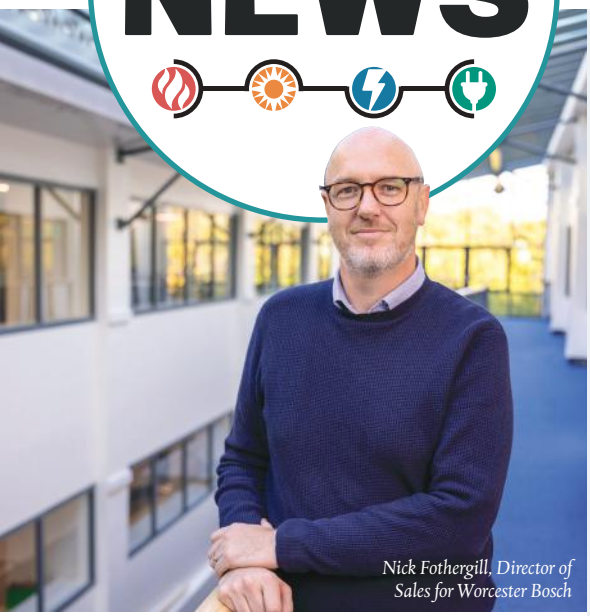
For R32, the guide considers its A2L mild flammability classification, regulatory requirements, airflow, clearances, noise, condensate management and frost protection. For R290, which is classified A3 and highly flammable, it provides additional guidance on protective zones, ignition sources, building openings, ventilation, low points and the need for appropriate risk assessment and trained personnel.

The guide also sets out key standards and regulations relevant to the design, installation and operation of systems using flammable refrigerants, including BS EN 378, ISO 5149 and, where applicable, ATEX and DSEAR requirements.

ICOM recommends that consultants and specifiers assess the regulatory framework, building type and occupancy, system capacity, operating temperatures and ambient design conditions when selecting a refrigerant, while also considering longer-term regulatory trends.

The guide can be found at:
www.icom.org.uk/media/7e45efe61305f7baab7dca87e6112cd0/260810-ICOM-Flammable-Refrigerants-Guide-Aug-26.pdf

NEWS



Nick Fothergill, Director of Sales for Worcester Bosch

Worcester Bosch announces new Director of Sales

After 32 years of dedicated service, we are announcing that **Paul Soper**, Director of Sales – Private & Domestic, has made the personal decision to leave the business. Throughout his incredible career, Paul has made a lasting impact in our organisation, and we wish him every success for the future.

Nick Fothergill has been appointed as Director of Sales for Worcester Bosch, extending his existing responsibilities for our Residential & Commercial Projects business to now include our Private and Domestic business. Nick brings over 15 years of leadership within the company and more than 20 years of HVAC sector expertise to the position. He has a proven track record of driving large-scale commercial success and delivering profitable growth across the entire value chain. His extensive commercial experience spans key market segments, including Utilities, New Build, Social Housing, and Government-funded sectors, where he has successfully led major go-to-market initiatives for electrification portfolios. A respected voice in industry policy, Nick holds an MSc in Engineering Project Management with distinction, serves as a non-executive board member of ICOM, and frequently contributes to national sector discussions, ensuring our customers receive market-leading expertise and strategic partnership.

https://www.worcester-bosch.co.uk

Nearly a quarter of UK homeowners use solar panels to increase property value

The Eco Experts' latest Solar Satisfaction Awards survey has identified a clear interest in UK homeowners using solar panels to boost their house price, as the survey data revealed nearly a quarter (23%) of UK homeowners say that the main reason they purchased solar panels was to increase their property value.

According to BOXT's findings, house buyers are prepared to spend as much as 7.6% more on a home that has solar panels. This would add £20,547 on average to the value of a home in the UK (the average UK house price being £270,000).

The Eco Experts have shared 3 ways adding solar panels to a home could increase its price by up to 7.6%.

Lower energy bills: The increase in property value is mainly due to how much solar power can save homeowners on energy bills. Solar panel owners can also sell surplus generation back to the grid through the Smart Export Guarantee (SEG) – bringing in even more money. According to The Eco Experts' latest survey data, UK homeowners who purchased solar panels were able to save an average of £462.7 on their annual energy bills.

Increased EPC rating: Solar panels can increase a property's Energy Performance Certificate (EPC) score, which is a measure of its energy efficiency – by over two levels. This can be hugely desirable for buyers and is something an estate agent should be disclosing during viewings and when making a sale. The Department of Energy and Climate Change (DECC) analysed over 320,000 properties between 1995 and 2011, and found that when a home's EPC rating rose from band G to E – or from D to B – its property price also rose significantly.

Home improvements: Solar-equipped homes also tend to sell for more because solar panels are considered to be upgrades to the home, similar to how an extension or conservatory increases a home's value.

Breaking even on solar panels

According to The Eco Experts' calculations, it could take the average household almost 15 years (14.55 to be precise) to break even. Solar panels typically last at least another 10 years after this point.

https://www.theecoexperts.co.uk

Beijer Ref UK and Ireland leadership

As of January 1st 2027, **Hayley Cattell**, will in addition to her Managing Director role be appointed Vice President Beijer Ref UK and Ireland and be part of the EMEA Leadership Team. Hayley has been with Beijer Ref for over 15 years, joining in 2010 as Trainee Sales Engineer for the North East of England. She later became Product Development Manager followed by several senior leadership positions including Group Sales Director, before being appointed Managing Director.

As a natural progression after serving 50 years in the refrigeration and air conditioning industry, 37 of them with Beijer Ref UK and Ireland (previously Dean & Wood) John has decided at the end of this year to step away from 'day to day' operational management. John will remain within the business and is appointed Chairman of the board for Beijer Ref UK and Ireland and will be involved in group strategy.

Jonas Steen COO EMEA Beijer Ref AB commented, "this transition reflects our commitment to consistency, stability and the development of internal talent. John has made invaluable contributions to Beijer Ref both financially and culturally. John's contribution to our industry will always be valued and remembered. His hard work, commitment and leadership have shaped both the business and the people around him, not least the strong team of leaders he has helped develop"

https://beijerref.co.uk/

The accidental retrofit: How Britain's homeowners are quietly future-proofing as they choose to improve, not move

As high moving costs, mortgage rates, and energy bills continue to challenge household budgets, British homeowners are increasingly choosing to improve, not move, with many making practical upgrades that also help to future-proof their homes.

New research commissioned by Wickes1 found that almost half of homeowners (42%) have no plans to move within the next five years, while energy future-proofing is already a significant consideration for 78% of homeowners when making home improvements. Younger generations are leading the way, with 86% of 18–24-year-olds and 88% of 25–34-year-olds saying it is important when making home improvements.

Property Expert and TV Presenter **Phil Spencer**, says: "Most homeowners don't begin with a formal retrofit plan. They start with a cold floor, rising bills or a room they want to make more comfortable. But those individual decisions can add up to an 'accidental retrofit' where home improvements make a home feel better to live in, but also better prepared for the future and changing energy needs.

"Renovations such as installing underfloor heating or fitting solar panels can help future-proof a property without the disruption of a major whole-home overhaul."

The accidental retrofit & improving efficiency

Design led improvements, such as laying underfloor heating, can simultaneously improve energy consumption and efficiency. Water-based underfloor heating operates at lower flow temperatures than traditional radiator systems and distributes heat across a larger surface area.

"For homeowners already replacing a floor, considering insulation and underfloor heating at the same time could help avoid major structural overhauls down the line," adds Phil Spencer.

"When properly installed and combined with good insulation and effective controls, it can make a home feel more considered and modern, becoming a compelling comfort feature."



Property Expert and TV Presenter Phil Spencer

Capturing sunshine to support everyday savings

"Solar panels are no longer just a feature on the roof; they can inspire homeowners to think about how they use energy," says Phil Spencer.

"As panels produce most of their power during daylight hours, that electricity can be used directly to run appliances, electrical equipment, hot water and daytime cooling, including air conditioning. When the panels generate more electricity than the household is using, a home battery can store the surplus for later."

Solar systems have an estimated payback period of around 8 years and over 3 in 5 (62%) of solar panel owners say the income generated by selling excess electricity back to the grid covers half or more of their overall energy bills[1].

Phil Spencer continues, "This makes solar an increasingly attractive addition for homeowners planning to stay in their property for the medium to long term. With the next energy price cap change approaching on 1st October 2026, generating and storing more electricity at home could also help households manage their exposure to grid prices."

https://www.wickes.co.uk

Source

1. Mortar Research carried out a survey on behalf of Wickes, targeting homeowners in the UK. The survey asked respondents about their attitudes towards solar panels and whether they already own solar panels.



Greenvolt agrees to sell 400 MW / 1.6 GWh battery storage projects in Poland to A&R Investments

Greenvolt Group, through Greenvolt Power, has agreed to sell two battery energy storage projects in Poland to A&R Investments. The transaction is expected to close until the end of 2026, subject to the fulfilment of the usual conditions applicable to transactions of this nature.

A&R Investments is Malta-based investment vehicle that oversees, controls and manages a diversified portfolio of private and public investments, both directly and through external fund managers.

The projects covered by the agreement are the stand-alone BESS in Ełk and Turośń Kościelna, both located in north-eastern Poland. Each project has a power capacity of 200 MW and an energy storage capacity of 800 MWh, enabling it to discharge at full power for approximately four hours. Both projects were completed in Q3 2026 and have obtained the required permits for use, helping to enhance flexibility in the Polish electricity system and support the integration of renewable energy.

Ełk and Turośń have each secured 17-year capacity market contracts in Poland, starting in 2028. Under these contracts, each asset receives a fixed payment for making 85% of its rated capacity available to the system. Both projects are also covered by a 10-year tolling agreement, which will optimise the batteries and trade their flexibility in the power markets.

To read the story in full visit **https://www.heatpumpsrenewablesjournal.co.uk/greenvolt-agrees-to-sell-400-mw-1-6-gwh-battery-storage-projects-in-poland-to-ar-investments/**



Warm Homes Loan Scheme: Factsheet

Department for Energy Security and Net Zero, The Rt Hon **Miatta Fahnbulleh MP** and **Martin McCluskey MP** announce how the government's Warm Homes Loan scheme can help households install clean energy technology and save money on bills.

Households will save money on their energy bills thanks to the new Warm Homes Loan Scheme for technology like heat pumps, batteries and solar panels.

The no and low-interest loans will allow people to install clean energy technology without any upfront cost. They will be able to spread payments over many years. Demand for these technologies is soaring, with almost 150,000 solar panel installations in first six months of this year. Heat pump sales also reached a record high in 2025.

Why?

Energy is an everyday essential that must be affordable for everyone.

One of the best ways to achieve that is by helping more people with the upfront cost of installing things like solar panels, a battery or a heat pump. These upgrades can reduce energy bills and leave households less exposed to price shocks caused by conflict abroad.

How?

New, government backed no and low-interest loans will allow people to install clean energy technology without any upfront cost, instead spreading payments over many years, and cut their energy bills quickly.

Installing a heat pump, battery and solar panels could help families save up to £550 a year on their energy bills, rising by a further £300 a year with a time-of-use tariff.

Who?

These loans are available to households across the entire UK - in England, Scotland, Wales and Northern Ireland.

What?

The government has worked with lenders to deliver an up-to-5 per cent reduction in interest rates from regular loans offered by banks or high street lenders.

For example, a homeowner borrowing £10,000, at 8%, over seven years could expect to repay around £155 a month with a loan available right now. Through the loan scheme, they could save up to £285 a year on repayments.

Where?

Ten lenders are initially offering loans, some interest free, meaning people can shop around for the one that works best, with up to thirty years to repay in some cases.

These lenders are:

- Homeserve (partnering with E.On)
- Hometree Finance
- Propensio
- Secure Trust Bank
- Selina Finance
- South Manchester Credit Union
- Sunsave
- Tandem Bank
- The Money Co-op
- This Bank

Homeowners will also be able to combine a loan with a grant of up to £9,000 through the government's Boiler Upgrade Scheme (and Home Energy Scotland in Scotland), further reducing the cost of installing a heat pump.

How much?

The maximum size of loan supported for each available technology is:

- solar panels – up to £15,000
- electrical storage battery – up to £15,000
- air-water source heat pump – up to £20,000
- air-air source heat pump – up to £10,000 (when MCS certification available)
- ground source heat pump – up to £35,000
- biomass boiler – up to £20,000
- heat network connection – up to £7,500
- micro-renewable system – up to £20,000

Will they be installed safely?

All installations, except for heat network connections, will be carried out by MCS-certified installers, giving consumers confidence that recognised technical and consumer-protection standards will be met.

Energy Secretary Miatta Fahnbulleh said: "Energy is an everyday essential that must be affordable for everyone. These government-supported loans will help families across the UK upgrade their homes with no upfront costs to make them warmer and cheaper to run."

Lisa Cooke, Managing Director at MCS: "With 2026 set to be another record-breaking year for certified renewable installations, it's clear that more people than ever before are putting their confidence in home-grown energy. The introduction of the Warm Homes Loan Scheme builds on this momentum, helping more households access the benefits of low-carbon technologies.

"Delivering high-quality outcomes for consumers becomes even more important as installation volumes rise. The requirement for small-scale renewable installations delivered under the Warm Homes Loan Scheme to be MCS certified provides that assurance – in the business installing them, the products used, and the protections in place if something does go wrong. It is a reflection of the changes MCS has made which put consumer protection at the heart of our Scheme and demonstrates the commitment to quality that all MCS certified installers have made."



T Walsh Contracts - Thomas Shirkie and Tony Walsh



A B Electrical - Ritchie Pirie and Allan Beveridge

NEWS

SELECT teams up with Luceco Group to help small businesses across Scotland with new £18,000 Powering Potential apprentice funding initiative

Campaigning trade body SELECT has partnered with Luceco Group to launch an ambitious new initiative that will deliver much-needed apprentice funding to small businesses across Scotland.

Announced at the SELECT President's Lunch, the investment comes amid ongoing concerns about rising training costs, with a SELECT survey revealing that high wages and low employer funding are the biggest obstacles to recruiting apprentices.

Powering Potential will now provide three grants of £6,000 to selected employers in the East, West and North of Scotland, helping offset the costs associated with employing apprentices during their first year of training. The inaugural recipients of the funding are:

- **East:** V C Electrical, Gullane – supporting apprentice **Reece Michie**
- **West:** T Walsh Contracts Ltd, Ayr – supporting apprentice **Thomas Shirkie**
- **North:** A B Electrical Scotland Ltd, Aboyne – supporting apprentice **Ritchie Pirie**.



Ian Hunter (Left) and Darren Crockett (Right) with the three apprentices

Each company received their funding at The Balmoral in Edinburgh from SELECT President **Darren Crockett** and **Ian Hunter**, UK Trade Sales Director at Luceco Group, who also donated electrical equipment to the young learners.

Sharon Miller, Managing Director of SELECT, said: "We are extremely grateful to Luceco Group for helping us make this meaningful investment in the future of our sector.

"Employers continue to tell us that rising costs are making it increasingly difficult to recruit apprentices, particularly during the first year when they spend significant periods at college, so this partnership is a practical example of industry coming together to find solutions.

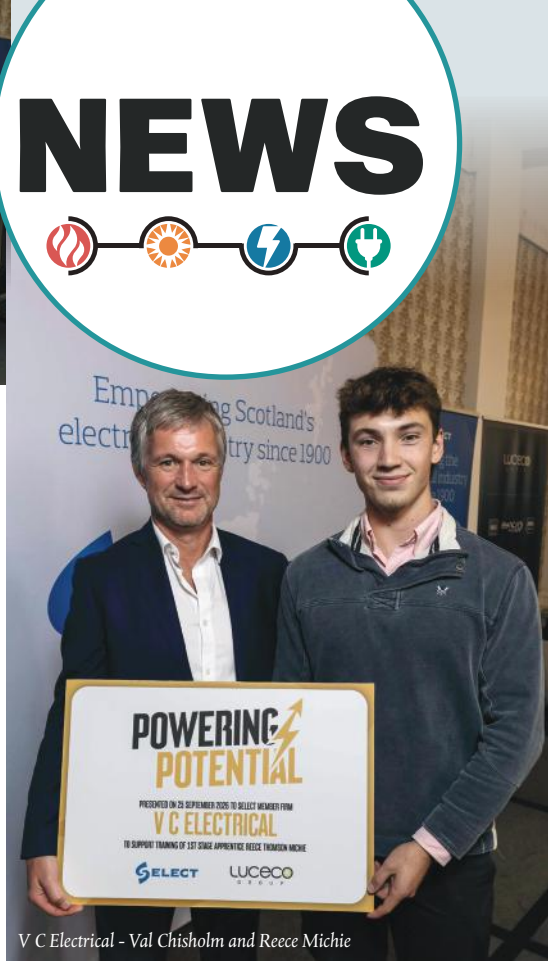
"However, while this funding will make a difference to these three SELECT members it is only a fraction of what is needed and is not a replacement for proper funding across the board. If Scotland is serious about addressing skills shortages and growing the workforce of the future, increased support for apprenticeships from government remains essential."

Ian said: "As someone who started my own career as an apprentice, I know first-hand the opportunities that apprenticeship training can create.

"Luceco is proud to support this initiative because we recognise the pressures many employers face when investing in new talent. Supporting apprentices is an investment in the future of our industry and a way of giving something back to the contractors who support our business every day.

"We hope this financial support will help remove barriers, create opportunities and encourage more young people to pursue successful careers in the electrical sector."

Developed with support from the Scottish Electrical Charitable Training Trust (SECTT), the Powering Potential



V C Electrical - Val Chisholm and Reece Michie

recipients were chosen from SMEs and longstanding SELECT member firms who have a proven track record of recruiting and developing apprentices.

The funding has been specifically designed to help employers meet wage costs while first-year apprentices attend college as part of their training, reducing one of the key financial pressures associated with recruitment.

As well as receiving financial support, the apprentices will be invited to visit Luceco Group's headquarters in Telford, where they will gain insight into manufacturing, product development and the wider electrical supply chain.

- V C apprentice Reece Michie, 18, added: "I am looking forward to gaining practical experience on site, learning from qualified electricians, developing new skills and working towards becoming a fully qualified electrician."
- T Walsh apprentice Thomas Shirkie, 19, added: "I've wanted to be an electrician since doing work experience at school. My long-term ambitions are now to get my qualifications and to be a professional producing high-quality work."
- A B apprentice Ritchie Pirie, 17, said: "I've always wanted to be an electrician. I was supposed to start with another company last year but it didn't happen so I'm excited to have this second chance."

www.lucecoplc.com
www.select.org.uk

OUT&ABOUT

October has been a particularly busy month for the heat pumps and renewables sector, with a series of high-profile industry events celebrating innovation, excellence and achievement across the wider building services and electrical industries.

Juliet Loiselle, Editor of Heat Pumps & Renewables (HPR), was once again honoured to serve as a judge for the **BESA Awards 2026**, before attending the ceremony at The Brewery on Chiswell Street, London. This year's event placed a particular emphasis on recognising and celebrating the achievements of young professionals within the industry.

Juliet also attended the **ECA Industry Awards 2026**, held at Hilton London Bankside on Friday 9 October, as part of the Electrical Contractors' Association's landmark 125th anniversary year.

Rounding off a busy month, Juliet was invited to **Stelrad Radiators' annual media update**, held at the London Transport Museum, where the radiator manufacturer brought the media together to share its latest news and developments.

BESA celebrates special night for 'young achievers'

Over 450 members and guests enjoyed a lavish celebration of young talent at the Building Engineering Services Association (BESA) Industry Awards.

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

Strictly Come Dancing and Britain's Got Talent drag performer **La Voix** hosted and added much glamour and humour to BESA's ceremony honouring those deemed to have gone "above and beyond the call of duty" for the greater good of the industry.

Young Achievers

There was a particular focus on young achievers at this year's dinner, with the finalists in this year's WorldSkills UK competition (Refrigeration, Air Conditioning and Heat Pump category) honoured as special guests.

Also attending was **Sam Jones** who had recently returned from Shanghai having won the Gold Medal at the 2026 Skills Olympics. He received another award to add to his collection from Kooltech.

Ian Lemmon of Beijer Ref also received a special award for his exceptional contribution to WorldSkills over many years as both judge and competition organiser.

And, as well as BESA's long-standing apprentice categories covering specialist trades like refrigeration and air conditioning, and facilities and energy management, the Awards also included a new overall Trainee of the Year Award, which was won by **Maisie Vaulters** from F P Hurley & Sons, who secured an impressive double by also winning the Learner of the Year prize.

The highly sought after Rising Star Award was another highlight celebrating exceptional young talent from across building engineering services. It was won by **Shanie Chauhan** of Crown House Technologies.

Full list of winners and shortlisted: **www.awards.thebesa.com/winners/2026**





Stelrad Radiators annual update highlights success in the UK and further afield

Stelrad Radiators recently welcomed members of the media to its annual media update event at the London Transport Museum. The event provided an opportunity to update attendees on the company's achievements, future plans and the state of the heating sector.

Stelrad began operating just down the road in Southall in 1936, making this its 90th year. The presentation covered Stelrad's performance, the UK radiator market, the growing importance of 'premiumisation', the company's role in the decarbonisation of the UK heating sector.

Stelrad reported it had outperformed its competitors over the past year, despite very challenging market conditions. It continues to dominate the European marketplace, holding a consistent 24% market share. Stelrad's top 10 markets account for 96.1% of its total steel panel radiator sales volume. The company holds the number one position in five European markets and ranks second in Poland, Sweden and Ireland, third in Germany and fourth in Turkey.

Stelrad's four key strategic objectives remain unchanged:

1. Growing market share
2. Improving product mix
3. Optimising routes to market
4. Positioning the business effectively for decarbonisation.

Stelrad is leading innovation to support growth across future heating systems. Heat emitters are suitable for the low- and zero-carbon systems of the future and have the potential to deliver increased revenue and higher profitability. Stelrad's product development strategy positions the company for profitable growth, whatever direction the market takes over the longer term.

The company is promoting high-output conventional radiators, developing hybrid products for low-temperature systems and introducing electric ranges into its core markets.

The company has expanded its UK portfolio of high-output heat emitters. These include its K3 ranges, featuring three panels and three sets of convector fins, and its K4 ranges, featuring four panels and four sets of convector fins. Stelrad has also extended its vertical radiator range and added new height options, including 200mm, 500mm, 900mm and 1200mm.

Looking ahead to 2027, what does the year have in store?

On the product front, Stelrad plans to expand its colour offering across all product ranges and continue extending its Column range. The company will also increase its range of products that support decarbonisation, including towel rails, and provide tailored information for specific sales channels and customer groups.

Stelrad will continue to invest in its people and a range of training programmes. These include training at local branch academies, where teams can develop their expertise and become Stelrad Specialists, as well as the continued rollout of CIBSE-accredited CPDs.

