South West NET ZERO HUB

HEAT PUMP ADOPTION IN CORNWALL

Perceptions and barriers

The Carbon Trust

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CARBON TRUST

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INTRODUCTION

This report presents findings from research commissioned by Cornwall Council and the South West Net Zero Hub to understand perceptions and barriers to heat pump deployment in Cornwall. The study provides an evidence base to inform strategic action by all stakeholders involved in heat pump deployment across Cornwall, supporting the housing decarbonisation priorities identified in the Cornwall and Isles of Scilly Local Area Energy Plan (LAEP)[1], supporting Cornwall Council's ambition for all homes to transition to low-carbon heating by 2045.

Cornwall has the **highest number of heat pump installations of any UK local authority area.**[2] However, concerns have emerged about sustaining momentum due to negative feedback about some installations, public misconceptions, and reduced rate of deployment by some housing associations. This research captures the views of those directly involved in heat pump deployment in Cornwall, together with stakeholders from across and beyond the region who enable, influence or support deployment, to understand these challenges and identify solutions.

The research combined three methods: a **targeted literature and evidence review** covering national surveys, performance studies, and policy analysis; **analysis of MCS installation data** for Cornwall; and **21 semi-structured interviews** with stakeholders across the heat pump deployment ecosystem in Cornwall, including social housing providers, installers, training providers, Council teams, community organisations, energy infrastructure representatives, and policy experts.

This summary report provides a concise overview of key findings and recommendations. Supporting chapters provide detailed analysis of each barrier, comprehensive literature review findings, and a full methodology.

Objectives

The report has the following overarching objectives:

- **Establish the barriers to heat pump adoption**, across all tenure types, that Cornwall stakeholders perceive to be holding back increased deployment.
- **Summarise the evidence base** for each of these barriers to assess their contemporary validity and potential solutions.
- **Make recommendations** for how to increase deployment rates across Cornwall.

[1] The Working Group brings together key stakeholders across Cornwall to drive progress and collaboration to deliver the key strategic actions set out in Cornwall's Housing Decarbonisation Strategy. Members span different sectors, including advice, skills and social landlords.
[2] Based on number of MCS Certified installations, see The MCS Data Dashboard - MCS.

CORNWALL'S HEAT PUMP STORY SO FAR

A regional success story

Cornwall leads the UK in heat pump deployment with almost **9,000 domestic heat pump installations** registered with MCS since 2014, 40% more than the next UK local authority (Highland Council). This represents 3.6% of households in the local authority, the fourth highest proportion of households in England. In the first half of 2025, Cornwall recorded 802 MCS Certified installations – more than any other local authority area in the UK.[3]

Government funding has played a key role in driving installation numbers. The primary schemes funding installations in Cornwall have been the Boiler Upgrade Scheme (1,846), ECO (1,512), LAD/HUG (205) and RHI (885), with the remaining c.4,500 delivered by Social Housing Providers (including through SHDF[4]), new build construction, or self-funded by individuals. Notable spikes in delivery were present at the end of the RHI scheme (April 2022) and with the increase in the BUS grant from £5,000 to £7,500 in October 2024.

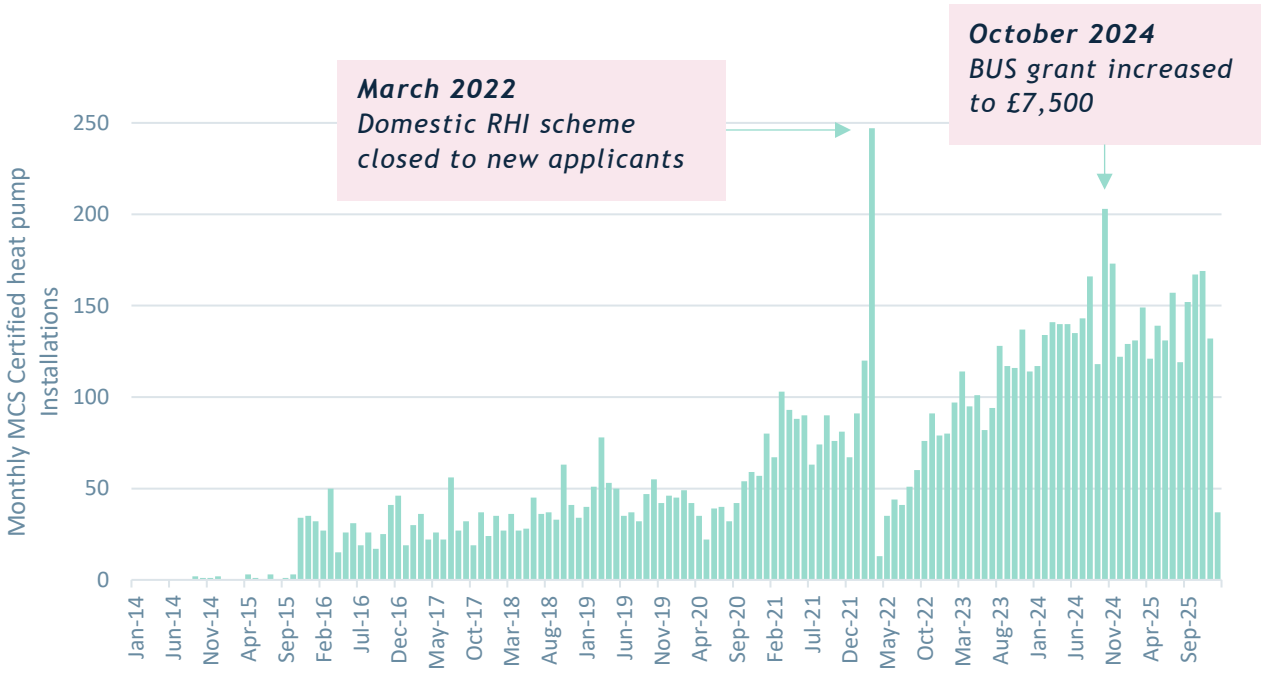

Figure 1: Monthly number of new MCS Certified heat pump installations in Cornwall

[3] Ambient, Electrified Heat Transition Tracker – Mid-year Review (August 2025)
[4] Official SHDF statistics showing the number of heat pump installations in Cornwall are not available.

Supply chains and training in Cornwall

368 companies have carried out at least one installation in Cornwall since 2014, although not all are necessarily still in operation. In the 24 months prior to November 2025, 192 companies completed a MCS Certified installation in Cornwall. Of these, 30 companies completed at least one per month on average (Figure 2). GreenGen UK was the leading installer in Cornwall in this period with 48 MCS Certified installations.

