

# Consultation Response

Wednesday 12<sup>th</sup> January 2022



## Phasing out the installation of fossil fuel heating in homes off the gas grid

The Heating and Hotwater Industry Council (HHIC) is the leading representative body for the UK domestic heating and hot water industry, worth £3-4 billion per year. HHIC's membership base covers approximately 94 per cent of heating and hot water solutions available in the UK.

HHIC is a division of the Energy and Utilities Alliance (EUA), a company limited by guarantee and registered in England. Company number: 10461234, VAT number: 254 3805 07, registered address: Camden House, 201 Warwick Road, Kenilworth, Warwickshire, CV8 1TH.

1. Do you agree with the principle of working with the natural boiler replacement cycle as the key trigger to deploy low carbon heat? *Please provide evidence to support your response.*

HHIC broadly supports the principle of not forcing consumers to replace their heating systems earlier than they ordinarily would have done as it recognises consumers' needs and typical behaviour. However, as we will expand on further in our response to question 3, we are concerned about a lack of detail on what the definition will be of properties that "can reasonably practicably accommodate a heat pump". Without clarity on this, we cannot completely agree with this principle.

We would also caution against the assumption that the 'natural end' of a boiler's life is the opportune moment for a major change of heating system, such as from a fossil fuel boiler to a heat pump. For most consumers, replacing a heating appliance when it reaches the point at which it breaks down and is uneconomical to repair is a 'distress purchase'. Such purchases will typically be arranged hastily, especially given that many occur during the colder months of the year. Therefore, consumers will need clear, easily accessible information on what is expected of them at that point, what their options are and what help is available to assist them with the transition to low carbon heating. Without this, and without the availability of a sufficient number of installers which we will also expand on later in our submission, this principle could result in a chaotic and poorly received transition point for consumers.

2. Would a 2026 end date for the installation of fossil fuel heating in homes off the gas grid give industry and consumers sufficient time to prepare for the regulations? *Please provide evidence to support your response.*

No, HHIC does not support such a short time scale for the introduction of this stringent cut-off date for new installations. Consumers in existing homes on the gas grid will not be prevented from replacing their gas boiler until 2035 at the earliest, and possibly even later than that. To leave off-grid consumers with a very limited choice of more expensive heating appliances nearly a decade before their on-grid counterparts is unjust.

HHIC recognises that the carbon intensity of heating in off-grid homes is higher than that of on-grid properties, necessitating earlier Government intervention. However, there is a concern within the industry that off-grid homes are viewed as 'low-hanging fruit' within Whitehall; this disregards the issues faced by many off-grid consumers. For example, rates of fuel poverty are higher in predominantly off-grid areas and additionally, it can take consumers longer to access trained installers, particularly in very rural areas. Combined with the generally poorer standards of energy efficiency in off-grid homes, this demonstrates that this section of the UK's housing stock is not well primed for a rapid rollout of heat pumps, quite the opposite. The Government's focus should therefore be on off-grid buildings that are newer constructions and can therefore be more easily upgraded to insulation levels suitable for a heat pump.

We are concerned that a window of four to five years will not give sufficient time for the heat pump market to develop enough to provide a significant reduction in the cost of buying, installing and running a heat pump. This leaves off-grid consumers, who as previously mentioned are more likely to be in or at risk of fuel poverty, as the guinea pigs for the Department's gamble on a rapid drop in the cost of heat pumps. Should this price reduction not materialise at the speed the Department are anticipating, something which many within the heating industry predict, this end date for new fossil fuel installations will leave off-grid consumers facing a significantly increased cost for replacing their heating system. This may also lead to the installation of heating systems that cannot meet the necessary level of comfort and have extremely high running costs. For further evidence of this, we would refer the Department to the white paper entitled *What is the potential for cutting the cost of an installed heat pump?* produced by Delta EE last autumn.

There are many factors which we hope the Department has considered, such as the availability of properly trained heat pump installers. Current levels are clearly insufficient to deliver anything like the ramping up of installations the Government is hoping to see in the coming years. Although the Department has a plan to work with training providers to address this issue, we fear that the geographic spread of trained installers will not be sufficient to meet a sharp increase in demand from off-grid consumers due to this proposed end date. Overnight, the vast majority of new off-grid heating systems would need to be heat pumps. However, given that the off-grid sector makes up a relatively small portion of most installers' customer base, can the Department be sure that installers who do cover off-grid areas would get trained in time? Furthermore, even for installers who solely or predominantly work on off-grid properties, will targeted support be in place to ensure enough are trained and accredited to meet anticipated demand for new heat pump installations? There is a real risk that installers could avoid off-grid jobs if they become subject to increased complexity and bureaucracy.