Electrical Contractors' Association's (ECA) Annual Awards

In the Electrical Contractors' Association's (ECA) milestone 125th anniversary year, some of the industry's leading businesses were recognised at the ECA Industry Awards 2026, held at Hilton London Bankside on Friday 9 October.

The ceremony, hosted by TV broadcaster and journalist **Krishnan Guru-Murthy**, brought together ECA Members, Associates and key stakeholders to celebrate excellence across the electrotechnical and engineering industry.

Helen Atkinson, Director of Member Services at ECA said: "For 125 years, ECA Member businesses have represented the very best of our industry and we are proud to once again recognise their achievements at this year's Industry Awards. The winners and highly commended runners-up demonstrated outstanding commitment to delivering the highest standards of work, support for the next generation as well as ambition and professionalism."

As part of ECA's landmark 125th anniversary celebrations, the ECA Industry Awards, sponsored by Milwaukee, recognised the exceptional achievements of Member businesses and individuals who continue to drive excellence, raise industry standards and make a significant contribution to the electrotechnical and engineering services sector.

ECA Industry Awards Winners 2026 can be viewed at: **www.eca.co.uk/news**



How installers can benefit from the rise in multi-tech installations





Data from MCS (Microgeneration Certification Scheme), shows a rising demand for certified low-carbon technologies. **Dan White**, Market Development Director at MCS, discusses how installers can benefit as more people than ever before are combining multiple technologies in one home.

The momentum of a record-breaking 2025 for MCS certified installations hasn't stopped this year, with MCS data showing that the first six months of 2026 were the best-ever for low-carbon technologies in the UK; with a total of 210,000 certified installations.

It also shows a growing trend in households combining more than one technology under one roof. One in three installations from January to June 2026 were either delivered onto a home that already had an MCS certified renewable or were part of a multi-tech installation. This presents a significant opportunity for installers offering services for multiple technologies.

Building the future

The built environment is at the forefront of the UK's energy transition, with a quarter of certified installations in the first half of 2026 going onto new build properties. This is set to rise even further, with the upcoming Future Homes Standard effectively mandating low-carbon technologies like solar panels and heat pumps in new builds.

The Government's Warm Homes Plan explicitly references the benefits of what is termed the 'holy trinity' - combining solar panels, battery storage, and heat pumps in one property to lower energy bills and improve energy performance certificate



Dan White, Market Development Director at MCS

(EPC) outcomes. In particular, battery storage is becoming increasingly popular as an additional technology to allow consumers to store excess energy and improve their energy security. Between January and June 2026, 92% of MCS certified battery installations went onto properties with solar panels.

As homes increasingly have to be built with renewable energy, this increases the demand for quality, certified installers to deliver these.

MCS's evolving role

With solar panels, heat pumps, and battery storage being deployed at scale, MCS's new role in the sector as not just a standard setter, but also a consumer protection organisation, is more important than ever in building consumer confidence in the impact these technologies can have on their homes.

The MCS redeveloped installer Scheme, now rolling out across our installer base, has been designed to meet the needs of our rapidly growing industry. It raises the bar for quality while making certification simple, robust, and rewarding for installers; regardless of their experience in the sector.

New universal requirements for financial protection, along with the Customer Commitment[1] and a simple, accessible route to follow if something were to go wrong, will boost confidence in your business. To help make your certification a success and drive continuous improvement, you'll be assigned a dedicated Account Manager that will be on hand to support you through every stage of the MCS journey.

A mark of quality

As more households and small businesses across the UK look to improve their energy resilience to adapt to changing energy markets, it is crucial that they have access to products, installations, and installers that meet industry-recognised standards and offer robust protections.

That's exactly what MCS certification does, and being MCS certified is a mark of quality for your business in an increasingly competitive market, allowing your customers to access crucial grants and incentives, making home-grown energy more accessible for everyone.

To find out more about how to get your business MCS certified, you can access MCS's free interactive guide here: **www.mcscertified.com/installers/view-our-guide-to-certification.**

Source

1. https://mcscertified.com/?standard=mcs-customer-commitment

Honouring former Managing Director Alan Wilson



Alan received a standing ovation from guests

Campaigning trade association SELECT honours former Managing Director **Alan Wilson** with Lifetime Achievement Award, sponsored by Schneider Electric.

Former SELECT Managing Director Alan Wilson has been presented with the trade body's prestigious Lifetime Achievement Award in recognition of more than 40 years of service to the Scottish construction industry.

The award, sponsored by Schneider Electric, was presented to the industry veteran by association President **Darren Crockett** at the 2026 SELECT President's Lunch at The Balmoral in Edinburgh on Friday 25 September.

Alan retired in August after 12 years with SELECT, including seven as Managing Director, having played a pivotal role in shaping the organisation and strengthening its position as Scotland's largest construction trade association.

Presenting the award at the lunch, sponsored by Luceco Group, Mr Crockett paid tribute to Alan's longstanding commitment to the sector and his leadership during some of the industry's most challenging periods. He said: "Alan has been a tireless advocate for our industry throughout an exceptional career spanning more than 40 years. His knowledge, integrity and leadership have earned him enormous respect not only across Scotland but throughout the wider construction sector.

"His contribution during the COVID pandemic was particularly significant. At a time of unprecedented uncertainty, Alan brought organisations together to establish the Construction Industry Coronavirus (CICV) Forum, creating a single voice for the industry and ensuring contractors' concerns were heard at the highest levels of government.

"Throughout his time at SELECT, Alan has helped drive significant progress for the association, introducing new initiatives, strengthening membership and championing apprenticeships to help secure the future of the profession. His leadership has left SELECT in an exceptionally strong position and he is a thoroughly deserving recipient of this award."

Accepting the accolade, Mr Wilson said: "I am genuinely honoured and humbled to receive this award. While my name may be on the trophy, it really reflects the support, commitment and hard work of the many colleagues, members, presidents and industry partners I have had the privilege to work alongside throughout my career.

"The construction industry has given me tremendous opportunities and I have always believed in the importance of standing up for contractors, improving standards and ensuring our industry has a strong and respected voice. Seeing the sector come together during difficult times and continue to innovate and adapt has been one of the most rewarding aspects of my career.

"I leave SELECT enormously proud of what has been achieved over the past 12 years. The association is in a strong position, with an outstanding team, a committed membership and a clear vision for the future. I am confident its best days are still ahead."

Holding a Master's degree in Construction Law, Mr Wilson has spent more than four decades championing the interests of contractors through a career spanning trade associations, the private sector and public sector organisations. He is widely recognised as a leading advocate for fair payment practices, improved regulation and greater recognition of the electrical industry's contribution to the Scottish economy.



SELECT President Darren Crockett, Alan Wilson and Neil MacEachern of Schneider Electric

Sharon Miller, who succeeded Alan as Managing Director, said his influence on both SELECT and the wider construction sector would be felt for many years to come. She said: "Alan's contribution to SELECT has been immense. His leadership, strategic vision and unwavering commitment to members have helped transform the association and strengthen its reputation across government, industry and beyond.

"He has always been passionate about supporting electrical contractors and ensuring they have a strong voice on the issues that matter most. Whether championing apprenticeships, improving industry standards or advocating for fairer business practices, Alan consistently put the interests of members at the heart of everything he did.

"On behalf of everyone at SELECT, I would like to congratulate Alan on this thoroughly deserved recognition and thank him for the remarkable legacy he leaves behind. We wish him a long, happy and well-earned retirement."

A video of the President's Lunch presentation and interview with Alan can be seen by visiting: **https://www.youtube.com/watch?v=1qio-8qZNhI**

Making battery storage easier to sell, install and manage

As more solar installers and EPCs look to expand into battery energy storage, the technical and commercial complexities can be difficult to navigate. **Mark Duxbury**, UK Director at iwell, explains how the company's new Partner Portal aims to simplify the process, from initial project assessment to long-term operation.



Mark Duxbury, UK Director at iwell

For solar installers and EPCs operating in the commercial and industrial market, battery energy storage represents a significant opportunity. Customers are increasingly interested in how they can make better use of the electricity they generate, reduce their exposure to volatile energy prices and get more value from their existing infrastructure.

For companies already delivering solar PV projects, adding battery energy storage systems (BESS) to their offering seems like a logical next step, but in practice, making that transition isn't always straightforward.

We speak to installers who understand solar PV inside out but have considerably less experience of batteries and energy management systems (EMS). They're comfortable designing and delivering solar projects, yet the prospect of specifying a battery, understanding the commercial returns and then operating and maintaining the assets after installation introduces a different set of challenges.

That can become a barrier to taking on projects, particularly when installers don't have the time or resources to develop specialist in-house expertise, and it's one of the main reasons we've developed the iwell Partner Portal, a new digital platform scheduled to launch in the first quarter of 2027.

From technical specification to business case

One of the most important considerations when specifying BESS is establishing what the customer actually needs the system to achieve.

Battery storage isn't simply a question of matching capacity to an existing solar installation. Installers need to understand a site's electricity consumption, generation profile, grid connection and operational requirements before determining the appropriate solution.

Then there's the commercial side. How much could the customer save by storing and using more of their own solar generation? Could the battery reduce peak demand charges? Are there opportunities to generate additional revenue through energy trading? And how do these different applications influence the system's size and expected return on investment?

Traditionally, developing that level of detail can involve considerable manual work, particularly for installers who don't routinely deliver battery projects. Alternatively, they may rely on a hardware supplier or specialist consultant to undertake the assessment.

Portals such as our Partner Portal is designed to put much of that capability directly into installers' hands, allowing them to develop the technical and financial business case for a BESS installation using iwell's modelling expertise.

Consider an EPC delivering a rooftop solar installation for a commercial customer who also wants to explore battery storage. Following the initial partnership agreement with iwell, the EPC will be able to access the portal, create a project and input the customer's site information. The platform can then assess the technical and commercial viability of a battery installation, helping to identify an appropriate solution and build the supporting financial case.

This gives the installer the information needed to present a combined solar and storage proposal, supported by an assessment of the potential benefits.

Importantly, the installer retains control of the customer relationship. Some partners prefer to manage the entire sales process themselves, while others want us involved in discussions where more detailed BESS or EMS expertise is needed. Both approaches are supported.

The information installers need, in one place

Of course, developing a viable business case is only one part of delivering a battery project. Once a customer expresses an interest, there are technical questions to answer, product specifications to review and installation requirements to understand. For an installer relatively new to BESS, finding that information can be time-consuming.

The Partner Portal will provide a central resource containing technical documentation, manufacturer information, service level agreements and supporting sales materials. So, instead of repeatedly contacting different people to obtain information, partners will be



able to find much of what they need through the platform, including the documentation required to support conversations with customers and progress projects towards installation.

Training is another important element in all this. Through the iwell Academy, partners will have access to training modules designed to build their understanding of battery storage and energy management. The aim is to help sales and technical teams develop the knowledge and confidence to introduce BESS alongside their existing services.

The portal will also support multiple users within a partner organisation, allowing colleagues to access relevant information and work on projects together. Our intention is to make battery storage easier to integrate into an installer's existing business. If expanding into BESS means introducing cumbersome new processes or committing substantial resources before securing any projects, some companies will understandably decide that the opportunity isn't worth pursuing.

Looking beyond installation

Something that can be overlooked when discussing battery storage is what happens after the system has been installed and commissioned.

A battery is a long-term asset, and its performance needs to be monitored and managed throughout its operating life. The decisions made during the initial design stage also have implications for how effectively that asset will perform in the years ahead. This is where our approach differs from simply supplying battery hardware.

The Partner Portal forms part of an end-to-end offering that extends from initial project modelling and technical assessment through installation, commissioning, monitoring and ongoing maintenance.

Partners will be able to view the performance of individual installed assets, as well as their wider portfolio of projects, providing useful visibility over how systems are performing and information they can share with their customers.

Behind the platform, there is ongoing technical support and optimisation, helping partners manage installations throughout their operational life, potentially extending to 15 years or more.

When a project needs a human touch

While automation can significantly reduce the time involved in assessing battery projects, it's important to recognise its limitations. We expect the Partner Portal to handle approximately 90–95% of the initial modelling required for many projects. However, commercial sites are rarely static, and there will always be circumstances where more detailed analysis is needed.

A customer might be considering adding further solar capacity in five years, for example, or introducing electric vehicle charging infrastructure. Those plans could materially affect the appropriate battery specification and the financial case for investing.

In these situations, specialists such as our team can take the information already entered into the portal and refine the modelling to account for the customer's particular requirements.

We've also been developing the portal in consultation with installers and partners, incorporating feedback from discussions and industry events.

Opening up the BESS opportunity

Portal's such as ours are intended to support companies approaching their first BESS project, as well as those with some experience who want to improve their modelling capabilities, reduce the resources needed for project development or manage a growing installed portfolio.

We believe there's considerable potential for solar installers and EPCs to grow their businesses through energy storage. Making that potential accessible, without requiring every installer to become a battery specialist, is what the Partner Portal has been designed to achieve.

https://iwell.eu/



‘An extraordinary achievement’: 2026 set for record solar power take-up

Gareth Simkins, Senior Communications Adviser at Solar Energy UK, discusses the UK’s booming rooftop solar market, with 223,688 installations already recorded in 2026 and around 300,000 expected by year-end. Growth is being driven by high energy prices, new-build regulations, and rising demand for cheaper, cleaner energy.



Gareth Simkins, Senior Communications Adviser at Solar Energy UK

Growing at extraordinary pace, the rooftop solar energy industry has already installed more rooftop solar energy systems this year than across the whole of 2011 – which for nearly 15 years held the record for the most annual installations.

According to MCS, the UK’s quality mark for small-scale renewable energy systems, as of start of October a total of 223,688 MCS certified solar installations have been recorded this year, exceeding the 203,697 seen in 2011[1]. That year remained the annual record until it was exceeded dramatically last year, when annual installations rose to 269,195.

The annual record looks on course to be broken again. Assuming that the current trend holds, around 300,000 homes, businesses, village halls, schools and other buildings will have solar panels fitted before the year is over.

Commercial-scale installations, such as those on warehouses, supermarkets and factories, are outside of MCS’ purview and not included in its numbers. They are challenging to track, as they are also outside of the development planning system.

A record breaking year

2026 has already set several other solar records:

- The highest number of MCS certified installations ever seen in a single month was recorded in March, at 28,861, with July and June following just behind at 28,489 and 28,200, respectively.
- Solar power supplied 14.4% of Great Britain’s power in July, a new monthly record. It was up from 9.6% a year earlier.[2]
- A new solar generation record was set in May, at 14.4 gigawatts – enough to boil 4.8m kettles at the same time.



There are now more than 2.1m MCS certified solar systems in the UK, which have a generation capacity of up to 50 kilowatts. Their average capacity is around a tenth of that limit, with solar homes typically carrying with 3-5kW of solar panels.

It took more than 10 years, from January 2009 until July 2019, to register the first million certified installations. The second million was achieved in just seven years, in April 2026. The accelerating pace of installations has been driven by a variety of factors, including a combination of households and businesses keen to cut their energy bills and stricter energy efficiency requirements for newbuild properties.

Given the current trajectory, there could be 3m small-scale installations in only three years’ time.

Rising demand

Earlier this year, the spike in energy prices driven by the Iran War led to a surge in demand for solar power.[3] The uptick in consumer inquiries in the spring is clearly translating into action.

Chris Hewett, Chief Executive of Solar Energy UK, said: "It's no wonder that such unprecedented numbers of people are going solar. Energy bills remain high, driven by the UK's longstanding dependence on expensive natural gas. Adding a solar installation is a quick and highly effective way to cut bills for good."

"I hesitate to make predictions but we look odds-on to reach 300,000 rooftop installations this year, the overwhelming majority of which are mounted on homes. That would be an extraordinary achievement, considering that only 21,200 were installed over the whole of 2020. Nowadays, such a figure would look like a slow month," he added.

Lisa Cooke, Managing Director of MCS, said: "It's great to see that solar continues to break records across the UK, building on the momentum of a record-breaking 2025. More people than ever have the confidence they need to make the transition to home-grown energy and are putting their trust in MCS certified products and installers to do so.

"We take that responsibility seriously, and it's why we have redeveloped our Scheme to go even further to protect households and empower even more people across the UK to transform the way they heat and power their homes and become more energy resilient in the years to come," she added.

"Adding a solar installation is a quick and highly effective way to cut bills for good."

Newbuild

A significant driver of growth in the residential solar market is newbuild properties. According to Government figures for England alone, a total of 55,773 new homes were built with solar panels fitted in the first half of the year – 58% of the 98,222 newly built in that period.[4]

In England, more than half of all MCS certified solar installations so far this year were on new-build properties.

The figures have been rising steadily for some years, accelerating lately due to the need to comply with the 'Part L' energy efficiency requirements that were introduced under the Building Regulations in 2022. In 2021, only 16% of newbuild homes came with solar panels pre-installed, rising to 42% in the last quarter of 2024.[5]

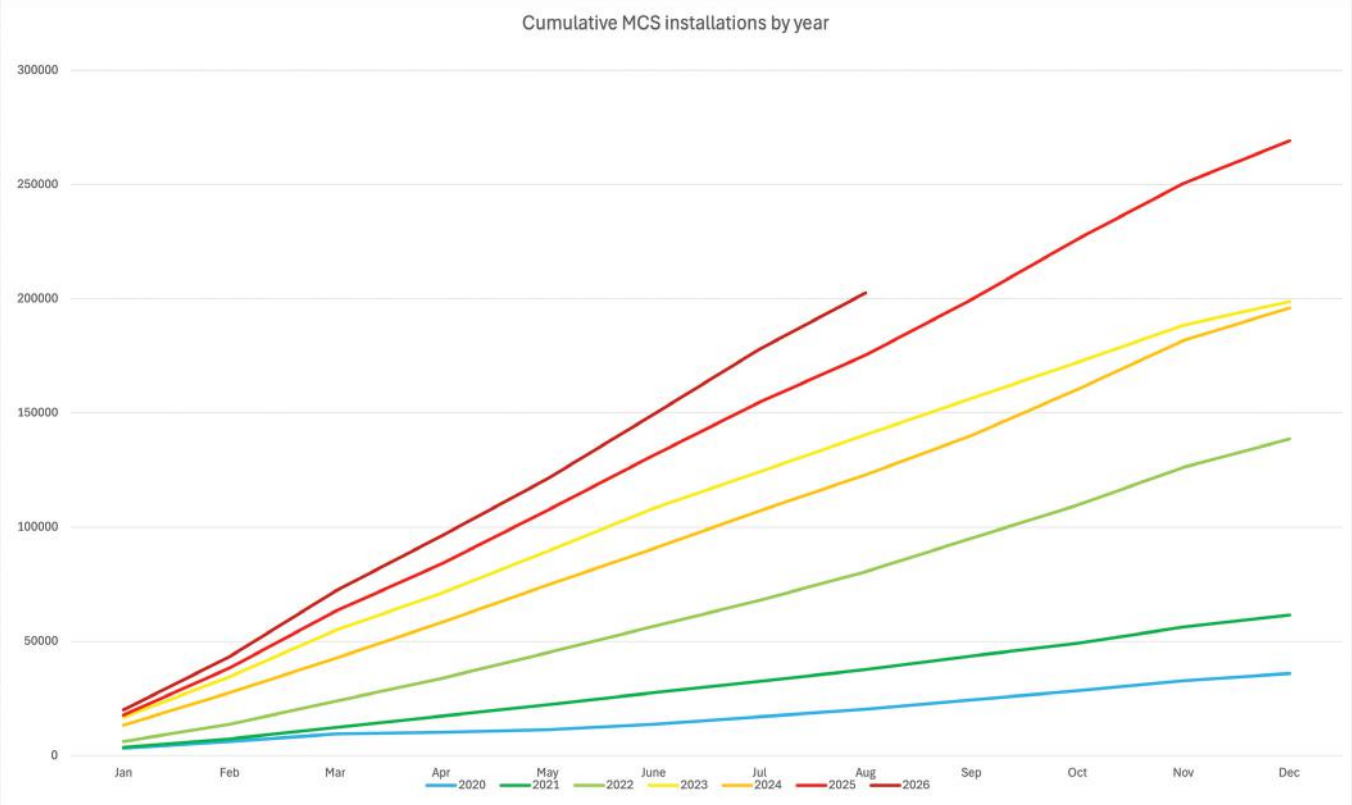
Equivalent figures for non-domestic buildings are unavailable.

"The newbuild market has become a central part the rooftop solar industry. Its importance will no doubt grow further with the forthcoming introduction of the Future Homes Standard and Future Buildings Standard, which all but mandate the installation of rooftop solar panels in England. Wales is going even further by making solar panels a 'functional requirement' for new buildings from March, extending to new roofs and renovations a year later," Hewett added.[6]

https://solarenergyuk.org/

Source

1. *https://datadashboard.mcscertified.com/Welcome*
2. *https://solarenergyuk.org/news/solar-generation-sets-new-gb-record/https:/solarenergyuk.org/news/solar-generation-sets-new-gb-record/*
3. *https://www.bbc.co.uk/news/articles/cjrp19v9vl2o*
4. *https://www.gov.uk/government/statistical-data-sets/energy-efficiency-characteristics-of-new-dwellings*
5. *https://solarenergyuk.org/news/more-than-four-in-ten-new-homes-in-england-built-with-solar-power/*
6. *https://solarenergyuk.org/news/wales-to-mandate-rooftop-solar-power/*



Plug and play: 7 million want plug-in balcony solar as law changes on 27 August



Alvaro Iturmendi, solar expert at Uswitch

Alvaro Iturmendi, solar expert at Uswitch discusses, new research by the Uswitch which reveals that nearly seven million households[1] – a quarter of homes (26%) – want to get plug-in solar panels, as the government relaxes rules allowing the UK's biggest retailers to sell them from 27 August[2].

Plug-in solar panels have become popular in Europe in recent years as they can be plugged into wall sockets to generate electricity on balconies, gardens and in other outdoor spaces. Unlike traditional rooftop solar panels, they don't need professional installation and typically generate 800 watts, which is a fraction of the power created by rooftop solar.

The legal change means that retailers including Currys, B&Q and Asda will be able to sell DIY solar setups from the end of this summer[2].

One in eight households (13%) plan to get plug-in solar panels within the next five years, a similar proportion (9%) would like to get some but have no firm plans, while 4% want to but can't afford them[1].

Table 1: Difference between rooftop solar and plug-in panels

Table 1			
System	Power	Typical Cost	Average annual saving
Plug-in solar	0.8kW	~£500	~£70 to £110
Solar rooftop system	3.29kW	~£7,875[10] (with battery) OR: Pay monthly for an agreed duration with **no** upfront cost	£964[11]

Plug-in panels are a handy solution for households who can't put solar panels on their roof, including those who are renting, and those whose roof points the wrong direction. One in five people (18%) say needing their landlord's permission is stopping them from getting solar at their home[3], showing the size of the issue.

Nearly one in three Gen Z adults (30%) are excited about getting plug-in solar, almost 15 times the proportion of Boomers (2%) who are keen[1]. Londoners are most enthused about the technology, with one in three homes in the capital city (35%) interested in plug-in solar, while only one in 10 (12%) residents of Edinburgh showed an appetite[4].