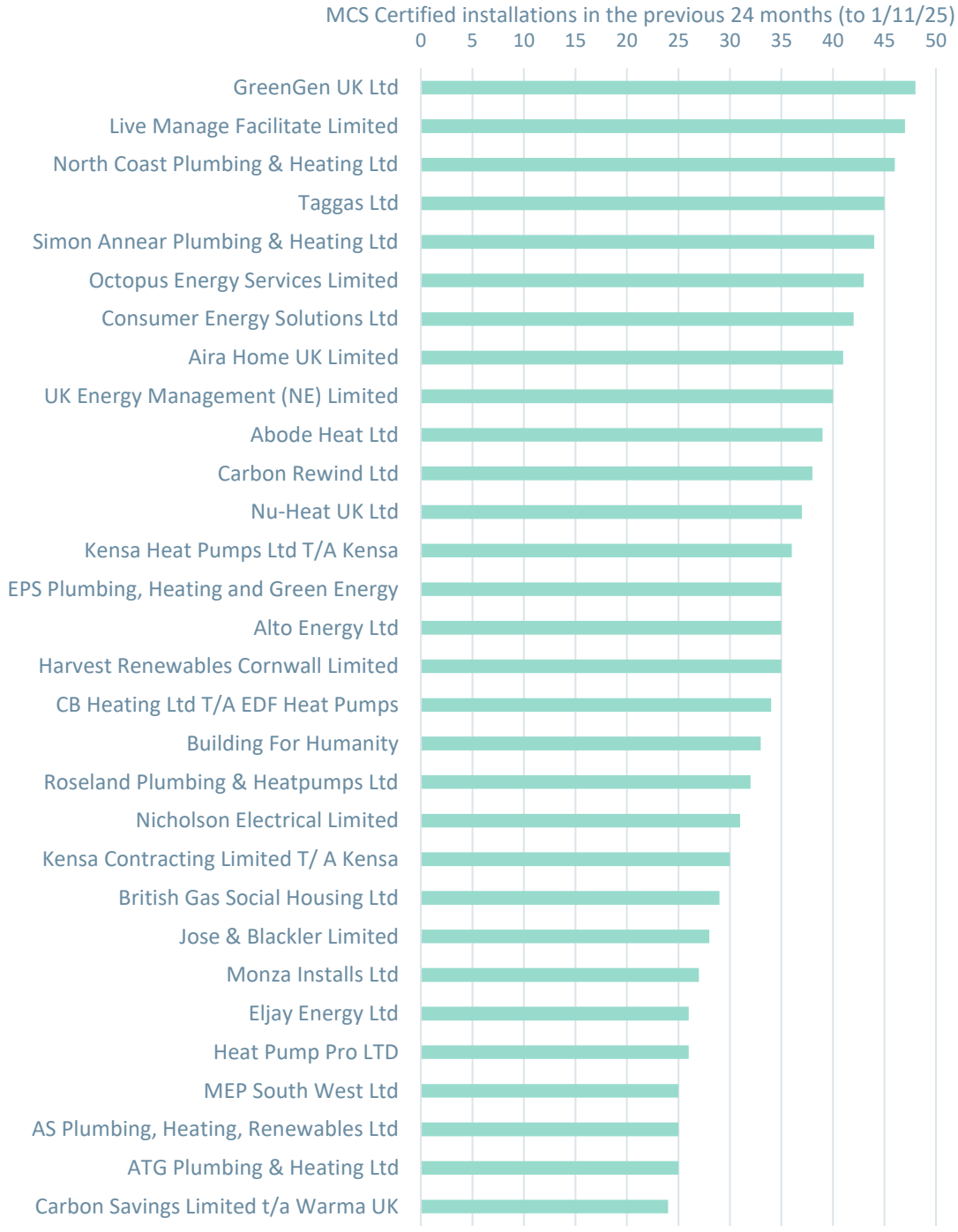

Figure 2: Number of MCS Certified installations delivered per installation company in the previous 24 months (to 1/11/25). Filtered by companies averaging at least one install per month over the 2-year period.

Since 2014,15 companies account for 54% of total MCS heat pump installations in Cornwall. However, the distribution chart in Figure 3 shows that most companies actively undertaking heat pump installations in 2024 and 2025 were installing low numbers of heat pumps. 112 companies installed between 1 – 6 heat pumps in total in the 24 months prior to November 2025, i.e. one install every two months or less.

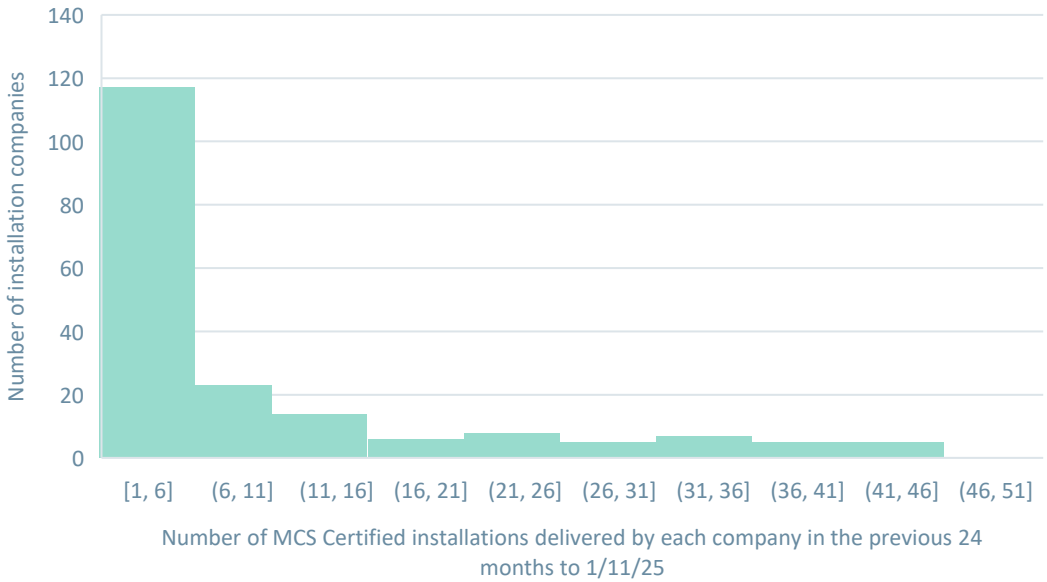

Figure 3: Distribution of installation company activity levels, by number of MCS Certified installations in previous 24 months (to 1/11/25)

Regional training provision does exist in Cornwall but is limited. There are very few apprenticeships or further education (FE) training providers and significant gaps in NVQ-level qualification availability.[5] Local provision includes:

- **Cornwall College, Camborne**: ASHP installation and maintenance; air source, ground source and heat pump design (also available at Cornwall College, St Austell); low carbon heating technician.
- **South West Assessment and Training (SWAAT), Liskeard Business Park**: LCL Awards Level 3 in installation/maintenance of heat pump systems (non-refrigerant circuits).

Cornwall Council estimates up to 900 heat pump engineers will be needed to meet new build and retrofit demand, compared to an estimated 50-100 heat pump installers based in Cornwall at the end of 2024, based on MCS database records.[6] The county has around 1,000 heating engineers on the Gas Safe Register[6] and, in 2023, there were an estimated 647 accredited heat pump installers in the South West region, although these may not all be active.[5]

[5] South West Net Zero Hub, Retrofit Skills Report, April 2023
[6] Cornwall Council, Housing Decarbonisation Strategy for Cornwall, November 2024

Cornwall's distinctive context

Cornwall's housing stock and energy landscape differ significantly from national patterns. A key aspect of this study was understanding this context and the impact it may have on heat pump deployment.

- **A high proportion of off-gas homes:** An estimated 47% of Cornish homes are not on the gas grid, compared to just 24% of homes in the South West and 16% of homes in England.[7] 52% of Cornish homes use mains gas as their main central heating fuel, compared to 79% of homes in England. Other main central heating types in Cornish homes include electric heating (22%)[8], oil (12%)[8], two or more main fuel types/heating methods including renewable energy (7%)[8], 'other and unknown' (6%) – likely to be LPG (4%)[6] and solid fuels (e.g. coal, biomass etc.) (2%)[6] – and community heating schemes (1%)[8].

- **A higher proportion of older and non-traditional housing stock:** Around 31% of homes in Cornwall were built before 1930 and 35% have solid walls. This includes traditional granite cottages, Cornish Units with mansard roofs, and non-traditional construction.[6]

- **25% of dwellings are classed as being in severe disrepair:** Approximately 12,000 dwellings in Cornwall are thought to have damp and mould issues. Dwellings in disrepair may need remedial works before heat pumps and other retrofit measures are installed.[6]

- **Coastal environment:** Cornwall's extensive coastline can present a risk of accelerated corrosion for external heat pump units where a protective coating has not been applied to the heat pump.[6]

- **Rural geography:** Dispersed communities may increase installer travel times and costs, limit training access, and create grid infrastructure challenges in some areas.

