

Energy Security and Net Zero Committee: Heating our Homes

Centrica plc
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Executive Summary

Centrica welcomes the Committee's inquiry into Heating for Homes. We believe it provides a timely opportunity for constructive dialogue across all stakeholders to address some of the critical challenges facing the decarbonising heat market.

Centrica is committed to helping our customers transition to net zero by 2050 at the latest and are focusing on delivering energy efficiency and optimisation services, alongside low carbon technologies and cleaner energy.

Our British Gas and PH Jones businesses have helped thousands of customers decarbonise their homes. We are the largest obligated supplier under the Energy Company Obligation Scheme, having installed over 1.1 million measures since 2013 and British Gas Zero provides bespoke solutions for customers to meet net zero, through air source heat pumps (ASHPs), solar, insulation, home energy efficiency, and electric vehicles.

British Gas has over 7,000 engineers serving over 9 million homes in the UK, and we are continuously upskilling our engineers with the training needed for green jobs now and in the future. Currently, this includes EV charger and ASHP installers, but in the future, we expect the range of roles to increase, and we aim to start upskilling our gas engineers to hydrogen from 2024. Over the last 2 years we have hired over 1,000 apprentices, and we have committed to hiring an apprentice every day this decade.

As home heating is responsible for about 14% of the UK's carbon emissions, we need to help our customers decarbonise, however there is no overnight fix. We are technology agnostic and believe we will need a range of solutions, predominantly hydrogen and ASHPs. We are investing heavily in ASHPs and our one of UK's biggest ASHP installers, but we also believe hydrogen will play a significant role as it is less disruptive and consumers are familiar with the technology. We are currently supporting the Hydrogen Village Trial in Redcar alongside NGN.

We have analysed and categorised the UK's existing homes along those who '**should**' install ASHPs, because it's relatively easy compared to other options, those who '**could**' install ASHPs, but there are choices to be made, and finally those who '**shouldn't**'.

- **Should** – there's 5.6m properties we can focus on immediately – thermally efficient homes, new builds and off-grid
- **Could** – there are 15m houses in this bracket and it's where we need to make some choices. For these harder to treat home it's going to cost significantly more to install ASHPs and make fabric changes.
- **Shouldn't** - older buildings such as the UK's 400,000 listed buildings, which would be expensive to make thermally efficient, alongside properties where there's no space to install an ASHP.

We believe policy development and investment should be accelerated across hydrogen and other low carbon heat technologies, such as ASHPs, so we can provide consumers with choice and help decarbonise homes where those technologies are most suitable. The right policy frameworks will encourage investment and help to drive uptake of low carbon solutions. We have set out our views on this in our submission.

1. What policy changes are needed to deliver energy efficient homes across the UK?

- The delivery of energy efficient homes involves the effective roll-out of energy efficiency measures and low carbon heating systems. We believe there are alterations that should be made to Government's existing schemes, which we have detailed below. There are also longer-term changes which we believe would lead to a step change in delivery.
 - **Long term commitments.** Businesses require long term policy certainty to ensure they can achieve Government's targets for energy efficient homes. The Green Homes Grant failed due to the short timescale available to train installers and also acquire the eligible technologies for the grants. It is important Government learns from previous programmes and continues to provide longer term funding and commitments, such as it has done for the Boiler Upgrade Scheme (BUS), so that the market can prepare adequately.
 - There needs to be policy and financial link between energy efficiency subsidies and low-carbon heat technologies installations, specifically to incentivise owner-occupiers. Installation of energy efficiency measures reduces demand, leading to a reduction of emissions and is critical to unlocking the transition to low-carbon heating technologies.
 - **Hydrogen.** Decisions on hydrogen for heating are also critical for the market. We expect Government to make an announcement by 2026, however the lack of certainty before this date will delay individuals from installing alternative technology, which is better suited for their homes, because hydrogen ready boilers are currently cheaper and less disruptive to install compared to ASHPs. We would welcome an expediated decision.
 - **Planning regulations.** Planning regulations vary between each UK nation, these need to be consistent and simplified to encourage the take up of low carbon heating measures, such as ASHPs and solar panels.
 - **Grid connections.** Low carbon projects face substantial delays, and costs, in obtaining connectivity, as do flexible assets like energy storage. This represents the biggest current blocker to deploying low-carbon and flexible technologies, both as stand-alone generation assets and energy schemes vital to improving the efficiency of manufacturing and the public sector e.g. hospitals.
 - We note the recent report by the Electricity Networks Commissioner on 'Accelerating electricity transmission network deployment'. Although the recommendations largely align with our wider asks around reducing connection times, Government could go further e.g., action to remove stalled projects from the queue to connect.
 - **Future Homes Standard.** The Government needs to legislate for the standard in 2024, to ensure all new builds are built with low carbon technology from 2025. This will allow new build owners to get used to the new technology and provide certainty to the installer and house building markets.

