

# Training, Trust and Tariffs: Electrify Heat's priorities to boost the heat pump market

The race to electrify heat has got off the starting blocks with the publication of the Heat & Buildings Strategy, setting the direction of travel to meet – or exceed – the Government's target to install 600,000 heat pumps per year by 2028. The plan to stop installing fossil gas boilers by 2035 sends a clear signal both to industry and to households. This will kick in even sooner for homes off the gas-grid, who will be replacing their fossil fuel systems with low-carbon alternatives from 2026.

Now is the time to build a homegrown market for heat-pumps here in the UK. The benefits of doing so are multiple: supporting tens of thousands of skilled and secure jobs, boosting innovation and global manufacturing leadership, and reducing air pollution and health problems associated with burning polluting fossil gas.

The [Electrify Heat campaign](#) – a new coalition of energy suppliers, heat pump manufacturers, consumer interest groups, green finance organisations, distribution network operators and trade bodies – has identified three priority areas for near-term focus to support sustainable market growth and act as a runway for incoming policy changes: training, trust and tariffs. This briefing paper provides a high-level overview of the key issues relating to each area, setting out the current state of play, and what's needed next to get on track.

## **1. Training: Creating high-quality green jobs in installation and domestic manufacturing**

Ensuring we train up the installers and experts needed to meet increasing heat pump demand is a major priority. The Heat Pump Association (HPA) estimates we will need over 50,000 installers by 2030,<sup>1</sup> and the UK Government estimates we can create 10,000 manufacturing-related jobs by 2028.<sup>2</sup> This is a huge opportunity to create secure, skilled, jobs, all over the UK. A focus on retraining can ensure a smooth transition for those currently working on gas networks and boilers, with





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<sup>1</sup> <https://bit.ly/3IK8n3z>

<sup>2</sup> <https://bit.ly/32WU5G2>

new training packages and incentives to encourage engineers to make the switch. High quality training ensures high quality installation – which will be essential for building trust among households that they're in safe hands.

### *The issues*

-  **The skills and jobs gap:** There are currently under 2,000 qualified heat pump engineers across the UK, and the skills shortage is a major barrier to heat pump installations. Analysis by the HPA suggests that we will need at least 50,200 installers by 2030, based on deployment of 1 million heat pumps.
-  **Costs of training and accreditation act as a barrier:** Currently it is more expensive to become an accredited heat pump installer than a boiler installer. This is in part due to the Gas Safe registered installer being focussed on safety issues, rather than the engineering considerations of heat pump quality assurance schemes. The cost difference is a barrier for building the low carbon heat installer base. The Gas Safe certification is around £164, whereas costs associated with MCS membership, certification body membership and consumer code membership can total between £955 - £1,155.
-  **A just transition through ensuring green jobs are attractive and secure:** A focus on affordable and attractive retraining can ensure a smooth transition for those currently working on gas networks and gas boilers. This will need new training packages and incentives to encourage engineers to make the switch. Large companies can back this move through providing support to employees, backed up with Government drivers and resources.
-  **Scaling up UK manufacturing:** 55% of the demand for gas boilers is met by domestic manufacture, with gas boiler sales and manufacturing far outstripping heat pumps. Conversely, the UK relies on imports to supply many of the parts and heat pump units themselves. The proposed market-based mechanism for low carbon heat seeks to boost the UK manufacturing base, while lowering technology costs.

## Our recommendations

We call on the Government to work with industry to introduce a heat pump retraining scheme which provides resources and finance across the country to support training for 25,000 installers by 2025 and support the roll-out of green apprenticeships scheme for school leavers. Specific measures include:

- 100 Provide nationwide opportunities for training and accreditation:** To mainstream and roll-out access to training opportunities, HPA recommends a nationwide technology-neutral course for all NVQ Level 2 trained plumbers, before specialist training on MCS approved low carbon technologies kicks in. In total, this would be 4-5 days of additional training for a qualified gas heating installer. Heat pump technology courses should be delivered through MCS or an equivalent approved body to ensure quality installations. The Government can back this with £1.5 million to cover the majority of training costs for the first 5,000 installers.
- 100 Ensure green training and jobs are attractive:** The route to becoming a heat pump installer should be made easier, with a redesign and update of the curriculum to bring the process on to a level of administration and expense closer to that required for boiler installers. This can be backed up with incentives – HPA recommends £300 for the first 5,000 installers. Government can work with companies to support and encourage employees to undertake additional training; as well as engaging with workers and unions to take further steps to ensure that low carbon jobs are secure and attractive.
- 100 Boost UK manufacturing and jobs:** The Government can take further steps to grow the UK heat pump market and supply chains, considering the complementary role the market-based mechanism for low carbon heat can play in this – with measures to boost skills and promote inward investment in UK production lines and quality manufacturing.

## What Electrify Heat members are already doing, on skills and training

The [Heat Pump Association](#) has been working to revamp the training pathway to prepare existing heating installers for the targeted phase out of fossil fuels; and


the [Ground Source Heat Pump Association](#) has launched an online training scheme which will go live early in 2022. Meanwhile, [Octopus](#) are investing £10m in the UK's first heat pump R&D and training centre, and training green installers to support the roll-out of heat pumps.