- **Higher rates of fuel poverty:** 12.2% of households in Cornwall are in fuel poverty (compared to 11.4% of households in England).[9] Heat pumps systems are capable of reducing fuel bills for fuel poor residents where designed and installed to a good level of performance, particularly when transitioning from electric or LPG heating. However, fuel poor households heated by gas or oil may experience higher fuel bills unless the heat pump system is designed, installed or operated to a high level of performance.

These characteristics of the Cornish housing stock impact heat pump deployment in the region and affect the potential course of action for overcoming barriers. This study has,

[7] DESNZ, Subnational estimates of properties not connected to the gas network, accessed February 2026
[8] ONS, Main fuel type or method of heating used in central heating, England and Wales, accessed February 2026
[9] DESNZ, Sub-regional fuel poverty data 2025 (2023 data), April 2025

therefore, been conducted within this context, whilst still being mindful of national trends.

PERCEIVED BARRIERS TO HEAT PUMP DEPLOYMENT IN CORNWALL

Interview participants

To understand the perceived barriers to adoption of heat pumps in Cornwall, we interviewed 21 stakeholders, identified through a mapping exercise to ensure representation across the heat pump deployment ecosystem. Interviews were conducted online, lasting approximately one hour, and followed a consistent discussion guide while allowing flexibility to explore issues in depth.

Participating organisations included:

- **Social housing:** Cornwall Housing, Coastline Housing, LiveWest, Sanctuary Housing, and Treveth Holdings
- **Installers:** Blue Flame Heating & Electrical, GreenGen UK, and Dartmoor Energy
- **Training:** Cornwall College and Truro & Penwith College
- **Cornwall Council**: Climate Emergency, Planning, and Public Health teams
- **Community and advisory:** Community Energy Plus (CEP), Bath & West Community Energy, and the Cornwall Residential Landlords Association
- **Infrastructure:** National Grid Electricity Distribution
- **Policy/research/local authority good practice:** The South West Net Zero Hub, Regulatory Assistance Project, and Bristol City Council

Barrier summaries

A wide range of perceived barriers were identified. The 12 most critical barriers identified are presented below, ranked into three tiers to reflect the frequency with which they were raised and the severity of their impact.

TIER 1 - Critical Barriers	
Prevalence: *highest - raised by nearly all stakeholder groups.* **Impact:** *severe - described as fundamental blockers.*	1. High upfront installation costs 2. Installation quality and design 3. High running costs 4. Customer understanding and education

TIER 2 - Significant barriers	
Prevalence: *high - raised by most stakeholder groups.* **Impact:** *significant*	5. ECO/SHDF funding complexity and supply chain inefficiencies 6. Policy and funding uncertainty 7. Installer training and skills gap 8. Cornwall's housing stock suitability

TIER 3 - Context-specific barriers	
Prevalence: *moderate - raised by specific stakeholder groups.* **Impact:** *context-dependent*	9. Maintenance, servicing and warranty availability 10. Misinformation and media narratives 11. Grid capacity and DNO processes 12. Coastal corrosion

The following tables summarise stakeholder views alongside insights from the wider evidence base for each barrier.

A detailed assessment of each barrier is presented in **Appendix B**. A detailed literature and evidence review covering both the national and local context is presented in **Appendix C**.

1. High upfront installation costs

TIER 1 - Critical barrier	
Who raised this:	**All stakeholder groups.** Social housing providers and installers identified this as the primary constraint; policy experts and community organisations raised it as significant across all tenures.
Stakeholder views:	Strong consensus that capital costs are a significant barrier, though severity varies by tenure and fuel type. **Social housing providers** emphasised the gap between heat pump costs (£12,000-£20,000) and gas boiler replacement (£3,500). **Installers** noted that the BUS grant (£7,500) makes systems competitive for off-gas properties, with some reporting post-grant installation costs as low as £2,000 – though this is highly context-dependent. SHDF's £7,000 cap was described as insufficient when the cost of radiators and pipework is included. **New build developers** reported an additional cost of £4,000-£7,000 per plot, without additional financial support to offset this.
Illustrative quotes:	*"It's £3,500 for a combi boiler… but probably around £12,000 -13,000 for an air source heat pump."* - **Housing association** *"The cost is prohibitive for a lot of people…the Boiler Upgrade Scheme goes a very long way to help … In the right scenario with the right installation, we can deliver a full air source heat pump installation with new hot water cylinder for less than £2,000 after the BUS grant. But it's not like everyone can take advantage of that"* - **Regional installer**
What the evidence says:	The average cost of an ASHP in Cornwall after the £7,500 BUS grant was £5,800, which is 57% higher than the average gas boiler replacement cost of £3,700.[10,11] The average GSHP/WSHP cost was £17,100 after the BUS grant. The lower and upper quartile costs for UK ASHPs in Q4 2025 were £4,000 and £8,500 respectively (after BUS grant).[12] After adjusting for inflation, ASHP installation costs in 2025 were broadly unchanged from 2021, suggesting that increased deployment has not yet driven significant cost reductions.[12] Social landlords reported costs of £12,000-£20,000 in interviews. Standardised procurement may reduce costs for some installations (see 'Illustrative quotes'). There can be trade-offs whereby lower upfront costs lead to higher running costs, for example through retaining existing radiators that require higher flow temperatures. The Warm Homes Plan proposes low/zero interest loans alongside BUS grant to reduce upfront cost burden[13].

[10] Energy Saving Trust, Boiler types explained, accessed February 2026
[11] MCS, The MCS Data Dashboard, accessed February 2025
[12] DESNZ, Boiler Upgrade Scheme statistics: December 2025, accessed February 2026
[13] UK Government, Warm Homes Plan, 2026

2. Installation quality and design

TIER 1 - Critical barrier	
Who raised this:	**Virtually all stakeholder groups** including installers, social housing providers, training providers, Council officers and policy experts. Described as the root cause of many other perceived barriers (e.g., running costs, comfort complaints, noise, bad press).
Stakeholder views:	Strong consensus that underperformance is usually due to poor design/installation/commissioning, not the technology. Common failures cited by interviewees include: ▪ Inadequate heat loss assessment/incorrect system sizing ▪ Emitters/pipework not sized for low-temperature operation, including 'boiler-era' plumbing assumptions ▪ Poor commissioning and controls ▪ Poor heat pump siting (e.g. poor airflow) Customer resistance to the cost/disruption of radiator and pipework upgrades can limit delivery of high efficiency systems. Some installers design for expected suboptimal operation by residents, accepting reduced system performance. ECO installations seen as lower quality than BUS, with quality risks amplified by subcontracted installers offering limited aftercare/remediation. MCS/TrustMark seen as providing limited quality assurance.
Illustrative quotes:	*"There is a vast skills gap for renewables. When the grants came out, everyone just turned around and said 'oh, we can do renewables'."* - **Training provider** *"It's actually the quality of the installation rather than the manufacturer, that makes the difference."* - **Housing association**
What the evidence says:	Monitoring shows a clear performance gap between heat pumps installed under the UK's Electrification of Heat[14] (EoH) trial (average SPF 2.81) and those registered on HeatpumpMonitor.org[15] (HPM) (average SPF 3.86). This equates to 37% greater efficiency and 26% lower running costs, illustrating that high efficiencies can be achieved across the building stock, irrespective of age and fabric, if systems are (1) designed to run at low flow temperatures with low temperature emitter systems, (2) installed correctly and (3) commissioned and operated with optimised weather compensation and related control settings.[15]

[14] Energy Systems Catapult, Electrification of Heat Demonstration Project Summary Report, December 2024
[15] J. Rosenow, T. Lea and G.Boni, Bridging the Efficiency Divide: Open-Source Insights into UK Heat Pump Performance Gaps, Energy and Buildings, 2025

