CIPHE

Chartered Institute of Plumbing and Heating Engineering

2025

Our manifesto

2025 - 2027

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Ciphe.org.uk

CIPHE The Chartered Institute of Plumbing and Heating Engineering

Introduction

"The plumbing and heating industry plays a critical role in public health, safety and well being, housing and living conditions, the implementation of new and emerging technologies, and the UK government's Net Zero and Levelling Up targets."

As the Professional Body for the plumbing and heating industry and a registered educational charity dedicated to protecting public health, the CIPHE gives a voice to both the industry and members of the public, representing them to the UK government and key stakeholders and influencing real change on the issues that matter most.

Our 2022 Manifesto highlighted our 'two for twenty-two' priority areas across key pillars of public health, environment, education and regulation. It considered the numerous challenges the country was facing as it adapted to life with COVID-19, contended with the cost-of-living crisis and worsening fuel and water poverty, while also attempting to navigate the impact of the devastating invasion of Ukraine and the energy crisis.

As we set out our 2025-2027 Manifesto, many of the same challenges remain: the lingering effects of the pandemic on skills shortages; geopolitical turmoil with ongoing conflicts in Europe and the Middle East; and cost-of-living struggles perpetuating fuel and water poverty – to name just a few. The UK is simultaneously striving to decarbonise with upcoming The Future Homes Standard and the 2050 net zero targets.

The change in government has created a time to reflect on what the industry has achieved and how it can have a positive impact on the next parliament and beyond.

Alongside supporting Government-led challenges, the CIPHE, as a representative of the industry, must use its expertise to be the driver of change across government regulation, shaping and reforming education and training, and equipping the industry to leverage new innovations and achieve new possibilities.

CIPHE members represent the best of the plumbing and heating industry and possess the skills qualifications and competencies to step up to the challenge themselves, while also advising and upskilling future generations.

This manifesto outlines the key issues facing the industry, the crucial steps that the government and other key stakeholders should take to deliver societal change, and the practical steps and campaigns the CIPHE will spearhead to drive this vital change.

Kevin Wellman

Kevin Wellman
Chief Executive Officer, CIPHE

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Education

Time to Step Up on Skills and Education

Our two priority issues for 2025 - 2027 will be:

Priority 1:

Apprenticeships and licensing

Priority 2:

Low carbon training and accreditation

Apprenticeships and licensing

The plumbing and heating industry continues to face a huge skills crisis and, currently, there is little sign of progress. In fact, to meet demand, the Construction Industry Training Body (CITB) suggests that approximately 45,000 people would need to join the sector every year for the next five years to adequately service the public, and, the UK Trade Skills Index 2023 estimates that the UK needs a minimum of 70,000 new plumber recruits by 2032. There has also been a 25% decline in college enrollments over the last twelve months, demonstrating that new talent is not joining the industry, either. This paints a bleak outlook that is not set to improve any time soon.

To bridge the gap and influence the future of plumbing apprenticeships, the CIPHE recently worked alongside the Institute for Apprenticeships and Technical Education (IfATE) /Skills England to conduct an education survey. The survey found that the majority (89%) of employers and educators in the sector would support a Level 2 qualification in domestic plumbing. As a result, and following support from a number of government departments, the CIPHE established a Plumbing Employers' Group to ascertain the need for a Level 2 apprenticeship, which would not only create an additional career entry point but also encourage employers to take on an apprentice.

The insights from the research and Employers Group resulted in IfATE asking the CIPHE to develop new Level 2 & 3 qualifications. The CIPHE is currently working with the industry and government to develop an up to date and 'fit for purpose' apprenticeship which it is hoped will be approved by IfATE/Skills England during this manifesto term.

In addition to reforming the education system, the CIPHE also continues to support the enforcement of water and building regulations to raise industry standards for those already operating in the sector. The lack of enforcement currently, allows space in which incompetent and rogue traders can operate, presenting risks to public safety.

The Skills Crisis

25%
Decline in college enrollments.

70,000
New recruits needed by 2032.

89%
Support level 2 apprenticeships.

Low carbon training and Accreditation

The government heat pump grant has seen interest soar, with figures for 2024 reporting that average monthly heat pump installations have increased by 39% compared to 2023, making it a record-breaking year for the technology. Yet, within the UK – and globally – adoption still lags behind where it needs to be.