2. What are the key factors contributing to the under-delivery of the UK's government-backed retrofit schemes?

Boiler Upgrade Scheme (BUS)

- **Public Awareness.** Our British Gas Net Zero Index found that, of the surveyed 4000, only 48% had heard of heat pumps compared to 98% for solar panels, and only 12% of homeowners felt replacing their gas boiler with a heat pump was essential to tackle climate change. British Gas are expanding our advertising for ASHPs to increase awareness; however, we need a strategic national public information campaign across industry and Government to encourage awareness and uptake.
- **Cost of Living.** Factors, including inflation, mean households' disposable income levels have decreased, meaning ASHPs are not an attractive proposition compared to other options, such as a traditional boiler, or the use of finance for other house renovations. At British Gas we help spread the cost of ASHPs through various financing offers, such as 2 years interest free and up to 10 years interest bearing.
- **Distress Purchases.** Boiler replacements are usually made when a boiler is at end of life, and therefore a distress purchase. UK houses are not set up for a quick ASHPs replacement at present, with upgrades taking weeks due to pipe and associated home upgrades, therefore customers will continue to replace boilers with boilers.
- **Planning regulations.** Regulations across the UK vary, which can deter installations. For example, in Wales, if you wish to install an ASHP, you can only do so 3m away from the property boundary, and many properties are therefore not suitable for installations under current rules. In England and Scotland, the distance is 1m.
- **Upfront costs.** At British Gas we guarantee the lowest ASHP installation costs in the UK, (£499 in Scotland, and £2999 in England and Wales with grant support) however there can be additional upgrade costs to ensure that the ASHPs will work efficiently and effectively. These additional costs for items such as radiator upgrades can deter customers from proceeding. The Great British Insulation Scheme (GBIS) should help with this barrier; however, many properties require multiple costly upgrades which are not covered by GBIS.
- **Skills** The final issue is the lack of skilled operatives to install ASHPs. The recent Future Energy Skills Report¹ developed with the input of members including Centrica, Daikin, Equinor and the GMB, found that the UK will need 44,000 heat pump installers by 2035. There are approximately 3000 installers in the UK at present.

ECO 4, Local Authority Scheme and Home Upgrade Scheme

- **Operating models.** Previous ECO schemes were measure-led, requiring a very simple business model. Government programmes including ECO4 have moved to a whole house/multi-measure approach which are more challenging to deliver, especially as targeting older housing stock.
- **New commercial paradigm.** The commercial equation has also changed from cost of installing measure to one of rewarding outcomes (achieving EPC level) putting more commercial risk on the installer/agent. This has required a period of test and learn.
- **Complexity of Schemes** The failure of previous schemes to deliver the policy outcome required has arguably led Government to overengineer these schemes. The myriad of

¹ Future Energy Skills Report (July 2023): <https://futureenergyskills.co.uk/publications>

rules and requirements means that some have chosen to move away into non-government funding (e.g. National Grid's Warm Homes).

