CBI response to BEIS consultation on 'A market-based mechanism for low-carbon heat'

January 2022

1. The Confederation of British Industry (CBI) welcomes the opportunity to respond to the BEIS consultation on a *Market-based mechanism for low carbon heat*. The CBI is the UK's leading business organisation, speaking for 190,000 businesses that together employ around one third of the private sector workforce. With offices across the UK, as well as representation in Brussels, Washington D.C., Beijing, and New Delhi, the CBI communicates the voice of British business around the world.

Introduction

2. The coming year represents a unique opportunity for the UK to make further progress on its net zero targets. The business community was pleased to see the recent publication of the Heat and Buildings Strategy, giving policy clarity, amongst other areas, on proposed phase out dates for gas boilers in 2035, and setting a clear intention to deploy 600,000 heat pumps per annum in the heating market by 2028[1]. Furthermore, announcements of further financial support for consumers and businesses, bolstered confidence in the government's ambitions to decarbonise the heating system. However, this does not go far enough, further consumer support is required.

3. Decarbonising our heating is a complex infrastructure challenge that will require multiple technology solutions and multiple stakeholders, both at a national and local level, to come together. Business will continue to require clear policy signals from government, to build products and services for a new, low carbon heating market as well as make the necessary investments in skills, for building both manufacturing and installation capabilities. Furthermore, government in conjunction with businesses, will need to ensure consumers are equipped with targeted financial support and necessary information to make informed low carbon choices and embed new behaviours. It is also important to note that the transition from gas to electric heat pumps will not be easy as most boilers are a distress replacement and home systems are not 'heat pump ready'.

4. Heat pumps will play a key role in all future scenarios; however, a comprehensive plan is now required to bridge the gap between ambition, delivery, and implementation. If done successfully this stands to bring clear economy-wide decarbonisation opportunities, economic and social benefits too. The heating sector alone could help to create and protect up to 240,000 direct and indirect jobs by 2035[1], whilst ensuring businesses and consumers have access to fair and affordable clean heating. However, this will require all actors to play a part in the decarbonisation programme, including manufacturers, energy suppliers, SME's, ancillary service companies, consumers, and wider public bodies. To that end, **the CBI welcomes the principle of a market growth policy for low carbon heat. This should involve all actors in the supply chain, ensuring demand generation is also prioritised. Any mechanism should be supported by further complementary measures including on:**

   i) **Funding:** A holistic funding package, circa £9bn, to support the demand for heat pumps and energy efficiency upgrades across all households.
   ii) **Skills:** Working with businesses to identify the skills demand across the supply chain and where gaps are to be filled to create a talent pipeline.
   iii) **Consumer engagement and education:** to ensure there is adequate demand needed to create a well-functioning heat market

[1] Department for Business, Energy and Industrial Strategy, Heat and Buildings Strategy, October 2021. Available here

iv) **Coordination with the implementation of wider heat decarbonisation policy developments such as building regulations, smart and flexible systems and energy efficiency:** including the introduction of a delivery body for heat decarbonisation to deliver a national plan for heat which can be implemented at a local level.

Business supports the principle of a market mechanism that encourages the transition away from fossil fuel heating appliances

1. Closing the gap between the governments ambition of 600,000 heat pumps per annum by 2028 from the current installation rate of 30,000 per year requires a robust policy mechanism that not only develops a domestic market and reduces costs, but also builds business investment and consumer confidence. Businesses stand ready to play their part in this transition. Currently, 1.7 million boilers are sold onto the UK market each year through manufacturers[2]. Many of these businesses have already taken steps to explore heat pumps in their own business models and have a well-developed customer base ready to be mobilised. Meanwhile, suppliers also play an important role in engaging and informing customers in their energy choices. However, looking at the supply chain for a market mechanism, the ability for energy suppliers alone to scale up the market in comparison would be less direct, which could risk uncertainty over demand levels. Furthermore, current challenges in energy retail markets and increasing energy prices are already placing strain with further anticipated costs to energy bills. **To that end, the CBI provisionally supports a market growth policy that includes all actors in the supply chain which drives the sale of heat pumps, whilst also placing emphasis on generating demand at consumer level**

A holistic funding package to support the demand for heat pumps with installation and changes to the system including radiators, cylinders, and energy efficiency upgrades across all households

2. For any market mechanism to be successful in its early stages requires sustained corresponding levels of demand. Heat pumps continue to be viewed as a nascent technology with high upfront costs to install. Replacement of heating systems needs to be incentivised in order to be proactive and not reactive (to product failure). Learning from the take-up of electric vehicles, the role of financial support and consumer finance options are therefore crucial to moving up the S-Curve of adoption as well as meeting very high ambitions to reduce the costs of installing heat pumps by at least 25-50% by 2025, as noted in the strategy.