In fact, based on recent sales figures, by 2030, there will be an estimated 253 million heat pump systems installed globally. However, net zero scenarios require 600 million operational units by 2030, leaving a shortfall of 58% if adoption continues at the current rate.

We are pleased that the Department for Energy Security and Net Zero (DESNZ) plans to mandate low temperature training and we believe the CIPHE and LCL Awards qualification on low temperature heating systems in dwellings' design will help to upskill the industry. However, the lack of accreditations and quality control could severely undermine the UK's attempts to scale up heat pump adoption, particularly as poorly installed systems can be environmentally and financially inefficient - or even dangerous.

The shortage of adequately trained and experienced designers and installers across the industry is also reducing the UK's likelihood of meeting heat pump targets. According to the Heat Pump Association, there were only 3,000 trained heat pump engineers in UK, this rose to just 8,000 in 2023. In addition, since the launch of the CIPHE's/LCL Awards Low Temperature Design qualification in 2022 over 1,700 installers/designers have completed the course.

However, in order to meet the government's target of 600,000 heat pump installations per year by 2028 Nesta found that at least 27,000 engineers will be needed in the next four years, requiring increases of 4,000-5,000 per year.

The Facts:

- The construction sector needs 45,000 new workers annually for the next five years.
- The UK needs 70,000 new plumbers by 2032.
- Government heat pump grant applications increased by 75% in 2024.
- 253 million heat pumps will be installed globally by 2030, but 600 million are needed, leaving a 58% shortfall.
- The UK had 8,000 trained heat pump engineers in 2023, up from 3,000.
- Over 1,700 have completed CIPHE's/LCL Low Temperature Design qualification.
- To meet the 2028 targets, 600,000 heat pump installations and 27,000 engineers are every year.

The CIPHE'S Recommendations

- An overhaul of plumbing apprenticeships, improving engagement with employers and increasing the availability of entry level jobs.
- Expand the recognition of qualified installers in plumbing, heating and renewables to exemplify best practice and ensure that consumers can easily access a safe and qualified engineer.
- Continue to vigorously enforce Water Regulations, Gas Safety Regulations and Building Regulations, with prosecutions and heavy penalties for those who do not comply.
- Provide practical and financial support for adult learners.
- Crack down on rogue training providers.
- Funding for apprenticeships to be targeted at the anticipated future construction industry skills gap and to support the move to net zero.
- Accreditation for engineers who have undertaken industry recognised training in low-carbon technologies.

The CIPHE'S Actions

- Collaborate with its Plumbing Employers' Group to shape and create and maintain the Level 2 & 3 Apprenticeship Standard in Domestic Plumbing Installation and ensure they align with changing industry and employer demands.
- Continue to raise awareness of the danger posed by rogue training providers to both the industry and the public.
- Support and promote CIPHE Approved Training Centres.
- Support the development of apprentices and students via the CIPHE's Trainee Membership.
- CIPHE to continue to promote the Learning Academy and encourage mandatory CPD provision.
- Continue to raise awareness around the importance of specific heat pump training and accreditation to underpin the safe and successful move to low carbon technologies.
- Support professional plumbers and engineers by promoting them to consumers as safe and qualified engineers via the CIPHE's directory.

Pillar two

Sustainability

Time to Step Up on Sustainability and the drive to net zero

Our two priority issues for 2025 - 2027 will be:

Priority 1:

New builds

Priority 2:

Retrofitting existing properties

New builds

The industry has already made considerable adjustments to meet the target of a 31% reduction in carbon emissions produced by new build homes, as set out in the recent amendments to Part L of the Building Regulations. However, with the Future Homes Standard expected to set a 75-80% carbon reduction target in 2025, and Net Zero by 2050 on the horizon, the pressure is on to step up decarbonisation efforts.

The switch to renewable energy sources remains the key focus, and continual product development and innovation, particularly in the heat pump market, means there are more options than ever for developers looking to reduce carbon emissions and provide cost-effective alternatives. Low energy systems, including underfloor heating, heat pumps, and low temperature or hydrogen boilers, should all be considered.

However, to reach Net Zero, embodied emissions also require more consideration. Indeed, several industry bodies are now advocating for further amendments to building regulations, especially around the measurement and limitation of carbon emissions produced as part of construction projects.