Table 2: Interest in plug-in solar across the UK

Nearly 1.7 million households have already installed traditional solar panels on their roof to bring down their energy bill, with 19,000 being added every month[6]. More than 2.5 million households – almost one in 10 homes (9%) – plan to install roof-mounted solar panels within five years[5].

Two-fifths of households (40%) say that rollercoaster energy prices have made them more likely to invest in the technology[7].

The energy price cap increased 13% from 1 July, largely due to rocketing wholesale energy prices amid the ongoing conflict in the Middle East. Increased energy bills are likely to have an impact long past summer, with energy rates expected to creep higher through autumn and winter, when households use much more energy for heating[8].

One in three households (35%) are put off installing roof-mounted solar panels due to the upfront cost[9], with consumers estimating that a typical installation might cost just under £9,000[10]. Live data shows that an eight-panel system could be around half that at £4,650, or £7,875 with battery storage included[10].

Based on real customer quotes generated via Uswitch, homeowners seeking to install solar panels have seen average savings of £964 a year, and quoted upfront costs paid back within nine to 10 years[11].

Monthly payment plans are an option for households that are hesitant to take the plunge due to the upfront cost. Based on live

Table 2		
Location	Interested in plug-in solar	No plans to install this
London	35%	58%
Manchester	33%	63%
Nottingham	30%	67%
Sheffield	29%	67%
Birmingham	28%	59%
Leeds	27%	64%
Liverpool	24%	71%
Bristol	23%	71%
Cardiff	23%	71%
Southampton	22%	74%
Norwich	20%	70%
Newcastle	19%	76%
Plymouth	18%	76%
Glasgow	18%	75%
Brighton	17%	79%
Edinburgh	12%	82%



quotes for a typical eight-panel setup with a battery, households could pay as little as £78 per month across a 15-year contract[11]. Homeowners would also see savings on their electricity bills straight away, potentially wiping out the monthly payment with electricity savings, depending on usage.

Households can now answer a few quick questions about their home and energy use and get personalised quotes from certified solar installers at Uswitch.com. Then, they can book a free online consultation with an installer, at a time that works for them, to ask any questions and get a final design.

Alvaro comments: "You don't need to own a roof to start generating your own electricity anymore. From the end of August, renters and flat-dwellers who've never had a solar option can plug a panel into a wall socket and start cutting their bills straight away.

"Plug-in panels won't replace a full rooftop system if you want to maximise savings, but they're a genuine first step for the millions of households who've been locked out of solar altogether.

"Some households are put off installing solar because they don't know where to find a trustworthy installer or a reliable quote, so we've created a straightforward way to compare trusted installers.

"A solar panel system can cut your electricity bills. And with the Smart Export Guarantee, you can get paid for any surplus energy your panels send back to the grid.

"Through comparing quotes at Uswitch, our customers have been offered average savings of around £964 a year with solar – putting money back in their pocket every month and future-proofing their home against rising energy prices."

https://www.uswitch.com/gas-electricity/solar-panels/

Source

1. *Respondents were asked 'Do you have plans to install any of the following in your home?' 13% of households said 'Yes - within five years' to plug-in solar. 9% said 'I would like to, but have no firm plans'. 4% said 'I would like to, but cannot afford the upfront cost'. 13% + 9% + 4% = 26% of households interested in plug-in solar. 26% of 28.6 million UK households = 7.46 million households. 30% of Gen Z households said 'Yes', compared with 2% of Boomers.*
2. *The Guardian: UK households free to install plug-in balcony solar panels from end of August*
3. *Respondents were asked 'What, if anything, is putting you off installing roof-mounted solar panels at your home?' 18% said 'I rent my home and need landlord permission'.*
4. *See table in release.*
5. *Respondents were asked 'Do you have plans to install any of the following in your home?' 181 households that don't have solar said 'Yes - within the next five years'. 181 / 1762 households without solar = 10.3%. Overall, 181 / 2000 households = 9.1%. 9.1% of 28.6 million UK households = 2.6 million households planning to get solar in next five years.*
6. *Department for Energy Security and Net Zero: Solar photovoltaics deployment*
7. *Respondents were asked 'Have energy prices over the last two years made you any more or less likely to install home energy generation, such as solar panels, battery storage, heat pumps etc?' 40% said it had made them more likely.*
8. *Predictions using averages from EDF, British Gas and E.ON Next's price cap forecasting services, as of 29 July 2026, based on dual-fuel customers consuming medium energy usage as defined by Ofgem's Typical Domestic Consumption Values (TDCV), paying by direct debit, with paperless billing.*
9. *Respondents without solar panels were asked 'What, if anything, is putting you off installing roof-mounted solar panels at your home?' 35% said 'I am worried about the upfront cost'.*
10. *Data from Uswitch's solar partners Sunsave, Glow Green and heatable. Figures are the cheapest option from the comparison results using a semi-detached home with a South-East facing pitched roof and an 8-panel system. Actual savings and costs will vary per property.*
11. *Data from real customer quotes generated on Uswitch since April 2026. Actual savings and costs will vary per property.*

Roof or car park?

Are we looking at the whole solar opportunity?

Elliot Jones, Managing Director, Tate Electrical Services Ltd and Founder of PVPossible.com, discusses how PVPossible.com helps identify commercial Solar PV opportunities across rooftops and car parks, providing early feasibility insights to help installers and property owners decide whether a site is worth pursuing. Its aim is to help the industry look beyond the roof and unlock more solar potential.

The idea behind PVPossible.com came about almost by accident. I had been invited to a large commercial site to look at an electrical tender and, while walking around with the customer, I noticed they had recently installed a substantial Solar PV system across several of the buildings.

The installation was well over 1MW and naturally caught my attention because of the type of work we carry out. Looking at it from an electrical contractor's point of view, one of the things I noticed was how difficult parts of the system would be to access once the installation had been handed over.

I would estimate that around two-thirds of the panels were installed on roof areas where future access for inspection, cleaning, fault finding or maintenance would require significant access equipment.

That's not to say there was anything wrong with the design. I knew nothing about the original brief, the customer's requirements or the reasons behind the decisions that had been made. There could have been perfectly good reasons for using the roofs.

What interested me was what was sitting next to the buildings.

The site had a huge car park with more than 450-500 parking spaces, and I remember looking across it and wondering whether some of that space could have been utilised for Solar PV instead.

It got me thinking about something that I think we're probably all guilty of to an extent. When we look at commercial Solar PV, we tend to look at the building and immediately start assessing the roof. In most cases that makes complete sense and, to be clear, the majority of the commercial systems we install ourselves are rooftop systems.

But are we always looking at the whole site?

When I got back to the office, I wanted to compare the two options. I wanted to know roughly what could have been achieved using the car park, how it would compare with the available roof space and whether there was potentially an argument for using both.

What became apparent quite quickly was how much work was involved just to answer what was, at that stage, a fairly simple question.

I wasn't looking to produce a detailed design. There was no project to design. I simply wanted enough information to understand whether the alternative was worth investigating.

That was really the starting point for PVPossible.



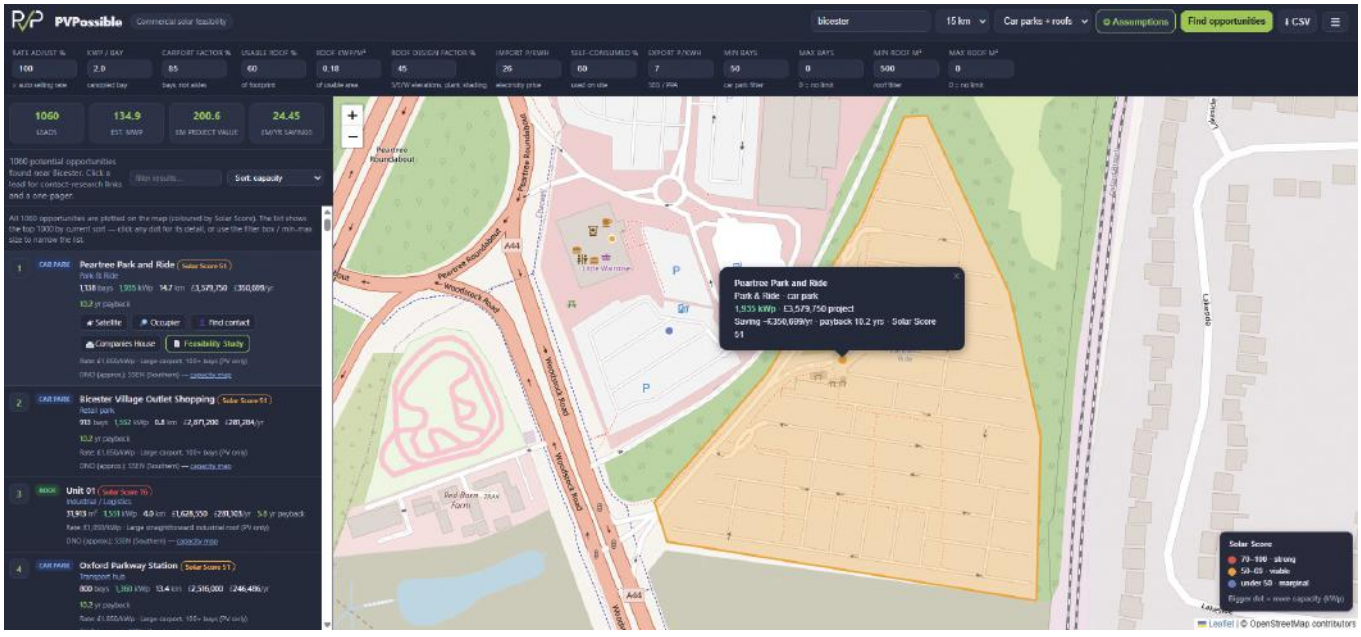
Elliot Jones, Managing Director, Tate Electrical Services Ltd and Founder of PVPossible.com

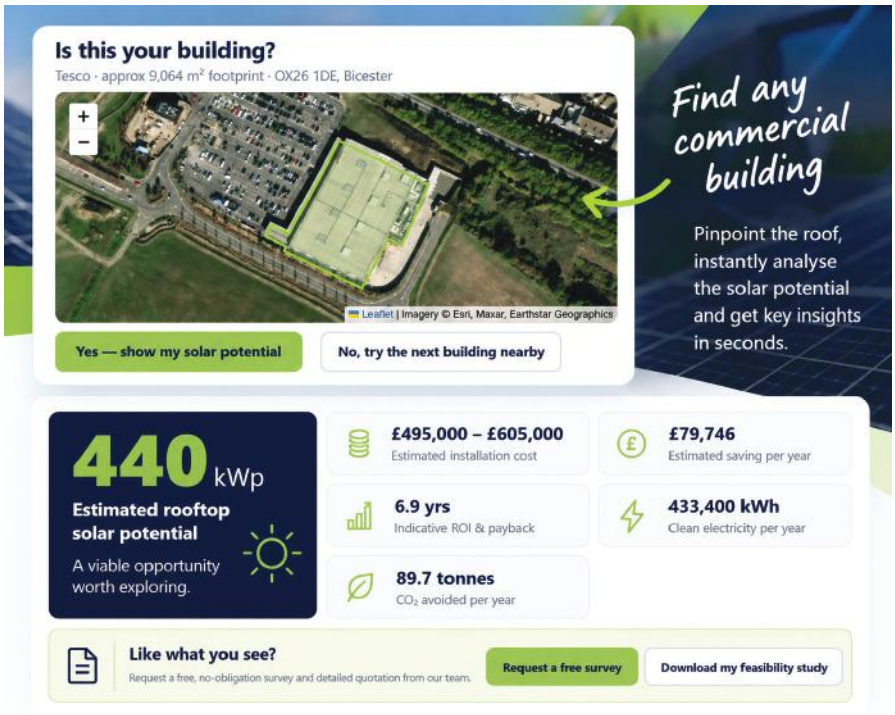
An early feasibility tool, not a design package

This distinction has remained important throughout the development of the platform.

There are already very good professional Solar PV design packages available, such as PV*SOL, and PVPossible isn't intended to replace them. In fact, I see it sitting upstream of the process.

If an installer, consultant or property owner is looking at a commercial site for the first time, there are some fairly basic questions they need to answer before committing time and money to a full design.





Is there enough usable space? What sort of system size might be achievable? What could it potentially generate? Is there a large car park that should be considered as well as the roof? And, most importantly, is there enough of an opportunity to justify taking it any further?

That is what I wanted the platform to help with.

If the answer is yes, that's when the proper work begins. A site survey still needs to take place. The condition and suitability of the roof or ground needs to be established. The customer's electrical demand and infrastructure need to be understood. Structural requirements, planning, DNO requirements and all the other site-specific issues need to be considered before moving into detailed design.

PVPossible is simply intended to provide useful information earlier in that process.

Car ports won't be right for every site

There is also a commercial reality with solar car ports that can't be ignored.

At the moment, installing panels on an existing suitable roof will often provide a better payback than constructing a solar car port. With a rooftop system, the structure is already there. With a car port, you've got the additional structure, foundations, groundworks and associated infrastructure to pay for before you even start considering the PV installation itself.

Those costs can make a significant difference to the payback and will inevitably rule out car ports on some projects.

But I do think the market is beginning to change.

We're starting to see different car-port systems and construction methods coming onto the market, and I think we'll see further innovation in this area over the next few years. As the products develop and more are installed, I'd expect some of those costs to come down.

There are also benefits that don't necessarily show themselves if the decision is based purely on the shortest Solar PV payback.

You're providing covered parking as well as generating electricity. You've got an obvious opportunity to incorporate BESS & EV charging. Depending on the system, future access for inspection and maintenance can potentially be much more straightforward than accessing panels spread across several difficult roof areas.

For certain sites, those additional benefits could be important.

How the idea developed

Initially, I was developing the concept purely because I thought it would be useful within my electrical contracting business Tate Electrical based in Hampshire.

I wanted to be able to look at a hospital, warehouse, school, supermarket or another commercial site and get some sensible early information without spending hours developing a proposal that might never go anywhere.

As I worked on it with my developer, we started looking at commercial roofs as well as car parks. That seemed the obvious thing to do because it meant we could assess the two areas alongside each other rather than treating them as completely separate opportunities.

It was at that point that we realised the same tool could potentially be useful to other people in the industry.

An installer could use it to carry out an initial assessment before deciding whether to invest more time in an opportunity. A consultant looking across an estate could use it to identify which sites might warrant further investigation. Equally, a property owner who knows very little about Solar PV could use it to get an initial understanding of what might be possible on their own building or car park, without having to approach multiple contractors for proposals before they even know whether there is a worthwhile opportunity. It gives them some useful information upfront, allowing them to have a more informed conversation with an installer when they're ready to take the project further.

The other part of the problem is finding these opportunities in the first place.

Recent research suggests that more than 90% of suitable commercial roof space in the UK is still not being utilised for Solar PV. That is a huge amount of potential sitting largely untapped.

There must be thousands of commercial properties across the UK with large roofs and car parks where Solar PV has either never been properly considered, or perhaps was looked at several years ago when the technology, costs and commercial case were very different.

For me, that highlights another challenge for the industry. Before we can design and install these systems, we first need to identify where the opportunities are and give building owners enough information to start the conversation.

As PVPossible developed, we therefore started looking at how we could help installers identify potential sites and, where possible, identify the business or organisation associated with the property so that the opportunity could actually be brought to their attention.

For me, though, it is important that the platform stays in its lane.

It is an early feasibility and opportunity-identification tool. It isn't there to tell an installer how to design a system and it certainly isn't there to replace the technical work and competence that are required once a project progresses. Its job is to help establish whether there is something worth designing in the first place.

Looking at the whole site

Going back to the site where the idea first came from, I still don't know whether the car park would actually have been a better option. The rooftop installation may well have been the right solution once all the technical and commercial considerations were taken into account.

But that's really the point. I wanted an easier way to make that initial comparison before investing significant time developing both options.

As an industry, I think we're going to have to become better at looking at sites as a whole, particularly as Solar PV, battery storage and EV charging become increasingly connected. Commercial rooftops will continue to provide a huge opportunity for Solar PV, but they're not the only space available to us.

Sometimes there may be another opportunity sitting right next to the building. We just need to remember to look at it.

www.PVPossible.com

Flat-roof solar without a certified kit: What your clause 5.5.5 file has to show

Sahir Raihan, Structural Engineer and Managing Director, Solar Surveys Ltd, discusses the MCS's extension of the use of Clause 5.5.5 for flat-roof kits until further notice. Where the clause applies, the installer's evidence carries significant weight, and MIS 3002 V6.0 specifies the evidence required.



Sahir Raihan, Structural Engineer and Managing Director, Solar Surveys Ltd

A ballasted array came across my desk recently with everything apparently in order: a mounting manufacturer's configurator output, a ballast plan, a weight for every tray. On its face it was exactly what a clause 5.5.5 file should contain.

It also had the site on the wrong settings. The configurator had been left on two of its defaults, which it lists itself as values to be checked, and it assumed a friction coefficient of 0.5 between the trays and the membrane with no test report behind it. Corrected for the actual site, the ballast nearly doubled, and that was before the friction coefficient came down to the 0.3 that MIS 3002 requires without a test.

None of that was the manufacturer's fault, or the installer's. The software did what it was asked. But the paperwork looked like evidence, and on its own it was not.

Why clause 5.5.5 matters now

Flat-roof mounting kits, including ballasted systems on roofs of 10 degrees or less, came into MCS 012 with Issue 3.0, and certification became mandatory in 2025. It has proved slow. MCS allowed installers to keep using clause 5.5.5 of MIS 3002 for uncertified flat-roof kits until August 2025, then until November, and in October 2025 extended it until further notice while manufacturers work through certification. At the time of writing, that is still the position.

Clause 5.5.5 was always the route for kits outside MCS 012. What changed is that MIS 3002 V6.0, mandatory since 18 June 2026, expanded it into a list of evidence the MCS contractor must be able to produce:

- that the installation maintains the building's compliance with the Building Regulations for structural safety, fire safety and weather-tightness;
- that a structural assessment and wind loading calculation have been completed for the specific mounting system being installed;
- that the customer has been told to undertake an updated fire risk assessment;
- how the weather-tightness of the roof has been maintained;
- that the system components are compatible with one another;
- and that the system is installed in accordance with the manufacturer's instructions.

One note in the clause deserves to be read twice. The calculations, it says, do not constitute compliance alone; they must be directly linked to the design and installation of the system. A calculation for a different layout, a different site or a different ballast plan is not evidence for this one.

Getting the wind and sliding case right

For ballasted systems, clause 5.9.13 sets the rules. The pressure coefficients come from BRE Digest 489 or from recognised test data commissioned for the purpose. The wind actions on the site come from BS EN 1991-1-4 and its UK National Annex, and that is where most of the difference between a good calculation and a poor one lies: the site's basic wind speed, its altitude, the terrain upwind, the height of the building and where on the roof the array sits. Edges and corners carry far more uplift than the middle of a roof, so a ballast plan that is the same weight everywhere should prompt a question.

Sliding is the case people forget. MIS 3002 requires the calculation to use a friction coefficient of 0.3 between the system and the roof unless the actual material combination, slip layer included, has been tested to its Appendix D. The test is simple: a 50 kg mass sits on a plate of one material on a level platform of the other, and a horizontal force is increased until it slides. It is done wet and dry, and the lower result is declared. The calculation must state the coefficient it used, and anything above 0.3 should be backed by the test report. On gravel or green roofs a test value is required, or the array must be mechanically restrained, with a kerb in front of it or tether cables to a fixed point.

So when a configurator output arrives, check three things before you file it: that the site inputs are the site's, not the software's defaults; that the friction coefficient is 0.3 or backed by a test report; and that the ballast varies across the roof as the wind zones do.



A single-ply flat roof on a two-storey public building, with temporary edge protection in place. Edges and corners carry the highest wind uplift, which is why a ballast plan should vary across the roof.

Can the roof carry it?

The last requirement in clause 5.9.13 has no exceptions: a qualified structural engineer shall be consulted to ensure the roof can withstand the imposed load from both the solar PV system and the proposed ballast. There is no size threshold.

Ballast changes the question. A rail-mounted array typically adds 15 to 25 kg/m² over its footprint. A ballasted system is commonly 30 to 60 kg/m², more on exposed sites or at steeper tilts, and that weight is there permanently, on top of everything the roof was designed to carry. The actual figure depends on the specific system and its manufacturer's datasheet, and whether a given roof can take it is a question for a project-specific structural assessment.

That assessment covers more than the joists or the deck. It includes the pressure under the trays or rails on the insulation, snow drifting against the array, which acts as an obstruction, and the condition of the roof itself. In our own data, visible condition issues were photographed on 93 per cent of the felt flat roofs we recorded this year. A roof can pass the load check and still not be fit to carry an array for the life of the system.

What to keep on file

For a ballasted flat roof under clause 5.5.5, the file I would want to see holds:

- the wind loading and sliding calculation for this system on this roof, with its inputs stated: wind speed, terrain, building height, roof zones, tilt and friction coefficient;
- the ballast plan, with weights by position, matching that calculation;
- the test report for any friction coefficient above 0.3, and confirmation that the protection layer is compatible with the membrane;
- the structural engineer's assessment of the roof under the array and its ballast;
- photographs of the ballast as installed, with the method statement and warranty position that show the roof stayed watertight;
- the documents showing the components work together, and the record that the customer was told to update their fire risk assessment.

If the layout changes, the calculation changes with it. That is the line in clause 5.5.5 most likely to catch someone out, and the easiest to stay on the right side of.

Certification for flat-roof kits will catch up. Until it does, the evidence file is the installer's protection, and the customer's.

https://solarsurveys.co.uk/



Solar safety: Why tested system combinations matter

Kevin Taylor, Training and Technical Support Manager at Marley, explains why system compatibility, independent certification and installation quality are essential to managing solar fire risk.

With solar photovoltaic (PV) installations an increasingly common feature of new-build and retrofit projects, fire safety must be a fundamental consideration from the earliest stages of specification. Selecting products that are individually compliant is not necessarily enough: specifiers need confidence that the complete system has been tested and verified for use in combination.

As the UK moves towards lower-carbon buildings, solar PV is increasingly being considered alongside heat pumps and battery storage. These technologies can reduce reliance on fossil fuels, but they also add equipment and interfaces that must be considered as part of the building as a whole.

For solar, that means looking beyond energy generation to how the roof assembly will perform over its service life, including in the event of a fire.