3. The recent announcement of the new Boiler Upgrade Scheme offering homeowners £5000 (for AWHP) from April 2022, as part of the package of £3.9billion to decarbonise homes, was hugely welcomed by business. As the market grows sustained public investment will be essential to supporting those on low incomes as well as unlocking investment from the so called 'able to pay' sector thereby stimulating further industry investment. This needs to be seen in conjunction with support to insulate homes, which is central to the effective deployment of heat-pumps and improving energy efficiency overall. At present, however, a vast number of households have limited or no access to financial support to support with this. **Closing the public-private investment gap requires clear policy and a comprehensive long-term package of funding including:**

    a. Allocating a further £1.4bn for the Home Upgrade Grant and £0.2bn for the Social Housing Decarbonisation Scheme over the next three years, plugging the recent gap left after the Spending Review

[2] Department for Business, Energy and Industrial Strategy, Heat and Buildings Strategy, October 2021. Available here.

b. Establishing a new streamlined grant scheme for all households, with £3.6bn tapering support from 2025, to support home energy efficiency improvements
c. Increasing the pot of money available to provide grants for heat pumps that are delivered over 3 years to 2025, from £400m to £4.15bn to accelerate the transition

5. The Heat and Buildings Strategy suggests that government will aim for electric heat pumps to achieve cost parity with gas boilers, to buy and run in 2030. UK manufacturers are already making electric heat pumps more attractive to consumers however operational costs will fail to come down unless consideration is given to address the pricing imbalances that currently existing between gas and electricity. At present, this limits consumers from experiencing operational cost savings from making the switch away from gas to electric heating systems. As recognised in the Heat and Buildings strategy, the government should look to address these differences to reduce the price of electricity over the next decade by shifting levies away from electricity to gas. The **CBI, therefore, encourages the government to accelerate with plans to consult on fairness and affordability consultation which was expected imminently.**

Working with businesses to identify the skills demand across the supply chain and where gaps are to be filled to create a trained, qualified, and competent pipeline of installers

6. Ensuring the UK has the right skills and expertise is a critical ingredient to fulfilling a successful heat decarbonisation programme. However, despite this, there is a glaring omission on the skills that will be required to deliver against a low carbon heat mechanism throughout both the heat and buildings strategy and market mechanism narrative. While the market mechanism rightly places business at the heart of the obligation, a mechanism of any kind will not work without the right installation, service, and systems-engineering skills available. In particular, heat pump installers – the backbone of the market mechanism – represent the critical final vector between the manufacturer and ultimate operation of heat pumps in the home. However, recent analysis undertaken by the Heat Pump Association indicated that there are currently only roughly 2,000 qualified heat pump engineers nationwide, many of whom operate in decentralised clusters across the UK[3]. It is expected that 50,000 installer/ engineers are needed by 2030 – based on deployment of 1 million heat pumps – to meet the imminent surge in demand for heat pump installations, as both the market mechanism and boiler replacement schemes get underway. There is, therefore, a clear skills gap that must be filled as a matter of urgency.

7. It is also hugely important to aid in a smooth end to end process for consumers. To do this, it is crucial that the Government learns from the shortcomings of the recent green homes grant voucher scheme, which also demonstrated the need to recognise and act to close the skills gap within the heating sector. There is a risk that industry may have lost further confidence in investing in the skills and supply chains needed to retrofit the UK's housing stock, which includes heat pumps.

8. There are, some barriers associated with the deployment of an effective skills programme of this scale, in particular the potential cost to business to train and retrain at the rate and scale required. Currently it is more expensive to become an accredited heat pump installer than a boiler installer. This is in part due to the Gas Safe registered installer being focussed on safety issues, rather than the engineering considerations of heat pump quality assurance schemes. The cost difference is a barrier for building the low carbon heat installer base. The Gas Safe certification is around £164, whereas costs associated with MCS membership, certification body membership and consumer code membership can total between £955 - £1,155[3]. Given that many installers are SME's and family run businesses, there needs to be recognition and support for these costs – and the cost impact of taking the (significant) time

[3] Heat Pumps Association, Building the Installer Base for Net Zero Heating, June 2020. Available here

out of the business to complete and update these qualifications – and the cost impact of taking the (significant) time out of the business to complete and update these qualifications.