3. High running costs

TIER 1 - Critical barrier	
Who raised this:	**Nearly all stakeholder groups**. Social housing providers and community organisations expressed serious concern; installers and policy experts offered more nuanced views depending on baseline fuel type.
Stakeholder views:	Described as a risk of high running costs rather than a certainty. Stakeholders identified several risk factors that can lead to high running costs, including the electricity-to-fossil-fuel price gap, poor system design or installation, limited uptake of or access to time-of-use tariffs (especially for prepayment customers and those in arrears), absence of fabric measures, and weak handover processes or behavioural mismatch leading residents to use systems inefficiently. For **off-gas homes** (47% of Cornwall), heat pumps were described as 'usually the better option', especially when boiler replacement costs are high and grants are available. Heat pump running costs compare more favourably with oil, LPG and direct electric heating than with mains gas, though not decisively. The running cost barrier is most acute for **mains gas homes** due to the 'spark gap' (cost ratio per kWh between mains gas and electricity), but one interviewee felt this is often 'overegged'. Social landlords reported that bills often increase when switching from mains gas. Installers noted that the financial case is weak for many households and depends on achieving high system performance. One social landlord said they consider gas connection at oil boiler end of life, followed by later transition to heat pump or high heat retention heaters.
Illustrative quotes:	*"What's the payback? The answer is none. You're only going to save at maximum £200 a year."* - **Regional installer (regarding on-gas homes)** *"If designed properly and used correctly, costs will be the same price as mains gas or cheaper."* - **Independent consultant**
What the evidence says:	In February 2026, electricity cost 4.7 times more than gas per kWh.[16] This means an SPF of ~3.97 is required for a heat pump to achieve cost parity with a typical gas boiler. Large-scale study findings indicate that this level of performance is achievable with good installation and commissioning, but remains rare.[14,15] Time-of-use tariffs with heat pump optimisation can reduce costs ~22% without renewables and over 50% when they are incorporated with renewables.[16,17] Fabric measures and improved airtightness can help reduce the level of heat demand, which will reduce running costs irrespective of the heating system.

[16] Based on Ofgem price cap data: Ofgem, Energy price cap explained, accessed February 2026
[17] Ambient, Cost Calculator, accessed February 2026

4. Customer understanding and education

TIER 1 - Critical barrier	
Who raised this:	**Nearly all stakeholder groups** including social housing providers, community organisations, installers, and Council officers. Particularly emphasised for tenant turnover in social housing.
Stakeholder views:	Handovers are inconsistent and often insufficient; change of tenant in social housing is often overlooked for renewed induction. tenants regularly report not knowing how to use controls and only receiving support reactively. Without clear explanation, users may operate systems inefficiently (e.g. on/off boiler-like operation, high hot water temperatures, immersion heater overuse, reverting to resistive electric heaters) leading to suboptimal performance, bill shocks and operational problems. Heat pumps perform best when run continuously at low temperatures - a major behaviour change for households accustomed to intermittent heating/underheating, who often need additional support to adapt. These more vulnerable households are more likely to receive heat pumps via grant-funded schemes such as ECO, where subcontracting chains and long-distance, non-local installers can limit aftercare and remediation, further compounding the challenge. In most cases, targeted education on optimal use of the system resolves the issues. However, digital exclusion can limit some education approaches. Many residents struggling with running costs report installations having been 'done to them' rather than explained. One installer said they were deterred from social housing work due to frequent tenant resistance where heat pumps were seen as 'imposed'.
Illustrative quotes:	*"Main concern is they don't know how to use them. We've had quite a few cases complaining the heating doesn't work properly. There's nothing wrong - they're expecting instant heat."* - **Housing association** *"The education piece is a massive element - not only for customers, our housing staff."* - **Housing association**
What the evidence says:	Users have reported higher satisfaction when they understand their systems.[18] Up to 50% improved efficiency is possible with optimised weather compensation controls.[15] Anecdotal evidence and interview findings show that structured education for social housing residents improves outcomes. Digital exclusion affects ~20% of over-65s;[19] a tailored approach is key.

[18] Nesta, Heat Pumps: a user survey, 2023
[19] Age UK, Bridging the Digital Divide, 2025

5. ECO/SHDF funding complexity and supply chain inefficiencies

TIER 2 - Significant barrier	
Who raised this:	Installers, social housing providers, Council officers, and the South West Net Zero Hub. Described as a systemic issue affecting funded programmes rather than all deployment.
Stakeholder views:	The funding system was described as a complex web of overlapping eligibility rules, schemes and contracts, creating uncertainty and risk for the supply chain. Layered contracting can extract significant margins, with ECO4 delivery characterised as costing 'double the able-to-pay market'. Stakeholders also raised concerns that framework-based procurement can create lock-in and dilute accountability, while grant caps are often viewed as insufficient to support high-quality installations. Delivery by non-local installation companies undermines aftercare, as long travel distances reduce the likelihood of timely remediation and resident support. In parallel, large-scale contracts limit the involvement of local contractors because few have the capacity to deliver the required volume of work. Several stakeholders suggested that breaking projects into smaller packages enables local contractors to tender for manageable scopes, increasing local participation and strengthening the supply chain.
Illustrative quotes:	*"It's like a baroque tower of different eligibilities and different schemes... that make it extremely difficult to deliver."* – **Cornwall Council officer** *"There appears to be two different levels of quality. One under BUS and then another under ECO."* – **External expert** *"Too much money is made up the chain, there's just none left for a decent install'* **- Regional installer on ECO**
What the evidence says:	Government schemes have enabled thousands of installations and provided critical support to fuel-poor households. However, the National Audit Office (NAO) report on ECO[20] and local stakeholder interviews highlight structural issues with ECO which has since been discontinued by government. PAS 2035 is a robust quality framework but can add time, cost, and administrative burden that favours large contractors over local SMEs without dedicated back-office capacity. One stakeholder reported that 'install and maintain' contracts have been seen to produce better outcomes than install only contracts.

[20] NAO, Energy efficiency installations under the Energy Company Obligation, 2025

6. Policy and funding uncertainty

TIER 2 - Significant barrier	
Who raised this:	Nearly all stakeholder groups, particularly policy experts, installers, social housing providers, and training providers. Described as undermining confidence across the entire ecosystem.
Stakeholder views:	Stop-start funding was described as undermining planning, staffing and investment. One training provider said they cannot 'speculatively run courses' when funding is confirmed 'one year at a time', limiting their ability to build consistent provision and support workforce growth. Policy signals can have immediate market effects – slowing purchasing and creating instability for local supply chains. Recent rumours about the end of the Boiler Upgrade Scheme meant that homeowners 'held up placing orders because they were worried they weren't going to get the voucher'. Several interviewees argued that the absence of a national end-date for fossil boilers installations is a major suppressor of demand, with one interviewee describing this as 'probably the biggest single influence suppressing adoption' by reducing urgency and weakening the case for coordinated investment. One stakeholder noted that Cornwall Council lost access to ring-fenced retrofit funding following a downgrade in its devolution deal, reducing the region's ability to plan and scale delivery with confidence.
Illustrative quotes:	*"The lack of a national end-date for fossil boilers is probably the biggest single influence suppressing adoption."* - **Policy expert** *"You can't actually plan for beyond April."* - **Training provider**
What the evidence says:	Policy stability is critical for private sector investment and market development: 'Stop-start measures and short funding cycles have undermined the confidence of consumers, installers and the wider supply chain.'[21] National experts suggest that one of three reasons for the drop in 2024 European heat pump sales was governments changing support schemes for heat pumps, unsettling consumer confidence.[22] Committee on Climate Change (CCC) analysis indicates policy uncertainty is a significant barrier to deployment targets.[23] Local authority capacity to provide certainty is limited but through planning and procurement (i.e. SEC1 policy) it can use the levers under its control to support market development and signal intent.

