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20 May 2025

Dear Richard,

I write to inform the committee of publication of our fifth annual Climate Change Plan Monitoring Report. I have attached a copy of the report alongside this letter, for the committee's consideration.

Climate Change Plan Monitoring Report

The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, placed a framework for climate change plans on to a statutory footing, with sector by sector reports on progress and the inclusion of matters relevant to a just transition. This report outlines the Scottish Government's progress against each of the 43 policy indicators in the Climate Change Plan Update (2020).

Yours sincerely,

GILLIAN MARTIN

Climate Change Plan Monitoring Report 2025

May 2025

Scottish Government
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Contents

1. INTRODUCTION

This is the fifth annual monitoring progress report on the Climate Change Plan update (CCPu) which updated the 2018 Climate Change Plan (CCP) and was finalised in March 2021. The report is a statutory requirement set out in the Climate Change (Scotland) Act 2009.

The monitoring framework for climate change plans includes sector-by-sector reports on progress and the inclusion of information on environmentally and socially sustainable jobs and matters relevant to a just transition. In the most recent Climate Change Plan update, Scotland set out over 200 ambitious policies and proposals, which this report will monitor progress against. As highlighted in the following sector reports, many of these policies and proposals have since been further developed via delivery plans and have paved the way for the following achievements across Scotland in the last year:

- We have delivered an 84% increase in woodland creation from 2022/23, to 15.040 hectares in 2023-24. This included 7,700 hectares of native woodland;
- In the 2024 Programme for Government (PfG), we committed to restoring over 10,000 hectares of peatland in 2024-25 and our ambition is to restore at least 12,000 hectares in 2025-26;
- We updated the Agricultural Reform Route Map in summer 2024, when requirements for 2025 were published. The route map sets out the changes recipients of current farm payments will be expected to make from 2025 and sets out the process for changing to a new agricultural future support framework from 2026; and
- We have published a draft Transport Just Transition Plan for consultation, in February 2025, making sure that no one is left behind as our country transitions to net zero and adapts to a changing climate, through measures that promote healthier lifestyles, improve access to transport, or support the natural environment.

Climate Change in Scotland

Tackling the climate crisis is one of the First Minister's four top priorities for Government. We are committed to a just transition to net zero emissions by 2045 – one of the most ambitious targets in the world.

We are making good progress – Scotland's emissions halved between 1990 and 2022, while our economy grew by 66%. Emissions fell in all of our sectors, outside of International Aviation and Shipping, between 1990 and 2022, and in 2025-26 we are committing £4.9 billion in capital and resource spend for activities that will have a positive impact on delivery of our climate change goals.

Climate Change (Emissions Reduction Targets) (Scotland) Act 2024

Alongside working on implementing the policies outlined in the CCPU, which this report updates on, the Scottish Parliament passed the Climate Change (Emissions Reduction Targets) (Scotland) Act in 2024. It amended the 2009 Act and introduced

a multi-year ‘Carbon Budget’ framework for target setting to replace linear annual and interim targets, better reflecting the reality of longer-term emissions reductions.

The 2019 Act now requires Ministers to set carbon budgets up to 2045 by secondary legislation after consideration of advice from our independent statutory advisers, the Climate Change Committee (CCC). The Scottish Government will develop appropriate target levels, having regard to the target setting criteria provided in the 2009 Act, which include technological developments and socio-economic impacts. These regulations will be laid in the Scottish Parliament soon, setting out our proposed emissions pathway to 2045.

Upcoming Climate Change Plan (2026 – 2040)

The next Climate Change Plan will outline policies and proposals intended to reduce emissions in Scotland during the period of 2026 - 2040. Emissions reductions during the plan period will be informed by carbon budget levels as set through secondary legislation and agreed by Parliament. The Climate Change Plan will, therefore, be published following agreement of carbon budgets.

The Plan will include a revised Monitoring and Evaluation Framework, which will set out the framework for the assessment of policy and proposal progress included in the upcoming CCP. This framework will replace the existing basis for assessment.

The next Plan will set out the costs and benefits of the policies it contains, as well as setting out how these will affect different sectors of the Scottish economy and the different regions in Scotland as required under section 35 of the 2009 Act. Providing this level of clarity will support long term economic development and investment opportunities in Scotland as we transition to a green economy.

Scottish Ministers will also continue to work with the UK Government who hold key policy levers with which to deliver a net zero future including for energy, aviation and shipping. These must be acted upon, and at pace, if we are to deliver not only Scotland’s climate targets, but the UK’s as well.

Overview

This set of monitoring reports is complementary to both to the CCPu and the most recent Official Statistics on Scotland’s greenhouse gas emissions (GHG) and is best read alongside these documents.

Official Statistics on Scottish greenhouse gas emissions determine progress towards national emissions reduction targets and also provide information on total annual emissions at a sectoral level. Statistics are published annually, typically in June, and two years in arrears. For example, the most recent figures, published in 2024, cover emissions during 2022.

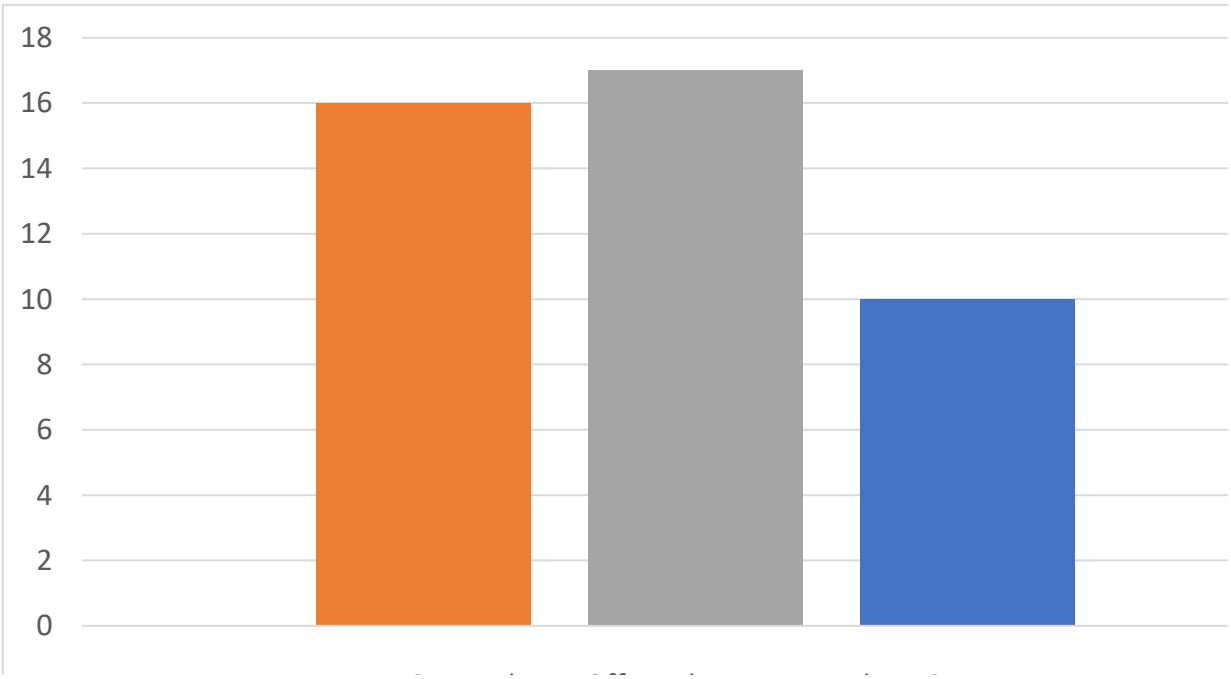
While the greenhouse gas statistics are from 2022, the data sets which inform the policy indicators in this report are the most recent available as of May 2025.

The Monitoring Framework for each of the sectors of the CCPu is structured on three levels: greenhouse gas emissions statistics provide the highest level measure of progress at an economy wide and sectoral level; a suite of policy outcome indicators measure the success of policies in achieving the changes that are needed; and a policy tracker monitoring implementation of specific policies and proposals.

Policy Outcome Indicators

The CCP includes key policy outcomes for each sector, defined as a measurable change on the ground resulting from a policy or combination of related policies. The Framework will measure progress towards achieving these with a set of policy outcome indicators. A policy outcome indicator is a specific, objective measure closely aligned to achieving the outcome. It will underpin monitoring of long-term progress towards the outcome but should also be responsive to change in the near term, so that it can be used to evaluate whether the CCP is on track. Specific milestones (or targets) are set, where appropriate, for the level of the indicator to be achieved at a given time.

