

# **Update on Renewable Heat Target and Action - 2020**

**October 2020**

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The Climate Change (Scotland) Act 2009 requires Scottish Ministers to report annually on progress towards meeting the target for useful renewable heat generated in Scotland to reach by 2020 the equivalent of 11% of fuels (other than electricity) consumed for heat. This complements the energy efficiency target to reduce the total final energy consumption in Scotland by 12% (against a baseline of the average energy consumption in 2005-07) and contributes to the delivery of our world-leading statutory targets to reduce greenhouse gas emissions.<sup>1</sup>

This report fulfils the requirement in the Climate Change (Scotland) Act 2009 to report on the Renewable Heat Action Plan.

### Scotland's Energy Strategy

[Scotland's Energy Strategy](#), published in December 2017, set out the Scottish Government's vision for a flourishing, competitive energy sector, delivering secure, affordable, clean energy for Scotland's households, communities and businesses.

The vision is guided by three core principles:

- **A whole-system view** – broadening the focus of the Scottish Government's energy policy to include heat and transport, alongside electricity and energy efficiency – creating an integrated approach which recognises the effect that each element of the energy system has on the others.
- **An inclusive energy transition** – recognising that the transition to a low carbon economy over the coming decades must happen in a way that tackles inequality and poverty, and promotes a fair and inclusive jobs market.
- **A smarter local energy model** – enabling a smarter, more coordinated, approach to planning and meeting distinct local energy needs that will link with developments at the national scale.

The Energy Strategy set the target for the equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources by 2030. Latest figures from 2018 show that we are currently providing 21.3% of total energy through renewable sources.

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<sup>1</sup> In June 2015 the Scottish Government published its [Heat Policy Statement](#) Towards Decarbonising Heat: Maximising the Opportunities for Scotland. This sets out how Scotland might use less energy for heat, and how low carbon heat can reach more householders, business and communities and a clear framework for investment in the future of affordable low carbon heat in Scotland in order to largely decarbonise the heat system by 2050.

The Heat Policy Statement and the [2020 Routemap for Renewable Energy](#) in Scotland replaced the Renewable Heat Action Plan which set the 11% renewable heat target. It was [updated in 2010](#), [refreshed in 2011](#) and subsequently subsumed into the 2020 Routemap.

Delivery of the Strategy is monitored via our **Annual Energy Statement** (2020 edition forthcoming) alongside the [Annual Compendium of Scottish Energy Statistics](#) (ACSES).

### **Progress towards the renewable heat target**

In 2019, an estimated 2.03 GW of renewable heat capacity was operational in Scotland, producing an estimated 5,205 GWh of useful renewable heat. This represents a 1% increase in renewable heat capacity and a **5% increase in useful heat generated from renewable sources compared with the 2018 figures**. This shows an upward trajectory in the use of renewable heat in Scotland.

**In 2019, useful renewable heat produced in Scotland was equivalent to 6.5% of fuels (other than electricity) consumed for heat. This is an increase from 6.2% in 2018.<sup>2</sup>**

As in 2018, the majority of this heat came from biomass (both heat-only combustion and combined heat and power), contributing 71% of output. The next largest contribution was biomethane at 14%. Biomethane also saw the largest growth, contributing 147 GWh of the total 2018-19 growth in output of 239 GWh.

Whilst biomass and biomethane dominate renewable heat generation, there has been a steady growth in heat produced by heat pumps. The majority of the year-on-year increase from 345 to 408 GWh useful renewable heat produced by heat pumps was due to new small units supplying heat to dwellings and small commercial buildings. There were 2,470 new heat pump installations in Scotland in 2019, bringing the total number to 17,140.

Progress towards the 11% target also depends on changes in non-electrical heat demand (whether renewable or not); if, for example, renewable heat output remains constant but heat demand increases, progress towards the 11% target would decrease. Between 2008 and 2015 heat demand fell due to increased energy efficiency and increases in average annual temperatures. Heat demand has, however, increased in 2016 and 2017, before dropping in 2018 to similar levels seen in 2014.<sup>3</sup> This emphasises the continued importance of energy efficiency and minimising heat demand where possible.

**This data is drawn from the [Renewable Heat in Scotland 2019](#) report, published by the Energy Saving Trust on 28 October 2020, which provides further detail.**

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<sup>2</sup> The figure for 2018 has been revised down since the 2019 Update on Renewable Heat Target and Action. This is due to improvements in data collection, access and processing.

