

Update on Renewable Heat Target and Action - 2018

October 2018

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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 was [updated in 2010, refreshed](#) in 2011 and subsequently subsumed into the *2020 Routemap*).

The *Climate Change (Scotland) Act 2009* requires Scottish Ministers to report regularly on the progress towards meeting the target to deliver 11% of non-electrical heat demand from renewable sources by 2020. This complements the energy efficiency target to reduce the total final energy consumption in Scotland by 12% (against a base line of the average energy consumption in 2005-07) and contributes to the delivery of our world-leading statutory targets to reduce greenhouse gas emissions.

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

Scotland's Energy Strategy

The draft [Scottish Energy Strategy](#), published in December 2017 and the first of its kind, sets out the Scottish Government's vision for the future energy system in Scotland.

The Strategy describes the ways in which the Scottish Government will strengthen the development of local energy, protect and empower consumers, and support Scotland's climate change ambitions while tackling poor energy provision.

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.

Built around the following six energy priorities, the Strategy will guide the decisions that the Scottish Government, working with partner organisations, needs to make over the coming decades:

- Promote consumer engagement and protect consumers from excessive costs
- Champion Scotland's renewable energy potential, creating new jobs and supply chain opportunities

- Improve the energy efficiency of Scotland's homes, buildings, industrial processes and manufacturing
- Continue to support investment and innovation across our oil and gas sector, including exploration, innovation, subsea engineering, decommissioning and carbon capture and storage
- Ensure homes and businesses can continue to depend on secure, resilient and flexible energy supplies
- Empower communities by supporting innovative local energy systems and networks

The Strategy includes a range of actions to deliver the Scottish Government's goals, including a £20 million Energy Investment Fund, which will build on the success of the Renewable Energy Investment Fund, and a £60 million Low Carbon Innovation Fund, again, building on the success of the £40 million investment in the Low Carbon Infrastructure Transition Programme, to provide dedicated support for renewable and low carbon infrastructure over and above wider interventions to support innovation across the economy.

Progress towards the renewable heat target

In 2017 an estimated 2.0 GW of renewable heat capacity was operational in Scotland, producing an estimated 4,800 GWh of useful renewable heat. This represents a 17% increase in renewable heat capacity and a 28% increase in heat generated from renewable sources compared with 2016. Renewable heat output fell in 2016, primarily as a result of changes at a small number of large sites. If we instead compare with 2015, when renewable heat output last increased, the 2017 figure is 14% greater indicating a continued upward trajectory is underlying 2017 figures.

2016 is the most recent year that data for non-electrical heat demand is available for, and this was published at the end of September 2018. Therefore, estimated progress for 2017 is shown using a range of heat demand scenarios. These **estimates suggest that, in 2017, Scotland produced enough heat from renewable sources to meet between 5.9% and 6.1% of non-electrical heat demand.**

This is an increase on 2016, when renewable heat generation equated to 4.7% of Scotland's non-electrical heat demand, and up from 5.3% in 2015.

In 2017 the majority of both capacity and output came from biomass primary combustion and biomass combined heat and power. The majority of renewable heat output is accounted for by installations in the 'large' size category (>1MW). Most biomass CHP and energy from waste facilities fall into this category.

Heat demand in Scotland has generally been falling over the past decade (despite increasing slightly in 2015 and 2016) due to a number of factors including improved energy efficiency and increases in average annual temperatures. This decrease in demand means that renewable heat now meets a greater proportion of non-electrical heat demand than would otherwise have been the case. Between 2008-09 and 2016, heat demand has fallen by 17% whereas renewable heat output is more than four times higher. If heat demand had remained constant over this period, renewable

heat output would have accounted for 3.9% of non-electrical heat demand, instead of 4.7%.

This data is drawn from the *Renewable Heat in Scotland, 2017* report, published by the Energy Saving Trust on 30 October 2018, which provides further detail. www.energysavingtrust.org.uk/renewable-heat-scotland-2017.

Update on action

The *Heat Policy Statement* reiterated our heat hierarchy: reducing 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 then using low carbon and renewable heat. All three aspects of the hierarchy have relevance to the renewable heat target. Both reducing the demand for heat and increasing the useful heat provided increase the percentage heat provided. Efficient supply systems such as well-designed and operated district heating can help to deliver renewable heat produced to more users.