In the CCPu, the set of outcome indicators from the 2018 CCP were reviewed to ensure that they reflect the updated policy commitments and to improve the quality and clarity of indicators. This led to new outcome indicators being identified, others being revised, and a few being removed where they were no longer appropriate or there were significant issues with robustness. The following figure and table show the overview of progress against all policy outcome indicators across the sectors.



Summary Table 1: Progress against policy outcome indicators

Chapter 1: Electricity	On Track	Off Track	Too Early
Electricity grid intensity (CO2e per kilowatt hour)	X	-	-
Installed capacity of renewable generation (GW)	X	-	-
Renewable capacity at planning stages (GW: 3 categories)	X	-	-
Loss of Load Expectation (hours per year)	X	-	-

Chapter 2: Buildings	On Track	Off Track	Too Early
Number of existing domestic properties using low and zero greenhouse gas emissions heating (LZDEH) systems	-	-	X
Services sector fossil fuel heat consumption	-	-	X
% of non-electrical heat consumption met from renewable sources	-	-	X
Energy intensity of residential buildings (MWh per household)	X	-	-
Emissions intensity of non-domestic buildings (tonnes of CO2e per £ million Gross Value Added)	X	-	-
% of homes with an EPC[1] (EER,[2] or equivalent) of at least C	-	X	-
% new homes built with a calculated space heating demand of not more than 20 kWh/m²/yrT	X	-	-
Percentage of households in fuel poverty	-	X	-

Chapter 3: Transport	On Track	Off Track	Too Early
% reduction in car kilometres	-	X	-
% of new car registrations that are ULEV	-	X	-
% of new van registrations that are ULEV	-	X	-
% of new HGV registrations that are ULEV	-	-	X
% of new bus registrations that are ULEV	X	-	
% reduction in emissions from scheduled flights within Scotland	-	-	X
% of ferries that are low emissions	X	-	-

[1] Energy Performance Certificate
[2] Energy Efficiency Rating

% of single track kilometres electrified	-	X	-
% of train kilometres powered by alternative traction	-	X	-

Chapter 4: Industry	On Track	Off Track	Too Early
Industrial energy productivity (£GVAm per GWh)	-	X	-
Industrial emissions intensity (tCO2e per £GVAm)	-	X	-
% of Scottish gas demand accounted for by biomethane and hydrogen blended into the gas network	-	-	X

Chapter 5: Waste	On Track	Off Track	Too Early
Total amount of landfilled waste (tonnes)	-	X	-
Total amount of biodegradable landfilled waste (tonnes)	X	-	-
Number of closed landfill sites with exploratory landfill gas capture/ flaring	-	X	-
Household and non-household food waste reduced (tonnes)	-	X	-
Total waste generated (tonnes)	X	-	-

Chapter 6: LULUCF	On Track	Off Track	Too Early
Hectares of woodland created per year	-	X	-
Woodland ecological condition	-	-	X
Woodland Carbon Code: Projected carbon sequestration (validated credits)	X	-	-
Annual volume (in millions of cubic metres) of Scottish produced sawn wood and panel boards used in construction	-	X	-
Hectares of peatland restored per year	-	X	-
Peatland Carbon Code: Projected emissions reduction (validated units)	-	X	-

Chapter 7: Agriculture	On Track	Off Track	Too Early
Increased engagement with Farm Advisory Services on environmental issues and climate change	X	-	-
Use of Nitrogen fertilisers	X	-	-

Spreading precision of Nitrogen fertilisers	X	-	-
Nitrogen use efficiency for crop production	-	-	X
Time taken from birth to slaughter and increased efficiency through improved health and reduced losses	-	X	-
Improvement in covered slurry storage	-	-	X
Precision application of manure and slurry	-	-	X
Area of woodland on agricultural land	X	-	-

Policy Tracker

The CCPu includes a set of specific policies and proposals for each sector to achieve the policy outcomes. Part C of each policy chapter monitors progress towards implementing policies and developing proposals. This consistently records progress and next steps for policies, and where possible includes implementation indicators for specific policies.

Change to Monitoring Arrangement

References to CCPu sector emission envelopes have been removed, to align with the new carbon budget approach in the Climate Change (Scotland) Act 2009 as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2024.

2. Chapter 1: Electricity

2.1 Part A - Overview of Sector

The outturn emission statistics for 2022 (published in 2024) show a position of **1.7 MtCO2e**.

The CCPu sets out the following three policy outcomes for this sector, the indicators for which are summarised below:

The electricity system will be powered by a high penetration of renewables, aided by a range of flexible and responsive technologies.	On Track	Off Track	Too Early to Say
Electricity grid intensity (CO2e per kilowatt hour)	x	-	-
Installed capacity of renewable generation (Gigawatt (GW))	x	-	-
Renewable capacity at planning stages (GW: 3 categories)	x	-	-

Scotland's energy supply is secure and flexible, with a system robust against fluctuations and interruptions to supply.	On Track	Off Track	Too Early to Say
Loss of Load Expectation (hours per year)	x	-	-

Scotland secures maximum economic benefit from the continued investment and growth in electricity generation capacity and support for the new and innovative technologies which will deliver our decarbonisation goals.

There are no existing indicators for this policy outcome. More information is provided in Part C.

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector Commentary on Progress

Scotland has made significant progress decarbonising the electricity sector and maintained an electricity grid intensity of below 50 gCO2e/kWh for the years 2017-2022. The overall downward trend from a carbon intensity of around 320 gCO2e/kWh in 2010 is primarily the result of the closure of two coal fired power stations in 2013 and 2016, as well as reduced reliance on gas for power generation.

Progress has also been made in relation to renewable electricity capacity in Scotland, which has risen over the last 12 months, from 15.4 GW at the end of 2023 to 17.6 GW at the end of 2024. This is largely due to increases in wind capacity.[3] In Scotland during Q3 2024, 7.5 Terawatt hour (TWh) of renewable electricity was generated and in the first three quarters of 2024 Scotland has generated 26.6 TWh.[4]

To move from a low to a zero-carbon electricity system, we must address the remaining sources of emissions arising from Scottish electricity generation, while maintaining security of supply and a resilient electricity system.

It is important to acknowledge the constraints that we are facing. Markets, policies, and regulations affecting the electricity sector are largely reserved to the UK Government. This means that achieving our targets is dependent on swift decisions and actions from the UK government, including on electricity market reform. We are working with the UK Government on a number of reforms, including the Electricity Act 1989 applications for consent process. The proposed changes will enable an accelerated process for considering and determining such applications in Scotland, while increasing statutory public participation in the development of proposals.

Noting that the legislative and regulatory levers required to deliver carbon capture and storage (CCS) are reserved to the UK Government, we will continue to work with the UK Government on options for accelerated decarbonisation of unabated combined-cycle gas turbine (CCGT) with the aim of reducing the use of unabated fossil fuels for electricity generation. Although we are not anticipating a funding announcement ahead of the UK Government Comprehensive Spending Review, a meaningful Track 2 update is needed urgently from the UK Government to maintain momentum and to provide investors with confidence. The Scottish Government will continue to work constructively with the UK Government to ensure the Acorn Project and Scottish Cluster secure the fastest possible deployment, so that a just transition for our energy workforce can be secured, while also delivering on net zero targets.