<sup>3</sup> Increased energy consumption is not specific to Scotland; it has increased across the UK as a whole between 2016 and 2017 and in most European countries as well.  
<https://ec.europa.eu/eurostat/data/database>

## Update on action

The 2015 Heat Policy Statement and 2018 Energy Efficient Scotland Route Map reiterated our focus to reduce the need for heat through energy efficient buildings; supplying heat more efficiently and at least cost to consumers, such as development of district heating and the use of unused excess heat through heat recovery; and using low carbon and renewable heat. All three aspects have relevance to the renewable heat target. Both reducing the demand for heat from non-renewable sources and increasing the renewable supply of useful heat increase the percentage of heat demand provided by renewables. Efficient supply systems such as well-designed and operated heat networks can help to deliver the renewable heat produced to more users.

The 2015 Heat Policy Statement sets out our ambition to deliver district or communal heating to 40,000 homes or more by 2020. The most recent data available indicates that in 2018 approximately 29,600 homes were connected to district or communal heating in Scotland.

The following table sets out some of our key activities against the actions contained in the heat policy statement, with a focus on those since early 2019. For any actions prior to this, please refer to the previous Update on Renewable Heat Target and Action reports.

<b>Activity</b>	<b>Progress</b>
Improve accuracy of data used in calculating the heat target and progress towards meeting it	<p>The <a href="#">UK Combined Heat &amp; Power Quality Assurance (CHPQA) Programme</a> began in 2001. The scheme is voluntary, however, various government tax breaks and incentives require CHP installations to be a member of the CHPQA scheme to be eligible. In the 2016 update of 'Renewable Heat in Scotland' the Energy Saving Trust (EST) included aggregate CHPQA data across the time-series for the first time, although it wasn't possible to break down the data by technology type and installation size category. These breakdowns were available for the 2017 CHPQA data included in EST's 2017, and subsequent, reports.</p> <p>Scottish Government and EST continue to work with BEIS on improved access to data from the non-domestic Renewable Heat Incentive (RHI) to obtain a comprehensive picture of renewable heat output and capacity in Scotland. In 2018, for the first time, the Scottish Government had access to installation level data on the non-domestic RHI which allowed a more thorough matching of the data to EST's renewable heat database and led to improvements in the accuracy of estimates of capacity and output. The 2019 report benefited from improved running hour estimates for heat pump and biomass installations owing to the detailed data available from the non-domestic RHI data. In the same year, domestic RHI data was secured to allow comparisons with the MCS database to identify overlaps and reduce resulting</p>

	<p>inaccuracies. While this data was not available in time to be included within the 2019 report it will be available for use within the 2020 report.</p> <p>Similar improvements have also been seen in the processing of data from the CHPQA programme and the Micro-generation Certification Scheme (MCS), where reductions have been made in the incidence of double counting. Revised estimate figures were first included in 2017 to allow meaningful comparisons and further revisions have been made in subsequent reports to help improve the accuracy of the series.</p> <p>Enforcement of the <a href="#">Heat Network (Metering and Billing) Regulations 2014</a> provides a further source of data which improves estimates of renewable heat.</p> <p>An extract of Scottish Network data has been included in the renewable heat database for the second time in 2018, improving the coverage of evidence used to monitor renewable heat capacity and output in Scotland. Due to a lack of updates to the BEIS datasets it has not been possible to incorporate updated heat network data in the 2019 report. The Scottish Government and EST will continue to incorporate updated heat network data into the renewable heat database as it becomes available.</p> <p>In 2020 exploratory work was undertaken to identify renewable installations from local authority planning data. The aim of this work is to more accurately estimate pipeline capacity and generation. While this has been a time consuming investigation Scottish Government is exploring access to bulk data that will make this process more efficient for future reporting.</p>
Develop a heat map for Scotland	<p>Local authorities and other public sector bodies with access continue to receive updates of the <a href="#">Heat Map</a>. The latest update of the Scotland Heat Map was released in September 2020. This latest version focussed on updating heat demand estimates and utilising new sources of data to improve the reliability and accuracy of estimates. Details of the changes implemented in this version are available in the online user guide and include improving the proportion of estimates from more reliable data sources such as EPCs (including the addition of non-domestic EPCs), improved benchmarking process and new and expanded data on heat networks; identifying more than a thousand Scottish networks.</p> <p>Also, for the first time, data from the Energy Saving Trust's Home Analytics tool has been incorporated into the heat map</p>

