

Update on Renewable Heat Target and Action - 2021

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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 – the renewable heat target.¹

This report fulfils the requirements in the Climate Change (Scotland) Act 2009 to report on progress towards the target and on implementation of plans to promote renewable heat.

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.

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

We have committed to publish a refreshed Energy Strategy and Just Transition Plan in Spring 2022. This will allow us to further refine our approach to heat decarbonisation, ensuring a coherent whole-system view and further embedding our evolving policies within our wider approach to delivering on a just transition.

1. Progress towards the renewable heat target

In 2020, useful renewable heat produced in Scotland was equivalent to 6.4% of fuels (other than electricity) consumed for heat. This is an increase from 6.2% in 2019.²

As in previous years, the majority of this heat came from biomass, contributing 70% of useful renewable heat. The next largest contribution was biomethane at 14%.

Growth in renewable heat from 2019 to 2020 was limited by a 52GWh output reduction from large biomass sites due to changes in operation at a small number of sites.

Whilst biomass and biomethane dominate renewable heat generation, there has been a steady growth in heat produced by heat pumps. Heat pumps saw the largest increase in number of installations and output with an additional 3,020 installations

¹ The 2020 11% renewable heat target was set by the 2009 [Renewable Heat Action Plan](#) which was replaced by the 2015 [Heat Policy Statement](#) and the [2020 Routemap for Renewable Energy](#) in Scotland. The 2021 [Heat in Buildings Strategy](#) replaces these earlier plans for the promotion of heat from renewable sources, and sets a provisional renewable heat target that will be reviewed in the 2022 Energy Strategy and Just Transition Plan. This report addresses progress toward the 2020 11% target.

² The figure for 2019 has been revised since the 2020 Update on Renewable Heat Target and Action. This is due to improvements in data collection, access and processing.

contributing to an additional 83 GWh of output, compared with 2019. This brings the total heat output from heat pumps in Scotland to 390 GWh and the total number of installations to around 21,000. The year-on-year increase of useful renewable heat produced by heat pumps was split between large heat pumps and new small units typically installed in domestic settings for the provision of space heating and hot water.

The headline 6.4% statistic is also dependent on overall non-electrical heat demand. Between 2008 and 2015 heat demand fell due to increased energy efficiency and increases in average annual temperatures. Heat demand increased in 2016 and 2017, before dropping in 2018 to similar levels seen in 2014, and remaining at this level in 2019.³ This emphasises the continued importance of energy efficiency and minimising heat demand where possible.

In 2020, an estimated 2.14 GW of renewable heat capacity was operational in Scotland, producing an estimated 5,008 GWh of useful renewable heat. This represents a 4% increase in renewable heat capacity.

The data above are drawn from the [Renewable Heat in Scotland 2020](#) report, published by the Energy Saving Trust on 27 October 2021, which provides further detail.

2. Update on action

Scotland's Heat in Buildings Strategy, published on 7 October 2021, sets out our short term actions and a long term vision for decarbonising the way we heat homes and buildings in Scotland. The Strategy updates the 2018 Energy Efficient Scotland Route Map and the 2015 Heat Policy Statement, and brings together our ambitions on energy efficiency and heat decarbonisation into a single framework, including our plans for the promotion of heat from renewable sources, as well as other low and zero emission sources.

The Strategy sets out that, to meet the interim climate targets and ensure delivery of our net zero objectives, we will need to convert over 1 million homes and the equivalent of 50,000 non-domestic properties to low or zero emissions heat by 2030.

We will invest at least £1.8 billion over the next 5 years in strategic heat and energy efficiency priorities in order to catalyse action and accelerate deployment, provide support to remove poor energy efficiency as a driver of fuel poverty and maximise the local economic benefits of the transition through a Green Recovery.

We will accelerate the transformational change in how we heat and use energy in homes and buildings by establishing a virtual National Public Energy Agency.

³ 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>

The Strategy includes proposals for new regulatory measures, where devolved powers allow, to underpin a long-term market framework for eliminating emissions from Scotland's homes and buildings.

It also includes detail of the crucial action needed from the UK Government to unlock, and enable, rapid deployment of zero emissions heating.