Developments in Monitoring Arrangements Since Last Report

N/A

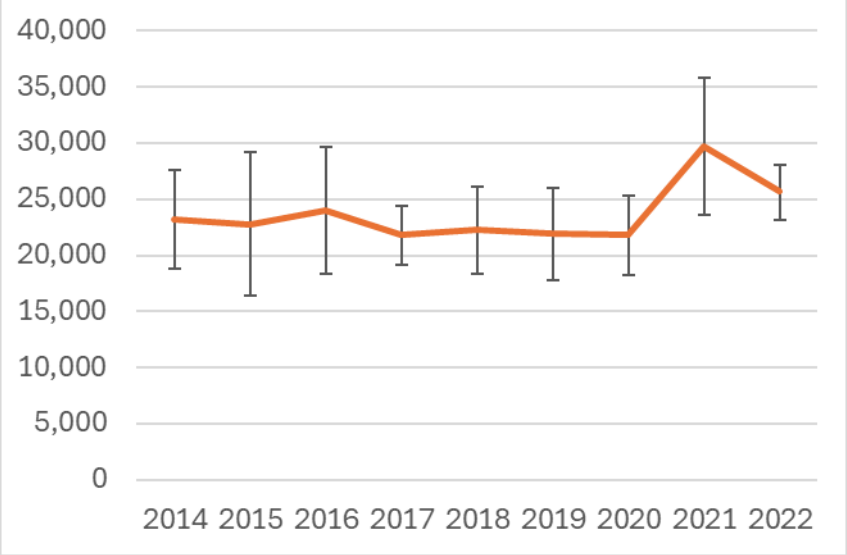
[3] Energy Statistics for Scotland - Q3 2024 - gov.scot
[4] Energy Statistics for Scotland - Q3 2024 - gov.scot

2.2 Part B – Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic.
Indicator: Full-time equivalent (FTE) employment in Low Carbon Renewable Energy Economy Indicator.
On-Track Assessment (Milestones/Targets): Year to year change.
Most Recent Data: 2022.
Data Source(s): Low Carbon and Renewable Energy Estimates, Office of National Statistics.
Assessment: Too early to say.
Commentary:

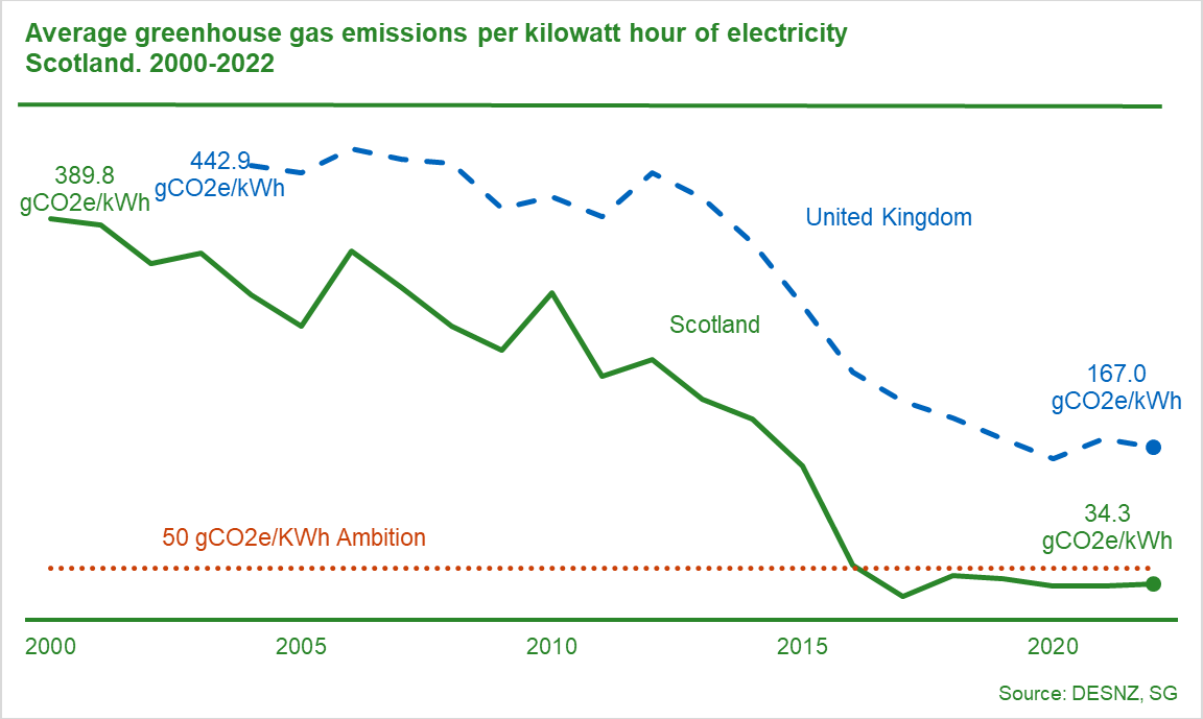
- In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs.
- The estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval.
- Scottish LCREE employment in 2022 is lower than in 2021, but the difference is not statistically significant. Caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



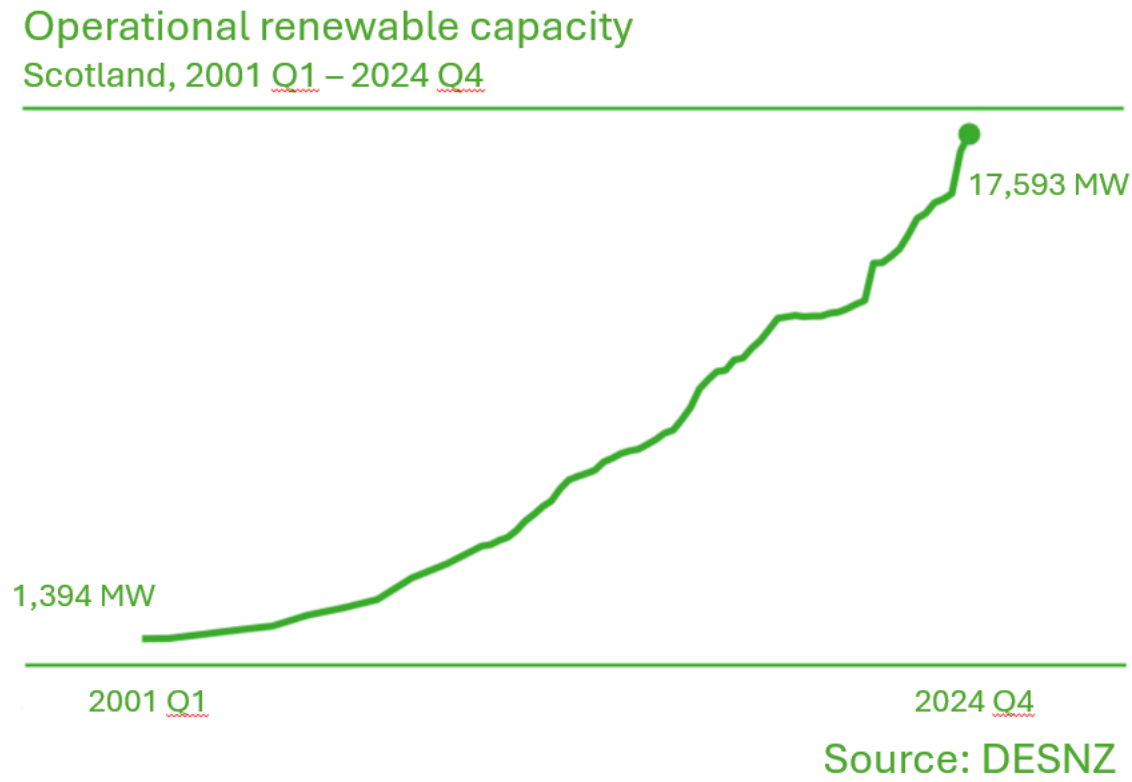
Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates.

Policy Outcome: 1
Indicator: Electricity grid intensity (CO2e per kilowatt hour).
On-Track Assessment (Milestones/Targets): Maintain below 50g CO2e per kilowatt hour.
Most Recent Data: 2022.
Data Source(s): Department for Energy Security and Net Zero (DESNZ), Scottish Greenhouse Gas Statistics.
Assessment: On track.
Commentary:



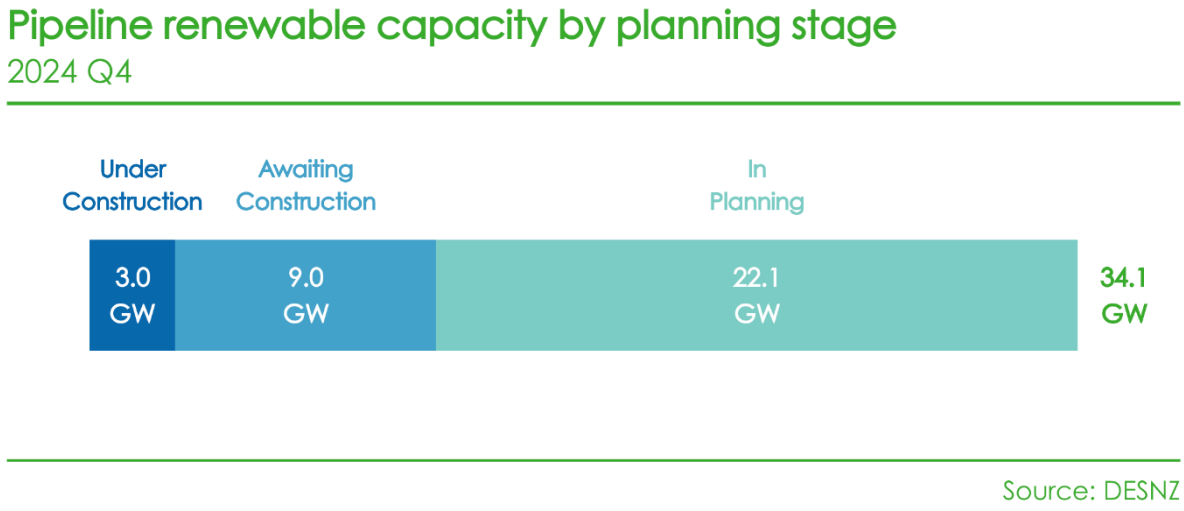
- Scottish grid emissions are calculated by taking emissions from the electricity sector divided by total electricity generated.
- Scotland has maintained an electricity grid intensity of below 50 gCO2e/kWh since 2017.
- 2022 saw grid emissions remain similar to 2021 levels.
- The overall downward trend observed from a carbon intensity of around 320 gCO2e/kWh in 2010, is chiefly a result of the closures of Cockenzie and Longannet coal fired power stations in 2013 and 2016 respectively, as well as a reduced reliance on gas for power generation.
- With the closure of Hunterston B Nuclear power station in 2022, Scotland now has just one nuclear power plant left at Torness that is now due to close in 2030.
- Our expectation is that with an increased penetration of renewables, and no planned expansion of unabated fossil fuel power generation, Scottish grid intensity will remain consistently below 50 gCO2e/kWh in the future.

Policy Outcome: 1
Indicator: Installed capacity of renewable generation (GW).
On-Track Assessment (Milestones/Targets): Year-to-year change.
Most Recent Data: 2024 Q4.
Data Source(s): Department for Energy Security and Net Zero (DESNZ) Energy trends, DESNZ Renewable Energy Planning Database (REPD).
Assessment: On track.
Commentary:



- Scotland had 17.6 GW (17,593 MW) of installed renewable electricity generation capacity operational in 2024 Q4. This is an increase of 2,204 MW since 2023 Q4.
- The bulk of this capacity (10.3 GW) is onshore wind with the next largest capacity coming from offshore wind (4.3 GW).
- The capacity of other renewable technologies has also risen. Solar capacity has increased from 264 MW in 2015 to 698 MW in 2024 Q4.
- It is expected that renewables capacity will continue to increase in the 2020s and 2030s.

Policy Outcome: 1
Indicator: Renewable capacity at planning stages (GW: 3 categories)
On-Track Assessment (Milestones/Targets): Year to year change
Most Recent Data: 2024 Q4
Data Source(s): DESNZ Renewable Energy Planning Database (REPD)
Assessment: On Track
Commentary:



- As of December 2024, 669 renewable electricity generation projects with a potential generating capacity of 34.1 GW are in the pipeline: 3.0 GW of these are under construction, 9.0 GW are awaiting construction and applications have been submitted for 22.1 GW.
- Pipeline estimates do not include all of the potential 28GW of offshore wind that the ScotWind leasing round, or Innovation and Targeted Oil and Gas (INTOG), could add. This is due to projects not yet being included in the REPD, which is used for calculating pipeline capacity, as these projects are still subject to planning and consenting decisions.

Policy Outcome: 1
Indicator: Loss of Load Expectation (hours per year)
On-Track Assessment (Milestones/Targets): Maintain Great Britain (GB) standard below 3 hours per year
Most Recent Data: October 2024
Data Source(s): NESO: Winter Outlook Report[5]
Assessment: On Track
Commentary: Loss of Load Expectation (LOLE) is a measure of security of supply for the GB electricity system. This is measured through the number of probability projected hours of a year in which demand could exceed supply, and which would require measures to be taken by the National Energy System Operator.

Their modelling indicates that the GB grid should remain within the GB standard of 3 hours LOLE per year.

[5] download

2.3 Part C - Information on Implementation of Individual Policies

Outcome 1: The electricity system will be powered by a high penetration of renewables, aided by a range of flexible and responsive technologies

Policy: Support the development of a wide range of renewable technologies by addressing current and future challenges, including market and policy barriers.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu:
Onshore Wind: In December 2022, the Scottish Government published its Onshore Wind Policy Statement, setting an ambition of 20 GW of onshore wind by 2030. The Scottish Government continues to maintain its focus on tackling barriers to deployment – such as aircraft and seismological radar issues – working in partnership with the industry and other stakeholders through our Onshore Wind Strategic Leadership Group. Through this group, an Onshore Wind Sector Deal was developed and agreed with industry in 2023. The Sector Deal is a joint commitment between industry and the Scottish Government to enable the delivery of the 20 GW ambition, whilst ensuring maximum benefits to the people of Scotland. We are continuing to work with industry to deliver remaining Sector Deal commitments.

Offshore Wind: The Scottish Government continues to maintain its focus on enabling the deployment of offshore wind, including by accelerating the delivery of the necessary infrastructure through targeted investment, and working with the UK Government to address reserved market and policy issues.

We are investing up to £500 million over five years to anchor our offshore wind supply chain in Scotland. This investment will support market certainty, and help create a highly productive, competitive offshore wind economy that supports thousands of new jobs, embeds innovation and boosts skills. We are delivering this strategy holistically across the Scottish public sector to achieve strategic alignment of public sector investment in offshore renewables supply chain and infrastructure development.

We also continue to work closely with the UK Government and others on reforms to the Contracts for Difference (CfD) scheme to ensure that maximum support, sufficient budget and more longer-term certainty is provided to enable the delivery of Scottish offshore wind projects at scale; and to seek greater clarity on timescales for reforms to the electricity market and connections queue process, as well as strengthened grid infrastructure, which are critical for supply chain and investor confidence in the Scottish pipeline.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these:
Onshore wind: The Onshore Wind Sector Deal was signed with industry on 21 September 2023. The Sector Deal has set indicative dates for the various commitments within it. Scottish Government officials and industry representatives meet regularly to monitor the delivery of Sector Deal commitments. The Onshore Wind Strategic Leadership Group also meets a few times a year to track the delivery of the commitments in the deal.
Offshore wind: Established Strategic forums gather frequently to monitor delivery progress.

Timeframe and expected next steps:
Onshore Wind – Deliver remaining Sector Deal commitments set out in the Onshore Wind Sector Deal as soon as reasonably practical.
Offshore Wind – The UK Government consultation on reforms for CfD Allocation ran from February 21 – March 21, with their response expected in summer 2025, with CfD reforms implemented for that allocation round.

Policy: Support improvements to electricity generation and network asset management, including network charging and access arrangements that encourage the deployment and viability of renewables projects in Scotland.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: We welcomed the UK Electricity Networks Commissioner's report on how to accelerate the deployment of transmission infrastructure. We also welcomed the UK Government's response, which was published as part of its Transmission Acceleration Action Plan (TAAP). The joint UK Government and Ofgem Connections Action Plan (CAP) offered reforms to the connections process, as well as changing from a 'first come – first served' approach to a 'first ready – first served' approach.

Further work in this area has been taken forward by NESO and was approved by Ofgem on 15 March 2025. Projects seeking connection are now required to align with the UK Government's Clean Power 2030 Action Plan (CP30) and subsequent NESO strategic plans such as the Strategic Spatial Energy Plan (SSEP) which set a locational technology capacity for what is required to meet CP30 and largely decarbonise the GB grid by 2050. The approach to connections is now 'first ready, first needed, first connected.'
The UK Government established the Electricity Networks Delivery Forum, to oversee implementation of the TAAP and the CAP.
We are using this forum to ensure that the proposals are robust, fit for purpose and deliver for Scotland.
The UK Government agreed within the TAAP to work with us on a Review of Scottish Consenting, to modernise the underlying legislation that Scottish Ministers work to. A consultation detailing proposed reforms was published in October 2024, with responses received from a wide range, and large number, of organisations and individuals. These were then included in the Planning and Infrastructure Bill, which is currently making its way through parliamentary passage.
We also continue to press for urgent reforms to the transmission charging arrangements through Ofgem's strategic review of transmission charging and its transmission charging task force.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A Timeframe and expected next steps: We will continue to work with the UK Government, National Energy System Operator, Ofgem, network companies and wider stakeholders to implement the necessary reforms.