The consultation document states that the Department has considered bringing the 2026 end date forward. For the reasons stated above, we would strongly oppose this as it simply would not give enough time for the industry and off-grid consumers to adjust to such a radical shift in the market.

- 3. Do you agree with a heat pump first approach to replacement heating systems in fossil fuel heated homes off the gas grid that can reasonably practicably accommodate a heat pump?**  
*Please provide evidence to support your response.*

On balance, HHIC does not agree with this approach. We support the principle that in the case

of most off-grid properties, heat pumps will be the most effective and efficient appliance for decarbonising domestic heating. However, the detail of which constitutes a “reasonably practical” installation of a heat pump versus alternatives, such as biomass or decarbonised heating fuels, will be an extremely important one for the industry. If, for example, the Department sets the cut-off point for requiring a heat pump installation at £1,000 of ‘minor upgrades’ to energy efficiency, that may sound palatable but it should be noted that this would be in addition to the substantially higher upfront cost of a heat pump versus a boiler. Even putting aside important upgrades to fabric efficiency, a consumer will most likely need to replace their home’s heat emitters and fit a new hot water cylinder which could eat into any budget on top of the appliance purchase cost. As mentioned in our response to question 1, many purchasing decisions could be made against the backdrop of a ‘distress purchase’ meaning consumers may not be prepared with a substantial budget ready to be used; this fact must be taken into account when formulating the definition of “reasonably practical”.

As a representative of a diverse range of companies within the heating industry, we do not feel able to support a ‘heat pump first’ approach without any firm proposals in front of us on what a “reasonably practical” heat pump installation in an off-grid home would look like. We believe that the Department should at least have detailed draft proposals to put to industry if it going to ask stakeholders to give their backing to an overarching ‘heat pump first’ approach.

We remain concerned that this principle could effectively remove consumers’ ability to choose an appliance for their home based on their preferences. This does not seem to align with the commitment made in the Net Zero Strategy to “work with the grain of consumer choice”. We also believe that more consideration should be given to hybrid heat pumps which could provide more effective coverage in cold weather as well as whole system efficiencies; as the Climate Change Committee noted in its Net Zero Technical Report: “Hybrid heat pumps can be installed alongside existing heating systems, with these secondary fuels later transitioning to low carbon sources. For hybrid heat pumps on the gas grid, peaking gas use can be transitioned to hydrogen, whilst off the gas grid, biofuels can be used (assumed to be bio-LPG for the purposes of our modelling).”

**4. Do you have any views on the design or content of guidance that will help households and installers determine whether it is reasonably practicable to install a heat pump? *Please provide evidence to support your answer.***

Such guidance from the Government can often be complex or burdensome for consumers to grapple with and for installers to implement. A long list of requirements can also add unnecessary time and cost to an installation, something which would exacerbate the higher costs and longer lead times which consumers are likely to face as a result of the phase-out of fossil fuel heating systems. This should therefore be taken into account when the extent of such guidance is determined.

We believe that the guidance should primarily focus on the measures necessary in order to make a property suitable for a heat pump and how appropriate that would be, from both a cost and practicality perspective. This list would naturally include fabric efficiency, but also changes to pipework, heat emitters as well as cylinders and, potentially, the space to accommodate a cylinder. Some off-grid properties, predominantly in rural areas, are older and particularly hard to treat. The cost of making those properties suitable for a heat pump would, in many cases, be

prohibitively expensive for consumers, regardless of whether they are a homeowner or will have the costs passed on to them through their rent.

HHIC also believes that the disruption consumers could experience should be taken into account. If additional measures needed to make a heat pump installation viable, such as several insulation improvements, would add significantly to the disruption consumers would face, that property should be able to choose from alternative, higher temperature appliances. Hybrids are also a good solution as the heat pump can be fitted to an already installed condensing boiler and where this is a combination type, no hot water cylinder is required thereby reducing cost and disruption. The use of bio-fuels can then reduce the emissions associated with hot water production. In the future as the boiler requires replacement the consumer may choose to move to direct electricity for the hot water generation such as an electric shower or extend the use of the heat pump.

Overall, we believe that the Department should ensure any guidance issued adheres to the Government's commitment to "work with the grain of consumer choice".