[21] Energy Security and Net Zero Committee, Retrofitting homes for net zero (HC 453), 2025
[22] European Heat Pump Association, Heat pump sales drop 21% in 2024, leading to thousands of European job losses, Feb 2025
[23] Climate Change Committee, The Seventh Carbon Budget, 2025

7. Installer training and skills gap

TIER 2 - Significant barrier	
Who raised this:	Training providers, installers, social housing providers, Council officers, and policy experts. Cornwall's largest installer cited skills shortages as the main growth constraint
Stakeholder views:	Stakeholders reported that there are enough installers 'on paper' but too few have the depth of heat pump-specific skills to deliver the best outcomes. Rapid grant-driven expansion has led some installers to complete short manufacturer courses before installing, without developing sufficient understanding of low-temperature system design. Installers emphasised that design quality is decisive, noting that poor design can drive corner-cutting and subsequent problems. Current apprenticeship frameworks are weighted towards gas, with only one heat pump module included. Local training provision is patchy, with one college stating that 'we don't offer any heat pump training'. Installers highlighted the need for tailored conversion pathways for experienced tradespeople moving into heat pump installation. The administrative burden of MCS and other compliance requirements was reported to deter smaller firms from participating in funded programmes. Stakeholders noted that Cornwall Council has good reach and influence to drive interest towards training courses, with one training provider reporting significantly higher uptake when Cornwall Council promotes their courses. Cornwall's rural geography poses challenges, as travel to the limited available training locations can be a barrier to participation.
Illustrative quotes:	*"There are enough installers in name, or on paper, but maybe not enough installers who are highly skilled."* - **Local installer** *"We don't have enough skilled air source heat pump installers. Lead time is getting longer."* - **Regional installer** *"When Cornwall Council push something, we get a higher uptake of course participants by quite a lot."* - **Training provider**
What the evidence says:	Heat pump training support is available through the Heat Training Grant but Heat Pump Association data shows that ~39% of people completing training don't go on to install heat pumps.[24] 1-3-day manufacturer courses typically teach specific product specifications rather than the nuances of low-temperature heating design. Cornwall has limited local provision of trained installers compared to the level of demand.[25]

[24] Heat Pump Association, Projecting The Future Domestic Heat Pump Workforce, 2024
[25] Cornwall Council (November 2024), Housing Decarbonisation Strategy for Cornwall

8. Cornwall's housing stock suitability

TIER 2 - Significant barrier	
Who raised this:	Social housing providers, Council teams, and community organisations. Experienced installers explicitly challenged this as a misconception.
Stakeholder views:	Views were clearly split: social housing providers and Council teams cited older and less well insulated stock as problematic (though not inherently unsuitable) with some retaining a view that 'fabric first' is an essential pre-requisite for heat pump installation. Experienced installers directly refuted this view, stating that heat pumps can achieve high efficiency in any property with appropriate design, installation and commissioning. Social housing providers found that early installations on poorly insulated stock generated complaints, which led to more selective targeting in efficient properties. Overgeneralised claims about the suitability of heat pumps in older, less well insulated homes, were seen to undermine trust and confuse residents. Social landlords also highlighted that investment decisions are constrained by asset value, sometimes forcing choices between upgrading, retaining or disposing of properties.
Illustrative quotes:	*"'They don't work in old buildings' is a big myth. We have probably 300 installations now in period properties and they work fantastic."* - **Regional Installer** *"We're firm believers that all properties can have a heat pump. I've got a heat pump in a 500-year-old building. Fewer than 10% we don't think it's a good option for the customer due to disruption to the house or if the saving isn't going to be very high."* - **Regional installer**
What the evidence says:	Cornwall has ~31% pre-1930 homes including solid-wall, granite, and 'Cornish units'.[26] Electrification of Heat and HeatpumpMonitor.org[27] data demonstrate effective performance across all property ages when correctly designed, with pre-1900 properties achieving comparable SPF to newer homes. High thermal mass buildings (including solid walled homes) can achieve very high efficiency through steady state operation. However, homes with higher heat loss will have higher fuel bills, regardless of the heating system. If heat pump performance is poor (due to sub-optimal design, installation or commissioning) then poorly insulated homes are more at risk of very high fuel bills. i.e. heat pumps can operate efficiently in any building, but concern about installing heat pumps in poorly insulated properties is legitimate where heat pump efficiency may be low due to the risk of high bills.

[26] Cornwall Council (November 2024), Housing Decarbonisation Strategy for Cornwall.
[27] See Appendix B, section 'HeatpumpMonitor comparison'.

9. Maintenance, servicing and warranty availability

TIER 3 - Context-specific barrier	
Who raised this:	Social housing providers, installers, and energy advice charity. Described as an emerging concern rather than current blocker.
Stakeholder views:	Social housing providers raised concerns that the reported lifespans of heat pumps (8-12 years) are shorter than the 15-year business planning horizons used gas boilers. Parts availability was raised as a concern for older units. Servicing costs are higher (~£140 vs £70). F-gas qualification limits workforce. However, some held a view that heat pumps require less frequent intervention than fossil fuel boilers. Some note that in-house capability to service heat pumps was low but increasing and more service contract options are emerging as solutions.
Illustrative quotes:	*"Heat pump lifespan figures range around 8 to 12 years, averaging around about 11 years-really short, shorter than we've been business planning for with existing heating systems."* - **Housing association**
What the evidence says:	Well-maintained heat pumps are capable of lasting in excess of 15 years. Servicing costs for ASHPs are higher than for gas boilers (£100-£200 annually versus £60-£100 for gas), but less frequent intervention is typically needed. F-gas requirements limit the available repair workforce, though routine servicing of Monobloc heat pumps (the predominant type) doesn't require F-Gas certification. Maintenance capacity is growing naturally with an increasing installed base, which is seeing this barrier diminishing as market matures. When maintenance and servicing are agreed at the procurement stage, exposure to this barrier is reduced.

10. Misinformation and media narratives

TIER 3 - Context-specific barrier	
Who raised this:	Community organisations, social housing providers, policy experts, and Council officers. Described as creating headwinds but addressable through direct experience.
Stakeholder views:	Persistent myths propagated via the media were reported, which create scepticism about heat pumps among the public. Several stakeholders noted that heat pumps have become 'part of a culture war' and politically polarised. Oil/gas industry has run disinformation campaigns and local trades can often discourage heat pumps. However, direct experience overcomes misinformation -'when people meet someone who has one and is happy, that changes everything'. Cornwall's community networks, such as CEP, help enable peer-to-peer myth-busting. The high prevalence of heat pumps in Cornwall also help to normalise the technology.
Illustrative quotes:	*"The Daily Mail and Express run a constant barrage of nonsense about heat pumps. But when people meet someone who has one and is happy, that changes everything."* - **Community organisation**
What the evidence says:	The DESNZ Attitudes Tracker shows there is high awareness with significant misconceptions about heat pumps from the general public. Which? research[28] shows homeowners knowing someone with a heat pump are nearly twice as likely to consider one. Social proof and direct positive experiences have been seen to be highly effective in promoting positive attitudes to heat pumps. High-quality installations followed by visible positive outcomes are the most effective counter to misinformation.