Policy: Publish a revised and updated Energy Strategy, reflecting our commitment to net zero and key decisions on the pathways to take us there.
Date announced: March 2020.

Progress on implementation since time of last report / CCPu: The draft Energy Strategy and Just Transition Plan was published for consultation in January 2023 setting out a draft route map of actions to deliver a flourishing net zero energy system. An independent analysis report on the consultation was published in September 2023.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The draft Energy Strategy and Just Transition Plan proposed a route map to 2045 with associated milestones and actions. It also set out draft just transition outcomes for the energy sector, noting that a full monitoring and evaluation framework would be informed by the Just Transition Monitoring and Evaluation Framework.
Timeframe and expected next steps: The issues in the draft Energy Strategy and Just Transition Plan are informed and influenced by recent developments in the UK Government's energy policy – including publication of the Clean Power 2030 Action Plan in December 2024 – as well as court decisions. This is a rapidly changing landscape, and we are taking time to reflect on those developments before drawing any conclusions and publishing any final strategy.

Policy: Develop and publish a Hydrogen Policy Statement by the end of 2020, followed by a Hydrogen Action Plan during 2021.
Date announced: 2020/21 PfG.
Progress on implementation since time of last report / CCPu: We published our Hydrogen Policy Statement in December 2020, which informed the publication of our Hydrogen Action Plan in December 2022. We published our Hydrogen Export Plan (Scotland a Trading Nation) in November 2024.
Have any implementation indicators / milestones been set for this policy? No formal milestones set, but an ambition was set to install 5 GW of renewable and low-carbon hydrogen production capacity in Scotland by 2030 and 25 GW by 2045.
If so, most recent data for progress against these: 5 MW of renewable hydrogen production is being commissioned this year with a further 20 MW of production capacity being installed by 2026. A pipeline of Scottish renewable hydrogen projects totalling 1.7 GW of capacity have applied for the second round of the UK Government's hydrogen funding programme (capped at 875 MW). Shortlisting of projects by the UK Government for this round of funding was delayed in December 2024 and is now expected in Q1 2025. Progression of low carbon hydrogen production is aligned with UK Government funding of the Acorn project.
Timeframe and expected next steps: We continue to support the early development stages of Scotland's hydrogen economy via our funding programmes. To date, we have invested a total of over £30 million – alongside the deployment of offshore/onshore wind which together form a compelling combination as part of our future net zero economy.

The opportunities and challenges of integrating high levels of renewables on the electricity grid in the period to 2030 will be most acute in Scotland and make a strong case for the synergies between offshore wind and green hydrogen production. Access to renewable electricity and the high cost of electricity is among the barriers to deployment in hydrogen production. The role of hydrogen in the Strategic Spatial Energy Plan and in Clean Power 2030 Action Plan continues to be developed.

Policy: A new renewable, all energy consumption target of 50% by 2030, covering electricity, heat, and transport.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: In 2022, Scotland consumed 149,434 GWh total final energy and generated 44,068 GWh energy from renewable sources. The energy that Scotland generates from renewable sources is equivalent to 29.5% of total final consumption. This is an increase from 23.4% in 2021.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Ongoing.

Policy: Introduce a new framework of support for energy technology innovation, delivering a step change in emerging technologies funding to support the innovation and commercialisation of renewable energy generation, storage, and supply.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: While the Scottish Government has provided consistent support for the marine energy sector for more than a decade, the main levers for enabling the commercialisation of these emerging, pre-commercial technologies lie with the UK Government. We continue to engage with the UK Government regarding funding mechanisms to support the route to commercialisation.

The Scottish Government has supported our internationally recognised Wave Energy Scotland (WES) programme since 2014, investing over £50 million in the development of wave energy technology to date. The establishment and growth of a world leading marine renewables industry in Scotland, supported by WES, has resulted in Scotland being internationally recognised as a global frontrunner in the development of wave energy. Scotland is also a world leader in tidal stream energy, being home to the world's first tidal stream array, the world's largest tidal stream array and world's largest tidal stream energy converter.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The Scottish Government will continue to support marine energy on its route to commercialisation.

Policy: Renewed focus on developing local energy projects and models, including through Community and Renewable Energy Scheme (CARES), supporting the achievement of 2 GW of renewable energy being in community and local ownership by 2030.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: Local and community energy projects continue to be supported through the Scottish Government's CARES programme.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: An annual report on Community and Locally Owned Energy in Scotland monitors progress towards the Scottish Government's

ambition of 2 GW of community and locally owned energy by 2030. This report is produced by Energy Saving Trust on behalf of the Scottish Government through the CARES contract. At the end of December 2024, there was an estimated 1,109 MW of community and locally owned renewable energy capacity from 42,990 installations operational in Scotland. This is a progression of 55% towards the Scottish Government's target of 2 GW of community and locally owned energy by 2030.
Timeframe and expected next steps: Following the conclusion of the previous contract, a new CARES contract, which will run until March 2029, launched in April. CARES will continue to support community energy, with up to £8m available through the Community Energy Generation Growth fund. This includes funding provided by GB Energy. The Scottish Government has also announced £1 million in funding for development support to help communities to develop early ideas for projects. This will increase the accessibility of community energy projects and will ensure communities continue to see the benefit of our energy transition. CARES will also continue to support community building decarbonisation, and shared ownership.

Policy: We will carry out detailed research, development, and analysis during 2021 to improve our understanding of the potential to deliver negative emissions from the electricity sector.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: Research has been undertaken to better understand the potential for negative emissions technologies in Scotland, including a Feasibility Study published in November 2023. See Negative Emissions Technologies (NETs) chapter for more detail.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Ongoing – see NETs chapter.

Policy: We will continue to review our energy consenting processes, making further improvements and efficiencies where possible, and seeking to reduce determination timescales for complex electricity generation and network infrastructure applications.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: To address the substantial increase in demand relating to Electricity Act 1989 applications, the Energy Consent Unit in the Scottish Government has implemented a comprehensive workforce strategy. We have successfully recruited 40 new staff to the Energy Consents Team to build a diverse, skilled team.

We have designed and implemented a structured training and development programme to ensure our new staff understand the required quality standards. While this investment in training temporarily affects our immediate capacity, it represents a strategic decision to build robust, sustainable capability.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Our strategic objective remains to process this increased volume of applications in alignment with both the Onshore Wind Sector Deal and the Transmission Networks Short Life Working Group recommendations.

External factors can often negatively influence determination timelines – such as the need for additional evidence from applicants, applicants wishing to alter applications, lack of third-party resource and the legal obligation to hold public inquiries in certain circumstances. We have implemented several measures to optimise the elements within our control:

- Developed a framework for 52-week determination of Priority Grid Applications,
- Revised guidance being prepared on Pre-Application requirements for Grid Applications,
- Adjusting submission requirements for Necessary Wayleave applications related to network development.

We also continue to collaborate with the UK Government on their Review of Scottish Consenting. The public consultation undertaken in late 2024 included several reforms designed to streamline timescales. Subject to the UK Government's analysis of the responses, the consultation document set out an intention to legislate to implement reform as soon as parliamentary time allows.
Timeframe and expected next steps: We expect to see these benefits begin to materialise from summer 2025, as our new staff become fully operational.

Policy: We will deliver the actions from our Offshore Wind Policy Statement, published in 2020. These actions, ranging from support for supply chain, planning, innovation, and skills, will support the development of between 8 and 11 GW of offshore wind capacity by 2030.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: Our Offshore Wind Policy Statement (2020) set out the Scottish Government's ambition for 8-11 GW of offshore wind in Scotland by 2030. This is currently being reviewed considering the significant ambition demonstrated by the private sector in the ScotWind and INTOG leasing rounds. Scotland has a current reported potential pipeline of over 40 GW of offshore wind projects, on top of the 3 GW which is currently operational, and an updated Offshore Wind Policy Statement is due to be published in 2025/26. This will be informed by an updated Sectoral Marine Plan for Offshore Wind Energy (SMP-OWE) which will deliver the planning framework for the ScotWind and INTOG leasing rounds, supporting deployment in Scottish waters whilst protecting marine users and our environment.
We are taking a "Team Scotland" approach, across the public sector, to seize opportunities which align with the Scottish Government's strategic supply chain priorities, as set out in our Offshore Wind Focus paper published alongside the Green Industrial Strategy in September 2024.