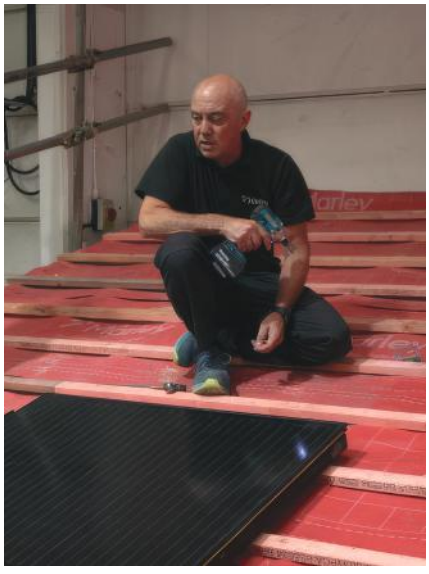
Growth brings greater responsibility

More than 170,000 solar PV installations took place in the UK in 2026, according to figures[1] taking the total beyond two million. Driven by energy costs, decarbonisation targets, and evolving building regulations, including the Future Homes Standard, solar PV is becoming an important consideration in building design.

However, as adoption accelerates, the responsibility to specify safe, reliable solutions also grows.

Solar installations introduce electrical equipment and connections onto the building envelope, creating additional considerations for fire performance, roof integrity, and long-term maintenance. Construction details vary between projects, so one product approval should not be assumed to cover every roof or installation.

For specifiers, the challenge is not simply to select a suitable solar product. It is to ensure that the modules, mounting system, roof coverings, flashings, and electrical connections work together as an appropriately tested and compliant assembly. Architects, roofing contractors, solar installers, and electrical designers should agree the intended arrangement early, avoiding substitutions that could undermine the tested configuration.



Kevin Taylor, Training and Technical Support Manager at Marley

Understanding the fire risk

The importance of this approach is underlined in a recent report[2] from QBE, which found that reported solar panel fires increased by 133% between 2022 and 2025, more than twice the rate of installation growth.

Electrical faults are a key consideration. In particular, poorly made, incorrectly installed or incompatible DC connections can generate electrical arcing. Under certain conditions, this can ignite surrounding combustible materials, potentially allowing fire to spread into the roof construction.

The risks are not confined to the solar module itself. Mounting arrangements, penetrations, flashings, and the interfaces between products can all influence the performance of the installed system. A product that performs satisfactorily in isolation may not deliver the same level of protection when combined with components that have not been assessed for that application. Roof-integrated systems must also maintain weatherproofing, so fixing points and interfaces should be designed rather than improvised on site.

Consequently, system selection should be based on evidence of performance, rather than assumptions drawn from individual product credentials or general claims of compliance. A minor component change can affect whether the assembly matches the tested configuration.

Compliance is about the complete system

Appropriate certification provides an important framework for demonstrating product quality, installation competence, and performance. For relevant UK installations, MCS certification is widely used to provide assurance around the design and installation of solar PV systems. Flexi-Orb offers an alternative certification route for eligible installations.

On new-build projects, an MCS certificate is not a universal statutory requirement, but certification may be requested by building control bodies, warranty providers, mortgage lenders, or other stakeholders. Specifiers should establish the applicable project requirements early and verify that the proposed products and installation arrangements satisfy them. Clarify who will check certification, retain evidence, and document the installation at handover.

Crucially, certification of individual components does not automatically demonstrate that they are suitable or certified for use together. Under the MCS 012 framework for roof-integrated solar mounting kits, the relevant certificate should be checked to confirm that the proposed solar module is specifically listed for use with the mounting system and has the required fire classification for that combination. MCS 005 certification of a module and MCS 012 certification of a mounting kit should not, in themselves, be interpreted as evidence that the combined assembly has been approved.

Specifiers should review the actual scope of certification, including model references, permitted combinations and any installation conditions. Where claims relate to roof fire performance, the relevant test classification and evidence should also be checked against the intended application and project requirements. These records also help future maintenance teams identify approved replacements.

Evidence-led specification

The Marley SolarTile® roof-integrated solar system achieves BRoof (T1, T2, T3 and T4) high classifications in European fire safety testing for resistance to external fire exposure and fire penetration. The business also holds independently verified BBA Solar System certification covering the solar panels, flashings, and their combined system.

This system-level evidence helps specifiers assess the performance of the specified combination, rather than relying solely on separate component approvals. It supports informed discussion of performance against the roof build-up and project requirements. The certificate scope and instructions should confirm that the design reflects the assessed configuration.

Additional protection can also help address electrical risks. Marley's solar solution incorporates ArcBox, a two-click enclosure for a DC connector designed to contain an electrical arc and help prevent it spreading to surrounding combustible materials. Such measures complement correctly matched connectors, sound cable management, good installation practice, and accessible maintenance documentation.

Make safety part of the brief

Finally, installation quality is equally important. Specifiers should define clear requirements for competent installers, correct connector matching, adherence to manufacturers' instructions and the provision of certification and handover documentation.

Coordination between roofing contractors and solar installers is particularly valuable where roof-integrated systems are involved. Responsibilities for roof checks, sealing interfaces, cable routing and recording deviations should be agreed in advance.

Maintenance should also be considered at specification stage. Future repairs may involve replacing a module or connector, and records of approved combinations can prevent routine work introducing an unverified substitution. Building owners should know what documentation to retain and whom to contact before changes are made.

Ultimately, effective solar fire safety begins long before panels reach the roof.

By specifying compatible components, verifying independent system-level testing, and requiring installation in accordance with the approved configuration, owners can make better-informed decisions that support compliance, protect building occupants and safeguard property throughout the building's entire operational life.

For a renewables-led industry, that discipline is not separate from the energy transition. It helps ensure low-carbon technologies are integrated into buildings responsibly, with safety and long-term performance designed in from the start.

www.marley.co.uk



Source

1. *https://www.gov.uk/government/news/first-regional-solar-breakdown-as-installations-hit-record-highs*
2. *https://qbeeurope.com/news-and-events/press-releases/solar-panel-fires-increasing-at-more-than-double-the-rate-of-installations/*



Solar can out earn a top savings account by around £21,000 over 25 years

Fit Solar's analysis of a solar and battery system in a 3,500 kWh home finds a return of roughly 11% a year, tax-free, against about 4.5% from the best savings accounts.

A home solar and battery system can deliver a stronger long-term return than a high-interest savings account, according to new modelling by MCS-certified installer Fit Solar.

The analysis compares £8,500 spent on a 4.9kWp system (ten 490W panels plus a battery) with £8,500 held in a savings account paying 4.5% a year. For a home using 3,500 kWh of electricity a year, the solar system pays for itself in about 8.7 years at today's price cap and overtakes the savings account in year 13. After 25 years, the savings from the system, reinvested at the same 4.5%, are worth about £46,700, against £25,500 in the savings account.

Rising energy prices strengthen the case. Energy consultancy Cornwall Insight forecasts that the price cap will rise around 16% in January 2027, to about £1,999 a year for a typical household. On that forecast, Fit Solar's model shows payback falling to about 7.8 years, with solar overtaking savings in year 10 and reaching about £53,000 by year 25.

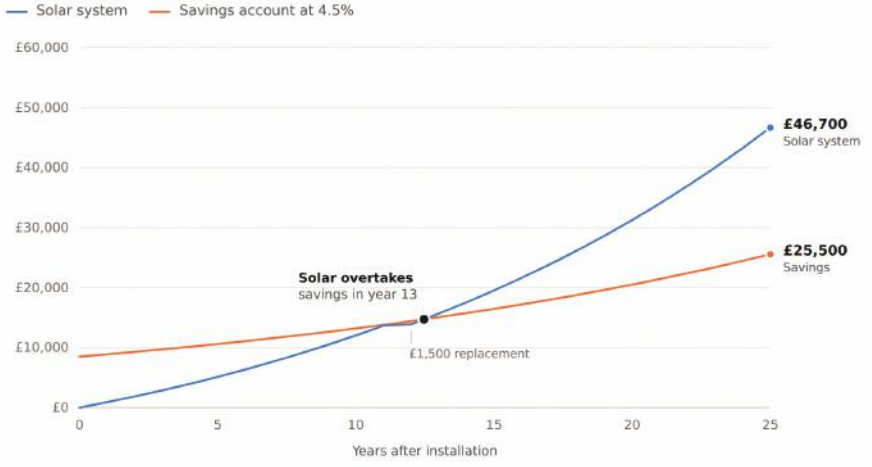
Key figures (3,500 kWh home, £8,500 system)

- Return: about 10.8% a year at today's price cap, or 12.5% on the January 2027 forecast
- Payback: about 8.7 years at today's price cap, or 7.8 years on the forecast
- Value after 25 years: about £46,700 (solar) against £25,500 (savings)
- Lower-use homes (2,500 kWh a year): payback of around 9 to 10 years and a return of about 9 to 10% a year

£8,500 in solar vs £8,500 in savings: value over 25 years

A 4.9kWp solar and battery system in a 3,500 kWh home, against a savings account paying 4.5% a year.

Year-1 benefit **£901** · payback **about 8.7 years** · return **about 10.8% a year** · overtakes savings **in year 13**



Illustrative, not a forecast. Both start from the same £8,500: the savings line begins at £8,500 because that money stays in the bank, while the solar line begins at £0 because the money has been spent on the system. Solar line: the bill savings and export income from the system, reinvested at 4.5%, after a £1,500 inverter and battery replacement in year 12. It excludes any remaining value of the system itself. Savings line: £8,500 at 4.5% held flat, before tax. Assumes 80% of demand met by solar, 12p per kWh export, 3% a year electricity price growth and 0.5% a year panel degradation. Values rounded to the nearest £100. Energy price scenarios are forecasts and may change.

The company says the comparison also favours solar on inflation. Savings interest is taxable above a saver's personal allowance, and rates can fall when the Bank of England cuts. The value of solar rises with electricity prices.

Mark Chandler of Fit Solar said: "Savings accounts are the right home for money you might need soon, and we'd always tell customers to keep an emergency fund. But for long-term money, a solar system replaces a bill you would otherwise pay every month, and those savings are tax-free and grow as energy prices rise. We've shown our working so homeowners can test it against their own usage and their own quote."

The analysis also points out the limits of solar. The return depends on how much electricity a household uses, roof orientation and shading, and export tariffs. The system is illiquid, and homeowners planning to move within about five years may not recoup the cost. Installers also typically expect to replace the inverter or battery once during a system's life, which the model includes as a £1,500 allowance.

The 0% VAT rate on domestic solar installations is due to end on 31 March 2027, when 5% VAT applies unless the government extends it. On an £8,500 system, that would add about £425.

To find out more visit: **www.fitsolar.energy/why-solar-is-the-better-investment-for-uk-homeowners**



Driving heat pump uptake through manufacturer and OEM collaboration

Lee Green, OEM national sales manager at Wilo UK and Ireland, highlights how manufacturers and OEMs can work together to support the roll-out of heat pump technologies.

With new government incentives and regulations driving demand, heat pump adoption is set to soar in the coming years. Beyond increased production, however, successful uptake hinges on every component within a system to work together seamlessly to deliver long-term reliability for homeowners.

To achieve this, manufacturers are turning to OEM suppliers earlier in the product development process to support the creation of holistic heating solutions, rather than simply supplying isolated components.

A shift in the sector

In recent years, the heat pump industry has changed dramatically. While the technology itself is well established, early adoption was often hindered by misconceptions about performance. In many cases, heat pumps were viewed as a direct replacement for traditional boilers, without sufficient consideration being given to insulation standards, heat distribution systems or wider energy requirements.

With the Warm Homes Plan driving heat pump uptake through grants and financial incentives, and the Future Homes Standard set to come into force in March 2027, making low-carbon heating the default choice, demand for heat pumps is expected to surge. As both homeowners and housebuilders move away from traditional gas boilers and towards more sustainable alternatives, manufacturers are increasingly seeking specialist input from OEM partners to ensure a more holistic approach is taken.

Early collaboration is key

Relationships between manufacturers and OEM suppliers have historically been centred around product specification and procurement. The typical dynamic has seen manufacturers identify requirements such as connection size, flow rate and performance criteria before sourcing the components that meet those specifications.

Typically, manufacturers would identify the required flow rate, connection size and performance criteria before sourcing suitable components to meet those specifications.

Today, those conversations are becoming significantly broader. Heat pump manufacturers are increasingly engaging OEM partners during the design phase, seeking support in areas such as system architecture, control strategies and future product development.

Rather than just asking which component will fit within a particular unit, manufacturers are considering how every element of the system will perform together over the long term.

This collaborative approach allows OEM suppliers to gain a deeper understanding of manufacturers' objectives, identify potential challenges and help develop solutions tailored to specific applications.

Considering the system as a whole

For homeowners, a heat pump is no longer a standalone product installed outside a property. Instead, it forms part of a broader heating and energy management ecosystem that may include smart controls, hot water cylinders, underfloor heating and solar PV.

With this in mind, system compatibility is becoming increasingly important. Manufacturers must consider how different technologies interact and how individual components contribute to overall system performance.

The conversation has evolved from simply generating heat to managing energy more effectively throughout the home. This shift is creating greater demand for collaboration across the supply chain, ensuring every aspect of the system works together as intended.

One size doesn't fit all

The continued evolution of heat pump technology means manufacturers are moving towards a more tailored approach in terms of product development.



Lee Green, OEM national sales manager at Wilo UK and Ireland

Instead of automatically selecting the largest or most powerful component available, manufacturers are carefully assessing which option is best suited to the specific application.

This requires a deeper level of engagement between OEM suppliers and manufacturers' engineering teams. By working together from the outset, both parties can evaluate operating conditions, performance requirements and long-term product objectives before determining the most appropriate solution.

The result is a more refined product, engineered around the needs of the complete system rather than adapted from an off-the-shelf specification.

Product testing is a must

To meet the rising expectation of heat pump performance, product testing is becoming an unmissable stage of the development process. Noise levels, efficiency and operational performance all play a role in the overall success of a heat pump installation.

Facilities such as anechoic chambers allow manufacturers and OEM partners to measure acoustic performance under controlled conditions, helping to address one of the most common concerns among homeowners.

In addition to noise testing, performance validation enables products to be assessed under a range of operating scenarios, generating valuable data that can inform design decisions and support continuous improvement.

This evidence-based approach helps ensure products deliver the levels of performance expected by both installers and end users.

https://wilo.com/gb/en/Building-Solutions/OEM/

The data centre queue is not what will connect

Mark Moore, Independent Energy & Grid Infrastructure Adviser, explains why the grid connection queue overstates the likely impact of data centres and how heat pump installations can continue to grow, highlighting the importance of local grid capacity, connection reforms and thermal storage.



Mark Moore, Independent Energy & Grid Infrastructure Adviser at Mark D. Moore

Anyone reading the energy press, or even the national press over the past few months could be forgiven for thinking that the electrical grid is full.

In July this year (2026) an Ofgem consultation quantified the queue of demand connections holding a contracted connection offer at over 125 GW as at June 2025. This was up from 41 GW only seven months earlier in November 2024.

Approximately 73 GW or 87% of that growth was for data centres.

To put that in perspective, peak electricity demand in Great Britain last year was only 45 GW. More than 1.6 times the country's peak demand added to the queue for data centres alone in seven months.

If you are a heat pump installer, it would be quite reasonable to wonder where the power is coming from to connect your installations.

Luckily, the queue is the wrong number to worry about.

What will actually connect?

National Energy System Operator's (NESO) ten-year outlook, published in Summer 2026, expects only about 8.7 GW of data centre capacity to be connected by 2036, drawing about 23.5 TWh annually. If the queue holds 73 GW of data centre applications, NESO expects only about one megawatt in eight to connect. In any case, NESO's own stakeholders told it that nearly half of the pipeline may be wholly speculative or duplicated.

In addition, there's a second factor to take into account. A data centre's booked capacity is not it's peak requirement. A site will book the full capacity for the whole campus even before the first hall is built, it will add headroom for cooling on the hottest possible day and almost always carry redundant power feeds. In short, the booked capacity is for safety and resilience, the develop never wants to hit that capacity.

UK Power Networks' data on it's existing data centre sites over three years show that data centres typically draw around 20% of the booked capacity. Almost half of the data centres never exceeded 40% at any point. Another study by NGED found enterprise sites only reached capacity for a part of the working day.

Applying that 20% draw to the smaller connection forecast, we come down to a 2036 projected total of around 15 TWh. Significantly smaller than the headlines suggest.

How big is the heat pump load?

We can now more realistically compare the heat pump load to the projected data centre load. There were a record number of heat pump installations in 2025, MCS certified just over 60,000. The warm homes plans sets a target of 450,000 a year by 2030.

If installations can reach that rate, and hold it, there will be about 4.3 million heat pumps in the UK by 2036. Using a average requirement of 3,500 to 4,000 KWh each, they will use about 15-17 TWh per year. On an evening in January with every heat pump running, the diversified peak will be between 6.5 and 8.7 GW. For details of how these estimates were calculated please take a look at the chart.

So, the two loads are about the same size: heat pumps around 15-17 TWh and data centres at 23.5 TWh but more likely to be 15 TWh. To put I another way, 8.7 GW of data centres against 6.5 – 8.7 GW of heat pump peak.

The data centre load that will connect is unlikely to be the monster that the queue suggests, and the power it's going to draw will be smaller again.

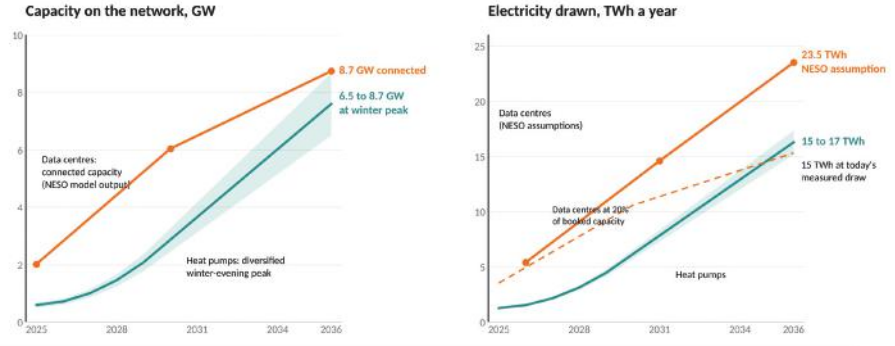
A similar sized load to that the heat pump installers are building themselves.

Four routes to power

The two loads will connect to the network by different routes, for the heat pumps it depends on their size.

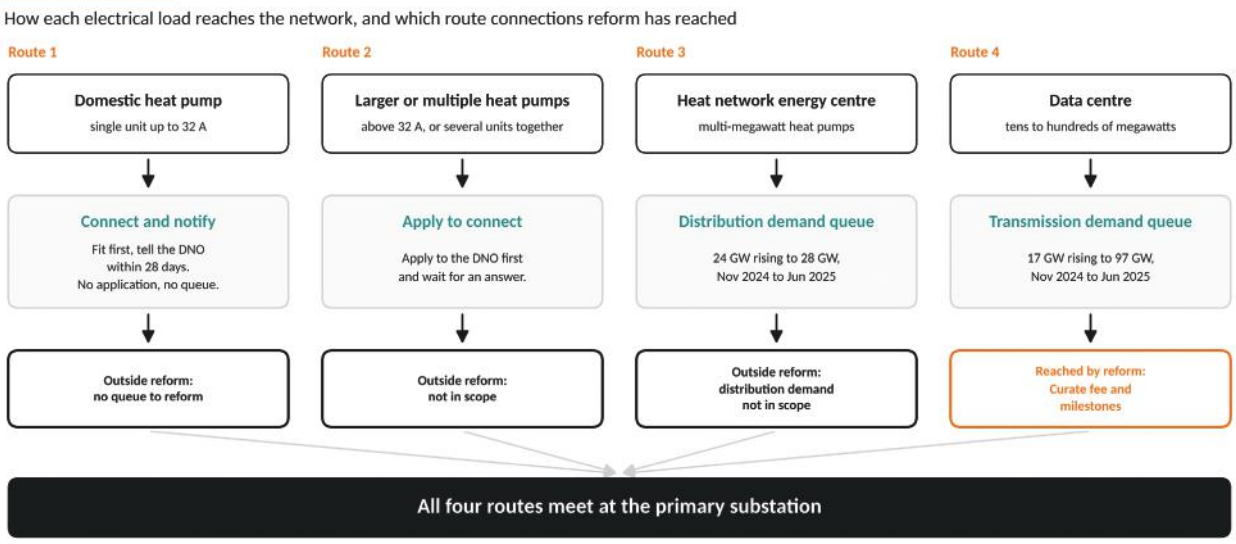
Two loads of about the same size, connecting by different routes

Heat pumps against data centres, Great Britain, 2025 to 2036



Data centres: NESO Ten-Year Outlook 2026 data workbook, connected capacity and annual demand, utilisation assumed at 29% in 2025 rising to 35% by 2030. Dashed line applies the 20% of booked capacity measured across UK Power Networks' data centre sites to the same connected capacity.
Heat pumps: author's estimate. 0.34m MCS-certified units at end-2025; installs rising to 450,000 a year by 2030 (Warm Homes Plan target) and held there; 3,500 to 4,000 kWh and 1.5 to 2.0 kW diversified peak per unit. Bands show the range. Both loads exclude network losses.

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Route 1: A single 32 amp domestic heat pump is simply connect and notify within 28 days. There's no application and no queue.

Route 2: Above 32 amps, or where there are several heat pumps going in together, the installer needs to apply first and waits, typically 45 days for an answer.

Route 3: An energy centre for a heat network is a different case. It's heat pumps may require several megawatts, an application must be made to the DNO (Distribution Network Operator) like any other large customer. These schemes will join the demand queue. That particular queue grew from 24 GW to 28 GW between November 2024 and June 2025.

Data centres mostly go along Route 4, the transmission demand queue, which grew from 17 GW to 97 GW over the same period. The data centres are not competing with the domestic heat pumps for a low voltage feeder.

The important point is that all four routes meet up at the primary substations, it's at these specific substations that the connecting figures matter, not the queued one in print.

There's another key point. Nobody can track, or even see, all four routes at once. NESO told an FOI request last December that it holds no register of demand connections. Generation and storage are listed on the TEC register; I track that every week. There is no equivalent register for demand.

Connections reform: What it does and doesn't do

Connections reform has, up to now, been all about generation and storage. By June 2026, NESO and the distribution companies had issued Gate 2 offers to 713 project, 37 GW in all.

Distribution connected demand sits outside that reformed process.

For demand, there is an attempt to start controlling the queue. Ofgem's Curate proposals which are squarely aimed at a single type of load. Data centres would pay a commitment fee (or put a bond or guarantee in place) of £237,500 to £712,500 per MW. forfeited if they leave the queue before energisation. Separately, data centres from 10 MW would have to meet progress milestones or risk removal.

No doubt this will shrink the speculative queue further which is good news for everyone behind it, including larger heat pump installations. But this is a price mechanism and not a ranking, it's effects rely on an 'economically rational' rational response from developers of queuing projects. From experience in renewable energy you can see that's not guaranteed.

Heat network zoning arrives in England this year, with the Warm Homes Plan expecting heat networks to supply 7% of heat by 2035, up from 3%. Every one of those energy centres will travel along connection route 3.

Ranking: Denmark did it, Finland is about to

The demand surge driven largely by data centres is a common feature across energy networks worldwide.