[28] Which?, Homeowners and heat pumps, accessed February 2026

11. Grid capacity and DNO processes

TIER 3 - Context-specific barrier	
Who raised this:	DNO, housing providers, and Council planning officers. Described as context-dependent, affecting clustered retrofits rather than individual installations.
Stakeholder views:	**NGED:** NGED does not seek to block individual adoption but must assess household maximum demand and power quality. Cornwall's rural network means reinforcement may be required, with high costs for properties on small substations where they are the sole beneficiary. The main risk is clustered retrofits, where cumulative impacts require assessment and reinforcement planning; early engagement is essential to align deployment with lead times. Clustered heat pump installations require staggered or manual restarts to avoid demand peaks. NGED warned that blanket 80A connection requests can overstate demand and trigger unnecessary reinforcement when aggregated. Looped services are a national issue resolved when identified but not fully mappable in advance. **Other stakeholders:** Grid readiness is an ongoing concern, although individual installations rarely face constraints - most are 'Connect & Notify'. DNO responsiveness has 'improved significantly' in recent years. Cornwall's rural network creates challenges for concentrated deployments requiring reinforcement, rather than Cornwall being uniformly constrained. Social housing stakeholders noted that grid reinforcement issues can create delays for programmes, reinforcing the need for early planning and coordination. One installer indicated that they had evolved their technology selection to reduce the probability of grid connection issues but said higher load properties may require more DNO interaction to enable cascading/3-phase connections.
Illustrative quotes:	*"For individual installations, grid is rarely an issue now. The 80A fuse standardisation means most homes can accommodate a heat pump."* - **Council officer**
What the evidence says:	The standardisation of homes to 80A supplies means most individual heat pump installations can proceed without issue via a connect and notify process. Typical domestic heat pumps draw 3–5kW, which is within most supply capacities. Any constraints are typically localised to areas of concentrated deployment and some rural circuits. DNO flexibility services and the Power Up programme provide coordination mechanisms for managing these localised issues, and early engagement with the DNO by developers can mitigate this issue.

12. Coastal corrosion

TIER 3 - Context-specific barrier	
Who raised this:	Installers, housing providers, and training providers with Cornwall-specific experience. Described as a technical consideration requiring specification discipline.
Stakeholder views:	Cornwall's extensive coastline accelerates corrosion of external heat pump units. Early deployments experienced premature failure within 2-3 years, creating lasting stigma and scepticism about heat pump technology. Protective coating options (e.g. Blygold) are now available as standard, adding approximately £300 and providing effective protection. Some social landlords now mandate coatings for all coastal properties. Certain manufacturers now provide protection as standard, whilst others can specify this during procurement. The solutions are well-established and the remaining barrier is primarily one of consistent specification discipline.
Illustrative quotes:	*"People were changing heat pumps every few years when they first came out because of the corrosion, but they are getting better because they are coating them when servicing them."* - **Training provider** *"Early Perranporth deployments were changing heat pumps every few years. The salt just ate through them. Now with [protective coatings] it's a solved problem."* - **Training provider**
What the evidence says:	Many early deployments lacked protective coatings, increasing the prevalence of corrosion and requiring replacements. Protective coatings have since been proven effective, with social landlords reporting good outcomes over the last 5+ years. The additional cost of the aftermarket coatings of ~£300 is modest and cost-effective for extended lifespan. Plastic parts are now commonplace in some aspects of the equipment, which are more resistant to salt corrosion. Factory-applied salt-air protection is available from several manufacturers at the procurement stage as an alternative to aftermarket coatings (e.g. Blygold), with some units having it installed as standard regardless of install location.

RECOMMENDED ACTIONS TO ACCELERATE HEAT PUMP DEPLOYMENT IN CORNWALL

The barriers identified in this report are challenging, but they also present clear opportunities for progress and can be addressed through coordinated action. A number already have proven solutions, while others have clear pathways for improvement. The primary challenge is the rapid, large-scale implementation of these solutions – both to sustain the region's strong momentum in heat pump deployment and to swiftly reduce instances of poor installation quality, which can accumulate and erode public confidence. Addressing these barriers will require coordinated action across the whole system of stakeholders in Cornwall – including Cornwall Council, social landlords, installers, training providers, energy infrastructure operators, community organisations, and private landlords. The Cornwall and Isles of Scilly Local Area Energy Plan (LAEP) provides the strategic framework and emerging governance structures through which these actions can be taken forward, with housing decarbonisation identified as a key component of the Net Zero Buildings Mission. Below, we have identified eight recommendations for consideration by all stakeholders involved in heat pump deployment in Cornwall.

Recommendation 1: Build a regional consensus on heat pump best practice

Stakeholders across Cornwall's heat pump ecosystem are encouraged to establish a shared understanding of what constitutes best practice in heat pump system design, installation and operation, ensuring that all parties are aligned on the principles that underpin successful outcomes. The Strategic Housing Decarbonisation Partnership Working Group provides one key forum for developing and promoting this consensus.

Why this matters

The most critical factor in achieving high heat pump performance is not the age or insulation level of a home, but the quality of system design and commissioning (see Barriers 2 and 8) [29]. Experienced Cornwall installers – and national evidence – confirm that heat pumps can perform well in older or poorly insulated homes when designed and installed correctly. However, inconsistent understanding of these principles across the stakeholder landscape is contributing to poor installations, negative perceptions, and unnecessarily cautious design practices such as routine hydraulic separation. A shared

[29] J. Rosenow, T. Lea and G.Boni, Bridging the Efficiency Divide: Open-Source Insights into UK Heat Pump Performance Gaps, Energy and Buildings, 2025

regional position on best practice is foundational to several other recommendations in this report, particularly those on installation quality (Recommendation 5), supply chain development (Recommendation 6), and social landlord planning (Recommendation 7).

Priority actions

1. **Establish and promote the principle that building age and insulation levels do not limit the application of heat pumps**, when systems are correctly designed, installed and commissioned. At the same time, recognise that fabric improvements remain important: they reduce heat loss, improve comfort, and lower running costs. This position reflects the reality that, where heat pump installation quality is variable, well-insulated homes provide a buffer against underperformance and help protect vulnerable households from bill shocks. Cornwall's best practice framework could therefore distinguish between tenure types and funding streams: for fuel poor and vulnerable households, fabric improvements could be prioritised alongside or ahead of heat pump installation; for owner-occupiers and the wider market, heat pumps should not be delayed by insulation requirements, provided systems are well-designed.
2. **Collaborate to develop a concise, Cornwall-specific best practice guide that outlines the key design principles for high-performing systems**, including target flow temperatures, emitter sizing, commissioning checks, heat loss accuracy, system optimisation, and common pitfalls to avoid – including Cornwall-specific considerations such as protective coatings for coastal corrosion.
3. **Embed these principles into procurement specifications, training programmes and public-facing guidance** to ensure consistency across all delivery channels, including Warm Homes programmes, social housing retrofit, and private sector installations.
4. **Promote a unified public message through all stakeholder communications and retrofit advice services**: heat pumps are suitable for virtually all homes in Cornwall, and performance depends primarily on system design and installation quality, not just building fabric. The use of air-to-air heat pump technology should also be promoted, particularly for households that under-heat or heat intermittently due to financial constraints.
5. **Convene a regional forum with key heat pump delivery stakeholders** including installers, housing associations and community advisors to develop and promote the shared best practice framework, drawing on local experience, national evidence (including analysis of HeatpumpMonitor.org and Electrification of Heat data), and emerging industry standards. Given limited installer availability, engagement should be structured flexibly through virtual meetings, shared documents, or short one-to-one inputs (see Recommendation 6).

6. **Explore emerging tools that could reduce disruption and cost**, such as Heat Geek's ZeroDisrupt™ heating system designer, which uses real-world data to identify essential system upgrades and has demonstrated installations using typically 40% fewer parts – offering average quotes of £3,000 after the BUS grant. Such tools may be particularly valuable for homes where conventional approaches would require extensive internal works.

Recommendation 2: Maximise the impact of Warm Homes funding

Cornwall's Warm Homes programmes should be used as a platform for embedding quality and learning, while positioning Cornwall for larger, integrated funding from 2028 onwards. This requires close coordination between Cornwall Council, delivery partners, social landlords, and the local supply chain.

Why this matters

Cornwall is already delivering Warm Homes: Local Grant through a newly appointed local delivery partner, with current allocations running to the end of 2027. Warm Homes: Social Housing funding is also being delivered through an existing South West consortium. These programmes create important opportunities to demonstrate effective local delivery and build the evidence base for future funding rounds (see Barriers 1 and 5). DESNZ plans to bring both schemes together from 2028, creating an opportunity for Cornwall to position for larger, integrated funding – particularly as allocations may be influenced by devolution arrangements.