Recognising that collective action is required urgently to ensure that we have the right people, with the right skills, in the right place at the right time, the Scottish Government has convened a 'Team Scotland' Offshore Wind Skills short life working group, bringing together government, industry, and key delivery partners to develop a joint offshore wind skills action plan at pace.

We encourage developers to offer community benefit and shared ownership opportunities as standard on all renewable energy projects to deliver tangible outcomes for communities from developing our natural resources.

We have launched a public consultation on the review of our Good Practice Principles for community benefits from offshore renewables. The consultation closed on 11 April 2025.

We have upskilled and resourced the licensing and consenting team who process offshore wind farm applications to provide timely and robust determinations which balance minimising potential impacts to the marine environment and other sea users with the need to combat climate change. This will ensure the right offshore wind projects are taken forward and a long-term pipeline of work is available to the Scottish supply chain.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: We are almost tripling our capital funding in offshore wind to £150 million in 2025-26, part of our strategic investment of up to £500 million over five years, which is expected to leverage additional private investment of £1.5 billion in the infrastructure and manufacturing facilities critical to growing the sector.
Timeframe and expected next steps: We will publish an updated Offshore Wind Policy Statement in 2025-26, reflecting on the significant ambition demonstrated by the private sector in the ScotWind and INTOG leasing rounds and informed by an updated SMP-OWE.

The Scottish Government will continue work to leverage additional private investment in critical supply chain and infrastructure.

The 'Team Scotland' Offshore Wind Skills short-life working group has committed to developing and implementing a joint offshore wind skills action plan at pace.

Policy: Accelerate our work with aviation, energy, and other stakeholders to ensure that all radars are wind turbine tolerant/neutral during the coming decade.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: The finalised Onshore Wind Policy Statement was published in December 2022. The Onshore Wind Aviation Radar Delivery 2030 group (OnWARD 2030), led by RenewableUK and formed at the request of the Department for Energy Security and Net Zero (DESNZ), Aviation Management Board continues to meet regularly. The aim of this group is to create a more collaborative and strategic relationship between the aviation and renewables industries, delivering mutual benefit and allowing for strategic solutions to barriers to Onshore Wind deployment.

The Scottish Government has ensured ongoing official representation on the Air Defence and Offshore Wind Programme Board, within the Offshore Wind Industry Council (OWIC) Aviation and Radar workstream. This sustained engagement aims to address both defence and civil radar concerns and coordinate efforts to mitigate impacts effectively. The Onshore Wind Sector Deal has a number of commitments

under the technical theme relating to aviation. These are being progressed by OnWard 2030 and the Scottish Government.

The Scottish Government also attends the UK Government Onshore Wind Industry Taskforce which has been established to identify and then deliver the actions needed to accelerate onshore wind deployment to 2030 and beyond.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: OnWARD 2030 meets regularly and is taking forward several of the aviation related Onshore Wind Sector Deal commitments. In addition, the Scottish Government is working with the UK Government Onshore Wind Industry Taskforce to progress Sector Deal commitments, particularly those which have reserved aspects.
Timeframe and expected next steps: Ongoing.

Policy: Review and publish an updated Electricity Generation Policy Statement ahead of the next CCP.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: The draft Energy Strategy and Just Transition Plan, published in January 2023, set out a strategic vision for the future of the electricity sector in Scotland and actions to deliver that.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: There have been recent developments in the UK Government's energy policy, including publication of the Clean Power 2030 Action Plan in December 2024, and this is a rapidly changing landscape. We are taking time to reflect on those developments before drawing any conclusions and publishing any final strategy/statement.

Outcome 2: Scotland's electricity supply is secure and flexible, with a system robust against fluctuations and interruptions to supply

Policy: Support the development of technologies which can deliver sustainable security of supply to the electricity sector in Scotland and ensure that Scottish generators and flexibility providers can access revenue streams to support investments.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: As we move towards a net zero energy system, we will need increasing levels of energy storage. The need for greater flexibility capacity in our energy system was set out clearly in National Energy System Operator (NESO) Clean Power 2030 advice to the UK Government. Pumped storage hydro (PHS) is a critical contributor to providing this flexibility in the power supply and wider energy security.

There is currently 0.74 GW of installed PHS operational in Scotland with a further 3 GW of PHS projects awaiting construction. Including the 3 projects awaiting construction, there is a pipeline of over 10 GW of PHS projects at various stages of development in Scotland.

On 10 October 2024, the UK Government confirmed its intention to create a cap and floor scheme to unlock investment in long duration electricity storage (LDES) projects, for which Ofgem will be the regulator, and published a call for input in December 2024. Based on the feedback and responses to the call for input, Ofgem and DESNZ published a joint Technical Decision Document (TDD) on the cap and floor scheme, on 11 March 2025. The TDD confirmed key details of the scheme and set out how it will operate, application window timelines, eligibility criteria, and the potential LDES capacity needed, among other technical details. The scheme opened for first applications on 8 April 2025. We will continue to engage with the UK Government, Ofgemand industry to ensure this mechanism maximises the generation and economic potential of all viable LDES technologies, including PHS, in Scotland.

Battery Energy Storage Systems (BESS), in the right locations, can also help to deliver reliable and secure power by storing electricity for use when it is needed most. Batteries play an important role in managing the variability and intermittency of renewable energy sources, balancing the grid, and improving security of supply. There is already a strong pipeline of BESS projects in Scotland with an opportunity for delivering community and economic benefits. The UK Government's Clean Power 2030 Action Plan indicated that around 5.8 GW of transmission grid scale battery storage will be required in Scotland by 2030 to meet its clean power targets.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We will continue to engage with the UK Government, NESO, Ofgem and industry on the delivery of the cap and floor scheme
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Policy: Press the UK Government for market mechanisms and incentives which recognise locational value, both for energy and for security of supply, and which do not create undue barriers for investment in Scotland.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: In 2022, the UK Government began their Review of Electricity Market Arrangement (REMA), to explore what reforms should be made to the GB wholesale electricity market to ensure it supports the achievement of net zero, whilst ensuring security of supply and lowering costs for consumers. The Scottish Government has closely engaged with the UK Government on REMA, including providing a response to the 2024 consultation and continuing to press the UK Government for reforms that will help reduce electricity costs in Scotland, whilst protecting investment in renewables and other low-carbon technologies. The Scottish Government has been clear that investors need clarity on REMA prior to Allocation Round 7 (AR7) and that the UK Government must act quickly to demonstrate continued support for renewables development in Scotland to maintain investor confidence in the sector and ensure that existing renewables continue to deliver for our net zero aspirations.

UKG is also progressing work on the introduction of a Cap and Floor mechanism for long duration electricity storage (LDES), as well as changes to the capacity market.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The UK Government is expected to announce a decision on the reforms to be progressed through REMA in summer 2025. On 8 April 2025, Ofgem announced the first application window for the cap and floor scheme was open. They aim to approve the first projects by Q2 2026.

Policy: Collaborate on actions to support investment in new pumped storage hydro capacity.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: We have been engaging with UK Government, Ofgem and key stakeholders on the delivery of a market support mechanism for pumped storage hydro. On 10 October 2024, the UK Government confirmed its intention to create a cap and floor scheme to unlock investment for Long Duration Electricity Storage (LDES) projects.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: On 8 April 2025, Ofgem announced the scheme was now open for first applications.
Timeframe and expected next steps: Ofgem aim to approve first projects by Q2 2026.