- **Delayed legislation.** Delays to ECO legislation followed by further delay with the administrator Ofgem meant the market was ill prepared for the fundamental changes noted above. .
- **Inflationary Cost Pressure.** The cost assumptions in Government's impact assessment are not reflective of current market conditions with significant market growth in renewables/energy efficiency and high inflation driving up costs and demand for labour.
- **Skills** There is a lack of skilled operatives to undertake the requisite energy efficiency assessments and recommended medium term improvement plans as well as install measures themselves. We even have a problem at the entry level - we support, through British Gas Energy Trust, charities providing energy efficiency advice and they are turning down funding because they cannot scale fast enough.

3. Which standards and assessment frameworks are needed to deliver a reliable, skilled workforce capable of transitioning UK homes to modern heating solutions?

Apprenticeships

- Centrica is committed to hiring 2500 apprentices by 2030, however there are no heat pump specific apprenticeships at present, which means that we are training our engineers in-house and then upskilling them to install ASHPs.
- The much-delayed low carbon heating apprenticeship should be the solution for the skills gap in the energy sector, and we await the final apprenticeship standard and assessment plan to be finalised.
- The Apprenticeship Levy should be reformed to allow businesses to use existing funds to upskill their workforces. This would ensure the levy is better spent by organisations and, for example, meet the demand for ASHP installers.

T Levels

- There has been no progress on a dedicated low carbon T Level. A dedicated T Level would support a strong talent pipeline coming into the apprenticeship programmes and raise awareness about low carbon engineering careers.

Standards of Training

- MCS oversee the standards of training in multiple low carbon areas; however, industry would benefit from a sector wide skills body that oversees all low carbon related training schemes via approval.
- Minimum standards of training should have defined evidence requirements for candidates participating in either apprenticeships or approved learning programmes. There are strict requirements within the gas industry to ensure a consistent approach to skills development in terms of guided learning hours, topics to be covered, knowledge criteria and assessment strategy and this should be replicated for low carbon technology roles.
- Certification bodies should be held to account by MCS for training approvals, to ensure consistency and to deliver quality learning and skills development as opposed to an 'attendance award'.

- There should be a regular re-assessment of skills to ensure ongoing competency as the sector and technologies develop.

4. What role should customer choice play in the future planning of energy networks for home heating?

- Customers should be offered a range of low carbon heating options that are affordable and suit their needs. There is no one size fits all approach to decarbonising homes, as the UK housing stock is so varied, therefore we need a fair and well-informed transition which is affordable and ensures consumers feel included and confident about the available choices on the journey to net zero
- Local Authorities are well placed to offer accessible advice to consumers on the possible technologies and home improvements.
- At British Gas we offer home health checks, where we visit a home and perform a detailed energy efficiency assessment. We provide customers with advice on measures to improve their energy efficiency and we are running roadshows across the UK, to showcase technology and explain the benefits of improving a property's energy efficiency.

5. Does the current state of consumer protections for low-carbon home technologies represent a barrier to uptake of these products?

- Yes. Many consumers are unfamiliar with, and therefore do not trust, newer technologies. Therefore, British Gas launched its Warm Homes Promise, to ensure that our customers are offered consumer protections and can trust in the technology they are investing in.

Our commitment:

- **Five Year Guarantee** – British Gas ASHPs come with a five-year guarantee and our engineers will provide a free service before the winter to make sure the ASHP is in top working order.
- **Lowest cost install** - British Gas prices are from £499 in Scotland and £2,999 in the rest of the UK (with grants) per install but will match anything lower offered by another company for a MCS credited install.
- **Quick install** - British Gas engineers are available to install an ASHP if you need to replace a gas boiler.
- **Efficient heating solution** - British Gas won't install an ASHP if it can't heat your home effectively on the coldest days. Instead, they will suggest a different carbon-saving option. If the ASHP doesn't heat the home to the agreed temperature, then British Gas will give your money back.
- **Expert Installation and advice** - On the day of installation, your installer will explain the differences and show you how to operate your ASHP in the optimum way.