The industry-proposed 'Part Z' amendment to the UK Building Regulations 2010 would ensure that 'embodied carbon' (generated through the production of materials, transport to site and through the construction of a building) and 'operational carbon' (associated with the energy used to operate the building and its infrastructure, including heating and hot water) are assessed and capped on all major construction projects.

With estimates that embodied carbon is responsible for 11% of annual greenhouse gas emissions and 28% of building sector emissions globally, greater restrictions on embodied, as well as operational, carbon could be instrumental in the mission to achieve net zero.

Retrofitting existing properties

There are more than 30 million homes in the UK and, together, they are responsible for around 30% of the UK's emissions, with around three quarters generated by home heating. Further to this, a UK household can lose up to one third of its total heat to poor insulation – the equivalent to throwing away £1 for every £3 spent on heating.

To tackle this, Part L not only includes targets for new build homes, but aims to drive higher standards for existing homes, too. It includes requirements for all new and replacement wet central heating systems to be sized for a maximum flow temperature of 55°C, the need for thermostatic radiator valves to be fitted and exposed pipework to be insulated throughout the home.

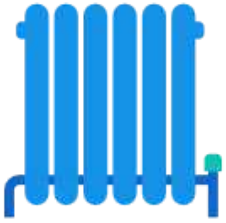
While there has been a large focus on heat pumps, other options must also be considered if we are serious about meeting carbon reduction targets on mass scale. As a result, we have seen a rise in engineers looking to the likes of hydrogen and HVO - that some believe could run through the existing grid - to provide home heating.

However, there are performance and safety risks that must be considered, particularly regarding hydrogen, as it's a highly flammable gas.

Carbon capture and storage technology could also be an option for moving away from fossil fuels and nuclear reactors, but there is a long way to go to achieve this at any significant scale in the UK, meaning that guidance and research into these technologies is required.

This situation is further complicated by the fact that the UK has amongst the oldest housing stock in Europe, with 78% of homes having been built before 1980, compared with an EU average of 61%, and 38% of the UK's housing stock being built before 1946, compared with an EU average of 18%.

This extensive list of options, as well as the complex requirements of our varied housing stock, means that tradespeople need training and education to meet updated Building Regulations, without risking consumer safety. At the same time, consumers require support and unbiased resources such as The Future of Home Heating – A Consumer Guide to help them to make informed decisions.



Social housing

The CIPHE supports the Labour government's plans to raise energy efficiency rules for social housing. The UK is facing a housing crisis, with almost 1.5 million households on a waiting list for social housing in England, Scotland and Wales. Furthermore, a third of social homes, around 1.2m, are currently rated D or below and will require new insulation, windows and heating systems to meet the proposed guidelines.

The government has committed to upgrading as many homes as possible to meet an energy performance certificate (EPC) of rating C by 2030. The plan aims to reduce consumer's energy bills and cut back on energy consumption to move us closer to Net Zero targets.

Further to this, reports estimate that the social housing sector will require at least £36 billion more in investment, in addition to the £70 billion that the sector already plans to invest by 2050, to tackle decarbonisation, as well as preventing draughty, damp and mouldy homes. We support the creation of a consumer engagement programme to share consistent messaging and to grow consumer confidence in net zero, especially when it comes to the necessary RMI work.

The Facts:

- Embodied carbon accounts for 11% of global annual greenhouse gas emissions and 28% of building sector emissions.
- The UK has the least energy-efficient homes in Western Europe, losing heat three times faster than Germany.
- 78% of UK homes were built before 1980, with 38% built before 1946, making the UK's housing one of the oldest in Europe.
- The UK's 30 million homes contribute about 30% of the country's emissions, mostly from heating.
- Poor insulation causes UK households to waste £1 for every £3 spent on heating.
- Nearly 1.5 million UK households are waiting for social housing.

The CIPHE'S Recommendations

- Equip plumbing and heating installers with clear information to advise consumers, make them aware of available grants and avoid risks associated with misinformation.
- Engineers should seek professional training, like support from the CIPHE, to comply with Part L and the Future Homes Standard.
- Mandate industry-wide technical training to support the transition to low carbon technologies.
- Introduce an independent Ombudsman to assist consumers with renewable and low-carbon energy choices.
- Prioritise retrofitting and maintenance to decarbonize UK housing and improve social housing.
- Leverage installer expertise and industry collaboration to meet low-carbon heating transition goals.
- Educate the public on net-zero objectives and how they could impact homes, businesses and finances.
- Provide public education and support on renewable energy sources and improving home energy efficiency.

