

THE SCOTTISH GOVERNMENT RESPONSE TO THE FINDINGS OF THE CALL FOR EVIDENCE ON THE FUTURE OF LOW CARBON HEAT FOR OFF GAS BUILDINGS

The *Call for Evidence on the Future of Low Carbon Heat for Off Gas Buildings*¹ (referred to below as “the Call for Evidence”) ran from March to June 2019. It covered the supply of heat to buildings located in off gas grid areas, as well as those located in on gas grid areas that use non-gas sources of heating. It also covered new homes and new non-domestic buildings.

We asked for information on three main areas; the current market for low carbon heat, evidence on current and potential low carbon heat technologies; and what can be done to enable the uptake of low carbon heat options. There were 57 open questions on topics including the challenges and barriers to uptake for low carbon heat, performance of technologies and their relative costs, customer satisfaction, and policy, regulation and funding.

A series of events were held to support stakeholders in identifying the type of evidence that might be useful and encourage them to provide this.

Respondents

There were 54 responses to the Call for Evidence, split between private, public, third sector and others. 50 responses were from groups or organisations and 4 from individual members of the public. Responses were varied in the extent that they expressed opinion or cited evidence to support their views. We commissioned Craigforth to carry out an analysis of response. Below provides some highlights from the *Analysis of responses to the call for evidence*².

Analysis of responses to the Call for Evidence

Section 1 of the Call for Evidence explored the barriers, potential solutions and current market for low carbon heat technologies.

Key barriers to the take up of low carbon heat confirmed by respondents, included technical constraints (relating to buildings, infrastructure and availability of technologies), cost and financial support, existing legislation, and customer awareness.

Respondents saw policy and regulation as having a key role in supporting deployment of low carbon heat in off-gas buildings, particularly to provide stability and certainty to the market.

¹ Available at: <https://www.gov.scot/publications/energy-efficient-scotland-future-low-carbon-heat-gas-buildings-call-evidence/>

² The full report *Energy Efficient Scotland: The future of low carbon heat for off gas buildings: Analysis of responses to the call for evidence*, 2019 by Craigforth is available at: <https://www.gov.scot/publications/future-low-carbon-heat-gas-buildings-analysis-responses-call-evidence/>

Many respondents cited hard to treat buildings as being of specific concern, particularly the housing stock of rural and island locations. Energy efficiency levels in those buildings tend to be lower than in urban locations, potentially making them unsuitable for certain types of low carbon heating. Solutions suggested by respondents to overcome this included combining technologies, for example solar panels in conjunction with heat pumps, to tailor solutions to individual properties.

Respondents were concerned that the lack of consumer awareness and understanding of low carbon heat was a significant barrier to its deployment, with some stating that many consumers are unaware that heating systems will need to change.

Section 2 of the Call for Evidence asked for information on operational and lifetime costs, market readiness and consumer satisfaction for the wide range of current and developing low carbon technologies.

A range of knowledge, evidence and experience was cited in the responses. Respondents detailed evidence of heat pumps (air source, ground source and water source), hybrid heat pumps, direct electric heating, heat networks, biomass and biofuels.

Respondents active in a particular sector responded in detail to their specific technology field. Respondents identified few additional barriers beyond those identified in Section 1, though a range of respondents raised concerns over the limited supply chain particularly in rural and remote areas, noting the importance of a localised element for the supply chain in these areas. Some also referred to the impact of additional pressure on the electricity grid.

Section 3 of the Call for Evidence focussed on how we may support the uptake of low carbon heat in buildings through phasing and leadership, financial investment and incentives, advice and regulation, and building the Scottish supply chain.

Respondents demonstrated general support for a phased approach with interim targets and a clear direction through consistent long term policy, with many suggesting the importance of continuing financial support through public funding. There were calls for regulations, in particular for stricter emission and air quality requirements, changes in energy efficiency standards and firm end dates for the installation of high carbon heating systems. Some respondents supported a requirement for low carbon heat to be installed to all new buildings.

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Development since publication of the Call for Evidence

In the months since this Call for Evidence was published, there have been changes to the landscape which support the deployment of low carbon heat across all of our buildings, at a pace not previously envisaged. This includes the declaration of the global climate emergency by the First Minister and strengthening of emissions reduction targets via Climate Change (Emissions Reduction Targets) (Scotland) Act

2019, which sets targets for greenhouse gas emissions to be net-zero by 2045, and interim emission reduction targets of 75% by 2030, and 90% by 2040.

The First Minister announced, in her Programme for Government³, that the Scottish Government will work with the construction industry to develop regulations so that new homes consented from 2024 onwards use renewable or low carbon heat, rather than fossil fuel heating systems. For non-domestic buildings, our ambition is to phase in this approach from the same date. There was support in the Call for Evidence responses for a requirement for low carbon heat to be installed in new buildings.

In September, we announced a Low Carbon Heat Fund of £30 million to support low carbon heating infrastructure. The Low Carbon Heat Fund will support local and industrial renewable heat projects that can demonstrate innovative and low carbon ways of heating buildings and industrial processes. Applications for capital support closed in October 2019 and we are currently assessing applications and carrying out due diligence, with a view to issuing grant awards in February 2020.

In the Programme for Government, we also announced that we will introduce a Heat Networks Bill in 2020 to regulate the sector, stimulate the deployment of district and communal heating by de-risking investment and increase consumer awareness and acceptance. The Scottish Government has been clear on the role of heat networks in areas where the overall demand for heat is high and how heat networks can support emissions reduction and fuel poverty aims. Some respondents to the Call for Evidence stated that Heat Networks could provide solutions to off gas buildings.

We are working with our local government partners to develop Local Heat and Energy Efficiency Strategies (LHEES) to set out a local framework for achieving net zero emissions heating for our homes and buildings. Pilots have been undertaken by 23 local authorities and we are working with the remaining nine local authorities to finalise project plans to pilot LHEES in their area. We continue to work with local government to develop LHEES and place this on a statutory footing.

We have also commissioned research to develop a set of archetypes for Scotland's existing residential building stock to explore their potential suitability for a variety of low carbon heating technologies. This research covers buildings in rural areas, which respondents to the Call for Evidence identified had a high proportion of 'hard to treat' properties. Similar research has been commissioned for the space and water heating (and cooling) of Scottish non-domestic buildings.

Next Steps

The Scottish Government has committed to publish a Heat Decarbonisation Policy Statement for consultation next Summer. This will set out our long term vision for reducing greenhouse gas emissions from heating our homes and buildings, and will include a programme of policy, research and delivery actions.

³ Programme for Government 2019-2020: Protecting Scotland's Future, Sept 2019. Available at: <https://www.gov.scot/publications/protecting-scotlands-future-governments-programme-scotland-2019-20/>

The responses we received to this Call for Evidence will help to inform our thinking on off gas grid buildings as we develop the Policy Statement.

We have set up a Stakeholder Advisory Group, which comprises representatives from a range of organisations with an interest in heat which, along with a wider programme of stakeholder events, will support the Scottish Government's development of its heat decarbonisation policy.

For information on the Scottish Government heat decarbonisation programme and to join our mailing list, you can contact us at lowcarbonfuture@gov.scot.