	<p>providing more detailed information on building characteristics and improved heat demand estimates.</p> <p>To date, feedback from stakeholders confirms a wide and useful application of the map. <a href="#">Resource Efficient Scotland</a> have used the Heat Map, in scoping and delivering district heating feasibility studies, in completion of district heating opportunity assessments, and in developing and delivering workshops and more focussed support to local authorities and other stakeholders in the area of low carbon heat. The Heat Map has been a vital tool in helping local authorities to develop their approaches to creating Local Heat &amp; Energy Efficiency Strategies, as part of Energy Efficient Scotland.</p>
<p>Development of heat decarbonisation policy and strategy</p>	<p>We are investing £1.6 billion over the next Parliament to expand and accelerate our heat and energy efficiency programmes as part of a Green Recovery. This investment will help create a sustainable market for renewable and zero emissions heat in Scotland in order to provide long-term commitment to tackling emissions from heating through a ramping up of action over the coming years.</p> <p>We continue to gather evidence on low carbon heating technologies and how they will work for Scotland, through meeting with stakeholders and commissioning research to develop our policies. This Autumn, we will be publishing research that developed a set of archetypes for Scotland's existing residential building stock disaggregating them by the key attributes affecting the suitability of low carbon heating. Other research with the same objective was commissioned for the non-domestic buildings of Scotland. Further research is ongoing to explore the role of low carbon heating in the decarbonisation of heritage assets, the impact of the balance of levies and charges between electricity and gas supplies on low carbon and renewable heat and opportunities and constraints on a range of decarbonised heat options.</p> <p>We have set up a Heat Decarbonisation External 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.</p> <p>We are working on a Bioenergy Policy Update (BPU), setting out the work we will do to review the increased pressures on bioenergy feedstock and how we will consider such challenges alongside other environmental, sustainability and just transition priorities.</p>

	<p>Later this year, we will publish a combined Heat in Buildings Strategy, which will encompass the Energy Efficient Scotland Route Map update, setting out our strategic vision for decarbonising heat across all buildings in Scotland.</p>
<p>Progress the goals of the Low Carbon Infrastructure Transition Programme</p>	<p>The Low Carbon Infrastructure Transition Programme (LCITP), which launched in 2015, is a collaborative partnership led by the Scottish Government, working with Scottish Enterprise, Highlands and Islands Enterprise, Scottish Futures Trust and Resource Efficient Scotland.</p> <p>It is co-funded by the European Regional Development Fund and focuses on supporting the acceleration of low carbon infrastructure projects across the public, private and community sectors.</p> <p>The programme aims to stimulate commercial interest and investment and maximise Scotland's vast potential in the low carbon sector whilst contributing to the positive progress of the Scottish Government in reducing Scotland's greenhouse gas emissions.</p> <p>Since March 2015, LCITP programme has awarded around £45 million of funding to 16 demonstrator projects supporting low carbon heat generation.</p> <p>As part of the Programme for Government the First Minister announced additional LCITP funding rounds for 2020: a £1 million fund to develop business cases along with £50 million capital Green Recovery Fund with a focus on heat decarbonisation projects.</p> <p>The £20 million Social Housing Net Zero Heat Fund opened in August 2020 providing support for Registered Social Landlords to install heat pumps.</p>
<p>Introduce legislation on Heat Networks</p>	<p>The Scottish Government has strong ambitions for a growth in heat networks in Scotland and this is widely shared by the market and third sector organisations.</p> <p>The Scottish Government introduced the Heat Networks (Scotland) Bill to the Scottish Parliament on 2 March. The Bill aims to contribute to Scotland's climate change targets by regulating heat networks in a way which increases investor and supply chain confidence as well as raises consumer awareness and acceptance, thereby increasing their deployment.</p>
<p>Update on New Build (Zero Direct</p>	<p>The Scottish Government is committed to ensuring that, from 2024, new buildings must use zero emissions heat. We are actively working with the construction, property and</p>