The *Heat Policy Statement* retains our ambition to deliver district or communal heating to 40,000 homes or more by 2020. The most recent data available indicates that approximately 26,000 homes are 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 2017. For any actions prior to this, please refer to previous *Update on Renewable Heat Target and Action* reports.

Activity	Progress
<p>Improve accuracy of data used in calculating the heat target and progress towards meeting it</p>	<p>Scottish Government and the Energy Saving Trust – EST- continue to work with BEIS to improve access to data from the non-domestic renewable heat incentive (RHI) to give a more comprehensive picture of renewable heat output and capacity.</p> <p>Enforcement of the Heat Network (Metering and Billing) Regulations 2014 provides a further source of data which may improve estimates of renewable heat.</p> <p>An extract of Scottish Network data has been included in the renewable heat database for the first time in 2017, improving the coverage of evidence used to monitor renewable heat capacity and output in Scotland.</p> <p>The Scottish Government and EST will continue to incorporate updated heat network data into the renewable heat database as it becomes available.</p> <p>The UK Combined Heat & Power Quality Assurance</p>

	<p>(CPQHA) Programme 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' 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 report.</p>
<p>Develop a heat map for Scotland</p>	<p>The heat demand estimates that form the core of the Scotland Heat Map were updated in 2016 to incorporate the latest building characteristics and Energy Performance Certificate data, as well as the latest official statistics on energy consumption. Energy supply data was also updated to provide a more complete and up-to-date picture of energy generation in Scotland.</p> <p>Local authorities and other public sector bodies with access continue to receive updates of the Heat Map. The latest version of the Heat Map was issued to local authorities in August 2017.</p> <p>To date, feedback from stakeholders confirms a wide and useful application. Resource Efficient Scotland have supported use of the Heat Map, in scoping and delivering around 17 district heating feasibility studies, in completion of around 80 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 & Energy Efficiency Strategies, as part of the Energy Efficient Scotland pilot scheme (see below).</p>
<p>Establish Heat Network Partnership for Scotland</p>	<p>Established in 2013, the Heat Network Partnership for Scotland (HNP) is working closely with a number of projects on the technical, financial and procurement aspects of heat networks, and with local authorities on the strategic development of district heating.</p> <p>In 2017, the HNP:</p> <ul style="list-style-type: none"> • Continued to deliver our Local Authority Strategy Support Programme, guiding participating local authorities through the process of developing a district heating strategy, or the district heating element of a wider strategy. • Produced a District Heating Sponsors Guide, to guide senior decision makers through the processes for developing a district heating project.

	<ul style="list-style-type: none"> • Developed a series of Technology Factsheets to assist district heating developers in identifying the most appropriate solutions available. • Liaised with Heat Trust to promote better heat network standards involved direct contact between SG and the Heat Trust as well as offer of speaking slots at HNP events. <p>Delivered a series of stakeholder engagement events including a housebuilders workshop on feasibility and design for low carbon heat, and a low carbon heat awareness raising event for the university sector.</p>
<p>Progress the goals of the Low Carbon Infrastructure Transition Programme</p>	<p>The Low Carbon Infrastructure Transition Programme (LCITP), supported by European Structural Funds, was launched in March 2015. LCITP is a Scotland-wide, collaborative cross-sector Project Development Unit with a budget of £136 million across two phases until 2020. LCITP focuses on accelerating the development of low carbon infrastructure projects to investor readiness stage.</p> <p>Since early 2016, LCITP has awarded over £40 million of funding to 13 demonstrator projects supporting low carbon energy generation and supported the co-development of over 30 proof of concept and development proposals.</p> <p>Since 2016 LCITP also has launched a number of Calls targeting specific technologies and low carbon sectors. The most recent of these, the Low Carbon Innovation Funding Invitation (launched January 2018), welcomed a record number of applications from across three priority themes: Low Carbon Heat, Integrated Energy Systems and Ultra-low Emissions Vehicles. Announcement of these projects is expected in Autumn 2018.</p>
<p>Continued support and promotion of the domestic and non-domestic Renewable Heat Incentive while concomitantly</p> <p>Work to increase householder awareness of, confidence in and uptake of small scale heat generation technologies</p>	<p>Scottish Government actively promotes the GB-wide Renewable Heat Incentive (RHI) scheme which has been confirmed to continue until 2020-21. To maximise the take-up of the RHI to the benefit of Scottish households and businesses, the Scottish Government:</p> <ul style="list-style-type: none"> • 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 Energy Saving Trust (EST). • funds the SME Loan Scheme which provides loans to business up to £100,000 for the installation of efficiency measures and renewable technologies via Resource Efficient Scotland (RES). • Provides support through the District Heating Loan Fund and Low Carbon Infrastructure Transition