Policy: Work with all parties to secure maximum benefits from the move towards smarter and more flexible electricity systems and networks, as set out in the UK Smart Systems and Flexibility Plan (2017).
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu:
NESO are also developing a Regional Energy Strategic Plan (RESP) for Scotland which offers an opportunity to develop a bottom-up approach to understanding energy infrastructure needs and coordination between gas, heat, electricity and

hydrogen – it will also play a role in defining an energy system 'strategic plan' for Scotland at a distribution level. At a national level, the output of the RESP will be very valuable, and the Scottish Government want to work with the RESP team in Scotland to further understand how we can align most effectively.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: no
Timeframe and expected next steps:

Policy: Encourage and support increased interconnection which can enhance Scottish system security while considering effects on domestic capacity and investment.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: The Scottish Government is working with stakeholders to ensure that reforms to, and expansion of, the electricity grid are robust and work for Scotland. While regulation of electricity networks is reserved to the UK government, we are engaging with the UK Government, Ofgem, NESO, and network companies to enable the timely delivery of critical energy infrastructure.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The Scottish Government is exploring how best to support existing work to establish new interconnectors. Current operational interconnectors from GB grid are:

- 1GW to the Netherlands (BritNed)
- 4GW to France (IFA, IFA2 and ElecLink)
- 1GW to Belgium (Nemo Link)
- 500MW to Northern Ireland (Moyle)
- 500MW to the Republic of Ireland (East West)
- 1.4GW to Norway (North Sea Link)
- 1.4GW to Denmark (Viking Link)

Policy: Launch a call in 2021 for evidence and views on technologies that can transform our electricity system, including energy storage, smart grid technologies, and technologies to deliver sustainable security of supply. This will help ensure that our funding and interventions support world leading activity in Scottish based companies.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: Requirement for a call for evidence has been superseded by research commissioned into security of supply.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The final security of supply report[6] was published in December 2023.

[6] Electricity system security of supply in Scotland | ClimateXChange

Policy: Develop a series of whole system energy scenarios to guide infrastructure investment decisions for Scotland.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: Energy Systems Catapult produced a comprehensive set of Scotland-specific whole energy system scenarios providing options to reach the 2030 and 2045 energy system targets[7].

The Scottish Government continues to engage with NESO and the UK government on future energy system planning and scenario modelling (such as NESO's Strategic Spatial Energy Plan (SSEP), Regional Energy Strategic Plans (RESP) and Future Energy Scenarios).

The UK Government has an ambition to achieve clean power by 2030, and published its Clean Power 2030 Action Plan (CP30) in December 2024, incorporating advice it commissioned from NESO on the pathways to achieve clean power. The Scottish Government is working with the UK Government and NESO to ensure the delivery of the Action Plan fully considers our own renewables ambitions, and the need for clean power to bring clear benefits for communities and energy consumers.

On 20 October the UK, Scottish and Welsh governments jointly commissioned NESO[8] to produce a Strategic Spatial Energy Plan (SSEP) for GB, to help accelerate the government's clean energy superpower mission. The SSEP will assess the optimal locations, quantities and types of energy infrastructure required (from 2030-2050), to meet future energy demand with a clean, affordable, and secure supply. Clean Power 2030 will form the baseline for the SSEP. The outputs of these plans will inform NESO's reformed connections queue and the Centralised Strategic Network Plan (CSNP), which will take a broad, whole energy system view to transforming the pace and scale of our planning for the next 25 years.

NESO is also developing a Regional Energy Strategic Plan (RESP) for Scotland which offers an opportunity to develop a bottom-up approach to understanding energy infrastructure needs and coordination between gas, heat, electricity and hydrogen – it will also play a role in defining an energy system 'strategic plan' for Scotland at a distribution level. At a national level, the output of the RESP will be very valuable, and the Scottish Government want to work with the RESP team in Scotland to further understand how we can align most effectively.

Ofgem's decision on connections reform, which was recommended in the joint UK Government and Ofgem Connections Action Plan (CAP), was published on 15 March 2025. Actions to reform the connections queue to align with CP30 and subsequent NESO strategic plans including the SSEP will be taken forward by NESO. The effect of these reforms will ensure that only projects which are ready and needed will secure a grid connection with technology capacities set for Scotland.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

[7] Scottish whole energy system scenarios
[8] Strategic Spatial Energy Plan: commission to NESO - GOV.UK

Timeframe and expected next steps:
NESO will commence reordering of the connections queue in May 2025. Officials are engaging with Ofgem, NESO and the UK Government to ensure that Scottish projects which are required to meet our net zero ambitions are included in the reformed connections queue and that subsequent strategic plans, such as SSEP, take Scottish Government ambitions into account.
Ofgem published their decision on the RESP policy framework and set out that NESO should publish a transitional RESP in early 2026, with a final RESP due at the end of 2027.
The SSEP will be published by the end of 2026.

Policy: Ensure that sustainable security of electricity supply is included as a priority within future Scottish Government energy innovation funding programmes.
Date announced: CCPu.
Progress on implementation since time of last report / CCPu: The Scottish Government provided £550,000 of match funding through the Low Carbon Infrastructure Transition Programme[9] to support demonstration of wind energy providing services including frequency response and black start, at the Dersalloch wind farm in Ayrshire. The programme launched in 2015. This is the first example in the world of a commercial wind farm demonstration black start, and it highlights opportunities to operate the electricity system in line with net zero ambitions.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: NESO is continuing to work with industry to apply lessons learned from Dersalloch.

[9] Low Carbon Infrastructure Transition Programme reports - gov.scot

Outcome 3: Scotland secures maximum economic benefit from the continued investment and growth in electricity generation capacity and support for the new and innovative technologies which will deliver our decarbonisation goals.

Policy: Press the UK Government to further reform and maintain the Contracts for Difference (CfD) mechanism in a manner which better captures the economic benefits and total value added for the Scottish and UK supply chains.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: Following the absence of any applications from offshore wind developers to the 2023 Allocation Round, the results of Allocation Round 6 were a step in the right direction and demonstrated the importance and capability of Scotland to deliver zero carbon power up to and beyond 2030. In Allocation Round 6, Scottish offshore wind projects secured contracts for a total of 740 MW of offshore wind, including 400 MW for floating offshore wind. All of the floating offshore wind (Pot 2) capacity was secured by Green Volt, the largest floating offshore wind project successful in CfD so far, demonstrating Scotland's leadership in this sector. However, given the potential of Scotland's offshore wind sector and its importance in delivering the UK's Clean Power 2030 targets, we need to see an even greater number of projects and more renewables capacity delivered through Allocation Round 7 and future CfD rounds. The Scottish Government formally responded to the UKG consultation on reforms to AR7 on 20 March 2025.

We welcome the UK Government's Clean Industry Bonus (CIB), which has been incorporated into the Contracts for Difference (CfD) scheme for Allocation Round 7. The CIB provides extra revenue support to offshore wind developers who choose to invest in cleaner supply chains, and in supply chains in the UK's most deprived areas, and we expect both Scottish offshore wind projects and the supply chain to benefit from this new initiative.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: CfD reform – as per section on "Support the development of a wide range of renewable technologies by addressing the current and future challenges, including market and policy barriers."
The UKG have confirmed that the CIB will be introduced for offshore wind projects bidding into the Contracts for Difference scheme from Allocation Round 7 (2025), with a flexible budget of £27 million per gigawatt of capacity.
Timeframe and expected next steps: CfD reform – as per above section. The CIB application window opened on 13 February 2025 and closed on 14 April 2025.

Policy: Introduce new requirements for developers to include supply chain commitments when applying to the ScotWind leasing process run by Crown Estate Scotland.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: As part of the ScotWind bidding round, applicants were required to submit a Supply Chain Development Statement (SCDS) to Crown Estate Scotland, outlining the supply chain activity they commit to undertaking within Scotland, the UK and overseas. We welcome the commitment of developers to invest an average projection of £1.5 bn in Scotland per project across the 20 ScotWind offshore wind projects.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: SCDS were updated within 12 months of developers signing their Option Agreements and must be updated at least once every 3 years thereafter throughout the development phase of the project, from Option Agreement to Lease.
The first updates were all accepted by CES and resulted in an increased average projected spend per project, from £1.4bn to £1.5bn.
Timeframe and expected next steps: Ongoing.

3. CHAPTER 2: BUILDINGS

3.1 Part A – Overview of sector

The outturn emission statistics for 2022 (published in 2024) show a position of **7.7 MtCO2e**.