**5. Do you have any additional evidence on the size and characteristics of the cohort of homes off the gas grid that have the greatest deployment potential for ground source heat pumps?**

Aside from new build properties which will not be connected to the gas grid, there is a market for ground source heat pumps consisting of well-insulated properties with large gardens as well as terraced houses which have space for both a shared ground loop and indoor units in each home. Both applications seem to be very niche so it is therefore difficult to see ground source heat pumps accounting for a significant share of the off-grid heat pump market going forward, unless more generous subsidies are introduced to incentivise purchase of them over air source units.

**6. Do you agree that the performance of replacement heating systems in homes off the gas grid that cannot reasonably practicably accommodate a heat pump should reflect the current high standards of performance that can be delivered through high temperature heat pumps and solid biomass systems? *Please provide evidence to support your answer.***

Yes, HHIC believes that this requirement is vital to ensuring much-needed alternative heating systems remain consistent with our 2050 net zero target.

**7. Do you agree that future use of solid biomass to decarbonise heat in homes off the gas grid should be limited to rural, off-gas grid areas where air quality can be better controlled, and in 'hard to treat' properties that are not suitable for other low carbon heating technologies? *Please provide evidence to support your response.***

Yes, we agree with this approach.

8. Do you have any views on the development of heating fuels and systems which will be consistent with wider government objectives on net zero emissions, environmental sustainability and air quality, and offer a secure and affordable fuel supply to consumers, from 2026? *Please provide evidence to support your answer.*

HHIC believes that the significant proportion of off-grid consumers living in a home unsuitable for a heat pump should have the choice of a range of decarbonised heating fuels. As the consultation documents states, many of these are 'drop-in' meaning they can be deployed with practically zero disruption or change for the consumer. Enabling consumers to decarbonise their heating system using familiar fuels should be seen as highly advantageous, particularly for households experiencing, or at risk of, fuel poverty. We support the use of drop-in replacement fuels such as bio-oil and bio-LPG they are not dependent on appliance changes and therefore offer a less disruptive and more flexible pathway to off-grid heat decarbonisation. They can also be introduced in a relatively short time scale to reduce emissions.

9. Do you agree with an end date for the use of remaining fossil fuel heating in homes off the gas grid by the late-2030s? *Please provide evidence to support your answer.*

No, HHIC strongly objects to this proposal. We refer again to the Net Zero Strategy which states that "no one will be required to rip out their existing boiler". Were this proposal to be implemented, Government policy would completely disregard that commitment made in the *Net Zero Strategy*. If the Department is concerned about a rush for new fossil fuel installations shortly before 2026, its focus should be on reconsidering its own desire to create arbitrary cut-off dates as opposed to natural consumer behaviour in response to such policies.

Once again, we object to the fact that off-grid consumers would be treated very differently to their on-grid counterparts. As of yet, there is no suggestion from the Department that there will be an end date for the *use* of natural gas boilers. Yet off-grid consumers with a functioning fossil fuel system could be forced to abandon it, regardless of their circumstances or the nature of their home. Another concerning aspect of this proposal is that it could affect consumers who bought new fossil fuel boilers in recent years given the relatively long life of, for example, oil boilers. Those consumers bought their appliance in good faith believing, as the consultation document states, that they would get at least 15 years' use of it. Were this proposal to be implemented, those consumers could have to scrap their appliance before the end of its natural life despite the fact that this proposal had not been put forward when they made their purchase. We believe that this could set a dangerous precedent within the heating industry which we would not wish to see.

Additionally, this proposal would put further pressure on the heat pump market which, as we set out in our response to question 2, may not be able to ram up enough to meet demand from 2026. Effectively forcing off-grid consumers to switch to a heat pump sooner than the natural replacement cycle of their appliance would require an even more rapid expansion of the availability of heat pumps and trained installers than the proposal set out in question 2 would.

There is also an obvious question around how this proposal would be enforced in reality. By effectively making fossil fuel appliances a contraband product from the late-2030s, the Department would need to formulate proposals to determine how they would be detected and what action would be taken against consumers who continued to use them. This could, in turn, raise some serious concerns around how vulnerable consumers would be safeguarded and supported.

Many aspects of this proposal are concerning and require further examination by the Department.

**10. Do you have any views on measures the government could introduce to ensure that fossil fuel heating will no longer be used in homes off the gas grid by the late-2030s? *Please provide evidence to support your answer.***

We believe that an approach based on incentives, positive signals and helpful messaging would be more effective and better received by consumers than one based on 'banning' certain types of appliance. For example, subsidy schemes, reduced VAT on low carbon heating systems, green finance and accessible sources of advice could all be used to positively encourage a shift away from fossil fuel systems.

