

Supporting Scotland's Off-gas Grid Heat Sector

Introduction

Scottish Renewables is the representative body for the renewable energy industry in Scotland, working to deliver secure supplies of low-carbon, clean energy for heat, power and transport at the lowest possible cost. We represent around 260 organisations ranging from large suppliers, operators and manufacturers to small developers, installers and community groups, and companies right across the supply chain. We have around 60 members active in heat, predominantly in the district heat, biomass and electric heat pump sectors, ranging from manufacturers, installers and developers to consultants and legal professionals.

Overview

The off-gas grid heat sector, comprised of buildings not connected to the national mains gas network, has accounted for the majority of the UK's deployment of low-carbon heating to date. The key policy driving deployment, the UK Government's Renewable Heat Incentive (RHI) scheme, is set to end in its current form in April 2021, and uncertainty is beginning to affect the low-carbon heating industry. This briefing sets out Scottish Renewables' members' views as to how the off-gas grid heat sector should be supported by both the UK and Scottish Governments in future.

Context

The off-gas grid heat sector, comprised of buildings not connected to the national mains gas network, has accounted for the majority of the UK's deployment to date of low-carbon heating. Uptake has been driven by the RHI scheme and the fact that heating costs are higher in these areas than for those with access to natural gas. Scotland, with a higher proportion of off-gas buildings than the rest of the UK, has accounted for approximately 20% of installations under the scheme¹. This has enabled the growth of Scottish supply chains installing biomass, electric heat pump and solar thermal heating systems in new buildings and retrofitted to existing ones, as well as growth in the production of wood pellets from managed woodland. It is estimated that the low-carbon heat sector directly employs around 3,000 people in Scotland², and growth in the sector has allowed the share of renewable heat to grow from 2% of total heat demand in 2011 to 5% in 2016³.

Both the UK and Scottish Governments have identified off-gas grid heat as a near term priority for carbon emissions reduction. The UK Government's Clean Growth Strategy commits to 'phase out the installation of high carbon fossil fuel heating in new and existing off gas grid residential buildings, starting with new build, during the 2020s'⁴. The Scottish Government has committed, as part of its Energy Efficient Scotland programme, to improving the energy efficiency of existing buildings and 'continuing to support the deployment of low regrets, low carbon heat options (such as individual renewable heat technologies for those buildings not connected to the gas grid or heat networks where they make sense)'. Delivering the emissions reductions set out for buildings in the Climate Change Plan implies the replacement of all high-carbon heating systems in homes off the gas grid by 2030. Modelling by the Committee on Climate Change recommends the installation of low-carbon heating systems in 280,000 existing homes by 2030⁵; there are approximately 170,000 homes off the gas grid in Scotland heated by oil and LPG, and 316,000 heated with traditional electric heaters (resistive storage heaters)⁶.

These ambitions are welcome, but lack detail as to how they will be delivered. Key policies driving current uptake will end within the next few years, and climate change targets imply an increase in deployment rates. Delivering such an increase will require a framework of supportive policies signalled long in advance. Current activity is primarily driven by the RHI whose funding ends in April 2021. Large commercial-scale projects take several years to develop, and this

¹ RHI Monthly Statistics, May 2018 (the split of on/off gas is not available for non-domestic installations)

² ONS, UK Environmental Accounts: Low Carbon and Renewable Energy Economy Survey: 2016 final estimates

³ Scottish Government, 2018, Energy in Scotland

⁴ BEIS, 2016. The Clean Growth Strategy

⁵ CCC, 2016, Scottish Emissions Targets 2028 - 2032

⁶ Ofgem, 2015, Insights paper on households with electric and other non-gas heating

uncertainty will begin to affect the market from next year (2019). The UK Government published a call for evidence on post 2021 policy options earlier this year, stating that subsidies in their current form are unlikely to continue and that regulation will likely play a key role⁷.

The Scottish Government supports RHI-driven delivery by providing interest free loans to consumers and loans to businesses. Whilst these policies are welcome and have helped uptake in both the domestic and commercial sectors, it is disappointing to see that the recently published Energy Efficient Scotland Route Map and consultation contain no proposals as to how the take up of cleaner heating will be supported in off-gas grid areas. We believe that this is a missed opportunity as the programme will provide a framework within which to introduce supportive policies, and we make a series of recommendations below.