Denmark faced the same surge: 60 GW of demand requests against a national peak demand of 7GW with data centres accounting for 14GW of those requests. Energinet paused large connections on the 2nd of March.

On the 1st October a cross-party agreement replaced Denmark's first-come-first-served with four ranked categories which came into force very quickly on the 12th October: households and critical functions first, transport, heat and industry second, storage third and data centres last. In stark contrast to the current regulations in the UK, Energinet may also refuse storage and data centres outright where capacity will not exist in the foreseeable future.

Importantly, the agreement went on to mention that thermal storage in district heating would help use the grid to the full.

Finland has been consulting on a similar tiering by size and purpose system with the possibility that data centres above 10MW would be pushed down the queue.

Denmark did it by ranking, the Uk is doing it by pricing. The end result is the same, a reduction in the size of the queue.

How can heat pump installers contribute?

A heat network that services hundreds of buildings needs far less energy than the same buildings on individual heat pumps, mostly because demand across them is diverse a large and efficient enough thermal store can shift that demand. The Warm Homes Plan estimates that the savings of avoided electrical distribution upgrades by 2035 would be between £5 billion and £7 billion. Loads that can wait an hour will beat loads than cannot every time.

Back to the substation

None of this means that connections will be easy, there's no doubt that the grid is tighter than it was. It's just not as tight as the queue makes it look. The demand that will connect is a fraction of the capacity that is queueing, the projects that connect will likely draw a fraction of what the book, and reform is shrinking the queue even further.

The load that remains is no bigger than the one that heat pump installers are fitting, street by street.

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Heat Pumps in a British winter: Maximising comfort and efficiency



Sophie Decorte, New Markets UK & EU Business Development Coordinator at Airzone, discusses the need for correct sizing, installation and controls which help heat pumps provide efficient, comfortable heating even in freezing winter conditions, while reducing energy costs and fossil fuel reliance.



Sophie Decorte, New Markets UK & EU Business Development Coordinator at Airzone

The demand for heat pumps among British households is picking up pace, and fast - with a record number applying for Boiler Upgrade Scheme vouchers in July, according to the latest Government data[1].

Applications jumped by a significant 81% compared with the previous month, following an update to the scheme that increased the grant available to eligible off-gas-grid households replacing oil or LPG heating by 20% - from £7,500 to £9,000. The higher grant is designed to make the move to heat pumps more affordable, while also helping households reduce their exposure to future spikes in fossil fuel prices.

As we head into the colder months, this winter could bring a renewed focus on how effectively our homes are heated, particularly amid concerns over the impact of El Nino on weather conditions across the UK. As more households turn to heat pumps to keep their homes warm, understanding how they perform in colder conditions will become increasingly important to ensuring they operate as efficiently as possible.

Unlike traditional boilers, heat pumps operate most efficiently at lower flow temperatures and run continuously to provide steady, gentle warmth rather than rapid, hot bursts typical of fossil fuel boilers. Yet, the true benefits of these high-efficient systems are only unlocked when they are designed, installed and controlled correctly.

Sizing matters

Over the years - and particularly when heat pumps were still in their infancy - some critics argued that they are unable to warm a home in the depths of winter. But, to understand how well they perform in freezing temperatures, it's first important to consider how they actually work.

Just like a fridge that absorbs heat from its interior and releases it through coils on its back, a heat pump absorbs heat from the outside air to raise the temperature of water which can then be circulated through the radiators of a home's heating system. As outdoor temperatures fall, less heat is available to extract from the air, and the heat pump may need to work harder to maintain the desired indoor temperature. This doesn't mean they aren't up to the job. But, it does mean that getting the system design right is essential particularly when it comes to sizing the heat pump for the property.

Install the incorrect size with a power output that's not optimal for the property and it can lead to short bursts of operation which will reduce efficiency and increase wear and tear over time. Install one that's too small, and it may not meet heating demands during peak winter periods and potentially increase energy consumption.

The solution lies in designing the system around the home's actual heating requirements. A heat-loss calculation can determine how much heat the property will need on the coldest expected days, allowing the heat pump to be correctly sized for the building. Radiators and other heat emitters can then be sized to deliver enough heat at the lower flow temperatures typically used by heat pumps. Improving installation and reducing draughts can also reduce the amount of heat the system needs to supply.

Norway provides a useful real-world example. In winter, the average temperature is around -7°C and regularly drops down to -20°C.

Yet, they have the highest heat pump adoption[2] rate in Europe with approximately 60% of buildings equipped with them. So, the question isn't whether heat pumps can work in freezing temperatures. They can. The bigger question is whether the system has been properly designed and sized to meet the building's heat demand under those conditions.

Balancing comfort and efficiency

Flow temperature is another factor that can make a big difference to how a heat pump performs. It refers to the temperature of the water leaving a heat pump as it moves through radiators or underfloor heating.

If your flow temperature is set too low, rooms may never reach a comfortable warmth. However, set it too high and the heat pump is working overtime to produce unnecessarily hot water, reducing efficiency. It can also cause rooms to warm too quickly and overshoot, causing the thermostat to turn the system off. The room then cools, the heat pump starts up again, and it creates an inefficient cycle of heating and reheating.

Instead, controls should be configured to respond appropriately to changes in outdoor conditions. Adjust temperature settings in small increments and allow sufficient time for the system to respond to maintain a stable indoor temperature. Zoning and room-by-room controls can help here by responding to the heating needs of different areas of the property, while allowing the heat pump to operate steadily rather than repeatedly switching on and off. The aim is for stable comfort, not rapid bursts of heat, representing a different approach to heating for households accustomed to conventional boilers.

For many homeowners, efficiency ultimately needs to translate into more manageable energy bills and these practical steps can help a heat pump system operate more economically. By avoiding unnecessary adjustments to the thermostat, using controls correctly and maintaining appropriate flow temperatures, can all make a significant difference. Homeowners should not feel they have to sacrifice comfort to achieve efficiency. With a well-designed heat pump system, achieving the right balance can be made much simpler.

Getting the basics right

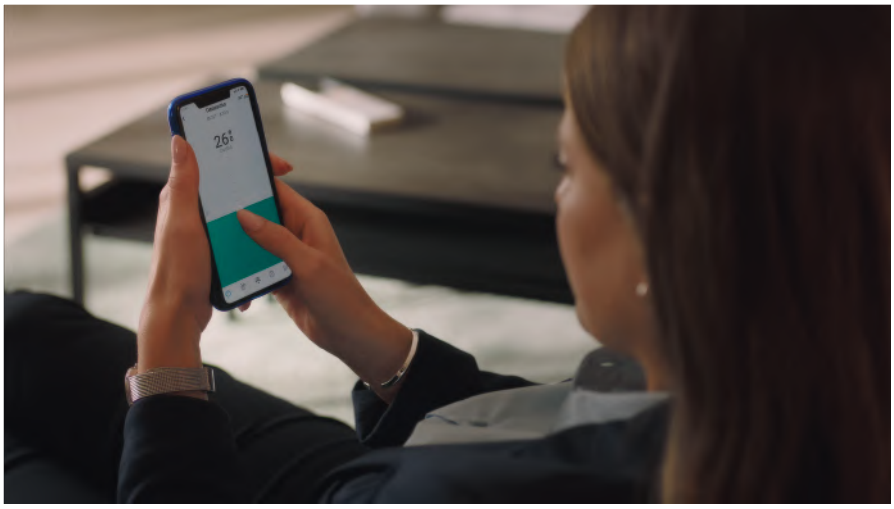
As heat pumps become more common across British homes, their performance in colder weather will naturally come under greater scrutiny. However, the key is getting the fundamentals right. Correct sizing, appropriate heat emitters, sensible flow temperatures and well-configured controls can allow a heat pump to operate efficiently while maintaining a comfortable home.

Even the very best boilers top out at around 90% efficiency, meaning 10% of the energy you pay for is lost. By contrast, a well-designed heat pump system can exceed 300% efficiency, even in colder winter conditions. Comfort and efficiency do not have to be competition priorities - with the right approach, a heat pump can deliver both, effortlessly.

https://www.airzonecontrol.com/gb/en/

Source

1. *https://www.gov.uk/government/news/record-number-of-heating-oil-households-apply-for-a-heat-pump*
2. *https://ehpa.org/market-data/*











The challenge of decarbonising off-grid homes

Greg Banham, Commercial Director for Navien UK, explores the considerations facing installers as they help off-grid homeowners navigate this transition.


Greg Banham, Commercial Director for Navien UK

As the UK moves towards lower-carbon heating, homes that sit outside the gas network face a distinct set of challenges compared with properties connected to it.

Heat pumps have an important role to play in reducing emissions from heating, although they will not be suitable for every property without some consideration of the wider system. Off-grid homes are often older buildings with higher heat demands, existing high-temperature heating systems and limitations in their electrical infrastructure, all of which can influence what is technically achievable and financially realistic.

This does not mean heat pumps are unsuitable for off-grid properties. Rather, it highlights the need to assess the building and its existing heating arrangements before deciding which technology is right. Installers must take a whole-system view, weighing up technical requirements alongside the homeowner's budget, preferences and expectations. This will be essential to making the transition to lower-carbon heating work in practice.

Understanding off-grid homes

Many rural properties are not connected to the gas network and depend on oil to heat their homes. For these homeowners, replacing an oil boiler can require a more detailed assessment than simply exchanging one appliance for another. Older or larger buildings may have substantial heat requirements, while their existing heating systems have often been designed around higher flow temperatures and adapted over many years.

Heat pumps can work effectively in these settings, but their suitability depends on the characteristics of the property and the heating system already installed. Before recommending a solution, installers need to establish whether existing radiators can provide sufficient heat at lower flow temperatures, whether the electrical supply can support the installation and where an outdoor unit could be positioned appropriately.

Hot water provision is another important consideration, particularly when replacing an oil combi boiler. A move to a heat pump may require the introduction of a hot water cylinder, alongside potential changes to controls, pipework or radiators to meet the system's requirements. Some rural households may also have an oil-fired range cooker or another appliance they wish to retain, while larger properties might already use a cascade arrangement of boilers to meet their heating demand.

Understanding how these elements work together helps installers identify an option that suits the property and the people living in it. It also allows them to establish what changes are necessary, which can be delivered within the available budget and whether the proposed system is a practical long-term choice.

Why switching isn't always straightforward

One of the main considerations when moving from an oil boiler to a heat pump is the difference in operating temperatures. Heat pumps generally work at lower flow temperatures than traditional boilers, meaning the existing heating system may need to be adapted to deliver the required level of comfort.

A heat loss calculation provides an important starting point by establishing the amount of heat a property needs. Installers can then evaluate whether the current radiators, insulation and wider heating system are capable of meeting that demand, or whether improvements are required before installation.

Depending on the property, this could involve fitting larger radiators, upgrading insulation or making adjustments to pipework and controls. The physical installation also needs to be factored into the assessment, including access to a suitable outdoor location and the space required for internal equipment. These considerations can be particularly important in older homes where the heating system has evolved over time.

For homeowners, the cost and disruption associated with these changes may influence the decision as much as the technology itself. Replacing several components at once can increase the initial investment, while the timing of the replacement may determine how much flexibility the household has. Someone planning ahead while their existing boiler remains operational has more opportunity to explore the options, whereas an unexpected breakdown during winter may create an immediate need for a reliable replacement.

Heat pumps should not be discounted on this basis. When the property is suitable and the system has been properly designed and installed, they can provide an effective lower-carbon heating solution. The priority is to establish what the home requires before deciding which technology to install.



What government support means

Government policy is helping to encourage the move away from fossil fuel heating through initiatives such as the Boiler Upgrade Scheme[1]. Since 21 July 2026, eligible off-gas-grid properties in England and Wales replacing oil or LPG heating can receive up to £9,000 towards an air-to-water or ground-source heat pump, provided the installation meets the scheme's requirements.

This support can help reduce the upfront cost for homeowners, although it will not necessarily cover all the work required to prepare a property for a new heating system. Where additional radiators, insulation, electrical work or hot water system alterations are needed, these costs must also be taken into account when assessing the overall investment.

The Government's November 2025 consultation on alternative clean heating solutions[2] also recognises that some properties present greater challenges than others. It considered alternative technologies for lower-carbon heating in situations where installing a heat pump or connecting to a heat network could be difficult, while making clear that a low-carbon option should not be installed where it is unsuitable for the property.

For heating professionals, this reinforces the importance of understanding the range of technologies available rather than approaching every replacement as the same exercise. Heat pumps will be appropriate for many homes, while others may need improvements before installation or could benefit from alternative approaches as technology and policy continue to develop.

Putting homeowners first

Alongside the technical assessment, installers need to understand what a change in heating means for the household. The cost of the work, the disruption involved and the time available to complete it can all influence which option is most appropriate.

A homeowner with a functioning oil boiler may have the opportunity to plan ahead, investigate funding and make improvements before changing their heating system. By contrast, someone facing an unexpected boiler failure may need a solution quickly, with limited scope for extensive building work. Affordability can also be a deciding factor for households that want to reduce their carbon emissions but cannot undertake a substantial heating upgrade in one go.

Installers are well placed to guide these decisions because they can assess the building first-hand, understand how the existing system operates and discuss the practical implications with the homeowner. Their advice needs to bring together the technical requirements, available budget and realistic timescales, giving customers a clear picture of the options and the work each one involves.

This is changing the role of the installer, who increasingly needs to look beyond the individual appliance and consider the heating system as a whole. Assessing the building, understanding customer preferences and identifying suitable technologies all form part of helping homeowners make informed decisions.

Manufacturers also have a role in supporting this process. If heating decisions depend on the wider system rather than a straightforward appliance replacement, installers need access to reliable products, clear technical guidance, appropriate training and responsive support. This can help them assess different properties with confidence and recommend solutions that reflect the requirements of each installation.

Finding a way forward

The transition to lower-carbon heating will take different forms across the UK, particularly among off-grid properties where building characteristics, existing systems and available infrastructure can vary considerably. Heat pumps will remain an important part of this transition, but their suitability must be considered in the context of the individual property and the homeowner's circumstances.

For installers, the task is to bring these factors together and provide advice that is technically sound, financially realistic and practical for the customer. A thorough assessment of the home, combined with an understanding of the available options, can help homeowners make informed choices while supporting progress towards lower-carbon heating.

Ultimately, successful decarbonisation depends on finding a heating solution that works for the home and the people living in it.

https://navien.co.uk/professional

Source

1. *www.ofgem.gov.uk/environmental-and-social-schemes/boiler-upgrade-scheme-bus/property-owners*
2. *https://www.gov.uk/government/consultations/exploring-the-role-of-alternative-clean-heating-solutions*

The first heat-pump service record: What should the next engineer inherit?

Dan Sedgwick, Founder and CEO of Checker.app, highlights the importance of clear heat pump service records, documenting checks, settings changes and follow-up actions to support future engineers and improve system performance.

The first heat-pump service should leave more than a tick in a box. It should tell the next engineer how the system was being used, what was checked and what changed. That matters when a customer raises a concern that the service visit alone can't settle.

"Serviced, all working" doesn't explain the customer's concern, what you checked or why you changed a setting. I'd want the next engineer to understand the visit without having to ring the person who did it.

That starts before anyone touches the controls.



Dan Sedgwick, Founder and CEO of Checker.app. Pc Checker

Find the starting point

Identify the outdoor unit, indoor equipment and controller. Ask for the commissioning record, room heat-loss calculations, emitter schedule and hydraulic drawing. They answer different questions. The unit's model number tells you what was supplied; it doesn't explain the radiator sizing for each room.

Missing information needs its own action. Name the document, who will ask the installer for it and when they'll follow up. Don't fill the gap with a guessed design temperature or copy a value from a different installation.

The manufacturer's instructions for the installed equipment determine the service work. As one concrete example, Vaillant's uniTOWER plus instructions include a Benchmark commissioning checklist and service records, and tell the engineer to complete the relevant record after each service. I'd keep that original commissioning information intact and add a dated service entry. Overwriting the starting settings makes it harder to establish what changed later.

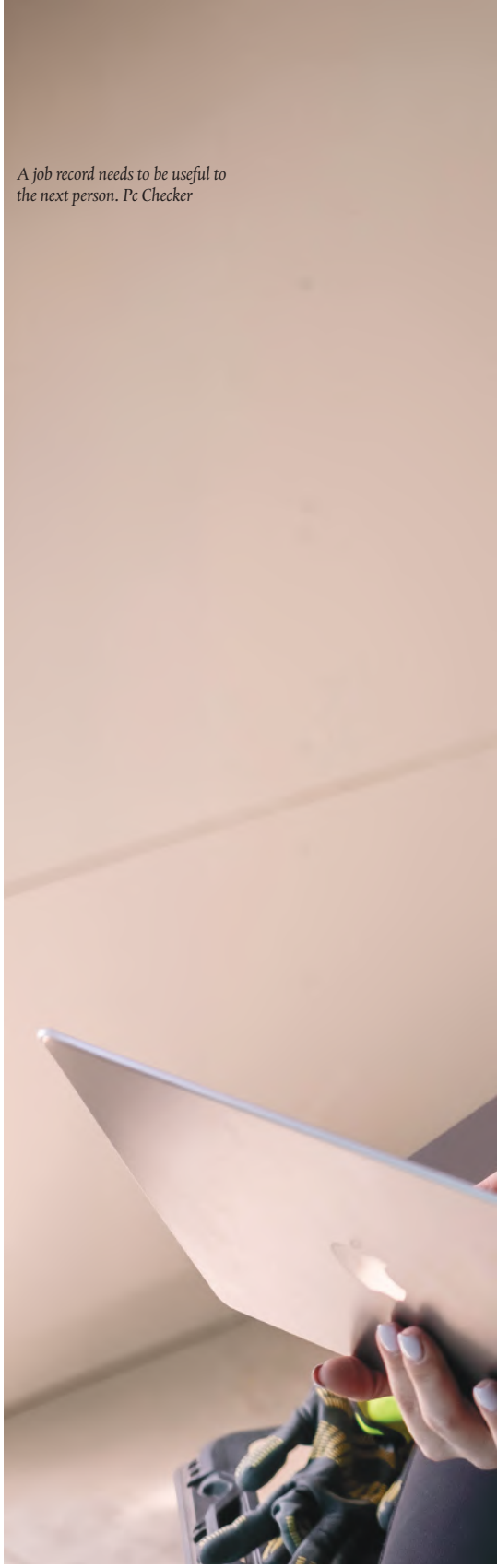
Record what was actually checked

There's a difference between a customer's report and an engineer's finding. Write down which room was cold, when the problem occurred and how the heating was being used. Keep that separate from temperatures measured or faults found during the visit.

The same applies to maintenance. If a filter was checked or cleaned under the manufacturer's procedure, say which filter and record the finding. "System checked" isn't much use to someone trying to establish whether an item was inspected, cleaned, replaced or left for another visit. Where the job includes a measurement, record its units and where it was taken.

A flow-temperature reading needs context too. Was the system heating the rooms or charging the hot-water cylinder? What was the outdoor temperature, what demand was present and was the reading taken from the controller or a separate instrument?

Energy Saving Trust's installer toolkit explains how weather compensation adjusts flow temperature in response to outdoor conditions. It also shows that controllers can represent the heating curve differently. A curve number without the controller identity, or a temperature without the operating mode, leaves the next person guessing.



A job record needs to be useful to the next person. Pc Checker



Make the change traceable

If a competent engineer decides a control adjustment is appropriate, record the parameter name, the value found, the value left and the reason. Include who made it and the checks afterwards. A dated photograph of the relevant screen can help, provided it belongs to the identified system and the setting is legible.

I'd also record what the customer was shown. Being told "we've adjusted it" isn't the same as knowing which schedule now applies or who to contact if the concern remains unresolved. Keep space-heating adjustments separate from domestic hot-water hygiene and safety controls. There's no universal temperature to copy onto every job.

Follow the change through

One real example I'd point to is Nesta's Bristol social-housing work, reported in October 2026. In 39 audits, original heat-loss calculations and system design documents were missing in most homes, so the auditors couldn't verify the sizing and design. Weather compensation was disabled in 36 homes. Nesta found that complaints about cold radiators had sometimes led to a higher fixed flow temperature being used instead. These weren't first-service visits, but they're a good reason to keep the original design information and record each later control change.

During the initial audits, engineers reduced flow temperatures by 1–5°C in 17 homes. Recommendations went to returning engineers, who revisited 30 homes. Nesta couldn't verify an efficiency improvement with post-repair data. A recorded adjustment and a demonstrated saving are different things. I'd keep that distinction in a first-service record too.

Finishing a service doesn't automatically close an unresolved concern. Agree who will contact the homeowner, what information they'll collect and whether a further visit in colder conditions is needed. Give that action a date. "Monitor" on its own leaves both the office and the customer waiting for somebody else.

Nor does a service-day reading establish seasonal efficiency. A later performance assessment needs a defined measurement period and clarity about which heat and electricity measurements are included. Don't turn a useful observation into a saving or performance claim it can't support.

Leave a handback someone can use

Before closing the job, I'd check that the record covers:

- The equipment, controller and source documents, including anything missing.
- The customer's concern, separately from measured findings.
- The work completed and the checks actually performed.
- Each setting changed, with before-and-after values and a reason.
- Anything untested, unresolved or outside the visit's scope.
- The named person responsible for the next action and its date.

Put it somewhere the homeowner and the next engineer can find it. Paper, a spreadsheet or an app can hold a useful record. Records and software support competent work; they don't prove compliance or replace qualified people.

The test is simple. Can someone who wasn't there follow the decision and see what still needs doing? If they can, the first service has left them something worth inheriting.

https://checker.app/

Ground source heat pumps: The opportunity installers are leaving in the ground

Air source has done the heavy lifting in the UK heat pump market, but ground source offers installers higher-value projects, standout winter performance and a premium option for customers who want the best. This article takes a look at why ground source heat pumps (GSHPs) deserve a bigger place in your offer.

Ask most homeowners what a heat pump looks like and they'll describe a fan unit on an outside wall. Air source has been the workhorse in getting the UK market moving, and it's the right answer for plenty of homes. But for installers looking to grow, ground source is worth a closer look.

GSHPs suit exactly the customers many installers want more of: off-gas-grid homeowners replacing oil or LPG, owners of larger and rural properties, self-builders and commercial clients. These jobs tend to be higher value, involve more design input, and give installers a premium product to put their name to.

A market that's moving

More than 60,000 MCS-certified heat pumps were installed in the UK in 2025, a record year and 34% up on 2024. The government is targeting 450,000 a year by 2030. From March 2027, the Future Homes Standard will require low-carbon heating in new-build homes, opening up more developer work. And with £2.7bn committed to the Boiler Upgrade Scheme through to 2029/30, homeowners can still claim up to £9,000 towards a ground source system, subject to eligibility.

The demand is there. The question is whether installers have the skills and supply chain to match the right technology to each property.