The CIPHE'S Actions

- Represent members by collaborating with industry and wider engineering institutions to advise the government on training, infrastructure and wider industry requirements on the road to net zero.
- Provide low carbon training and technical support to heating and plumbing professionals as they adapt to new regulations.
- Ensure that qualified heating and plumbing professionals undertake mandatory CPD hours throughout their career.
- Provide advice to government on the need for additional funding in the social housing sector to tackle decarbonisation, improve living standards, and alleviate the housing crisis.
- Educate the public on energy efficiency measures via relevant media and the CIPHE's communication channels, including the development of unbiased resources such as The Future of Home Heating – A Consumer Guide.
- Continue to work with Industrial Associates to educate the industry on embodied and operational carbon, promoting low carbon training, recycling initiatives and the circular economy.

Pillar three

Conservation

Time to Step Up on Supply & conservation

Our two priority issues for 2025 - 2027 will be:

Priority 1:

Water shortages, labelling schemes and pollution

Priority 2:

Fuel and water poverty

Water shortages, labelling schemes & pollution

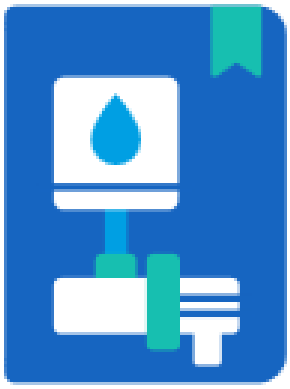
Climate change and the growing population are increasingly putting strain on our water resources. Recent research shows that the UK could need an extra one billion litres of water per day over the next 15 years.

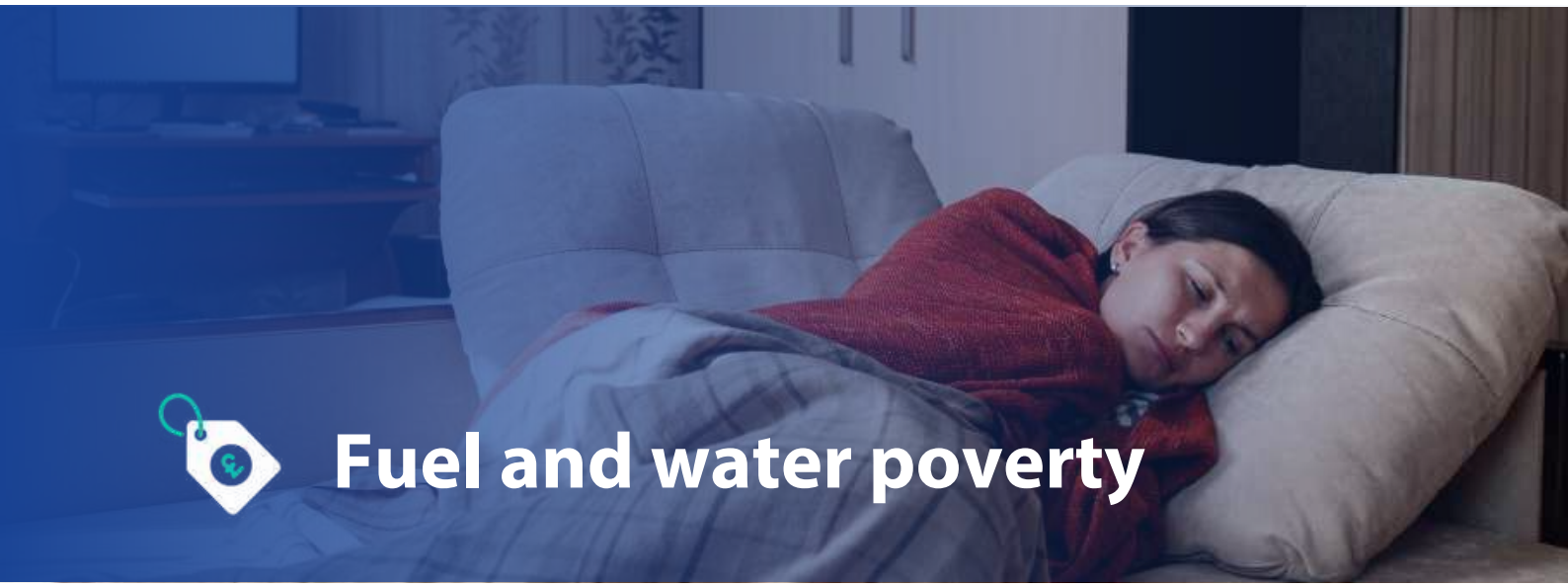
The government has set targets to reduce the use of public water supply in England by 20% per person by 2038, using 2019/20 levels as the baseline. To help tackle the shortage, consumers are being encouraged to reduce their water usage, conserve resources, install water efficient appliances and use water wisely including quickly fixing leaks to limit waste water. There is also support available from water companies, with many offering free and subsidised products - such as regulated tap aerators and cistern bags to help customers reduce usage - and providing free leak fixing services.