	<p>Programme.</p> <ul style="list-style-type: none"> • Provides expert advice via the Renewables and Energy Efficiency Specialist Advice Service via the Energy Saving Trust. <p>The UK Government has indicated via their response to several consultations on the RHI scheme that they intend to make further changes to the scheme. Delays in implementing these changes have resulted in some uncertainty amongst Scottish businesses, with potential delays to capital investment until clarity in legislative changes and timeframes is known. Despite this, Scotland continues to punch above its weight in its share of both domestic and non-domestic RHI accreditations. Up to the end of August 2018, there has been:</p> <ul style="list-style-type: none"> • 12,522 accreditations in Scotland to the domestic RHI scheme, accounting for 20% of all accredited domestic installations GB-wide, well above pro-rata. • 3,600 accreditations in Scotland to the non-domestic RHI scheme accounting for 19% of all accredited installations GB-wide, again, well above pro-rata.
<p>Launch Route Map for Energy Efficient Scotland</p>	<p>Our Route Map for Energy Efficient Scotland (formerly Scotland's Energy Efficiency Programme), launched in May 2018, sets out the Scottish Government's vision for all buildings in Scotland, that by 2040 all our buildings are warmer, greener and more efficient, and how we deliver the National Infrastructure Priority for Energy Efficiency.</p> <p>Energy Efficient Scotland will help to remove poor energy efficiency as a driver of fuel poverty and will reduce greenhouse gas emissions by making buildings more energy efficient and helping to decarbonise the heat supply.</p> <p>The Route Map will guide the decisions we take to support Scotland's homes to be improved so that by 2040 they achieve at least an Energy Performance Certificate (EPC) rating of band C, where technically feasible and cost-effective. This will be phased differently across tenures.</p> <p>In the non-domestic sector, we propose that existing energy efficiency standards are continually extended so that by 2040 all buildings are improved to the extent that is technically feasible and cost-effective. We are proposing moving towards a benchmarking system, which describes 'what good looks like' for a particular type of building.</p> <p>Energy Efficient Scotland builds on our existing programmes.</p>

	<p>In May 2018 we launched a two year Transition Programme, which will continue to integrate and streamline existing support. In 2018/19, £5.5 million of available to support the Transition Programme.</p> <p>Local authorities are a strategic partner for the programme, and we believe local authorities are well placed to expand delivery into the sectors and tenures necessary to achieve the standards proposed in the Route Map.</p> <p>To support and organise local delivery, we have twice consulted on the introduction of a statutory duty on local authorities to develop Local Heat and Energy Efficiency Strategies (LHEES).</p> <p>LHEES would be the link between our long term targets and national policies and the delivery of energy efficiency and heat decarbonisation on the ground. They would allow local authorities to prioritise and target work.</p>
<p>Introduce the Fuel Poverty Bill, and a new Fuel Poverty Strategy</p>	<p>In line with our Programme for Government (PfG) and manifesto commitments, the Fuel Poverty (Target, Definition and Strategy) (Scotland) Bill (“the Bill”) was introduced to Parliament on 26 June 2018. The Bill includes a target that in 2040 no more than 5% of households will be in fuel poverty. This aligns with other actions we are taking across government, including targets and aims relating to the Energy Efficient Scotland programme: removing poor energy efficiency as a driver of fuel poverty; reducing heat demand, contributing to targets set out in the Climate Change Plan; reducing the carbon intensity of our heat supply; and supporting Scottish jobs. The Bill also sets out a new definition of fuel poverty that aligns more closely with relative income poverty to focus support on those who need it most.</p> <p>Alongside the Bill, we have published a draft Fuel Poverty Strategy. We set out how our delivery programmes will assist all households across Scotland regardless of location, including: ensuring flexibility for local authority led programmes; introducing availability of new enabling and renewable measures for householders; and taking steps to improve targeting. We will work with communities and stakeholders – including the new independent Scottish Fuel Poverty Advisory Panel – to deliver this Draft Strategy and will publish a final strategy within a year of the Act coming into force.</p>



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