The following sets out the key actions contained in the Strategy, with a focus on the near term. For any actions prior to this, please refer to the previous Update on Renewable Heat Target and Action reports.

The Low Carbon Infrastructure Transition Programme

Since its launch in 2015, we have used our highly regarded Low Carbon Infrastructure Transition Programme (LCITP) to make technical expertise and financial support available to innovative low carbon infrastructure projects which have potential for replication.

The programme 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 to develop investment grade business cases to help projects secure public and private capital finance. It 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.

Since its launch, LCITP programme has awarded around £66 million of funding to 34 demonstrator projects supporting zero emission heat and energy generation.

As the current LCITP programme draws to a close in 2021, we are developing a successor programme as the primary mechanism for deploying zero emissions heat at scale, co-ordinating our support for the roll-out of heat networks and heat infrastructure. To achieve this, we will invest £400 million over the next five years in large-scale heat decarbonisation infrastructure.

Social Housing Net Zero Heat Fund

The Social Housing Net Zero Heat Fund, supports social housing landlords across Scotland. In August 2021, we launched the second £30 million call for this Fund including an additional funding stream focused on energy efficiency as the first step in our commitment to help upgrade the most inefficient and expensive to heat social homes to the highest possible standard in one leap. We will continue to operate the Social Housing Net Zero Heat Fund until 2026 investing £200 million in a sector already leading the way. To date, it has awarded grant funding of almost £10 million to 10 social housing projects across Scotland.

Publicly Owned Buildings

The Scottish Government believes the public sector must demonstrate its commitment to transforming Scotland's buildings by taking early and sustained

action to decarbonise the public sector estate and improve the energy performance of all public buildings. Over this Parliament, we will invest at least £200 million in the Scottish public sector estate to improve and reduce energy use and install zero emissions heating systems.

We will consult the Scottish public sector during 2022 to develop and agree a series of phased targets with increased funding available to support delivery of these targets- starting in 2024, with the most difficult buildings like hospitals being decarbonised by 2038 - for all publicly owned buildings to meet net zero emission heating requirements by 2038. We will also introduce Fair Work standards as a condition to public sector heat and energy efficiency contracts.

Warmer Homes Scotland

Warmer Homes Scotland is the Scottish Government's national fuel poverty scheme designed to help those households living in 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 129 were installed during 2020/21. However, there were no Warmer Homes Scotland installations carried out between April and July 2020 due to activity being paused during the Covid-19 pandemic restrictions.

The number of solar PV systems installed under Warmer Homes Scotland has remained relatively static with 19 installed in both the 2018/19 operating years and 22 during 2020/21.

The current position as at September 2021 in relation to renewable installations is that 102 Air Source Heat Pumps have been installed in 2021/22 to date, with a further 251 more applications in the pipeline with an ASHP already recommended. In addition, 28 solar PV systems have been installed in the 2021/22 year to date, with a further 70 applications in the pipeline with solar PV as a recommended measure.

Area Based Schemes

Area Based Schemes (ABS) was launched in April 2013. The aim of ABS is to reduce fuel poverty by supporting local authorities to design and deliver energy efficiency programmes in fuel poor areas, focusing primarily upon insulation measures for 'hard to treat' properties. This year we have increased the scope of ABS projects to provide more whole house retrofits that include zero/low carbon heating and microgeneration (solar PV etc.), where this is technically feasible and will help to reduce fuel poverty.

Ending subsidy for fossil fuel heating

We remain committed to phasing out funding for fossil fuel heating systems by 2024 across our programmes except where this does not align with our fuel poverty principles, or in exceptional circumstances where extremely vulnerable people might require urgent solutions.

From Monday 6 September 2021 new applications for oil and LPG boilers have no longer been available through Warmer Homes Scotland, Area Based Schemes or Home Energy Scotland Loans. We are adopting a “low and zero emissions heating system first” approach and have increased our investment in whole house retrofits benefitting fuel poor households. We also intend to target those households who can benefit most from installing a heat pump or connecting to a heat network.

Our advice and support programmes will continue to support energy efficiency measures, and for those households requiring additional support these services will continue to provide help on tariff switching, energy behaviours and make onward referrals to ensure that all households receive the support for which they are eligible. Being on the right energy tariff can have a significant impact on bills.