The CIPHE also supports the introduction of a single water efficiency label on products, introduced following a Department for Environment, Food & Rural Affairs (Defra) public consultation, to help inform customers and encourage the purchase of more efficient products. The water label is expected to help meet the 20% usage reduction per person by 2038 target, saving an estimated £125 million on water bills over 10 years, and will become mandatory by 2025.

In support of a mandatory water label, licensing should also be applicable to all those working on domestic water supply.

Outside of the home, there has also been widespread public anger at the state of rivers, lakes and coasts due to sewage being deposited and leaked into our waterways, all while water bills have increased for the average consumer. While it is critical that those responsible are monitored by independent parties and government watchdogs, investment into leaky pipe networks and infrastructure is critical if we are to improve the situation and minimise the risk it poses to public safety.





Fuel and water poverty

Fuel and water poverty remain significant issues in the UK due to the ongoing energy crisis and high cost of living. In 2023, 13% of households (3.17 million) in England were in fuel poverty under the Low Income Low Energy Efficiency (LILEE) metric, almost unchanged from 2022. The average fuel poverty gap rose to £417, a 20% increase since 2022.

High energy costs hinder the adoption of renewable technologies, such as heat pumps, due to the imbalance between gas and electricity prices. Investment in renewable energy, including wind and solar, could reduce prices and encourage consumers to switch. However, this requires both government and private sector funding, as well as installer training and homeowner incentives.

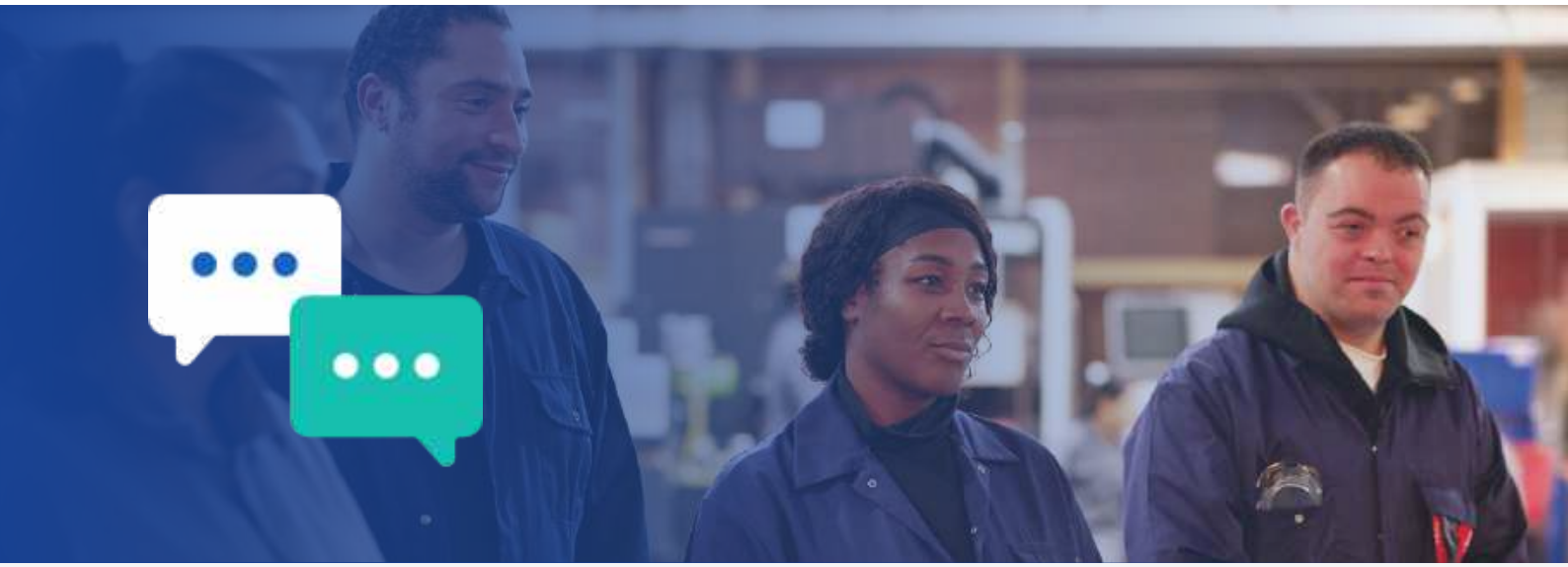
In terms of water poverty, households spending over 3% or 5% of their disposable income on water services are considered "water poor." In 2019-2020, 6.3% of English and 8.7% of Welsh households spent more than 5% of their income on water bills. Affordability remains a concern, with water bills rising again in April 2024, further affecting households across regions due to price variations among water companies.