Priority actions

7. **Work with the local delivery partner to onboard local sub-contractors and embed quality standards**, building in aftercare requirements where programme rules allow, and specifying install-and-maintain approaches – which the South West Net Zero Hub confirmed "get better outcomes with regards to quality."
8. **Break contracts into smaller packages accessible to Cornwall-based firms**, where possible within existing frameworks, to support local supply chain development.
9. **Begin developing a joint pipeline of properties across tenures** through cross-tenure collaboration – including via the Strategic Housing Decarbonisation Partnership Working Group – building the consortium relationships needed for competitive bids when the integrated funding round opens from 2028.
10. **Systematically capture learning from current delivery** – including strengths and weaknesses – to strengthen future applications and demonstrate Cornwall's track record as a delivery partner.
11. **Provide information on aftercare and ongoing maintenance to householders** receiving installations. While aftercare for owner-occupiers outside fuel poverty programmes is not funded through current government programmes, the Cornwall

Retrofit Hub envisaged in both the LAEP and Housing Decarbonisation Strategy could serve as a longer-term advice resource.

Recommendation 3: Reframe the economic case for owner-occupiers

Energy advisors, community organisations and the Cornwall Retrofit Hub envisaged in the LAEP[30] should present the financial case for heat pumps in context-specific terms, distinguishing clearly between off-gas and on-gas households and promoting integrated system economics rather than heat pump costs in isolation.

Why this matters

The economic case for heat pumps varies dramatically by context, yet public discourse often treats them as universally expensive (see Barriers 1 and 3). With 47% of Cornwall's housing off-gas, the economics are considerably more favourable than national narratives suggest. For off-gas households, costs after the BUS grant represent a modest premium when replacing oil or LPG, and substantial running cost reductions are achievable for those on direct electric heating. For the 52% of Cornish homes that use mains gas as their main central heating fuel, the financial case more often depends on combining heat pumps with complementary technologies such as time-of-use tariffs, solar PV and batteries.

Priority actions

1. **Present the clear financial case to off-gas residents** through the Cornwall Retrofit Hub and local energy advice services, demonstrating the modest cost premiums after the BUS grant when replacing oil or LPG, and the substantial running cost reductions for those on direct electric heating.
2. **Promote combined heat pump, solar PV and battery packages** for gas-connected homes, presenting integrated system economics that show how complementary technologies can substantially reduce bills.
3. **Organise community events and local showcases** to counter misinformation through peer-to-peer myth-busting, using trusted Cornwall voices and real-world examples of successful installations.

[30] At the time of writing, CEP is undertaking a feasibility study into setting up a Cornwall Retrofit Hub.

Recommendation 4: Ensure heat pump users get the most from their systems

Heat pump user education should be coordinated across multiple touchpoints, ensuring that householders and tenants receive consistent, accessible guidance on how to operate their systems effectively. This requires collaboration between installers, social landlords, community organisations, and advice services.

Why this matters

A lack of customer understanding can directly cause operational problems and bill shocks (see Barrier 4). A housing association stated that "our main concern is that tenants don't know how to use heat pumps," while an energy advice charity reported that grant recipients frequently call with "post-installation issues: running costs, aftercare, controls, and lack of explanation."

Priority actions

1. **Coordinate education across existing touchpoints** including CEP advice services, social housing tenant liaison, void/exchange/new tenancy processes, health sector contacts, and the Cornwall Retrofit Hub envisaged in the LAEP.
2. **Develop standardised guidance** building on or directing to resources from organisations including Nesta, The Energy Systems Catapult and Heat Geek, covering efficient operation, what to expect, tariff recommendations and common mistakes. Materials should be available in multiple formats to address digital exclusion.
3. **Recruit satisfied users as heat pump champions** for larger programmes, extending education through informal community networks and providing peer-to-peer reassurance.

Recommendation 5: Drive consistent quality in installations

All organisations procuring heat pump installations in Cornwall – including through publicly funded programmes, social housing retrofit, and private sector projects – should adopt strengthened specifications that exceed minimum MCS requirements, and promote performance accountability through guarantee models and remote monitoring. The Strategic Housing Decarbonisation Partnership Working Group provides a forum for developing shared procurement standards.

Why this matters

Installation quality emerged as one of the most emphatic concerns raised through this research. Stakeholders consistently reported that underperformance and negative perceptions stem primarily from poor system design and installation practices, rather than limitations of heat pump technology itself (see Barrier 2).

'Good design, good application. You've got to have both of those things. [They're] the golden rules.' – Installer

CEP highlighted that Cornwall Council's 'Buy With Confidence Scheme' has proved difficult to engage installers with and is too broad to catalyse targeted improvement in the retrofit supply chain. CEP have recommended a retrofit-specific quality assurance pathway via the Cornwall Retrofit Hub envisaged in the LAEP[31] to identify competent heat pump installers and link them to training and growth opportunities.

Priority actions

1. **Introduce strengthened procurement specifications** targeting the areas where stakeholders identified the most significant quality gaps: minimum performance targets, commissioning checks, flow temperature limits, controls configuration, installer training requirements, monitoring provisions, handover processes, and ongoing maintenance and support obligations. These specifications could draw on emerging best practice from social landlords and other local authorities, such as Bristol City Council, while accommodating Cornwall-specific considerations such as mandating protective coatings to address coastal corrosion.
2. **Promote performance guarantee models**, similar to the Heat Geek Guarantee of minimum performance, to align installer incentives with long-term customer outcomes.
3. **Mandate remote performance monitoring within funded programmes** to provide a feedback loop for continuous improvement, enable early remediation of underperforming systems, and create a robust evidence base on workforce capability and the consistency of delivered performance across installation companies.
4. **Involve manufacturers and wholesalers in shaping installer behaviour** and improving standards across the supply chain, as recommended by CEP.

[31] Community Energy Plus (accessed February 2025), Retrofit Innovation

Recommendation 6: Develop the supply chain, skills, and training

Training providers, manufacturers, and local installers should develop a coordinated training strategy that addresses geographic gaps, covers the full workforce spectrum, and creates accelerated upskilling pathways for experienced tradespeople. The LAEP identifies skills and supply chain development as a critical enabling action for Cornwall's net zero transition.

Why this matters

Skills gaps constrain both the quantity and quality of deployment (see Barrier 7). One training provider stated: *"We don't offer any heat pump training here... which is part of the problem,"* reflecting a lack of consistent, predictable government funding for heat pump training. A regional installer reported that local courses are "fully booked or don't have the right assessors."

Priority actions

1. **Convene Cornwall College, Truro and Penwith College, SWAAT, manufacturers and local installers** to develop a coordinated training strategy covering geographic gaps, the full workforce spectrum (surveyors, designers, installers, maintenance engineers), and accelerated upskilling pathways for experienced tradespeople.
2. **Establish dedicated task-and-finish working groups of leading local installers** to co-develop skills pathway recommendations, enhanced commissioning standards, and explore how procurement frameworks and funding criteria can incentivise best practice, particularly around system design, hydraulic configuration and resident engagement.
3. **Structure engagement flexibly** to recognise limited installer availability, using virtual meetings, shared documents or short one-to-one interviews to gather individual input.

Recommendation 7: Develop heat pump transition plans for social housing

Social landlords operating in Cornwall should develop long-term heat pump transition plans that align asset management with emerging MEES timelines, apply a clear investment sequencing framework, and invest in tenant engagement. The Strategic Housing Decarbonisation Partnership Working Group and the wider LAEP process provide forums for shared learning and coordination across landlords.

Why this matters

Social landlords face acute budget pressures: interviewees reported that heat pump installations typically cost £12,000–£20,000 compared to around £3,500 for a gas boiler replacement, and proposed MEES changes would require a rapid scale-up of both heat pump deployment and insulation improvements by 2030 (see Barriers 1, 5 and 6).