Home Energy Scotland loan and cashback

We have introduced a further incentive via the Home Energy Scotland (HES) interest-free Loan Scheme by offering owner occupiers up to 75% in cashback (capped at £7,500) towards the installation of renewable heating systems. This incentive makes the uptake of renewable heating more attractive. We also offer cashback on HES loans for energy efficiency measures, and have increased the rate of this incentive from 25% to 40%.

We have committed to run our cashback scheme (or a grant replacement) until at least 2023 to help households overcome the upfront cost of taking early action. In 2022/23, we will replace current arrangements with a grant scheme to support energy efficiency and zero emissions heat improvements.

SME loan and cashback

We have also introduced a further incentive via the interest-free SME Loan Scheme by offering SMEs up to 75% in cashback towards the installation of renewable heating systems (capped at £10,000). This incentive makes the uptake of renewable heating more attractive to SMEs. We also offer cashback on SME Loans for energy efficiency measures, and have increased the rate of this incentive from 15% to 30% (capped at £10,000).

We propose to continue to run our ‘SME loan cashback’ schemes (or grant replacement) until at least 2023 to help reduce the cost of investing.

Non-Domestic Energy Efficiency Framework and SALIX

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.

New Build (Zero Direct Emissions) Heat Standard

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 commercial development sectors to identify and support good practice to inform the development of new regulations to achieve this.

We have consulted on the approach to the New Build Heat Standard through an initial Scoping Consultation which set out a vision for the Standard, and was underpinned by a series of key outcomes to be achieved. The findings from this consultation will help to inform the development of the Standard and stakeholders will have a further opportunity to input into this process through the planned launch of a technical consultation in 2022.

Heat Networks policy and legislation

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.

The Scottish Parliament passed the Heat Networks (Scotland) Act on 23 February 2021. The Act will 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.

We will develop and publish a Heat Networks Delivery Plan by April 2022, which will set out how the Heat Networks Act and wider policy will increase the use of heat networks in Scotland.

Support for skills and supply chain

We have worked with Scottish colleges and the heat industry to develop skills requirements for energy efficiency and low carbon heat for homes and we recently consulted on these requirements. We are also working to ensure there are training courses across Scotland's college network to meet these requirements and help grow the industry.

The Sustainable Energy Supply Chain programme is funded by the Scottish Government and administered by Energy Saving Trust. Since 2013, it has provided support and assistance for businesses in Scotland to help them participate fully and effectively in the supply chain for energy efficiency and micro-generation measures and installations. Over 4,000 people have benefited so far from the support provided by the programme.

We will develop a new 'Heat in Buildings Supply Chain Delivery Plan' by Summer 2022, specifically focussed on strengthening the broad supply chains needed to deliver energy efficiency and zero emissions heat in buildings at the pace and scale we need.

Heat Pump Sector Deal

Throughout 2020/2021, we have been working with the heat pump industry to explore the potential for a Heat Pump Sector Deal for Scotland. This would be a new process of engagement between Government and industry, working to unlock the necessary growth in the supply chain.

In June, the independently chaired Heat Pump Sector Deal Expert Advisory Group published a detailed interim report offering views across a range of important issues for the heat pump sector. The group is now finalising its recommendations.

We will respond to the final recommendations of the Heat Pump Sector Deal Expert Advisory Group following their final publication.

Scottish Industrial Energy Transition Fund (SIETF)

Via match-funding, the SIETF is incentivising investment in existing sectors, building on their considerable strengths. SIETF-supported projects already demonstrate that government and industry are taking steps together to deliver against Scotland's climate change ambitions by co-investing to decarbonise the industrial sites that local jobs and communities depend upon. Technological investment will also support inclusive growth, aligned to the global Sustainable Development Goals.

The [second SIETF funding round](#) is open for applications until 17 December 2021.