The Facts:

- The UK needs an extra one billion litres of water per day for the next 15 years.
- UK Gov targets to reduce use of public water usage in England per person by 20%.
- 'Leaky loos' waste 400 million litres of water each day.
- Water efficiency labelling is expected to help meet the 20% usage reduction by 2038, saving an estimated £125 million on water bills over 10 years.
- 3.17 million households are estimated to be in fuel poverty in 2023 and is unchanged since.
- Average fuel poverty gap for England in 2023 was estimated at £417, up by 20% since 2022.
- Water poor are defined as households spending over 3-5% of their household income on water services.

The CIPHE'S Recommendations

- Water conservation must be made a priority by the government.
- A mandatory water label should be introduced.
- Licensing is required for installers which includes mandatory CPD on reducing leakage, maintaining water efficiency and refresher training on Water Regulations/Byelaws.
- The government's support and investment should be increased in environmentally targeted projects, including the conservation of water.
- Educate the public on the need for high quality plumbing systems to reduce both water usage and utility bills.
- Promote schemes to help the water poor, including free and subsidised measures from water companies.
- Increase water efficiency in domestic properties and cut water waste.
- Tackle issues associated with poverty at the source by ensuring that those on low incomes are financially supported and/or pay fair tariffs for energy use.



The CIPHE'S Actions

- Increase mass awareness on energy and water saving measures by engaging with the media, government departments and key influencers.
- Introduce a sustained campaign to change consumer attitudes towards water conservation and increase knowledge of water efficiency labelling.
- Support Defra on the rollout of a single mandatory water efficiency labelling scheme.
- Align with efforts to encourage water companies to promote the scheme and uptake of water efficient devices.
- Lead with the development of a licensing scheme for the plumbing and heating industry.
- Inform and guide policy on fair and equal fuel and water pricing.

Pillar four

Safeguarding

Time to Step Up on public safety

Our two priority issues for 2025 - 2027 will be:

Priority 1:

Protecting consumers at home

Priority 2:

Protecting consumers out in society

Protecting consumers at home

Problems with plumbing and heating systems can pose a serious danger to health. In fact, data shows that instances of scalding and burns caused by contact with domestic systems have increased in severity.

According to NHS England statistics, the number of Finished Consultant Episode (FCE) bed days due to contact with hot tap water increased by 31% this year, when compared with 2023. This figures is above the average for the last ten years, showing that incidents of scalding by hot water are increasing rather than decreasing.

To prevent the health risks associated with poorly installed systems, and to avoid the life-altering impact that scalds and burns can have, choosing a competent plumbing or heating professional is essential.

The onus lies on the industry and government to continue to crack down on rogue traders and poor installations. To tackle this, the CIPHE will continue to provide home checks to ensure the safety of heating and hot water systems in the home. However, there are some steps that consumers can also take to reduce scalding risks in the home, such as installing Thermostatic Mixing Valves (TMVs) close to water outlets and limiting water temperatures on baths, taps and showers.

Draughty, damp and mouldy homes are also endangering the health of millions of people around the country. This issue often affects renters, those with low incomes and the most vulnerable in our society. While the new government has proposed £6.6bn Warm Homes Plan, which aims to resolve this issue, it is critical that funding is made available to upgrade homes, especially for the most vulnerable.