6. How will the public be able to afford the switch to decarbonised heating?

- **Costs.** ASHPs are more expensive than traditional gas boilers. ASHPs have been installed for decades across Europe, and yet the costs are similar to UK installations. However, costs for customers can decline ensuring properties are heat pump ready over time through fabric first upgrades, such as insulation and radiator upgrades. Hydrogen-blend boilers are no more expensive than traditional gas boilers.

- **Grants.** The UK Government have subsidised installation of ASHP and ground source heat pumps (GSHPs) through the BUS, which is helping stimulate the market. The new GBIS may help with some insulation requirements, but it will be limited to mainly cavity wall insulation. More support is required including the cost of replacing radiators. We would like to see an increase to the BUS grant to include costs for replacement radiators, pipes and hot water cylinders, alternatively these could be included in an expanded GBIS.
- **Scottish Grants.** Scottish Government offer a more generous grant scheme, with £7,500 from the Home Energy Scotland to install heat pumps, and the option of a further £7,500 towards energy efficiency measures. Since January 2021 we have installed more ASHPs for owner occupier properties in Scotland than in England and Wales due to the generosity of the available support.
- **Financial Services.** Banks and mortgage providers can provide low-interest loans to households to upgrade their properties. This will help spread the costs involved for retrofitting properties.
- The launch of an 'Energy Saving Stamp Duty Rebate' would leverage the trigger point of a house sale for the new owner to have a two-year window to invest in energy efficiency and be able to claim it back against its stamp duty.
- **Installer support.** Installers must also offer competitive products, which is why British Gas offer the cheapest ASHPs in the UK market. We will price match any other installers as well.

7. How will decarbonisation plans be drawn up in each area?

- Each local authority should have leads who can assess the housing stock and create a localised decarbonisation plan. These plans should ensure properties can be decarbonised through multiple technologies, such as heat networks, ASHP, GSHPs or hydrogen. It is important local authorities are empowered and provided with the right expertise to plan a street-by-street approach.

8. Do the current EPC frameworks help consumers make informed decisions on the transition?

- No. EPCs do not help consumers to make informed decisions on the transition to low carbon heating, as they recommend measures based on energy costs from the time the RDSAP methodology was last updated. This means, that an ASHP would not be recommended if a gas boiler is currently installed. Typically, it only gives one option per measure type rather than presenting the consumer with options to enable them to make an informed decision.
- EPCs should be reformed to presents options for customers rather than just providing a response based just on their existing heating system.
- During a retrofit trial as part of the Sustainable Homes and Buildings Coalition, we found that several properties had been poorly insulated. Improving the existing insulation would not improve the EPC rating, but it is necessary to ensure that an ASHP would work efficiently and prevent damp. We would further advocate for thermal imaging to be used when assessing EPC ratings.

9. Do standards need to differ for different types of housing?

- Yes. Solutions will vary for different housing stock and standards need to reflect this. There is no one size fits all solution for decarbonising the UK's homes, therefore standards should consider the appropriate measure for each property type.
- There will be areas where GSHP and heat networks are more suitable, and these properties will need different standards compared to properties suitable for an ASHP. We need standards to allow for ASHPs on roofs, where there is no adequate external space.
- Hydrogen boilers will play an important role in properties already connected to the gas grid (c85%) across the UK. Areas where hydrogen can be produced and stored should be prioritised. It is important that Government continues to explore hydrogen for heat in areas where it could be suitable and for properties where ASHPs and networks are not suitable.

10. What is the role of different levels of government in developing, funding and implementing schemes?

- National government should set the policy framework and support schemes to provide confidence for industry to invest in nascent technologies, and to help raise consumer awareness.
- Local government involvement should begin with the dispersal of grants which are focused on supporting households based on incomes, as they will be best placed to identify and promote schemes to households where support is required.