9. In parallel, the government should also recognise that the average age of Gas Safe engineers is 55[4]. The supply chain is therefore likely to require high numbers of new installers and engineers, alongside a reskilling programme for those in related industries. Funding for training new entrants and apprenticeships, as well as reskilling existing heating engineers will be an important step to ensure businesses are suitably supported. With this in mind, government should also focus on policies that help develop affordable and attractive retraining to ensure a smooth transition for those currently working on gas networks and gas boilers, whilst providing clear opportunities to new entrants to this area of the workforce. **Government should therefore recognise skills and retraining as a policy priority, and the CBI recommends working with businesses across the supply chain to ensure a suitable training, re-skilling and education framework is in place to support the delivery of the low carbon heat mechanism - and value is placed on this qualification.**

Ensuring consumers are well informed and engaged

10. Decarbonising domestic heating is an inherently personal endeavour. It may require intrusive household work to be undertaken in order to upgrade existing heating systems. In parallel, widespread understanding of the role of heat pumps is relatively inconsistent in the UK. Heat pump engineers will be required to spend extended periods of time assessing, planning, and installing heat pumps in a consumer's home. For this reason, it is essential that consumers understand the importance of upgrading their heating systems as part of wider changes required to meet our decarbonisation targets.

11. The European Climate Foundation – Public Views on Heat Pumps and Boilers report provides a helpful synopsis of the UK's attitudes towards the budding heat pump market and gas boiler phase out[5]. The polling identified more people in the UK support a government phase out of gas boilers than oppose it, and a majority believe that a phase out should happen in the next 10 years if it was to be introduced. While this is welcoming, the poll also highlights that information dissemination had a clear impact on views around heat pumps, with many participants concerned around the unsightly appearance, water tank installation requirements, and importantly, the installation time/ disruption. Without an appropriate level of public engagement, this could present a barrier to businesses involved in the effective implementation of a market mechanism. **The CBI therefore recommends the government should create a consumer information portal to help individuals and businesses to learn more about the low-carbon heating solutions available to them[6].**

Coordination with the implementation of wider heat decarbonisation policy developments including the introduction of a delivery body for heat decarbonisation to deliver a national plan

12. Finally, the collective heat decarbonisation programme is complex and multifaceted and will require a diverse and disparate set of solutions across the UK, to ensure the best value is delivered to the consumer and system overall. For example, heat pumps may not be the optimum solution for homes closely located to industrial centres, which are better placed to receive the early volumes of hydrogen delivered from large scale industrial projects in the local area. **To ensure these technology decisions are made in a timely and efficient manner, synergies with associated schemes and systems, such as building regulations, heat network zoning and Local Area Energy Planning, must be closely**

[4] Logic4training, Gas Safe Register Review, December 2017. Available here
[5] Public First, Research on Opinions Towards Air-Source Heat Pumps, September 2020.
[6] CBI, Heat Policy Commission Final Report, November 2020. Available here

considered. It is also important that any market policy is supported by coordinating appropriate phase-out dates for fossil fuel heating in residential and non-residential buildings off the gas grid – **the CBI broadly agree with the intention to phase out fossil boilers off the gas grid from 2024 for public buildings, and 2026 in homes.** Providing these early local decisions on technology options will provide crucial signals to businesses to gear up supply chains in the local area.

13. The availability of choice should therefore be reflected in the types of technologies included in the market mechanism. For example, the role of smart heat pumps - which are being considered in this consultation - will become an increasingly important option to benefit system flexibility in the future (both at a local and national level). Since this mechanism is a primary policy lever that will help ramp up heat pump delivery and prime the market, **it is therefore appropriate to include 'smart' heat pumps in the mechanism**. Leaving them out of scope would risk severely restricting the ability of the system to respond effectively to changes such as cold weather events. However, the definition of 'Smart' Heat Pumps needs full clarification and definition.

14. By encouraging installer networks, construction professionals and local councils to take advantage of 'trigger points' in the home[8], consumers can avoid continuous cycles of disruption, as policy pressures to decarbonise the built environment rapidly increase. Coordination between these areas of work will also reduce long term costs by ensure that heat pumps are correctly sized to the building in which they will operate[7]. Given that heat loss through the building materials is regarded as the foundation for any efficient heating system of a property, this represents a vital strategic component of the delivery of this mechanism. In addition, **it is important that, where possible, fabric upgrades are completed prior to, or alongside heat pump installations**

15. In helping to ensure these coordination efforts are achieved across the UK's heat decarbonisation programme, the CBI thinks there is an important role for Ofgem as the regulator to administer the market mechanism. However, the task to deliver a mechanism of this size is huge, placing potentially excessive burden on a body that is also responsible for many other areas of regulation in the UK's energy market. For this reason, **the CBI recommends the introduction of a delivery body for heat decarbonisation that deliver a national plan for heat.** This would be in coordination with other decarbonisation priorities such as transport, industrial emissions reduction, and decentralised energy supply. Crucially, the delivery boy would work with the government in creating an overarching nation decarbonisation of heat programme.

[7] MSC, Guest Blog: How to Correctly Size a Heat Pump. March 2020. Available here

8 – re-mortgages, EPC's, Boiler servicing, Building extensions