UK Government schemes

The Scottish Government continues to actively promote the GB-wide [Renewable Heat Incentive \(RHI\)](#) scheme. To maximise the up-take of the RHI to the benefit of Scottish households and businesses, the Scottish Government :

- Provides expert and bespoke advice via the Renewables and Energy Efficiency Specialist Advice Service via the Energy Saving Trust and Home Energy Scotland helpline
- Since 2011, the District Heating Loan Fund (DHLF) has provided almost £20 million to 53 different projects across Scotland.
- Provides support through the [Low Carbon Infrastructure Transition Programme](#) (see above)
- 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](#).
- Has introduced cashback through which homeowners can receive 75% cashback against their loan for renewables measures, up to a maximum of £7,500; and up to 40% of their loan, up to a maximum of £6,000, in cashback for certain energy efficiency improvements
- 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
- Has introduced cashback allowing SMEs to apply for 75% cashback, up to £10,000, towards the costs of a renewables heating system and a further 30% cashback, up to £10,000, for energy efficiency measures

The domestic RHI is scheduled to close on 31 March 2022. In February 2021, BEIS consulted on the closure of the scheme with this consultation closing in May. We expect the Government response to the consultation to be published in due course.

The scheme was previously extended by a year in response to the Covid-19 pandemic with minor amendments introduced to help applicants.

The non-domestic RHI scheme closed to new applications on 31 March 2021, though changes were made to the scheme prior to its closure to extend deadlines to support projects affected by Covid-19. Despite these changes no payments will be made on the scheme beyond 31 March 2041.

Scotland continues to attract more than its pro-rata share of both domestic and non-domestic RHI accreditations. As of the end of August 2021, there have been:

- 4,074 accreditations in Scotland to the non-domestic RHI scheme accounting for 19% of all accredited installations GB-wide, well above pro rata.
- 17,562 accreditations in Scotland to the domestic RHI scheme, accounting for 19% of all accredited installations GB-wide, again, well above pro-rata.

Scottish Government and EST are in the initial stages of identifying alternative data sources to replace RHI data. The RHI scheme will remain a valuable source of information for the next few years despite the closures of the schemes.

We are supportive of the Green Gas Support Scheme as a route to continuing support for the biomethane industry after the close of the RHI scheme. We will monitor the impact of the Green Gas Levy on end user costs, especially in relation to fuel poverty levels, and we will continue to urge the UK Government to make progress on the transition to a volumetric mechanism for the levy. We are in discussions with BEIS and Ofgem to secure access to data from the upcoming Green Gas Support Scheme, which is due to be launched later this year.

Other Heat in buildings Strategy Actions

Bioenergy - In March 2021 we published a [Bioenergy Update](#) paper where we outline how we intend to move forward over the next 18 months to understand the most appropriate and sustainable use of bioenergy resources in Scotland. We have assembled a Scottish Government working group which will develop a strategic framework for bioenergy, taking into consideration the competing demands on land for feedstock production, sustainability, technical capabilities and opportunities of a just transition to net-zero. We will also set up an Expert Panel to support this group, to consider and identify the most appropriate and sustainable use of bioenergy resources within Scotland. This will inform a Bioenergy Action Plan which we will publish in 2023.

LHEES - Local Heat & Energy Efficiency Strategies (LHEES) will underpin an area-based approach to heat and energy efficiency planning and delivery, and will set out the long-term plan for decarbonising heat in buildings and improving their energy efficiency across an entire local authority area. Accompanying the Strategies will be LHEES Delivery Plans, which will be developed in partnership with key stakeholders, and provide a strong basis for action for local communities, government, investors, developers and wider stakeholders, pinpointing areas for targeted intervention and early, low-regrets measures.

The Scottish Government have funded all 32 Scottish local authorities to pilot LHEES. The third phase of pilots was completed in April 2021 and an evaluation of the whole pilot programme is currently underway. We aim to have Local Heat & Energy Efficiency Strategies and Delivery Plans published for all local authority areas by the end of 2023. We are currently working with COSLA and local authorities to place LHEES on a statutory footing, continue testing the LHEES methodology and driving LHEES forward.

Research programme - 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. Alongside the Heat in Buildings Strategy we published a suite of research documents which bolster the existing evidence base and support heat policy development focussed on the deployment of low and zero emissions heating solutions. These reports include both heat pump and hydrogen heat in buildings evidence reviews, as well as research on the economic impacts of decarbonising heat in Scotland and a review of gas and electricity levies and their impacts, among others. We will continue to commission and publish research to build this evidence base.



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Any enquiries regarding this publication should be sent to us at

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