RECOMMENDATIONS FOR UK GOVERNMENT

With the RHI funded until April 2021, it is vital that the UK Government provides clarity regarding the future framework of support for the deployment of low-carbon heating. The RHI has successfully developed supply chains installing low-carbon heating in new and existing buildings, and a key priority for any successor policies should be to maintain and build on these. Retaining expertise built up in retrofitting biomass, electric heat pumps and solar thermal systems to existing buildings will be vital, given that the bulk of future emissions reductions will be achieved through retrofit (due to the slow replacement rate of the building stock⁸). Without strong policies to drive demand in the retrofit market, there could be a near collapse in this market post April 2021. We believe that the best way to achieve this is through a combination of incentives and regulation (further detail can be found in Scottish Renewables response to BEIS 2018 call for evidence on a future framework for heat⁹).

- **Phase out high-carbon (coal, oil and LPG) boilers from 2025:** the UK Government's Clean Growth Strategy commits to 'phase out the installation of high carbon fossil fuel heating in new and existing off gas grid residential buildings [...] during the 2020s'¹⁰. We believe that this would be best implemented by a phase out of high-carbon heating in existing buildings from 2025. After this date no new installations of coal, oil and LPG boilers should be permitted. This could be implemented through building regulations (Part L in England and Wales and section six in Scotland) and would drive replacements in existing buildings. A back-stop date for compliance should be put in place for all buildings by 2035 to capture all remaining high-carbon boilers yet to be replaced and give consumers an incentive to consider a low-carbon replacement before 2025.
- **Incentives:** should be maintained for retrofit installations in off gas grid buildings. Continuation of some subsidy using the RHI mechanism would help drive uptake before regulations enter force, and help with compliance afterwards. These could be phased out over time as further cost reduction takes place in low-carbon heating technologies, driven by increasing market size. Fuel Poverty schemes such as ECO should also be expanded to cover low-carbon heating replacements in off-gas grid, fuel poor homes.

RECOMMENDATIONS FOR SCOTTISH GOVERNMENT

Scottish Renewables welcomes the Scottish Government's development of the *Energy Efficient Scotland* programme, as this will build strong foundations for a long term programme to tackle fuel poverty and decarbonise the building stock. However, whilst we recognise that the priority of the programme in the near term will be improving the energy efficiency of buildings, we are concerned by the lack of detail regarding how uptake of low-carbon heat will be supported in off-gas grid areas. Scottish Government targets for the take-up of low-carbon heat in the 2020s imply an increase on current rates of deployment and it will therefore be vital that interventions to improve the fabric efficiency of buildings in off-gas grid areas consider the replacement of high-carbon heating systems. We make the following recommendations:

⁷ BEIS, 2018, A future framework for heat in buildings

⁸ CCC Next Steps for UK Heat policy, 2016

⁹ <https://www.scottishrenewables.com/publications/consultation-response-beis-future-framework-heat/>

¹⁰ BEIS, 2016. The Clean Growth Strategy

REGULATION & INCENTIVES

- **Phase out high-carbon (coal, oil and LPG) boilers from 2025:** high-carbon heating should be phased out in existing buildings from 2025; after this date no new installations of coal, oil and LPG boilers should be permitted. This could be implemented through building regulations (section six in Scotland covering heating system upgrades) and would drive replacements in existing buildings. A back-stop date for compliance should be put in place for all buildings by 2035 to capture all remaining high-carbon boilers yet to be replaced and give consumers an incentive to consider a low-carbon replacement before 2025. This would dovetail with the proposed framework of minimum energy standards, avoiding the need to introduce separate standards for carbon emissions from buildings in the near term.
- **Incentives:** the Scottish Government's zero-interest loans scheme has helped drive uptake of renewable heating and should be continued. In the non-domestic sector, current loan schemes should be opened up to allow funding of renewable heat installations.

LOCAL HEAT AND ENERGY EFFICIENCY STRATEGIES (LHEES)

- **Integrate LHEES into national & development planning:** national planning guidance should refer to LHEES to ensure that direction within these plans as to suitable heating technologies is given sufficient consideration in planning application decisions. Similarly, LHEES could be integrated into Local Development Plans to ensure their implementation. This would help address the fact that at present, local authority powers to direct heating system choices in new build developments remain weak.
- **Identify 'carbon free' heat zones:** Local Authorities should identify off-gas grid buildings and areas within their LHEES, and designate these 'carbon-free' heat zones (in the same way that Scottish Government has proposed that district heating zones be identified as part of the process¹¹). This would ensure that these areas are given adequate priority, directing resources to support near term delivery and sending a clear signal to consumers that high-carbon heating systems will need replacement.
- **Target delivery programmes in rural areas:** local authorities should be required to ensure that a proportion of their delivery programmes are run and available to off-gas grid areas as zoned in their LHEES. This will avoid all funding and activity being targeted exclusively at more urban areas where costs tend to be cheaper, reflecting the Government's near-term priority to decarbonise heating in off-gas grid areas.
- **Signal LHEES heat zones in energy assessments:** the Energy Efficient Scotland programme will see homes and businesses receive energy audits and advice. It is vital that these clearly signal when buildings are located in off-gas grid heat zones to make the most of a key opportunity to communicate to consumers that high-carbon heating systems will need replacing. This would ensure that the 2025 phase-out date for high-carbon fuels is effectively communicated ahead of time, driving early adoption and ensuring that the policy is effectively communicated.