Why ground source performs

The case for GSHPs starts with the heat source. A few metres down, ground temperature stays steady all year, typically between 10 and 15°C. Unlike air, it doesn't drop when the weather turns. That means a ground source system holds its efficiency through the coldest weeks of the year, exactly when heating demand peaks and air source units are working hardest.

A well-designed system can deliver up to four units of heat for every unit of electricity it uses. For the customer, that means lower running costs than oil, LPG or direct electric heating, and steady, even warmth.

There are practical wins too. With no outdoor unit, there's no fan noise or external siting to worry about, and nothing bolted to the front of a period property. The heat pump sits indoors, usually in a utility room, garage or plant room.

Choosing the collector

Collector design is where ground source jobs are won or lost, and where good installers add real value.

Horizontal ground loops, laid in trenches one to two metres deep, are usually the most cost-effective option where there's enough land. Boreholes, drilled to between 50 and 200 metres, take up very little surface space and suit smaller plots or sites where land is tight. They cost more to drill but deliver very consistent source temperatures.









Where more than one borehole is needed, they must be spaced well apart so they don't draw on the same ground. For properties next to a lake or pond, a water source collector using underwater heat exchangers is another route.

Whichever option fits, it all rests on an accurate heat loss calculation and a properly sized ground array. An undersized collector will cost the customer in running costs for years.

Design first, then specify

The fabric-first thinking that applies to any heat pump applies here. Start with heat loss, look at emitter temperatures and how the household uses heat, then choose the system. GSHPs are at their most efficient at lower flow temperatures, so they pair well with underfloor heating or upsized radiators. Insulation upgrades aren't compulsory, but they make the system's job easier and the customer's savings bigger.

A range for every job

CTC has been making heating products since 1923 and was the first to launch an air-to-water heat pump in Sweden. Every product is designed and built at its factory in Ljungby, Sweden, working to ISO 9001 quality and ISO 14001 environmental standards.

Every CTC heat pump comes with EnergyFlex, so it's ready from day one to connect other heat sources such as solar, a wood burner or pool heating. For installers, that means follow-on work long after the first install. Homeowners can also monitor and adjust their system through the myUplink app, and use smart electricity price control to run when power is cheapest.

Support behind the install

In the UK, CTC is supplied exclusively through Go Geothermal, part of the CTC AB Group. Alongside the CTC range, Go Geothermal supplies the wider kit a ground source job needs, including Haka probes and pipe, pre-insulated pipe, cylinders and underfloor heating, with next day delivery.

It also offers full heat pump design support, and hands-on CTC training at its centres in Newton Aycliffe, County Durham, and Retford, Nottinghamshire.



Jake Moody, Commercial Sales Manager at CTC

Jake Moody, Commercial Sales Manager at CTC, said: "Ground source gives installers a way to offer something genuinely different. The jobs are bigger, the performance speaks for itself, and the customers who choose it are usually after the best system rather than the cheapest. Our job is to make sure installers have the training, design support and kit to deliver it properly. The length of time we have been in the industry means we know what it takes to have a reliable and well-designed system within your building for many years to come"

What it means for the homeowner

For the end customer, the pitch is simple: a heating system that runs quietly indoors, takes most of its energy free from the ground, keeps performing through winter and can cut running costs compared with oil or LPG. Add a grant of up to £ 9,000 for eligible homes, and the fact that planning permission is rarely needed (listed buildings and conservation areas aside), and ground source becomes a strong option for the right property.

The upfront cost is higher than air source because of the groundworks, so it won't suit every job. But installers who can offer both are in a position to recommend the right technology for each home, rather than the one they happen to stock.

www.gogeothermal.co.uk

Building homeowner confidence in heat pumps through trusted local networks

Dr Luke Gooding, Research Fellow, Stockholm Environment Institute (SEI), University of York, discusses the Home Upgrade Champions project which uses trusted community connections to build homeowners' confidence in heat pumps, helping them make informed decisions and approach installers better prepared.



Dr Luke Gooding, Research Fellow, Stockholm Environment Institute (SEI), University of York

For anyone working in the heat pump industry, it is a familiar challenge when a homeowner makes an enquiry, shows genuine interest, but remains uncertain about taking the next step. Many residents are worried about installation costs, running expenses, disruption or simply whether a heat pump will work in their property. Installers deal with these questions every day, and while good technical advice is essential, it is not always enough to give someone the confidence to proceed. We think what happens before a homeowner contacts an installer can be just as important as the conversation that follows.

At the Stockholm Environment Institute (SEI), University of York, we are exploring whether trusted local relationships can help with this. Through our Home Upgrade Champions project in York and North Yorkshire, we are looking at how people sharing their own experiences, alongside conversations within existing social networks, might encourage more households to explore heat pumps and other home improvements.

Helping homeowners take the next step

Discussion about heat pump uptake often focuses on grants, technical performance, installer capacity and costs. These all matter, but from our experience they do not fully explain why an interested homeowner might delay making a decision. Replacing a heating system is a major commitment, particularly when the technology is unfamiliar, and people understandably want to know whether their house will be warm, what changes might be needed and how everyday life will be affected. Through our wider retrofit research, we've found that some people spend months researching options, reading conflicting accounts online and talking to friends before approaching a professional.

Our theory is that a neighbour who has received training in wider retrofit practices, or has already installed a heat pump can offer a different kind of reassurance. They can explain what the installation involved, how they found a suitable installer and what it is like to live with the system, while also being open about things that were difficult or unexpected. But we also think there is value in the more informal conversations that happen through people's everyday social networks, whether that's chatting at the school gates, down at the allotments, in the local pub or through community groups. These are places where people already know and trust one another, and where a conversation about someone's home improvements might come up quite naturally, even when the person asking hadn't previously considered a heat pump. Of course, these conversations cannot replace a proper survey or professional advice, but they may help someone feel comfortable enough to ask questions, perhaps better questions, and take the next step. We're interested in whether these existing social connections can help us reach people who might otherwise never engage with retrofit advice or approach an installer.

A community approach

This thinking sits behind Unlocking Retrofit Uptake through Community Champions, a project we are delivering with York Community Energy and Abundance Investment, supported by the York and North Yorkshire Combined Authority's Carbon Negative Challenge Fund. We are developing a network of Home Upgrade Champions across York and North Yorkshire, some of whom have experience of improving their own homes, whether through heat pumps or other retrofit measures, while others bring strong local connections and an understanding of the people and places around them. In our view, both have something valuable to offer, as someone who has installed a heat pump can share practical lessons, while a trusted community connector might reach residents who would never attend an energy advice event or search for retrofit information online. To enable this, Champions receive training and support on home energy improvements, communication and signposting. Importantly, they are not expected to become heating engineers, instead, their role is to start conversations, share experiences and help people find reliable professional support.

Why trust matters

We particularly think this connection between Champions and residents matters because homeowners are exposed to a mixture of information about heat pumps.



One person might report lower bills and a warmer home, while another describes unexpected costs or disappointing performance, and online commentary and media coverage can add to the confusion. This makes it difficult to know which experiences are relevant, particularly when properties, heating needs and energy tariffs all differ. Speaking to someone nearby who has faced similar decisions can make the subject less daunting, and we've found that people often value having space to discuss their worries without feeling they are entering a sales process. We acknowledge, of course, that personal experiences have limits, and a system that works well in one home may not be appropriate for the house next door, that is why we see Champions as a link to qualified advice, rather than an alternative to it.

Heat pumps in action

One approach we are particularly interested in is giving homeowners the chance to see heat pumps working in other people's homes and hear about their experiences. Open home events and heat pump cafés are examples of how this can work in practice, as open homes allow people to physically see a heat pump, hear how it operates and ask questions about installation, running costs and everyday use. Plus heat pump cafés offer a more informal setting where people can meet others who have already installed a heat pump, share experiences and ask questions over a coffee.

We think there is something particularly useful about hearing directly from someone who has lived with a heat pump through a Yorkshire winter, including what has worked well and what hasn't. For installers, these events could also offer opportunities to meet homeowners who are interested in the technology but aren't quite ready to request a quotation, helping address questions that might otherwise arise much later.

What could this mean for installers?

Through our previous research on retrofit one-stop shops, we found that a significant proportion of homeowners approaching these services were still at a relatively early stage in understanding what improvements might be suitable for their homes. Many were interested in making changes but had limited knowledge, meaning considerable time was needed to help people understand their options before they were ready to consider investing. Consequently, we see community Champions as one way of addressing this gap, supporting homeowners earlier in their journey and giving them the confidence to ask more informed questions. For installers, this could mean meeting customers who have already explored some practicalities, have more realistic expectations and are further along in deciding whether to invest in improvements.

Different homes, different decisions

York and North Yorkshire contain a wide range of housing, from Victorian terraces and listed buildings to rural properties reliant on oil or LPG, and the decisions facing these households can be very different. For some, upfront cost is the main obstacle, while others may be worried about radiators, insulation, space or disruption, and a household struggling with bills may have more immediate priorities than replacing a working heating system. We therefore don't want Champions to promote heat pumps as the answer for every home, and as such we see good engagement as helping people consider their circumstances and understand the options available, including whether other improvements should come first. This is particularly important when considering how community advice links with installers, as there isn't necessarily a single solution that suits every property.

Working together

As part of this project, we are particularly keen to engage with heat pump installers, suppliers and others working across the retrofit industry to better understand the challenges they face when dealing with homeowners. We want to hear about common questions, concerns and misconceptions, but also what installers feel would help customers be better prepared before making an enquiry. Through our work on retrofit one-stop shops, we've seen how much time can be spent helping people understand the basics, and we're interested in whether Champions could support some of that earlier engagement. By understanding the needs of the industry, we want to ensure our Home Upgrade Champions are providing the right information, asking the right questions and supporting homeowners in ways that complement installers' work. We see this as a two-way conversation, where the experiences of homeowners and industry professionals help shape how the Champions network develops, and we'd particularly welcome hearing from installers and suppliers interested in contributing.

To find out more about the Unlocking retrofit uptake through Community Champions research visit: **https://www.sei.org/projects/unlocking-retrofit-uptake-community-champions/**





Jeff House, external affairs and policy director at Baxi, launches new Baxi heat network report

Heat network sector backs growth as Baxi research highlights readiness priorities

A heat network event hosted by Baxi on 7 October at Surveyors House at RICS in Westminster welcomed representatives from local and central government, social housing, policy and the supply chain to discuss the readiness for growth and regulation within the sector.

Heat networks are expected to fulfil 20% of all UK heat demand by 2050, currently providing ~3%. A new heat network regulatory framework is being introduced that will affect organisations involved in owning, operating, supplying through or receiving supply from heat networks. As social housing providers own and manage roughly two-thirds of all heat networks in the UK, the sector is a primary focus for the new rules.

Joining host **Jeff House**, external affairs and policy director at Baxi, on the Westminster panel were:

- **David Newton**, head of heat network regulation at the Department for Energy Security and Net Zero (DESNZ)
- **Louise Singleton**, principal consultant at Talan, (Heat Network Efficiency Scheme delivery partner)
- **Chris Unsworth**, head of heat networks at the Association for Decentralised Energy (ADE)
- **Dan Perager**, head of heat, energy and water at Notting Hill Genesis

The event was used to highlight the results of a recent Baxi research report[1]. This summer, Baxi carried out a UK-wide survey of 100 housing associations and 102 local authorities managing or operating heat networks to understand how the sector is engaging with heat network policy, regulation and funding. Interviews were also carried out with five housing associations, one heat network consultant and one contractor in England and Wales to explore attitudes and understanding in greater depth. The subsequent report analyses the implications of the findings and includes Baxi's policy recommendations.

Readiness of social landlords and local authorities

Respondents to Baxi's survey generally reported a good understanding of heat networks and broadly positive experiences (80%), however the in-depth interviews highlighted that knowledge often sits with only a small number of specialists within each organisation.

Awareness and preparedness varied considerably across forthcoming requirements, particularly in relation to zoning (24%), technical standards outlined in the Heat Network Technical Assurance Scheme (38%), and metering and billing regulations (40%).

Most organisations were preparing or prepared for regulation, with confidence standing at 85% among housing associations and 67% among local authorities.

Funding knowledge was stronger: 42% understood the application process fully and 50% mostly, with awareness spanning the Green Heat Network Fund (GHNF), Heat Networks Delivery Unit (HNDU) and Heat Network Efficiency Scheme (HNES).

Organisations also want manufacturers to act as lifecycle partners, supporting design, technical input, funding applications, training, compliance, business cases, system performance and maintenance.

Regulation and consumer protection

The discussion highlighted that while heat networks should play a much greater role in the UK's heating mix, organisations must be able to afford and deliver the required standards. The emerging framework is intended to bring heat networks closer to the regulatory model used for gas and electricity. While most customers may have a satisfactory experience of heat networks, the aim is to improve consumer experience for all by eliminating outages, overheating, high bills, noise, poor service and unclear charging.

A strong message was that all heat suppliers are already subject to relevant regulation, whether or not they have registered or fully recognise themselves as suppliers. Speakers acknowledged that some current approaches to debt collection and disconnection are unacceptable and must improve.

Heat Network Technical Assurance Scheme

The proposed technical standards were broadly supported, but speakers stressed that they must be proportionate, affordable and achievable. Importantly, it was noted that poor performance is not confined to old networks. Examples were cited of relatively new schemes suffering serious failures.

Concerns centred on:

- the cost of compliance
- insufficient metering and assurance capacity
- skills shortages
- the risk of unrealistic deadlines for existing networks
- the ability of social landlords to recover or fund compliance costs.

The conclusion was that consultation responses were being considered before final proposals and a clear implementation roadmap are issued.

Heat network zoning

Zoning will identify areas where heat networks are likely to offer the lowest-cost, low-carbon heat. A national authority and local bodies in at least 10 major UK cities will oversee delivery. Ofgem's consumer protection, standards and regulation are expected to take effect at the end of February 2027.

The first designated areas are expected to focus on major English cities, with further expansion later. Zoning was welcomed for creating opportunities and clearer roles and processes, although questions remain about the practical demands it will place on local and combined authorities.

There was also discussion about using zoning to deliver wider objectives such as fuel-poverty reduction, decarbonisation and coordinated local planning.

Funding the transition

Investment is essential to diagnose underperformance and deliver the improvements required by higher standards.

Two principal funding schemes were explained:

- Heat Network Efficiency Scheme (HNES): supports existing networks through fully funded optimisation studies and part-funded capital improvements. Priorities include improving efficiency, reducing carbon emissions, lowering customer detriment and preparing networks for regulation.
- Green Heat Network Fund: supports the commercialisation and construction of larger new low-carbon networks and the decarbonisation or expansion of existing schemes.

Participants welcomed both programmes but argued that substantially more funding may be needed, particularly to upgrade poorly performing social-housing networks. Match-funding requirements were identified as a barrier for financially constrained landlords.

Taking control at portfolio level

A recurring concern was the lack of reliable sector-wide data. The discussion highlighted that some landlords still lack a complete record of their heat networks, their condition, who they serve or where responsibility lies. Registration was seen as essential to provide consistent data which will make it easier to determine whether consumer outcomes have improved since earlier market studies.

Practical asset-management lessons

Notting Hill Genesis described a structured approach based on:

- identifying every network and connection
- clarifying ownership and responsibility
- recording component condition and replacement needs
- assessing efficiency and creating a network "health score"
- prioritising investment using evidence
- securing funding before commissioning detailed work
- maintaining improvements through dedicated teams and performance dashboards.

A retrofit case study showed the potential benefits of better insulation, controls and system redesign, including lower communal temperatures, reduced gas consumption, improved efficiency and substantial savings.

Getting implementation right

The event showed strong support for expanding and improving heat networks, but also a clear warning: growth, regulation, consumer protection and technical improvement must be delivered together. Success will depend on proportionate standards, reliable data, adequate funding, stronger skills, clearer responsibilities and targeted support for social landlords — while ensuring that residents receive affordable, reliable and transparent heat services.

Reflecting on the event, Jeff House said: "This is a critical juncture for heat networks. While funding and support are in place, several challenges risk slowing the growth needed in the coming years, from labour shortages to limited awareness of the help available.

"It is imperative that clear, long-term roadmaps are put in place to upskill professionals, support the phased roll-out of HNTAS and, most importantly, protect consumers from unaffordable metering and billing costs. Events like these are invaluable in bringing together different perspectives, building a clearer picture of the direction of travel and identifying exactly how we can support stakeholders at every stage of the journey."

https://www.baxi.co.uk/commercial/our-solutions/heat-networks?

Source

1. https://tinyurl.com/4afexz8w



Speaker panel at the event

ARE YOU GETTING 100% OF HEAT?

Trunking done right: The backbone of a quality Installation

As air source heat pumps grow in popularity as a low-carbon heating solution, installation quality is key to delivering optimal performance and customer satisfaction. One often overlooked aspect is the use of external trunking to conceal and protect pipework. While some installations leave insulated pipework exposed, purpose-designed trunking enhances aesthetics, improves protection and durability, and supports best-practice installation standards. **Caspar Speakman**, ASHP Business Development Manager at DiversiTech - explains.

External trunking is a simple but highly effective addition that conceals and protects pipework, helping installers deliver a professional, durable, and visually appealing installation.

KEY BENEFITS OF EXTERNAL TRUNKING

Enhanced Appearance

External trunking neatly conceals flow and return pipes and electrical cables, creating a clean, professional finish. Available in 140 and 150mm sizes in black and white, it can complement a property's exterior and improve overall customer satisfaction.

Protection from Weather

Outdoor pipework is exposed to UV radiation, rain, frost, temperature fluctuations, and wind-blown debris. Trunking provides an additional layer of protection, helping to prevent insulation degradation, moisture ingress, and weather-related damage while preserving thermal performance.



Wide range of fittings and fixings are available

Reduced Risk of Mechanical Damage

Exposed pipework can be vulnerable to accidental impacts from ladders, gardening equipment, bins, bicycles, or building maintenance. Trunking helps protect against crushing, punctures, tampering, and vandalism, reducing the likelihood of costly repairs and installer call-backs.

Trunking installation

Improved Energy Efficiency

The efficiency of an air source heat pump depends on maintaining water temperature between the outdoor and indoor units. By protecting insulation from deterioration, trunking helps minimise heat loss and maintain system performance, particularly on longer pipe runs.

Important: Trunking is not a substitute for pipe insulation. All pipework should be fully insulated before enclosure, with particular attention paid to joints, bends, and valves.

Easier Maintenance

Most trunking systems feature removable covers, providing straightforward access for inspection, servicing, and troubleshooting.



Increased Property Appeal

A well-finished heat pump installation can enhance the appearance of a property and reinforce the quality of the renewable heating investment. Concealed services help create a more integrated and permanent-looking installation.

Long-Term Cost Savings

Although trunking adds a modest upfront cost, it can reduce future expenditure by helping prevent insulation replacement, pipework damage, weather-related deterioration, and maintenance call-backs.

External trunking is more than a cosmetic finishing touch. It protects pipework and insulation from weather, impact damage, and degradation while improving appearance, maintaining efficiency, simplifying maintenance, and enhancing system longevity. When properly installed, trunking supports best-practice heat pump installations, helping installers demonstrate quality workmanship.

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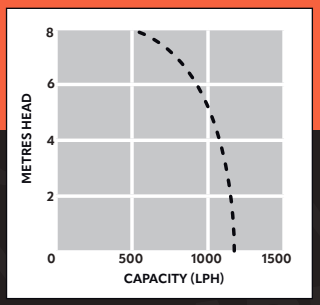




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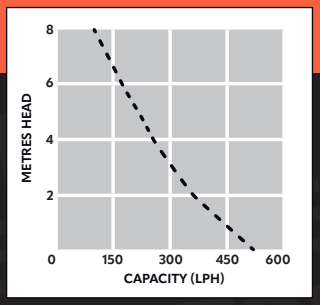
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What really makes an EV charging site work?

Morgan Barbezat, Marketing Manager at The EV Network, discusses that location, power and installation all matter, but the success of an EV charging site depends on how those decisions come together, from the first assessment through to everyday operation.

For drivers, an EV charging stop should be straightforward. Find a site, park, plug in and get on with the day. There might also be time for a coffee or some shopping before heading back to the car.

Behind that experience is a development process that can be far less straightforward. Long before the chargers arrive, decisions have been made about land, electricity supply, access, planning and the people expected to use them. Those decisions continue to shape the site's performance long after it opens.

It is easy to focus on the equipment because that is the part everyone sees. Yet a charger can only do so much if the location is inconvenient, the available power cannot support the service, or maintenance has been left unclear.

For those developing, installing or simply interested in charging infrastructure, the challenge is to understand how each part affects the whole.

Finding land is only the starting point

The EV charging "land rush" has been attracting a lot of attention. Much of the discussion centres around whether the best sites have already been secured and whether the focus has now shifted to utilisation.

In practice, site selection and utilisation are closely connected. The decisions made when choosing a location help determine how often people will use it. Securing land is therefore only useful if there is a use case for developing charging there.

A busy road is a good example, high traffic volumes can make a location look attractive, but they reveal little about whether drivers will actually stop. The entrance might be difficult to reach from one direction, nearby facilities might close early, or drivers may already have a more convenient charging option along their route.

Understanding who exactly uses the area matters. Residents without home charging, commercial drivers and people making longer journeys have different needs, which is why a strong assessment considers those groups alongside access, visibility, nearby competition and the facilities available during a charging stop.

The same thinking should guide which charger is selected. Someone stopping briefly on a long journey has different requirements from someone leaving a car at work for several hours. Charger power and bay numbers should reflect that, as there is little value in choosing a specification before understanding the visit it needs to support. Getting that brief right gives the technical team a clearer starting point and allows them to understand how the site will actually work.



Morgan Barbezat, Marketing Manager at The EV Network

Power needs to be part of the conversation early

A promising location can become a very different proposition once its electricity requirements are properly investigated. Available capacity, connection works and delivery times can all influence what is feasible.

For larger installations, early engagement with the distribution network operator (DNO) helps establish clear options. The work needs to sit alongside the property assessment, so the proposed charging offer develops around a realistic understanding of the supply.

Existing demand also needs attention. Charging infrastructure sharing a site with shops, offices or other facilities forms part of a wider energy system. Assessing the chargers separately can miss how their demand interacts with other electrical loads.







This is also relevant where businesses are considering several technologies at once such as EV charging, heat pumps, solar and battery storage which each have a place, but still need to be considered together.

Load management can help make better use of available power. Solar and storage may also support the energy strategy, depending on demand patterns and site conditions. Their contribution needs to be assessed against the service the site is expected to deliver. Drivers still need to receive a reliable charging service when demand is high.

These discussions are most useful while the project can still be adapted. Once equipment has been ordered and construction dates agreed, changing the power strategy becomes much harder.

Turning a viable proposal into a usable site

Between the initial assessment and construction sits a considerable amount of coordination. Land agreements, permissions, cable routes, equipment positions and access arrangements all need to support the same design.