It should also be noted that off-grid properties vary hugely in age and character but often, similar types of property are clustered together. For example, there may be several blocks of flats in a dense urban area, or a clutch of stone cottages in a rural hamlet. These differing property types will need a different approach and therefore, word-of-mouth as well as targeted local messaging and support using local insight will be far more effective than a one-size-fits-all approach from central government.

With the advent of a hydrogen gas grid potentially coming within the timeframe outlined in this consultation, connecting off-grid properties to a gas grid delivering a zero carbon gas should not be ruled out. This would not, of course, be viable for the significant proportion of off-grid properties which are in isolated, rural locations but there are a great number of properties within a kilometre of the gas grid. Connection to the gas grid could avoid the need for some of the costly and disruptive changes mentioned in our response to question 4. The fact that connection to the gas grid is still used as a way of tackling fuel poverty in off-grid homes suggests that it also has socioeconomic benefits.

**11. Do you have any views on how best to ensure compliance with the proposed regulations laid out through this consultation? *Please provide evidence to support your answer.***

We have no comment to make.

**12. Do you have any views on what more could be done to address financial barriers to heat pump deployment? *Please provide evidence to support your answer.***

The Department should acknowledge that a one-off voucher for £5,000 is not sufficient, in many cases, to cover half of the total cost of retrofitting a heat pump, particularly in off-grid properties which are broadly more difficult to treat. Ultimately, if consumers are to be incentivised to switch to a heat pump sooner, subsidies need to be more reflective of the real life cost of low carbon heating systems. This scheme, along with the Home Upgrade Grant, also features a spending cap meaning that the vast majority of off-grid homes will not see any benefit. We appreciate that the Department is constrained by spending decisions made by the Treasury, but we are nevertheless doubtful that the introduction of a subsidy scheme less generous than the Renewable Heat

Incentive it replaces will kick start the mass deployment of heat pumps which the Government is hoping for.

Incentivising deployment is also not simply a matter of more generous subsidies. Further financial signals, such as the lowering of VAT for certain products and the availability of affordable, uncomplicated green finance would also make a difference for consumers. As previously mentioned, the availability of trained installers across the country could also have an impact on consumers. If off-grid areas are not served by a sufficient number of trained installers, this could also represent a financial barrier as installers may need to travel further to install heat pumps. Therefore, provision and uptake of training across the country must be a key focus for the Department.

**13. Do you have any views on how we should encourage smart-enabled heating in homes off the gas grid? Please provide evidence to support your answer.**

We believe that this is a shift which is happening organically amongst many consumers. We do not believe that the Department needs to introduce new policies to specifically encourage this transition. We would also add that there is no need for policies or regulation on smart-enabled electrified heating to be separated into on-grid and off-grid properties. Properties with electric heating need this to be smart-enabled; we do not see a need for specific off-grid focused legislation to drive this as it should be addressed on a wider level.

**14. Do you have any views on what more could be done to galvanise supply chains for low carbon heating? Please provide evidence to support your answer.**

The only point we would add is the aging profile of an average installer. Many installers currently working in the industry are due to retire in the next 10 to 15 years which presents a particular challenge for longer term policies, such as those around the decarbonisation of heat. Many older installers are unlikely to go through the process of becoming accredited in low carbon heating as it would not represent a significant share of their work ahead of their retirement. Encouraging a greater number of young installers to enter the workforce will be crucial if any strategy to train enough installers to underpin the rollout of heat pumps is to succeed.

**15. Do you have any additional evidence on how groups protected under the Public Sector Equality Duty may be affected by our proposals to phase out high-carbon fossil fuel heating in homes off the gas grid?**

We have nothing to add.

**16. Do you have any views on what more could be done to ensure households, and communities, affected by our proposals experience a smooth transition to clean heat? Please provide evidence to support your answer.**

Particular care needs to be taken to ensure vulnerable consumers are clear on what is being expected of them and what their options are. It is also important for those consumers to feel that

they are being brought on the journey to net zero as opposed to it being something done to them regardless of their needs or preferences.

It is also vital that a whole house approach is taken. Consumers will have a poor experience if an appliance is incorrectly specified for their property or their property has not been made 'heat pump ready'. Quality and correct specification must not be sacrificed for delivering high volumes of installers, hence installation standards and installer training will be vital.

**17. Do you have any further comments to make on our proposals to phase out high-carbon fossil fuel heating in homes off the gas grid?** *Please provide evidence to support your answer.*

We have no additional comments to make.