DELIVERY PROGRAMMES

Able to pay and commercial building owners

- **Local engagement schemes:** one of the key barriers to renewable heat uptake is a lack of knowledge of the low-carbon heat options available and how they can be best utilised. The Scottish Government should therefore require Local Authorities to include a dedicated engagement programme to accelerate the adoption of renewable heat in rural areas. Information and advice from a trusted source could alert consumers to future changes as set out in the LHEES. Consumers and supply chains could be brought together, enhancing uptake encouraging economies of scale through buying groups and coordinated works. This approach has been successfully demonstrated in a recent SEEP pilot¹² and in previous Energy Saving Trust Scotland initiatives. Running such

¹¹ Scottish Government, 2018, 2nd Consultation On Local Heat & Energy Efficiency Strategies & Regulation Of District Heating

¹² <http://scene.community/blog2/iona-6-hats-workshop>

schemes independently of HEEPS/ABS programmes would ensure coverage given the limited activity of these schemes in rural areas.

Area-based schemes & Warmer Homes Scotland

- **Do not pay for oil or LPG heating:** where a heating replacement is required, this should be for a renewable technology. Scottish Government must ring-fence funds or increase uplift to ensure that rural areas are able to take advantage of these funding schemes.
- **Include able to pay households and businesses:** we welcome the intention to expand HEEPS and ABS programmes to able to pay and non-domestic building, as set out in the Route Map. As well as using area based schemes to engage these consumers, Scottish Government should use regulation to drive uptake of low-carbon heating options in the near term.
- **Amend procurement models:** to achieve the above, the structure of these delivery schemes will need to be reformed. To date, the majority of contracts funded through ECO and by Scottish Government have suited larger companies working through framework and subcontract models. The supply chain has had little need to develop an offering to owner occupied and non-domestic buildings. Conversely, the smaller installers that specialise in selling to these types of clients have mostly been locked out of the larger Government backed programmes. With significant cross-over between energy efficiency and renewable heat supply chains in rural areas¹³, Scottish Government should consider how to integrate all elements of the existing supply chain in the design of future schemes, encouraging competition and bringing in new skills to sell services to able to pay households and businesses. Potential solutions include helping SMEs with the costs of accreditation (such as for PAS 2030), structuring contracts to allow smaller players to bid for smaller packages of work, and ensuring programme funds run for several years (rather than yearly as at present) to provide greater certainty of long-term work.

ACTIONS FOR CENTRAL GOVERNMENT

- **An off-gas grid strategy:** the Scottish Government should clearly set out the policy framework that it will use to support off gas grid heat. The strategy should set out the targeted emissions reduction, the scale of activity required to achieve this and the policies to deliver it. These should cover regulation and financial assistance for consumers, as well as supply chain support (for both high and low-carbon heating supply chains). This could integrate the results of the Scottish Government's bioenergy strategy review and energy network vision statements to ensure that a holistic approach is taken at the national level. This would provide clarity to industry as it prepares for likely policy changes following the ending of the current RHI in 2021.
- **Set clear guidance for Local Authorities:** building on the above, the Scottish Government should set out clear guidance to Local Authorities on strategies to deliver the 2025 high-carbon heating phase-out in off-gas grid areas, indicating what support is available for both supply and demand, and strategies to engage and prepare consumers. If not coupled with a regulatory phase out of high-carbon heating, the Scottish Government should set targets for the required emissions reduction in building stock emissions that Local Authorities must deliver through their LHEES in order to encourage near-term activity in off-gas grid areas.
- **Skills and supply chain development:** support should be made available for apprenticeships and training both to help existing low-carbon supply chains to grow and to allow high-carbon ones to retrain. The low-carbon heating market has stagnated in recent years, with a number of company closures and reductions in the volume of training available and being undertaken. Long-term policies to drive demand for these services should be coupled with activity to increase supply chain capacity and quality.

¹³ [Energy Efficiency and Low Carbon Market Research, Energy Saving Trust 2017](#)