Protecting consumers out in society

Scalding remains a significant issue out of the home too, particularly as more public toilets and hospitality environments try to mitigate the risk of legionella. The bacteria thrive in water temperatures between 20°C and 45°C, potentially leading to Legionnaires' disease if inhaled. In the UK, 4,000-6,000 cases are reported annually, with a 7-12% fatality rate.

To combat this, many public places use water above 60°C, but often without warning signs, resulting in severe scalding injuries. While high temperatures are vital to kill bacteria, they pose a significant risk to the public and safeguarding is essential.

Additionally, the lack of public toilets is an increasing issue. Since 2010, at least 673 public toilets have closed, with only 15 available per 12,500 people. With over 14 million people in the UK having some form of incontinence, these closures are unacceptable, disproportionately impacting upon the elderly, families and those with health issues. Furthermore, over a quarter of a million people rely on a 'Changing Places' toilet to enable them to get out and about freely and these services are even rarer.

The CIPHE has launched and will continue to promote its 'Love Your Local Lav' campaign to raise awareness of the importance of public lavatories, and to encourage local councils and the government to ringfence funding for this important public facility.

The Facts:

- Each year, 4,000-6,000 Legionnaires' disease cases occur in the UK, with a 7-12% fatality rate.
- In 2024, bed days due to contact with hot tap water contact rose by 31%.
- Many public places use water at 60°C or higher to kill bacteria, risking severe scalding injuries.
- The British Toilet Association states England has on average 15 operational public toilets per 12,500 people.
- Over 14 million people in the UK have some degree of incontinence.
- Over a quarter of a million people rely on a 'Changing Places' toilet to enable them to get out and about.
- At least 673 UK public toilets have ceased to be maintained by major councils since 2010.

The CIPHE'S Recommendations

- Better education is required to warn the public about the dangers of poorly installed heating and plumbing systems in the home, and the importance of using a competent and qualified professional.
- Increase awareness around the measures that can be taken in the home to reduce the risk of burns and scalding injuries, such as the installation of a TMVs.
- Those responsible for water systems need to take action to mitigate the risk of Legionella and other water-borne contaminants, while advising customers of the high temperatures to prevent scalding.
- The CIPHE is calling on government and councils across the nation to recognise the importance of public toilets, urging councils to find the funds to keep these vital facilities open.
- Work with plumbers and heating engineers to increase competencies and ensure a high quality of work that will safeguard the public.
- Implement a public awareness campaign to reduce the risks of scalding, burns and water-borne diseases such as Legionella.

The CIPHE'S Actions

- Continue to promote the 'Love Your Local Lav' campaign to raise awareness around the importance of public toilets and maintain pressure on local authorities and the government to protect funding.
- The CIPHE to work with fellow trade and engineering organisations to lobby the government to take meaningful action on the public health issues facing the industry today.
- The CIPHE to act as industry spokespeople on public health issues.
- Improve the quantity and quality of online information for members and consumers around public health issues.
- Maintain The CIPHE's Working Groups to ensure members have access to high-quality technical and educational materials addressing the safety, health and wellbeing of the public.
- Monitor and maintain the CIPHE's accessible lists of qualified installers in plumbing, heating and renewables to provide members of the public with a service that ensures they have access to a safe and qualified engineer.

05 | CSN Industry Outlook 2024-2028 - citb

The UK Trade Skills Index 2023 – About Apprenticeships

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Heating up the global heat pump market – nature energy

New Industry data shows a 166% Increase in Qualified Heat Pump Installers – Heat Pump Association

Shortage of trained heat pump installers could set back net zero - Nesta

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Heat loss in your home - The Royal Borough Of Kensington and Chelsea

Housing Horizons: Examining UK Housing Stock In An International Context – Home Builders Federation

The future of home heating - CIPHE

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Household goods to carry water efficiency labels – GOV.UK

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CIPHE The Chartered Institute of Plumbing and Heating Engineering

CIPHE The Chartered Institute of Plumbing and Heating Engineering

Proud to be a Professional

Founded in 1906.

The Chartered Institute of Plumbing and Heating Engineering has more than 100 years' experience of providing professional representation for the plumbing and heating industry.

A membership of over 7,000 individuals and organisations means the CIPHE is the plumbing and heating industry's largest membership body in the UK.

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