[E.ON](#) has recruited 100 jobs for ongoing work in delivering the Local Authority Delivery scheme of the Green Homes Grant, with an additional 400 roles expected to be created throughout the supply chain. [EDF](#) is enabling £50bn of investment by 2035 to help Britain achieve net zero and the electrification of heat is a key part of its plans, learning from its experienced teams in EDF group, a major installer of heat pumps in France.

## 2. Trust: Driving demand by increasing confidence and building trust

Some elements of the climate transition take place behind the scenes – such as decarbonising the power sector – but the clean heat shift takes place in our homes. People need to be informed and confident that they have access to the tools and information needed to get to grips with new heating systems; with guaranteed high-quality installations which work well every time. This in turn will help build trust to underpin customer demand, alongside sweeteners such as grants, affordable finance and other incentives.

### *The issue*

 **Addressing low levels of awareness and accessible information.** The clean heat transition cannot take place without households being informed. Almost 85% of homes across the UK are on the gas network, and the use of fossil gas boilers is seen by many as the most affordable and reliable way to provide heat and hot water. [Research for BEIS found](#) 20% of the population had never heard of low carbon heating systems, 39% were aware of them without really knowing much, and only 5% knew a lot. For those that are aware of clean heating systems, [people still find it difficult to understand how heat pumps and other technologies work](#). A lack of accessible, tailored information on maintenance and servicing also represents a barrier – especially for people in vulnerable circumstances.

 **Higher levels of tailored advice and information (including limits of EPCs):** A household's journey to net zero homes requires a level of knowledge and time investment. Most people will need advice and support to make

changes in their homes. Although resources like the [Simple Energy Advice](#) website exist, more comprehensive bespoke and personalised tools are needed to engage people, demystify the market and simplify the consumer journey, making it easier for individual households to engage and take action. Furthermore, the main tool for measuring the climate performance of homes – Energy Performance Certificates (EPCs) – [currently holds back heat decarbonisation](#) for reasons including that the main rating is based on cost, and electricity prices are higher than fossil gas. EPCs only provide generalised information and cannot support homeowners on a case-by-case basis.

**Building trust through ensuring high quality of installations and consumer protection.** Guaranteed high quality installation is crucial to get consumers on board. This requires adequate training, accreditation, regulation and evaluation to create a viable and trusted ecosystem of businesses and installers. In parallel, [Citizens Advice](#) note that better levels of consumer protection are required as existing legislation is minimal.

**Incentives and drivers at ‘trigger points’ to catalyse action.** British people invest billions each year in home improvements for value and décor. ‘Trigger points’ are moments when homeowners are likely to consider net zero retrofit options – such as when buying and selling property, during other renovation work (such as a new kitchen fitted), when an item needs replacing, or when a private rented property reaches a void period in tenancy. We note that it is advisable for homeowners to plan in advance for installing a heat pump, rather than waiting until the gas boiler breaks down. There is some recognition in the Heat & Buildings Strategy of the need to consider consumer behaviour, with the Government seeking to “*follow natural replacement cycles to work with the grain of consumer behaviour,*” but falling short of introducing incentives ahead of these trigger points.

## Our recommendations

We call on the Government to support a nationwide green homes awareness and information campaign; and roll out high-quality advice and support on heat pumps to help households take the right steps at the right time. Specific recommendations include:

- Nationwide engagement and communications drive, supported by local actors and activities:** Comprehensive information is needed at national level – often best to be provided by local bodies or organisations, within a consistent framework for high-quality local engagement. A net zero awareness campaign would help build the public’s knowledge and understanding of what they can do in their homes to help lower emissions.
- A net zero advice service providing tailored advice and information:** An accessible and [comprehensive framework](#) is needed to inform, protect and support people throughout and after the clean heat transition. The [Simple Energy Advice](#) website can be built on to become a central information resource, providing more information on consumer protection and installation processes. A dedicated, impartial and independent omni-channel net zero advice service would provide advice tailored to people’s circumstances to help to make their homes warmer, decarbonise and reduce their bills, regardless of housing tenure. Supporting this, the EPC Action Plan can be accelerated to better account for the carbon savings associated with heat pumps, and actions taken to support the roll-out of tools such as [Building Renovation Plans](#) to provide tailored, sequenced advice to homeowners.
- Ensure high-quality installations and performance** of all green home retrofit measures, aligned with PAS measures, with actions to support and incentivise high-quality, and measures taken to prevent substandard installations. This should be underpinned by an effective monitoring and audit regime to give people confidence that standards will be met.
- A more robust approach to consumer protections,** building upon existing standards including MCS and the Consumer Codes to include clear guidelines and procedures businesses must follow; a complaints process that guarantees a response and outcome; and consumer protection.
- Incentives and drivers to anticipate ‘trigger points’ to catalyse action.** A Green Stamp Duty Land Tax can spur retrofits at the point of sale of the property – a popular time for undertaking retrofit measures. Additional measures could include supporting the market for green mortgages which incentivise additional lending for heat pumps and offering attractive concessional finance (including 0% interest rate loans and blended finance) through the new UK Infrastructure Bank. 0% VAT on heat pumps can also reduce costs for households, helping drive demand.