The physical footprint often extends beyond the charging bays. Electrical equipment requires space, cable routes may cross other land, and maintenance teams need safe access. Highlighting those details early gives the project team a chance to address conflicts before they cause disruption on site.

Responsibilities also need equal clarity. The landlord, developer, contractor, infrastructure owner and charge point operator may all have a role. Each should understand what they are delivering, what they will take responsibility for and how the handover will work.

Alongside those arrangements, the design needs to make sense to someone arriving for the first time. Drivers should be able to find the entrance, identify a bay and understand how to begin charging without unnecessary confusion.

Accessibility belongs in that process from the outset. Space around vehicles, kerbs, pedestrian routes, cable handling and control positions all affect whether people can use the site comfortably. Lighting and signage also deserve proper attention, particularly for those arriving alone after dark or in poor weather.

Walking through the proposed visit can be very revealing. Considering where someone parks, how they reach the charger and whether they can get safely to the facilities are all ordinary things that can be easily overlooked when the attention is concentrated on the charger itself.

The work continues after opening

Commissioning brings the different elements together. Alongside electrical inspection and testing, it should ensure that communication, payment, monitoring and power management function as they are supposed to.

From then on, performance depends on ongoing operation and maintenance. Remote monitoring can identify problems, but faults still need someone to investigate and resolve them. Maintenance access, response arrangements and responsibility for repairs should all be clear.

Operational data provides another opportunity to improve. Energy delivered is useful, but failed sessions, recurring faults, customer feedback and patterns of bay use help explain what sits behind the numbers. That information can guide maintenance, changes to the site and decisions about future locations.

It can also show when expansion is justified. Allowing space or suitable routes for additional infrastructure during the original design may make later work easier, although expansion still needs its own assessment.

A charging site is a long-term commitment. Its success depends on decisions made across property, power, construction and operation, with each stage carrying consequences for the next. Getting those connections right is what allows the driver's experience to remain smooth and effective.

https://www.theevnetwork.com/

ESBE valves employed in full decarbonisation of University of West London College buildings

A major energy refurbishment project carried out at a University of West London College has achieved dramatic improvements to the energy efficiency of both historic and contemporary buildings, replacing the complex's gas-fired boilers with a district heating scheme fed by air source heat pumps (ASHPs), where ESBE valves are crucial to the management of the heating and hot water supply.



Works at Ruskin college

The year-long upgrade at Ruskin College which completed in March, was led by Norfolk based Finn Geotherm with its engineers installing a cascade of four Carrier 85.9 kW capacity ASHPs located in a central plant room, laying underground thermal mains around the site and also fitting new radiators along with large capacity DHW storage tanks in each of the teaching and accommodation buildings. Finn Geotherm also oversaw significant improvements to the properties' heat loss profiles with new roof insulation being installed while blown Thermabeads replaced existing cavity wall insulation.

Crucial to the success of the changeover, however, has been their ability of designs to manage the variation in supply temperature required for the individual heating and hot water circuits within the four buildings as Technical Director, **David Alston** explained. He said: "While East Anglia is our home territory we cover all the south of England doing a lot of commercial work as well as large public sector contracts such as at Ruskin College, which has been carried out under the Government's Public Sector Decarbonisation Scheme – with all the scrutiny and oversight that involves – as well as there being complex challenges to the installation. We had to opt for high-temperature heat pumps, capable of delivering 70+ degrees C to raise the temperature of the hot water tanks to 60 degrees (for Legionella compliance), but the radiators were designed to run at a flow temperature of 500 C. It would be really inefficient to run the heat pumps continuously at 700 C so there is a switchover process managed by the BMS and involves the ESBE valves."

"Therefore, when there is a heating demand a signal goes back to the district heating scheme to raise the mains temperature – effectively an S-plan system for the hot water. The ESBE MBA121 valve allows us to close off the heating when we're in hot water mode – while we're also using the ESBE VRG131 3-port valve with ARA 659 proportional controller to regulate the temperature to the radiator circuit, with weather compensation."

Reflecting on the success of the project overall, David added: "I have a long-standing relationship with ESBE and we've fitted thousands of their valves in different projects over the years. We do so because of their build quality and reliability while we were particularly keen on using the 'rotary shoe principle'. This district heating system has a design SCOP* of 3.83 and has run reliably over the whole of the winter with only positive feedback from the college."

The MD for ESBE, **Darren Myers** reflected: "Finn Geotherm is a valued customer for us, carrying out a lot of high profile and high-quality projects, while David has been over to our manufacturing and research site in Sweden to see the development work we are doing. It is very valuable to have his feedback to help refine new products before we bring them to market."

All of the ESBE valves were supplied through Secon, which is one of Finn Geotherm's regular supplier of hydronics components.

https://esbe.eu/group/

Behind the scenes: Zeuner performs bespoke theatre heat pump replacement

A Coventry-based renewable energy company has installed a tailored heat pump system in a theatre – saving the venue considerable time and money.

Zeuner has updated and optimised the obsolete heat pump system at The Apex, an award-winning live music and entertainment centre in Bury St Edmunds, Suffolk.

The Apex is part of the Arc shopping centre development, built on an old cattle market site in 2009, and the venue was built to have state-of-the-art acoustics. However, accessing the roof to replace the old heat pump system housed there presented significant challenges.

An innovative solution was developed: a 'carbon copy' of the space in the Coventry workshop was created, and the new heat pump system was built to the exact dimensions of the structure. It was then dismantled and transported to the site.

The new system is designed to provide heating and cooling simultaneously, allowing it to respond to the theatre's changing requirements throughout the year. Using natural propane refrigerant, the installation combines energy-efficient operation with a bespoke control system that enables performance to be monitored remotely. This gives Zeuner's engineers greater visibility of how the system is operating, helping them identify potential issues early, reduce downtime and avoid unnecessary energy use.

The redesigned system also incorporates technology that helps compressors operate smoothly during periods of lower demand, reducing unnecessary starts and stops and helping to extend equipment life. The updated installation is backed by a seven-year parts warranty on all installed heat pumps, providing additional reassurance and helping the venue manage maintenance costs over the longer term.

Founder **Chris Reilly** said: "It was a massive undertaking to take out the old system and install the more efficient design in its place. In understanding we could not crane in, we designed the system to be dismantled in manageable sections and hauled up ourselves.

"The result has been a significant cost saving, and de-risking of the operational building, as the build took place off site in our controlled and managed purpose environment."



Installation of a tailored heat pump system in a theatre



An innovative solution to replace old heat pump system on roof

Chris says a tailored, consultative heat pump solution can meet any building load requirement, saves money over time, and helps organisations fulfil their sustainability and CSR obligations. The process may also offer tax incentives and usually bypasses planning permission requirements.

"There is also less wastage for tailored systems because standardised systems are not optimised for the building's proportions, whereas Zeuner systems are built to the real estate from the start and use less material as a result," Chris adds.

https://zeuner.co.uk/

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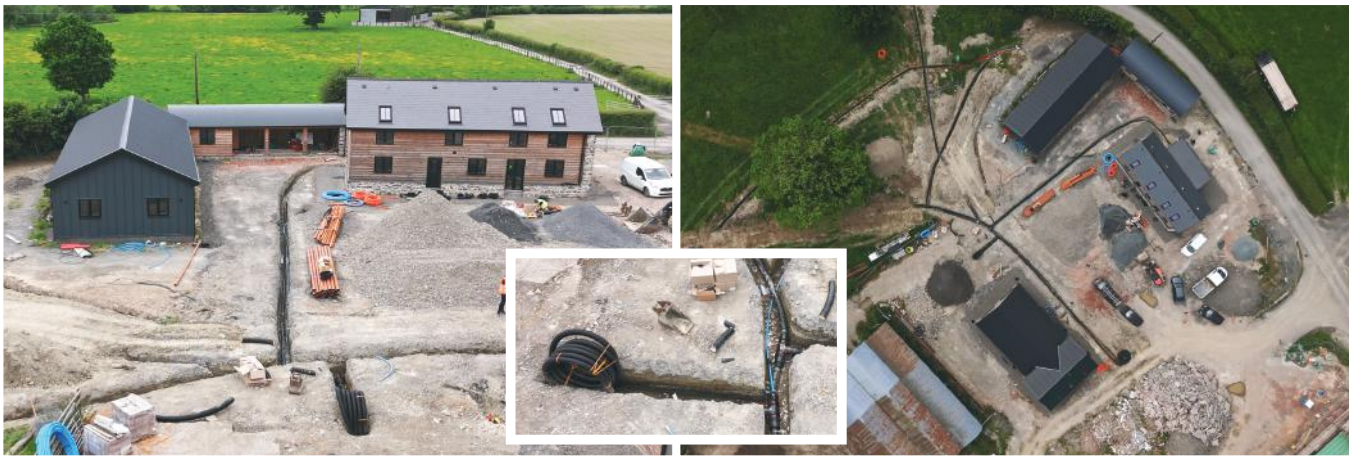


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REHAU marries flexibility and performance at Powys wedding venue



A Powys venue expanding to host weddings used a new heat network to supply heat and hot water to six buildings. The installation took advantage of REHAU Water Technologies' pre-insulated polymer pipe, using its in-built flexibility to help meet inflexible deadlines.

Bodaioch Hall, a rural events site in Powys, has been developed in phases over recent years, converting a farm location into a wedding and hospitality venue. The hall itself has been served by a biomass boiler and REHAU Water Technologies' RAUTHERMEX pre-insulated pipe for some time. The latest phase of development connected cottages, a car port and a wedding venue to a new heat network rather than introduce standalone heating systems for each new building — a decision informed by how well the original network had performed.

Routing requirements

Connecting six buildings to a central boiler room meant routing pipework across a live construction site, around existing structures and through ground that was, in places, still being reshaped by wider building work. The wedding venue was still an empty shell as work continued elsewhere on site and the network needed to reach this, as well as the newly converted accommodation and car port without disrupting the broader programme.

The pipe run itself had to negotiate multiple changes of direction between buildings. On a project site like this a rigid or less flexible pipe system would typically mean additional joints and fittings at every bend. Unlike steel systems, where welded joints can introduce potential weak points and increase the risk of long-term reliability issues, the continuous flexible pipe construction minimises joint requirements and enhances overall network integrity.

With 338 metres of pipework required to connect the buildings, and a heat demand across the site of around 580 kW, minimising unnecessary jointing was a priority for both the installation timeline and the network's long-term reliability.

The team also had to work quickly: with the wedding venue an empty barn at the point that pipe delivery began, and excavation for the largest property —the Dairy— starting only days later, the installation needed to keep up with a fast-moving construction schedule.

Ahead of the curve

REHAU's RAUVIPEX pre-insulated pipe, in sizes from 40mm to 63mm, was specified to extend the network from the plantroom to the new buildings. The install uses EVERLOC compression sleeve jointing and CLIP-FLEX shroud technology at each connection, allowing joints to be made quickly and inspected visually on site.

Pipe was delivered to site on 26 May, and installers had laid the majority of the run within that week, with excavation for the Dairy connection underway the following week. Rather than using straight pipe lengths and adding tees or elbow joints at every turn, the installation team used the pipe's inherent flexibility to curve it around obstacles and directional changes, reserving joints solely for connection points rather than changes of direction.

One of the standout characteristics in RAUVIPEX's design is its longitudinal watertightness barrier and SN8-rated outer jacket built in for long-term reliability. The associated bending forces are reduced by 20–35% compared with similar PU-foamed systems which, in practice, gives installers a pipe that can be manoeuvred by hand around bends without the stiffness associated with less flexible pre-insulated systems, such as steel.

In the trenches

For the installer on this project, ESP Energy, the difference was tangible on site. Fewer joints meant less time spent on connections and fewer potential points of failure once the network was buried and commissioned. The pipe's flexibility also simplified groundwork, allowing runs to follow a more direct route between buildings rather than being dictated by the geometry of a rigid system.

The approach also suited the practical realities of working on a live, part-completed site as pipework could remain coiled in the trench awaiting the next phase of construction and groundworks.

A step forward for district heating

ESP's work on this project builds on the wider heat network already established at Bodaioch Hall's main hall, and on a longer-standing relationship between REHAU and distributor Mibec, which has supplied REHAU's polymer pipe systems for 15 years.

With the barn cottages connected and work under way on the network's largest link to the Dairy, the Bodaioch Hall project is continuing to grow with the wider development as the underground heat network is extended, building by building, alongside it.

https://water.rehau.com
www.insulatedpipe.co.uk

Found, trusted, booked: How heat pump installers can win more local work from Google

Skilled installers are the heart of the heat pump transition, but homeowners still have to find them. **Andrew Heppinstall**, founder of Unavoidable Marketing, explains the free Google basics, how to get Google Verified and how to tell whether your leads are really paying off.



Andrew Heppinstall, founder of Unavoidable Marketing

A recent article in September issue Heat Pumps & Renewables "Skills first: Why the heat pump transition depends on people, not products[1]" made the point that the heat pump transition depends on people, not products. I would add one step: It also depends on homeowners being able to find those people and trust them. Most will search something like "heat pump installer" and the name of their town, look at the map and contact one of the first few firms that look credible. Your skills only count if you make that shortlist.

Start with the free basics

Your Google Business Profile is the most valuable free listing you have, and it is where most first impressions now happen. Five jobs make the biggest difference.

- Claim and verify your profile, so only you can control what it says.
- Pick the primary category that matches most of your work, then list each service separately: air source installs, ground source, servicing and repairs, home surveys.
- Set your service area to the towns you actually cover, and keep your phone number, website and hours accurate.
- Add photos of your own installs every month. A real outdoor unit on a real house does more than any stock image.
- Reply to every review. Homeowners spending thousands read your replies as closely as the reviews themselves.

Make your credentials easy to see too. If you hold MCS certification or manufacturer accreditations, say so on your website and in your profile description. Heat pumps are a considered purchase, and homeowners look for proof.

Getting Google Verified

Once the basics are in place, Local Services Ads can put you above the normal search results. HVAC is one of Google's UK categories, and you pay only when a potential customer gets in touch through the ad, not for clicks.

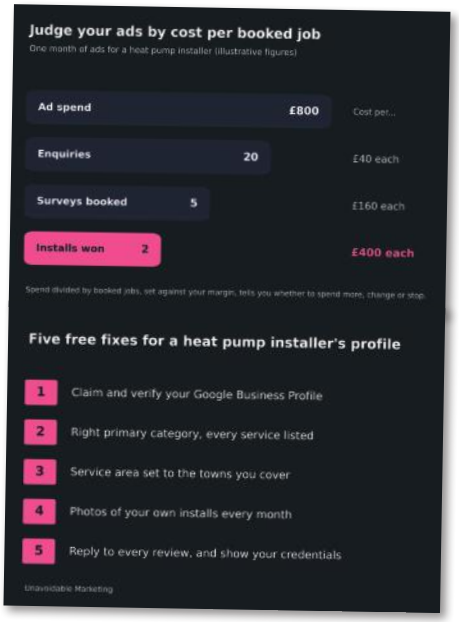
To appear, your business has to pass Google's screening. For HVAC in the UK that means a business check, proof of public liability insurance and any licence required where local law applies, plus a verified Business Profile. Google says screening takes three to four weeks after you submit your documents, so have them ready before you start. Businesses that pass carry a single Google Verified badge on their ads. It replaced Google's older guarantee scheme, so it tells homeowners you have been checked rather than promising them a refund.

Two habits help once you are live. Answer the phone during the hours you list, because a missed call is a paid lead gone. Google also says missed calls can count against your responsiveness, which is one of the things it weighs when deciding where your ad appears.

Judge leads by cost per booked job

Clicks and leads are the wrong scoreboard for heat pumps. Many enquiries are early research, grant questions or price checks. What matters is how much it costs to win a survey and, in the end, an installation.

The sum is simple: what you spent on ads in a month, divided by the surveys or installations that came from them. If £800 of ads brings in five surveys and two installs, each survey cost £160 and each install £400. Set that against the margin on a typical job and you know whether to spend more, change something or stop.



To make the numbers honest you need to know where every enquiry came from. Use a separate tracked number on your ads, ask each caller how they found you and keep a simple log that runs from enquiry to survey to install. Because heat pump decisions can take weeks, look at results over two or three months rather than judging a campaign on its first fortnight.

Small steps, steady work

None of this needs a big budget. A tidy profile, real photos, visible credentials and a habit of replying to people will put many installers ahead of firms with bigger ad spends. Add Local Services Ads when you have capacity for more surveys, and judge them by the jobs they book, not the leads they send.

unavoidablem.com/services/google-local-service-ads/

Source

1. https://heyzine.com/flip-book/HPR_SEPT26#page/40

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Now is the time to learn heat pump skills, says expert

Paul Drew, Director at Smart Energy Training, explains why seasoned heating engineers should not delay adding renewable technologies to their offering.

There has never been a better time for heating engineers to boost their earning potential by achieving low carbon qualifications.

I speak to heating engineers on a daily basis and I understand why some might be reluctant to add renewable technologies to their skillset. In some cases, retirement is on the horizon and it doesn't seem worth it, while others have a diary full of traditional gas bookings and do not see the need.

While I understand the reluctance to stray into the unknown, I would urge heating engineers who are expecting to work for another 10 years or more to think about the bigger picture.

Heat pumps are an increasingly important part of the UK's transition to low carbon heating. As momentum gathers and the pace of change accelerates – as it surely will – this will create huge opportunities for installers with the right skills.

For that reason, now is the time to get ahead of your competitors and to future-proof your business by broadening your services.

Offering heat pump installations alongside a traditional gas offering will help you compete for a wider range of projects from homeowners, landlords, housebuilders and commercial property owners.

By starting now, you will have the time to develop specialist knowledge that sets you apart from competitors when heat pumps become the norm.



Paul Drew, Director at Smart Energy Training

And it's not just the installation. This is an opportunity to build a new revenue stream by adding heat pump maintenance, servicing and system optimisation into the mix.

Best of all, the Air Source Heat Pump & Low Temp Heating training course is currently free of charge to learners, fully funded by the UK Government's Heat Training Grant.

This course allows experienced heating professionals to gain two in-demand renewable qualifications in just four days, giving you the skills to design, install and optimise ASHP and low temperature heating systems.

Funding arrangements can change, so eligible engineers should check the support currently available rather than put off exploring their options.

Build on existing knowledge

ASHP systems do require more planning and calculations than gas installations, there's no getting away from that. I know that some engineers – particularly those who have worked within gas for a couple of decades or even more – find this thought daunting.

This need not be the case, though. The important thing to remember is that for the majority of engineers, the step into renewables is very achievable. That is because you are building on what you already know, including plumbing skills, heating distribution, pipework, controls and fault-finding.

Don't think of it as a complete career change. It's simply taking your existing knowledge, expanding on that and applying it to a new technology to understand how heat pumps interact with familiar components such as radiators, underfloor heating, hot water cylinders and thermostats.

The ASHP course will teach you the basics of calculating heat losses, sizing emitters and selecting suitable equipment to deliver efficient heating. The course builds on existing heating knowledge, with a focus on heat loss calculations, emitter sizing and low-temperature system design to support efficient heat pump performance.

By adding heat pump qualifications to your existing heating experience and taking a step towards becoming an MCS certified expert, you will be better equipped to advise homeowners on suitable systems and any changes their property may need.

Reducing energy

Most people want to reduce energy either to save money or to limit their CO2 emissions. In the majority of cases, it will be a mixture of both.

By upskilling as an ASHP engineer, you have the opportunity to help people significantly reduce their reliance on gas while cutting emissions.

Put very simply, the efficiency of a gas boiler will always be under 100%. ASHPs, meanwhile, can deliver three or four units of heat for every unit of electricity they use by transferring heat from the outside air. Actual performance depends on system design and operating conditions.

By becoming a heat pump expert, you can help customers navigate the transition, making a tangible difference to their lives and their finances. If you are able to assure them you know what you're talking about at the install stage, they will more than likely utilise you again for servicing and maintenance.

The bottom line

Ultimately, adding ASHP skills to your repertoire is all about increasing your earning potential. As in any discipline, specialist skills open the door to higher value projects and access to a wider range of contracts.

It may feel at the moment that the majority of the country's radiators will be heated by gas forever more, but the green revolution will gather pace. Don't be left behind when it happens.

Think about protecting your long-term employability now by getting qualified and building important relationships within the sector.

We have numerous training opportunities available to help installers make the transition. Speak to our experts today for no-pressure, honest advice and guidance.

www.smartenergytraining.co.uk



More than half of installers lack confidence to install heat pumps, research shows

Kerri Perks, Director of Sales and Operations, Wolseley, explains that renewables centre are tackling the UK's heat pump skills gap through training, practical support and initiatives that help installers gain confidence and complete their first installation.


Kerri Perks, Director of Sales and Operations, Wolseley

More than half of installers in the UK don't feel confident or adequately trained enough to fit a heat pump, while a third blame lack of practical learning as a barrier.

The findings of our survey of thousands of installers and homeowners are supported by the government statistic that just 27% of Heat Training Grant recipients had installed one within a year.

The figures are either worrying reading or the perfect springboard for a mindset change in how the industry approaches a looming shortfall in installers over the next decade.

Our modelling shows the UK needs a heat pump workforce of 154,000 by 2035 to meet the Climate Change Committee's recommendation of 1.5 million installations a year.

Currently we're set to fall more than 44,000 installers short, so as demand outstrips supply the early birds will be taking home more than just the worm.

Doing nothing isn't an option. If installers fail to act now, they risk losing ground to those already busy building experience, reviews and referrals.

That's why we're investing in the course and what happens after it, because we know that first job can be daunting – because we know our customers.

Through Renewables Centre, we run accredited training in partnership with NAPIT and support installers across the country to take their first steps into the renewables market. But our support doesn't end there.

We've established the MCS umbrella scheme through our specialists RES, as part of Renewables Centre, to power up installers who aren't yet accredited to deliver fully certified installations. Our team and an onsite expert help installers with the survey, heat loss calculations, design and certification.

Certification unlocks grant funding for customers through the Boiler Upgrade Scheme in England and Wales and the Home Energy Scotland Grant and Loan in Scotland. Put simply, we help customers focus on the job in hand.

We know from speaking to our customers that the initial take up isn't slow through lack of appetite, because the interest in modern heating solutions is clearly there. It's mainly psychological and that's perfectly understandable.





The first installation can be daunting if unprepared, with customers asking questions nobody has asked before. That's not easy for an installer who has built their businesses on reputation and getting things right first time.

Putting that on the line for something unfamiliar feels like a risk, but as with anything we try for the first time we usually look back later and ask, 'what was I so worried about?'

Confidence only comes with doing the job, so end-to-end support with an assurance that the homeowner gets a system that is correctly designed for ultimate performance, are huge factors in the decision-making process.

We're investing in the future with easy access training and support – as well as sponsoring this week's National Heat Pump Week – because we want installers who finish their course to go on to fit their first system.

That moment rarely arrives on its own. Delayed or postponed, the gap between training and the first installation only widens.