"It's going to be really challenging...all of a sudden we've got to think about putting heat pumps in a lot more... our heat pump costs are normally around £16,000, that's quite a significant amount to spend on one part of a property..." – Social landlord

Yet social landlords also have advantages: long-term control over asset planning, the ability to coordinate fabric and heating investment, and access to Warm Homes: Social Housing funding.

Priority actions

1. **Adopt an evidence-based approach to investment sequencing** (see Recommendation 1), combining low-cost fabric measures (loft insulation, draught proofing, cavity wall insulation where appropriate) with heat pump installation to maximise bill savings and tenant comfort. Smart controls and tariff optimisation should be integrated into all installations. Air-to-air heat pumps should also be considered, particularly for households that under-heat or heat intermittently due to financial constraints.
2. **Prioritise off-gas properties** where heat pumps are "the obvious replacement at end-of-life," aligning replacement cycles with asset management planning and emerging MEES timelines.
3. **Share learning on cost-effective retrofit pathways** for Cornwall housing archetypes through forums including the Strategic Housing Decarbonisation Partnership Working Group, building a shared evidence base that reduces uncertainty for all social landlords in the region.
4. **Invest in comprehensive tenant engagement** spanning the full tenancy lifecycle. This should include early engagement to secure genuine buy-in, robust handover processes with scheduled follow-up, ongoing support channels, assistance with tariff switching, and recruitment of peer champions from satisfied tenants. As the South West Net Zero Hub stated, *"tenant perception is cited as the main barrier to wider heat pump adoption in Cornwall,"* and engagement should span *"lots of different communication strands in the lifetime of the house."*

Recommendation 8: Accelerate high-performing heat pump deployment in the private rented sector

The forthcoming MEES tightening should be used as both a compliance driver and an engagement tool for the private rented sector, with dedicated PRS support established through the Cornwall Retrofit Hub envisaged in the LAEP, and deepened collaboration with the Cornwall Residential Landlords Association (CRLA). Cornwall Council retains a critical role in MEES enforcement, while landlords, letting agents, and advice services each have responsibilities in supporting the transition.

Why this matters

Cornwall's private rented sector (~20% of housing stock) is a critical sector in the county's heat pump transition. The forthcoming tightening of the Domestic Minimum Energy Efficiency Standard – expected to require all rental properties to achieve an EPC Band C by 2030 – creates both urgency and opportunity. Nesta research highlighted that all landlords, regardless of portfolio size, expect ongoing support from researching technology options through to aftercare[32]. A CRLA representative noted that most members are in their 60s-70s and not highly engaged with new technology, so messaging must be accessible and emphasise pragmatic benefits – such as regulatory compliance and tenant satisfaction – over climate framing.

Priority actions

1. **Communicate early with landlords about the 2030 EPC C requirement**, encouraging early action through recognition schemes (e.g. 'Green Landlord' certification) and potentially Council Tax incentives, while ensuring robust enforcement against non-compliance.
2. **Work with national policymakers to ensure MEES exemptions and cost caps support heat pump adoption**, including recognising heat pumps as a valid improvement measure towards compliance even if full Band C is not achieved.
3. **Guide landlords on maximising the impact of spend** up to the proposed £10,000 MEES spending cap, applying the regional consensus on best practice (see Recommendation 1) to ensure that exempted properties are as efficient as possible and landlords are not doing 'just enough' to reach the cap.
4. **Establish a local quality assurance framework for PRS heat pump installations**, building on MCS and TrustMark standards but tailored to reflect regional best practice (see Recommendation 1). Enhanced commissioning protocols, performance guarantees and tenant handover requirements should be embedded in all publicly funded installations. Remote monitoring should be promoted and annual reporting on PRS heat pump performance introduced to build trust and drive continuous improvement.

[32] Nesta, What support would landlords require?, 2025

5. **Include a dedicated PRS stream within the Cornwall Retrofit Hub** to provide bespoke advice to landlords on retrofit options, funding and installer selection; offer simplified procurement support through a vetted installer network; coordinate with the CRLA to deliver workshops, myth-busting materials and peer learning opportunities; and develop tenant-facing materials on heat pump use, including handover guides and helpline access.
6. **Deepen collaboration with CRLA and letting agents**, integrating retrofit education into their regular communications. Letting agents (who already support landlords with regulatory compliance, supplier sourcing and property maintenance) are well placed to support PRS decarbonisation at scale. Coordination with community energy organisations including CEP and tenant advocacy groups can help convey that retrofit upgrades are in tenants' interest and address fears of high running costs.
7. **Consider piloting block retrofit schemes in PRS clusters** to demonstrate feasibility, cost-effectiveness and tenant satisfaction, using these as exemplars to inform wider rollout.

CONCLUSION

Cornwall has established itself as a national leader in heat pump deployment, demonstrating that the transition to low-carbon heating is both achievable and already underway. With nearly 9,000 domestic installations and the highest deployment rates of any UK local authority, the County provides valuable evidence that heat pumps can work effectively across diverse housing types and contexts.

Cornwall's experience offers lessons for national policy: confirmed phase-out dates for fossil heating would provide the market certainty that stakeholders consistently identified as lacking; tariff reform to close the 'spark gap' would improve the economics for gas-heated homes; and streamlined funding mechanisms would enable more effective local delivery.

This research has identified 12 barriers to accelerated deployment but, critically, most have proven solutions. Design, installation and commissioning quality emerged as the root cause of many perceived problems, not the technology itself. When heat pumps are well-designed and properly installed, they deliver reliable, efficient heating. Cornwall's 47% off-gas housing stock presents a particular opportunity, as the economic case for heat pumps is strongest when replacing direct electric heating, oil, or LPG.

The eight recommendations provide a framework for accelerating heat pump deployment across Cornwall. By building a regional consensus on best practice, maximising the impact of Warm Homes funding, reframing the economic case, investing in user education, driving installation quality, developing local skills, supporting social housing transition planning and accelerating the deployment of high-performing systems in the PRS, stakeholders across Cornwall can drive down costs and raise performance. The Cornwall and Isles of Scilly Local Area Energy Plan provides the strategic context and emerging governance structures through which these actions can be coordinated and delivered.

If stakeholders across Cornwall – from the Council and social landlords to installers, training providers, and community organisations – act on these recommendations, the county can consolidate its national leadership and ensure that the benefits of clean, efficient heating are felt by every community. The next phase is about ensuring consistently high quality, supporting fair access across all tenure types, and reaching the scale required to meet Cornwall's 2045 ambition.

ABBREVIATIONS

TERM	DEFINITION
ASHP	Air Source Heat Pump
BUS	Boiler Upgrade Scheme
CEP	Community Energy Plus
CRLA	Cornwall Residential Landlords Association
DESNZ	Department for Energy Security and Net Zero
DNO	Distribution Network Operator
ECO	Energy Company Obligation
EPC	Energy Performance Certificate
EWI	External Wall Insulation
HUG	Home Upgrade Grant
LAD	Local Authority Delivery
LPG	Liquefied Petroleum Gas
MCS	Microgeneration Certification Scheme
MEES	Minimum Energy Efficiency Standards
NGED	National Grid Electricity Distribution
PRS	Private Rented Sector
PV	Photovoltaic (solar PV)
RHI	Renewable Heat Incentive
SCOP	Seasonal Coefficient of Performance
SHDF	Social Housing Decarbonisation Fund
SPF	Seasonal Performance Factor
NAO	National Audit Office
NVQ	National Vocational Qualification
SEC1	Sustainable Energy and Construction policy, part of Cornwall Council's 'Cornwall Climate Emergency Development Plan Document'
SWAAT	South West Assessment and Training
WH:LG	Warm Homes: Local Grant
WH:SHF	Warm Homes: Social Housing Fund

Photo by Sam Bush / Nesta / Climate Visuals