<p>Emissions) Heat Standard</p>	<p>commercial development sectors to identify and support good practice to inform the development of new regulations to achieve this.</p> <p>We will consult upon our approach to our New Build Heat Standard in Autumn 2020, where we will set out our vision for the new Standard – which will also be underpinned by a series of key outcomes for stakeholders to consider.</p>
<p>Continued support and promotion of the domestic and non-domestic Renewable Heat Incentive while simultaneously working to increase householder awareness of, confidence in and uptake of small scale heat generation technologies</p>	<p>Scottish Government continue to actively promote the GB-wide <a href="#">Renewable Heat Incentive (RHI)</a> scheme. To maximise the up-take of the RHI to the benefit of Scottish households and businesses, the Scottish Government :</p> <ul style="list-style-type: none"> <li>• Provides expert and bespoke advice via the Renewables and Energy Efficiency Specialist Advice Service via the Energy Saving Trust and Home Energy Scotland helpline</li> <li>• Since 2011, the District Heating Loan Fund (DHLF) has provided over £17 million to 50 low carbon or renewable heat projects.</li> <li>• Provides support through the <a href="#">Low Carbon Infrastructure Transition Programme</a> (see above)</li> <li>• Funds an interest-free Home Energy Scotland Loan Scheme up to the value of £38,500 for both energy efficiency measures and renewable technologies via the <a href="#">Energy Saving Trust</a></li> <li>• Funds the SME Loan Scheme which provides loans to business up to £100,000 for the installation of efficiency measures and renewable technologies via Zero Waste Scotland</li> </ul> <p>In response to Covid-19, the UK Government has extended the domestic RHI scheme to 31 March 2022. The non-domestic RHI scheme is due to close on 31 March 2021, though changes have been made to the scheme extending deadlines to support projects affected by Covid-19. While these changes are welcome, they follow a number of earlier changes during the RHI scheme, including the introduction of a budget cap without tariff guarantees until much later, which resulted in uncertainty amongst Scottish businesses, with delays to capital investment.</p> <p>Scotland continues to attract more than its pro-rata share of both domestic and non-domestic RHI accreditations. Up until the end of August 2020, there has been:</p> <ul style="list-style-type: none"> <li>• 3,890 accreditations in Scotland to the non-domestic RHI scheme accounting for 19% of all accredited installations GB-wide, well above pro rata.</li> </ul>



	<ul style="list-style-type: none"> <li>• 15,705 accreditations in Scotland to the domestic RHI scheme, accounting for 19% of all accredited installations GB-wide, again, well above pro-rata.</li> </ul> <p>We are broadly supportive of the UK Government's proposals to introduce Clean Heat Grant and Green Gas Support schemes following the RHI, and await the UK Government's response to key stakeholder feedback, including the points raised in the official Scottish Government response.</p>
Energy Efficient Scotland	<p>The Energy Efficient Scotland budget for 2020/21 includes a substantial increase in funding for fuel poverty and domestic energy efficiency programmes from £119 million to £162 million, plus £36.8 million for non-domestic energy efficiency. In addition, a further £16 million for energy efficiency measures was announced in September.</p> <p>Our delivery programmes support the retrofit of non-domestic and domestic buildings. Our Non-Domestic Energy Efficiency Framework and SALIX loans support and drive action in the public sector. Our Energy Efficient Scotland delivery schemes offer a variety of energy efficiency measures and renewable heating solutions.</p> <p>Warmer Homes Scotland is the Scottish Government's national fuel poverty scheme designed to help those households living in fuel poverty or at risk of fuel poverty through the installation of measures such as insulation and heating systems in their homes. The number of air source heat pumps being installed through Warmer Homes Scotland has increased year on year. 122 air source heat pumps were installed in the 2018/19 operating year, 138 in 2019/20 and 33 have been installed in the period since 1 July to 30 September so far in 2020/21. There was no activity from April to June 2020 due to activity under the scheme being paused during the Covid-19 pandemic restrictions. There are 3 micro-wind systems planned for installation, subject to appropriate planning consents.</p> <p>Since 2013, we have supported delivery of small numbers of air source heat pumps and other renewable heat measures through our funding for Area Based Schemes delivered by local councils. ABS is focused primarily upon insulation measures for 'hard to treat' properties but increasingly these projects include renewables to help achieve energy efficiency targets for housing. For example, this year we are funding air source heat pump projects with both Glasgow City and Scottish Borders councils</p>

	<p>We are also working with our local government partners to develop Local Heat &amp; Energy Efficiency Strategies (LHEES) to set out a local framework for reducing emissions from heating our homes and buildings. We have funded all 32 Scottish local authorities to pilot LHEES with the third phase of pilots currently underway. We are working with local authority partners to develop LHEES, and to bring forward a joint commitment to putting LHEES on a statutory footing.</p> <p>We consulted on actions to improve owner occupied housing, under Energy Efficient Scotland earlier this year. The analysis of this consultation will be published towards the end of this year.</p>
Support for skills and supply chain	<p>Part of the funding announced in the Programme for Government 2020/21 allocated £50 million through the Green Jobs Fund to help ensure that businesses and supply chains across Scotland can capitalise on our investment in low carbon infrastructure, such as the decarbonisation of heating and green transport. We continue to work with Scottish colleges and the heat industry to develop skill requirements for energy efficiency and low carbon heat, and to ensure there are training courses across Scotland's college network to meet these requirements and help grow the industry.</p>



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