That's exactly why we've gone even further with the Nesta-backed Start at Home. Installers fit a heat pump in their own home, with free training, up to £9,000 worth of materials and an expert alongside. No customer watching, no reputation at stake, just the chance to learn by living with it.

Nothing to lose and everything to gain.

www.wolseley.co.uk/renewables-centre

Grant UK supports Jersey Green Skills Academy

Phil Stanley, Training Manager at Grant UK, shares insights into Jersey Electricity and Highlands College's new Green Skills Academy, which aims to train thirty-six low carbon heating technicians in Jersey by 2030. Grant UK is supporting the initiative by supplying heat pump equipment for training and assessment.



L-R Grant UK's Mike Toms and Phil Stanley

A partnership between Jersey Electricity, Highlands College and local industry is striving to overcome the shortage of qualified, skilled low carbon heating technicians on the island. The Green Skills Academy was officially launched at the end of September with its purpose-built teaching facility located at the Highlands College in St. Saviour, Jersey. Using these new facilities, the Green Skills Academy in partnership with NOCN (National Open College Network) is delivering an accelerated two-year apprenticeship programme in low carbon technologies including air source heat pumps, ground source heat pumps, cylinders, solar thermal hot water and other low carbon systems.

Grant UK has a long-standing association with Highlands College with their Training Academy delivering OFTEC oil training and assessments at the College for many years. The development of the Green Skills Academy over the past few months has seen the installation of Grant renewables equipment including two Aerona 290 air source heat pumps with Aerona Smart Controllers, system volumisers and Quick Recovery 2 single coil and twin coil heat pump cylinders. This equipment will be used for both hands-on training and assessment of low carbon heating apprentices as part of the Green Skills Academy programme.

"The Green Skills Academy apprenticeship programme is an initiative we were keen to support," explains Phil. "The training of the next generation of renewables installers through its apprenticeship model are objectives which closely align with our own focus here at the Grant UK Training Academy. We hope the Grant heat pump products installed will help the Green Skills Academy achieve its goals for training new Low Carbon Heating Technicians by 2030."

Chris Ambler, Chief Executive of Jersey Electricity, said: "When we announced the Green Skills Academy earlier this year, we described it as an investment in Jersey's sustainable future. That vision now becomes a reality. This workshop is a state-of-the-art facility that stands comparison with the very best training centres in Europe and gives Jersey a learning environment that will benefit generations of apprentices to come."

For further information about Grant UK's Training Academy and courses, visit: **www.grantuk.com/professional/training**







Beyond installation: Rethinking heat pump competency

Consumer confidence is critical to accelerating heat pump deployment, and that confidence depends not only on successful installation, but on systems consistently delivering the comfort, efficiency and reliability that they were designed to achieve. This is where the industry's skills conversation now needs to focus, says **Scott Young**, National Training Manager at Samsung Climate Solutions.



Scott Young, National Training Manager at Samsung Climate Solutions, conducting training

While MCS data[1] shows a 95% customer satisfaction rate for heat pump installations delivered under the Boiler Upgrade Scheme (BUS), this is only part of the picture. Elsewhere, the National Audit Office's recent review of energy efficiency measures delivered under the Energy Company Obligation (ECO) identified 'poor workforce skills[2] as a factor contributing to installation quality issues.

The issue is less a question of installer capability and more a reflection of how heat pump education needs to evolve. As the market matures, there is a growing need to look beyond the installation itself and place greater emphasis on wider system design, operational behaviour and the environmental factors that shape long-term performance.

Heat pumps are highly capable technologies, but like any heating system, their performance is shaped by the quality of design and specification around them.

Building skills for a unique climate

In the UK, we have a unique climate. And one environmental factor that warrants greater consideration in the UK is humidity.

While temperature is often seen as the primary challenge, some of Europe's highest rates of heat pump adoption[3] are found in Norway, Sweden and Finland, where winter temperatures regularly fall below those experienced across much of the UK. This demonstrates that cold weather itself is not a barrier to successful deployment.

However, the UK's island climate presents its own challenges, particularly when it comes to humidity. In colder conditions, moisture can accumulate on a heat pump's evaporator coil and freeze, triggering defrost cycles. While defrosting is a normal part of operation, more frequent cycles can temporarily reduce heat output and affect overall efficiency. This highlights the importance of understanding how environmental conditions influence wider system design decisions, from positioning and airflow to hydraulics, controls and frost protection.

Climate is, of course, just one part of a much wider performance picture. As UK heat pump deployment scales, installers will increasingly need to understand the range of factors that influence system efficiency and reliability. This reinforces the need for training and competency frameworks that place greater emphasis on system design, operational behaviour and long-term performance, rather than installation alone.

Responding to changing needs

If competency frameworks are to keep pace with evolving performance demands, manufacturers have an important role to play. Training provision needs to expand beyond product familiarisation and installation basics to support the wider competencies required for long-term system performance.

At Samsung Climate Solutions, we have been developing a new Learning Management System (LMS)[4] designed to support installers throughout that journey.

The platform has been structured around a clear modular training pathway, with four accreditation levels: Bronze, Silver, Gold and Service Agent. Each stage requires completion of relevant modules and is designed to build competency progressively, giving installers a clearer route for professional development as they move from installation through to servicing and support.

Alongside easier access to training resources, a more intuitive user experience and seamless registration, the LMS is designed to create greater value beyond the training itself. By linking accreditation to extended warranties, technical support, loyalty schemes and wider installer benefits, the platform aims to encourage ongoing engagement while helping installers strengthen their own customer offering.

Perhaps most importantly, the platform helps us to identify recurring technical challenges and knowledge gaps across the market, allowing training provision to evolve alongside installer and market needs. This supports our goal in not only training more installers, but to support their long-term development, reduce common commissioning issues and improve confidence in heat pump performance across the UK market.

The next phase of competency

As heat pump adoption continues and systems are installed across a wider range of property types and applications, understanding the wider performance variables that influence efficiency will become increasingly important



Samsung training being conducted



to delivering the levels of comfort, reliability and energy performance that occupants expect, and deserve.

Installers should be encouraged to make full use of the training and technical support available to them as heat pumps become more commonplace and system design naturally becomes more varied. But raising competency standards cannot rest with installers alone. Manufacturers, government, industry bodies and training providers all have a role to play in creating a broader, more integrated framework for skills development.

The industry's biggest challenge is no longer convincing people that heat pumps work. That's proven. The focus now is on ensuring every system performs as intended in the unique environment it will operate in.

https://samsung-climatesolutions.com/gb/b2c.html

Source

1. https://mcscertified.com/mcs-outreach-reveals-high-satisfaction-rates-for-boiler-upgrade-scheme-installations/
2. https://www.nao.org.uk/wp-content/uploads/2025/10/energy-efficiency-installations.pdf
3. https://www.euronews.com/2025/01/02/the-uk-has-the-fewest-heat-pumps-in-europe-can-new-planning-rules-change-this
4. https://climateexpertacademy.co.uk/plus/



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Training for tomorrow:
Why digital skills matter for renewable installers

Kevin Bird, CEO and Co-Founder, Shocking Energy, discusses that digital skills are essential for renewable installers. Training can help contractors improve efficiency, compliance and safety through smarter technology.

The growth of renewable energy is changing what it means to work as an installer. Heat pumps, solar PV, battery storage and EV charging are becoming increasingly connected, bringing new opportunities but also greater complexity for the businesses installing, commissioning and maintaining them.

Much of the industry's attention has focused on technical training, qualifications and attracting new people into the workforce. These remain essential priorities, but as renewable technologies evolve, another capability is becoming increasingly important: digital skills.

From accessing site information and recording safety checks to managing compliance documentation and communicating with customers, digital technology is becoming part of everyday operations.

The challenge is ensuring engineers have the confidence to use these systems effectively, alongside their technical expertise.

A changing set of skills

Renewable installations are becoming more sophisticated, often combining technologies that need to work together.

A home might have a heat pump, solar PV, battery storage and an EV charger, each with different installation, commissioning and maintenance requirements. Understanding how these systems interact is becoming increasingly valuable.

At the same time, job instructions, site photographs, certificates, risk assessments and completion records are increasingly managed digitally, while connected equipment can provide additional information about system performance.



Kevin Bird, CEO and Co-Founder, Shocking Energy

Technical competence remains fundamental, but engineers also need to be comfortable accessing, recording and interpreting information through digital platforms.

The opportunity is not to turn every installer into a technology specialist, but to make digital tools a practical extension of their existing skills.



Bringing digital skills into everyday operations

One challenge facing installation businesses is that digital systems are sometimes introduced without sufficient consideration of how they will be used on site.

An engineer may be highly experienced in installing renewable technologies but unfamiliar with a new software platform or digital compliance process.

If technology is difficult to use or creates additional administration, it risks slowing down work rather than improving efficiency.

Businesses therefore need to think beyond introducing new systems. Engineers should understand how digital tools fit into their responsibilities, why information needs to be captured and how it supports the wider installation process.

This is particularly important for contractors managing growing teams, where consistent procedures and accessible information can make a significant difference.

Why digital confidence matters for safety

As renewable systems become more interconnected, maintaining clear safety and compliance procedures becomes increasingly important.

Engineers may encounter installations involving multiple energy sources, different equipment and site-specific risks. Appropriate isolation procedures, risk assessments and accurate documentation are essential.

Digital workflows can support safe working practices by helping engineers access relevant information, follow structured procedures and record evidence as work progresses.

They can also provide managers with greater visibility of outstanding approvals, incomplete documentation or issues requiring attention.



However, technology should never replace technical competence, professional judgement or appropriate supervision. Its value lies in supporting qualified engineers and helping businesses apply consistent processes.

Supporting the workforce with smarter technology

For renewable contractors, the next opportunity lies in connecting technical expertise with the systems needed to manage increasingly complex work.

At Shocking Energy, we see this through our work supporting electrical and renewable installers with operational technology and compliance.

Our Safe Isolation Provider (SIP) Accreditation Service[1] helps eligible contractors navigate the accreditation and operational requirements associated with approved electrical isolation activities, while our JobWay[2] platform brings together field-service management, job information and compliance workflows.

Its RAMS (Risk Assessments and Method Statements)[3] capability supports the creation, management and approval of safety documentation, helping businesses maintain consistent processes across their teams.

These technologies do not replace formal training or the expertise required to carry out installations safely. Instead, they help contractors apply that expertise by making information more accessible, reducing administration and supporting compliance throughout the job.

Preparing for the future

The renewable energy sector will continue to need skilled engineers with the knowledge to install and maintain increasingly sophisticated systems. But as the industry develops, digital confidence will become an important part of how that expertise is applied.

For employers, this means ensuring investment in technical skills is supported by practical digital systems and the knowledge needed to use them effectively.

Ultimately, preparing the renewable workforce for the future isn't about replacing traditional skills with technology. It's about bringing the two together, enabling installers to work safely, confidently and efficiently as the industry evolves.

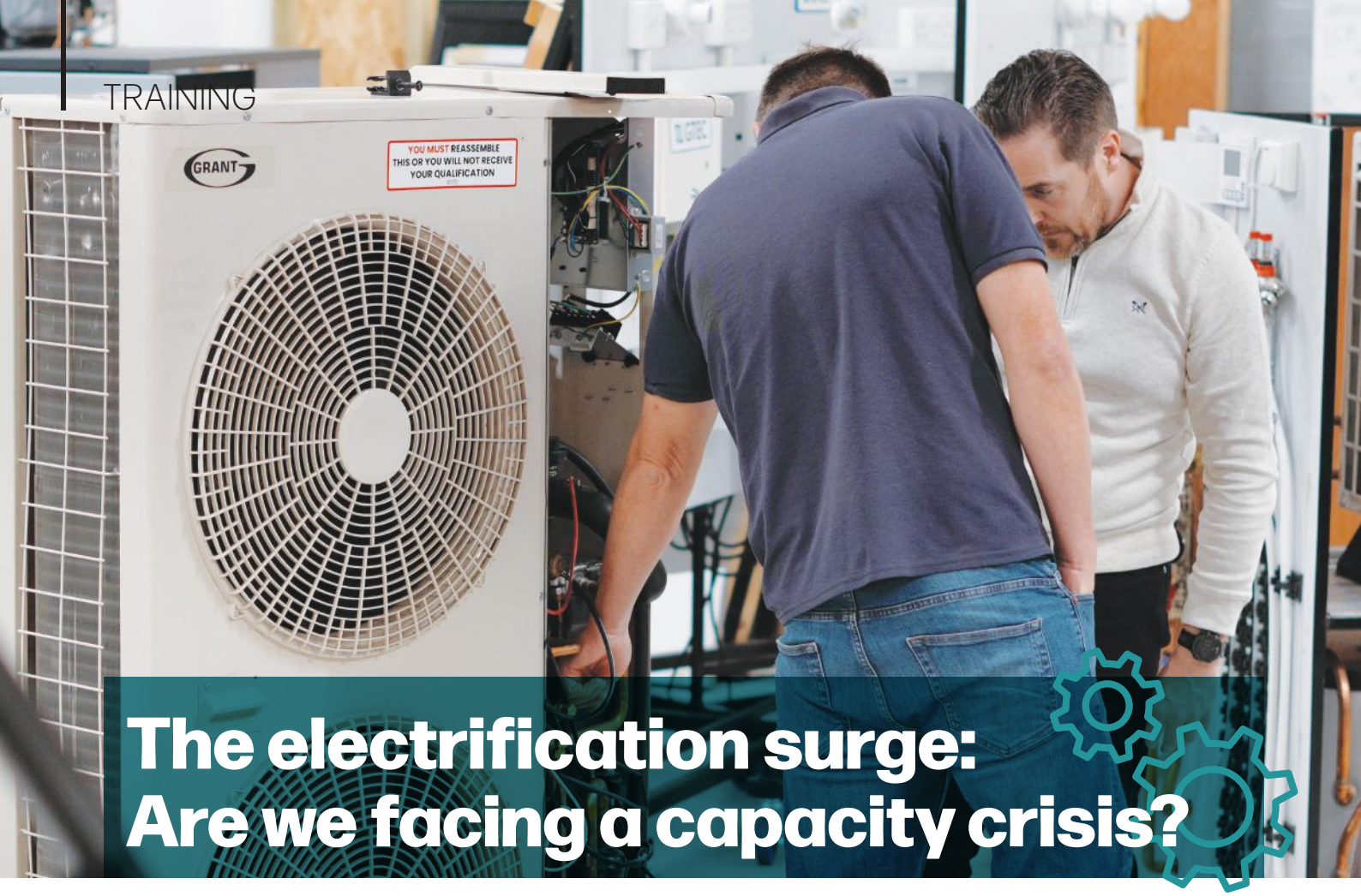
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1. https://shocking.energy/sip

2. https://shocking.energy/jobway

3. https://shocking.energy/rams



The electrification surge: Are we facing a capacity crisis?



Dave Hudson, Managing Director of GTEC Training

Dave Hudson, Managing Director of GTEC Training, discusses how the UK's electrification transition requires stronger grid infrastructure, smarter energy management and a skilled workforce to meet rising electricity demand and avoid costly delays

Electrification is gaining momentum across the UK economy, and the direction of travel is clear. Electric vehicles are becoming more common, heat pumps are changing how buildings are heated, and industry is looking to electricity to reduce emissions and improve efficiency. The question is whether the infrastructure supporting this transition can keep up.

There are reasons to be optimistic. Renewable energy generation is expanding, investment in the electricity network is increasing, and the government has an ambitious programme to deliver clean power by 2030. But there's a gap between the speed of electrification and the time it takes to build the infrastructure, develop the skills and put the right systems in place.

We shouldn't assume a capacity crisis is inevitable, but we can't underestimate the challenge ahead.

Demand is changing faster than the system was designed for

For much of its history, the electricity network has operated around relatively predictable patterns of demand, but electrification is changing that.

If we look at electric vehicles, charging is creating new demand at homes, workplaces, depots and motorway service stations. The impact depends on where vehicles are charged and at what time. A fleet charging overnight at a depot presents a different challenge from hundreds of drivers plugging in after work.

Heat pumps introduce another layer of complexity. Their electricity consumption rises when temperatures fall, precisely when heating demand peaks. At scale, this creates questions about local network capacity and managing winter peaks.

In industry, manufacturers seeking to electrify production processes may need substantial increases in their electricity supply. For some businesses, securing a grid connection can be a significant factor in deciding whether an investment goes ahead.

These pressures overlap geographically and across the day. A distribution network serving new housing, commercial premises and industrial facilities is likely to face several competing demands at once.

The National Energy System Operator's 2025 Future Energy Scenarios projected that annual electricity demand could rise from around 290 terawatt-hours to between 705 and 797 terawatt-hours by 2050, signalling a profound shift in the role electricity plays in the economy.

Capacity is about more than generation

When we talk about an electricity capacity crisis, it's tempting to focus on whether the UK can produce enough electricity.

But we also need to transport electricity to where and when it's required. That calls for investment in transmission infrastructure, local distribution networks, substations and connections. It also means having enough flexibility to manage changes in supply and demand.



A renewable energy project can be ready to generate, but still unable to connect on a useful timescale. Equally, a business can be ready to electrify its operations but find that the local network cannot accommodate the proposed demand.

These are practical barriers with commercial consequences. Delays can affect project economics, hold back investment and make businesses less confident about switching and committing to low-carbon technologies.

The scale of the network challenge is recognised in the government's Clean Power 2030 Action Plan, which identifies the need for around twice as much new transmission infrastructure by 2030 compared to the quantity delivered over the previous decade. That is a demanding delivery programme, particularly given the lengthy time it takes for planning, consenting, procurement and construction.

A key issue is whether the right infrastructure will be available in the right places, at the right time.

Better planning needs to start now

There has been progress. Reforms to the grid connections process are designed to prioritise viable projects that align with the country's energy needs, rather than allowing speculative schemes to occupy places in the queue indefinitely. While that's a step in the right direction, connection reform is no substitute for building the network itself.

Infrastructure planning needs to look further ahead and become more aligned with the pace of electrification. If network investment only follows demand after it has materialised, businesses and communities will be left waiting. Similarly, investment based on a clearer understanding of future demand can create the conditions for new industries to grow.

Local knowledge will be important. National forecasts provide some guidance, but the requirements of a rural distribution network will differ from those of an industrial area or a densely populated town. Network operators, local authorities, developers and businesses need to work together to identify where demand is likely to increase and how to accommodate it.

There is also a case for making better use of the infrastructure already in place. Smart charging can shift EV demand away from periods of peak consumption. Thermal storage and more responsive heating controls can help heat pumps operate more flexibly. Industrial users may be able to adjust some processes to take advantage of periods when electricity is more readily available.

The workforce is part of the capacity question

There is another issue that receives less attention, and that's the people needed to deliver the transition.

A larger, more complex electricity system requires skilled workers who can install, operate and maintain new technologies safely and effectively. As demand grows, so does the need for competent electrical engineers, installers, technicians and specialists working across renewable energy and associated infrastructure.

For employers, this means identifying future skills requirements and investing in workforce development before shortages become a barrier to delivery. For training providers, it means ensuring that courses reflect the technologies and working practices people will encounter on site, while giving learners practical competence and continuing professional development.

The challenge is particularly important as experienced workers retire, and new entrants work across an energy system that is rapidly changing.

Flexibility will help, but it's no substitute for investment

The prospect of rising demand doesn't need to lead to a choice between building more infrastructure and restricting electrification, because a smarter system can accommodate growth more efficiently.

Battery storage can help balance variable renewable generation and respond to changes in demand. Flexible tariffs can encourage consumers to use electricity when it is cheaper or more abundant. Vehicle charging can increasingly become a controllable part of the system rather than an additional source of unmanaged peak demand.

There is significant potential here. But flexibility must be accessible, reliable and commercially attractive if it's going to make a meaningful difference. Consumers need clear incentives, while businesses need confidence that participating will not compromise their operations.

The UK will need both physical infrastructure capable of supporting a more electrified economy, and systems that use that infrastructure intelligently.

The next phase requires delivery

The benefits of replacing fossil-fuel technologies with cleaner alternatives will depend on whether the supporting system develops at a comparable pace.

A capacity crisis is not inevitable. But delays in infrastructure delivery, limited flexibility and a shortage of suitably skilled workers could combine to create one.

We need a practical response with network investment, clearer coordination between energy planning and industrial development, and sustained commitment to training the people who will build and maintain the system.

The opportunity is substantial for renewable energy businesses, and the stakes are just as high for the wider economy. Electrification will only deliver its full value if homes can be heated, vehicles charged and industrial processes powered without avoidable delays or excessive costs.

https://gtec.co.uk/

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PVPossible is a new UK-wide platform helping installers, consultants and property owners identify potential commercial Solar PV opportunities.

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Clivet presents SMARTPACK3: the new generation of rooftop air-conditioning units

Clivet is updating its range of packaged rooftop heat pumps with the launch of SMARTPACK3 (CKN-iM Series), a solution designed for climate control and air quality in small to medium-sized commercial spaces and buildings with medium occupancy levels, such as shops, outlet villages, showrooms and production facilities.

Staying ahead of regulations: the benefits of R-454C refrigerant

The cornerstone of the new series is the adoption of the R-454C refrigerant (GWP = 148), which reduces the refrigerant's global warming potential impact (tCO2eq) by up to 95% compared with the previous generation using R-410A, whilst optimising the overall charge through a targeted redesign of each component.

Patented REVO recovery and improved seasonal efficiency

The technological heart of SMARTPACK3 lies in the innovative, patented REVO (Recovery EVOlution) thermodynamic recovery system, integrated within the CCK-REVO configuration. By harnessing the energy from the exhaust air directly within the direct expansion circuit, REVO increases the unit's heating and cooling capacity without requiring an auxiliary refrigeration circuit and without increasing the electricity consumption of the ventilation system.

The design, specifically optimised for the new refrigerant, also improves seasonal energy efficiency, with an average SEER of 4.60 and a SCOP of 3.72 – respectively 30% and 16% higher, than the minimum requirements set out in the European ErP Directive.

Application range and air flow rates of up to 12000 m³/h

In addition to efficiency, SMARTPACK3 also represents a significant leap forward in terms of versatility of use:

- Extended operating range: the unit now guarantees operation even at extreme outdoor temperatures down to -20°C in heating mode, allowing installation in harsh climatic conditions that were previously off-limits.
- Enhanced air flow rates: the maximum supply air flow rate has been increased to 12000 m³/h for size 14.1, enabling a single compact, monobloc unit to serve even larger spaces in terms of volume.

To learn more about the SMARTPACK3 visit: **https://www.clivet.com/**



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6th May 2027

The Village Hotel Solihull,
The Green Business Park,
Dog Kennel Lane, Shirley,
Solihull, B90 4JG

LEEDS

23rd September 2027

Village Hotel Leeds South,
Capitol Blvd, Tingley, Morley,
Leeds LS27 0TS

GLASGOW

4th November 2027*

The Village Hotel
7 Festival Gate, Pacific Dr,
Glasgow G51 1DB

* date tbc to coincide with IOR Scotland dinner