## What Electrify Heat members are already doing, on building trust

[Energy Savings Trust](#) have published myth-busters on heat pumps with case studies of people who have had them installed in [older homes](#) and [flats](#). The Heat Pump Federation provide [procurement advice to consumers](#) and regular in-person or remote community advice sessions to any community energy and climate change groups who ask.


Meanwhile, [Scottish Power](#) is working to launch a quality air-source heat pumps retrofit proposition for customers – providing information and confidence that consumers need to make the transition to a low carbon heating system, with ongoing support and maintenance for equipment. OVO are supporting a [Zero Carbon Heating Trial](#), and [Octopus](#) are supporting heat pump trials.

E.ON are working with Newcastle City Council and National Energy Action on BEIS's [Electrification of Heat](#) project, seeking to install 250 heat pumps in Newcastle city. Recipients will receive aftercare to ensure the heat pump is operating effectively.

### 3. Tariffs: Stop penalising people for using clean electricity

At the moment, fossil gas is cheaper than clean electricity – in part due the way that energy bills are structured. Around a quarter of the cost of electricity is made up of eco-levies. It is time to reward customers for shifting away from imported gas and towards homegrown renewable electricity. Experience from countries like Sweden and Finland shows that once fossil-fuel heating is no longer the cheapest option, the market changes rapidly. Low-income households must be supported through changes to ensure everyone can benefit from a warm, low carbon home. With the price of energy set to soar next April following an increase to the price cap, it is timely for the Government to examine lowering the cost of electricity as part of the suite of measures taken to address rising costs of living.

*The issues*

-  **Eco-levies act as a penalty on electricity bills:** Currently around 25% of an electricity bill is constituted of eco-levies and regulatory costs (compared to just 2% on gas bills) – which often makes it more expensive to heat a home using a heat pump than fossil gas. Unless policy changes, UK households that opt for an air source heat pump will be paying £305 more a year in 2030 in energy bills than those with a gas boiler. While the running

costs are not the sole barrier to uptake, it is beneficial if households see a financial benefit from moving to cleaner, electric heating. We note that certain policy costs, such as the Energy Company Obligation (ECO) and the Warm Homes Discount should be kept on energy bills, as this is the fairest way of funding these schemes which benefit fuel poor homes.

**Recognition from Government and actions in the pipeline:** The Government will launch a Fairness and Affordability Call for Evidence on options to shift or rebalance energy levies and obligations over this decade, with a view to taking decisions in 2022 for actions *“over this decade. This will include looking at options to expand carbon pricing and remove costs from electricity bills while ensuring that we continue to limit any impact on bills overall.”*

## Our recommendations

The Government should accelerate process toward rebalancing the economics of heat to stop penalising people for using low carbon electric heat pumps, while protecting low-income and vulnerable households.

**Reducing electricity bills and protecting vulnerable households:** While there is consensus that the way that heating is priced needs to change, there are different ways proposed to achieve this. Many organisations have called for levies to be picked up by general taxation. Whichever option is taken, it is essential that measures are put in place to protect fuel poor and vulnerable households. This might include:

- Exemptions from any domestic gas carbon price for vulnerable customers to reduce the distributional impacts of energy bill reform in the short term
- A new mandatory social tariff to ensure that energy costs are applied consistently across the market and targeted at financially vulnerable customers
- Further refinement of the Warm Home Discount scheme such that the level of discount adjusts over time to changes in energy prices, and additional support for schemes like ECO, HUG, Warmer Homes Scotland and NEST.

**Exploring options to reward first-movers:** There may be other innovative solutions HMT could consider, such as removing eco-levies from new tariffs for heat pumps, to reward first movers.



## What Electrify Heat members are already doing, on running costs

A number of energy suppliers supported [Public First's](#) research earlier this year, commissioned by OVO, to understand how energy bills are currently construed and different options to rebalance the economics to reduce electricity bills. There are some pioneering tariffs options that support lower running costs of heat pumps, including the [Agile Octopus tariff](#).

## Conclusion

A near-term focus on training, trust and tariffs can help the Government quickly get off the starting blocks and race forward to a mass-market for heat pumps *within the decade*, backed by industry and investors. Our recommendations can unlock productivity, market growth and consumer demand, essential for the Government to get on track for targets. A summary of the high-level recommendations is provided below:

- 100 We call on the Government to work with industry to **introduce a heat pump retraining package** which provides resources and finance to support training for 25,000 installers by 2025, supporting the roll-out of green apprenticeships schemes for school leavers.
- 100 We call on the Government to support a **nationwide green homes awareness and information campaign** and the roll-out of a **high-quality advice and support service** across the country on heat pumps.
- 100 We call on the Government to publish early in the new year a plan for promoting low carbon electric heat pumps by **removing unfair and counterproductive levies from electricity bills**.

## Contact details

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