The CCPu sets out the following three policy outcomes for this sector, the indicators for which are summarised below:

The heat supply to our homes and non-domestic buildings is very substantially decarbonised, with high penetration rates of renewable and zero emissions heating	On Track	Off Track	Too Early to Say
Number of existing domestic properties using low and zero direct emissions heating (LZDEH) systems (1.1)	-	-	X
Services sector fossil fuel heat consumption (1.2)	-	-	X
% of non-electrical heat consumption met from renewable sources (1.3)	-	-	X

Our homes and buildings are highly energy efficient, with all buildings upgraded where it is appropriate to do so, and new buildings achieving ultra-high levels of fabric efficiency.	On Track	Off Track	Too Early to Say
Energy intensity of residential buildings (kWh per household) (2.1)	X	-	-
Emissions intensity of non-domestic buildings (tCO2e per £ million Gross Value Added) (2.2)	X	-	-
% of homes with an EPC[10] (EER,[11] or equivalent) of at least C (2.3)	-	X	-
% new homes built with a calculated space heating demand of not more than 20 kWh/m^2/year (2.4)	X	-	-

The heat transition is fair, leaving no-one behind and stimulates employment opportunities as part of the green recovery.	On Track	Off Track	Too Early to Say
% of households in fuel poverty (3.1)	-	X	-

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office

[10] Energy Performance Certificate
[11] Energy Efficiency Rating

of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector commentary on progress

The Scottish Government published a Heat in Buildings Strategy in October 2021 which set out our vision for decarbonising Scotland's buildings by 2045. We remain committed to this 2045 target and continue to provide support to people to improve the energy efficiency of their buildings and move to clean heat – reducing and removing emissions from our buildings. But this needs to happen without negative impacts on fuel poverty, which has risen with high energy prices in recent years. We, therefore, need to see further action by the UK Government in reserved areas to help ensure that the transition is fair and affordable. In many of the indicators, the effects of COVID-19 continue to be felt.

The emissions reported in Part A of 7.7 MtCO2e for 2022 relate to the period just after the Heat in Buildings Strategy was first published.

Part B reports on progress against the indicators for the buildings sector, as set out in Part A. We have marked three indicators as "on track": energy intensity of residential buildings (2.1), emissions intensity of non-domestic buildings (2.2), percentage of new homes built with a calculated space heating demand of not more than 20 kWh/m²/yr (2.4). This reflects improvements in energy intensity in residential buildings, emissions intensity in non-domestic buildings and of the standards for building fabric set by building regulations. The energy intensity of residential buildings (2.1) was marked as off-track last year but is now on track possibly due to changes such as improvements to the energy efficiency of domestic properties and continuing high energy prices, as well as a natural reduction following COVID-19. Meanwhile, we have marked two indicators as "too early to say": number of existing domestic properties using low and zero direct emissions heating, services sector fossil fuel heat consumption. This is because these targets/indicators are still under review, the outcome of which will depend on decisions around the passage of the Heat in Buildings Bill and the development of the next CCP.

Two indicators are currently marked as "off track": percentage of homes with an Energy Performance Certificate (EPC) and percentage of households in fuel poverty. We set out our reasons for marking these indicators as "off track" in Part B.

Part C shows that the Scottish Government continue to make progress against the commitments in the buildings sector as set out in the CCPu.

Developments in Monitoring Arrangements Since Last Report

We continue to develop and improve our monitoring processes, as specified below.

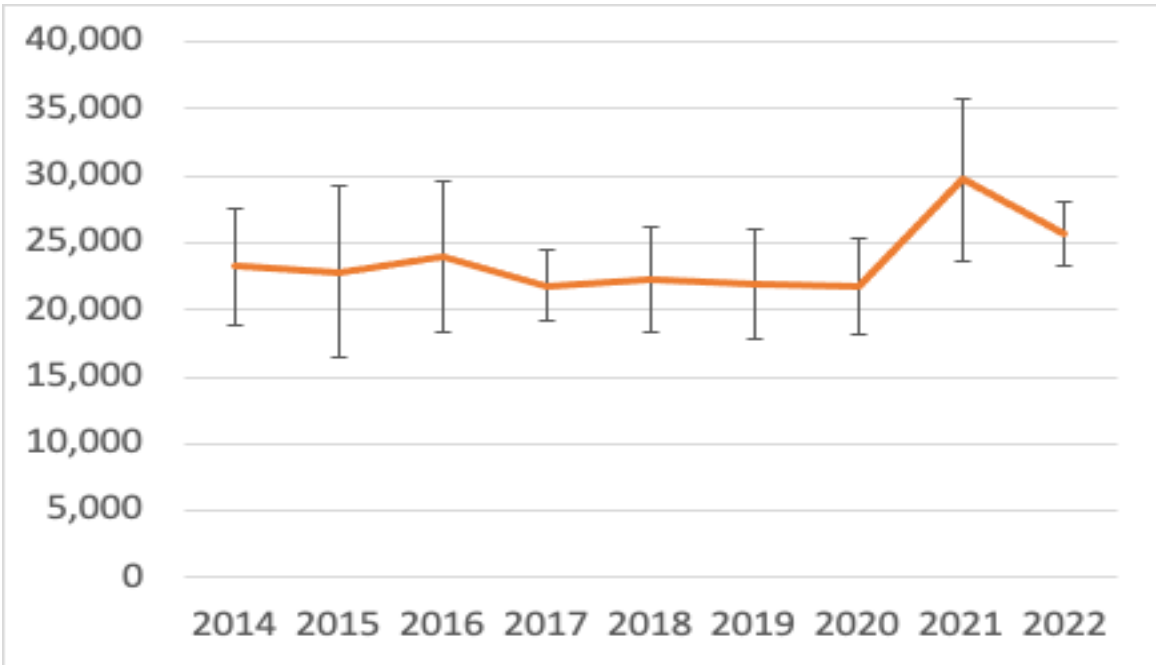
3.2 Part B – Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic
Indicator: Full Time Equivalent (FTE) in Low Carbon Renewable Energy Economy Indicator
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 2022
Data Source(s): Low Carbon and Renewable Energy Estimates, Office for National Statistics (ONS)
Assessment: Too early to say
Commentary: Data for the year 2023 is due to be published later this year, following the release of this report.

In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs. Estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval.

Scottish LCREE employment in 2022 is lower than in 2021 but the difference is not statistically significant, and caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates

Policy Outcome: 1
Indicator: Number of existing domestic properties using low and zero direct emissions heating (LZDEH) systems.
On-Track Assessment (Milestones/Targets): Under review
Most Recent Data: 316,000 domestic properties use low and zero direct emissions heating (LZDEH) systems as of 2023.
Data Source(s): Supporting documents - Scottish House Condition Survey: 2023 Key Findings - gov.scot Table KA7b. Comprises households for which their primary heating fuel is (a) Electricity, (b) Communal Heating, or (c) Biomass
Assessment: Too early to say
Commentary:
In 2023, there were an estimated 316,000 households using low and zero direct emissions heating (LZDEH) systems (and which this document will refer to from here as 'clean heating systems'[12] for the sake of simplicity).
With these households primarily heating their homes with electricity, communal heating, or biomass. This is similar to the estimate of 319,000 households (13% of all households) from the 2022 Scottish House Condition Survey (SHCS).
The target for this indicator is under review and so progress towards the target is assessed as too early to say. This indicator will be reviewed as part of the next CCP.

[12] A 'clean heating system' does not produce any greenhouse gas emissions at the point of use.

Policy Outcome: 1
Indicator: Commercial[13] sector fossil fuel heat consumption
On-Track Assessment (Milestones/Targets): Under review
Most Recent Data: Commercial sector fossil fuel heat consumption was 12,036 GWh in 2022.
Data Source(s): Scottish Energy Statistics Hub (SESH) > Energy Efficiency > Heat Consumption > Data – Non-electrical heat demand by sector (GWh). Internal analysis was conducted to remove Bioenergy & Wastes from the figure of 13,994 GWh presented on SESH.
Assessment: Too early to say
Commentary:
In 2022, commercial sector fossil fuel heat consumption was 12,036 GWh. This includes consumption of coal, manufactured fuels, petroleum products and gas. This is a 3.2% decrease compared to 2021, when commercial sector fossil fuel heat consumption was 12,434 GWh[14]. This reduction may reflect elevated energy prices in 2022, as well as other factors such as improvements to energy efficiency, changes in economic activity and fuel switching.
The target for this indicator is under review and so progress towards the target is assessed as too early to say. As with indicator 1.1, the target will depend on the development of the next CCP. Over half of Scotland's non-domestic buildings already use low or zero emissions sources and we remain committed to transitioning all other buildings to clean heating systems by 2045.

[13] Commercial sector heat consumption includes consumption other than Industrial, Transport and Domestic consumption, and will include some Agriculture and Public Sector consumption depending on the end-use.
[14] Note the 2021 figure has been revised upwards (from 11,172 GWh) since the 2024 Monitoring report.

Policy Outcome: 1
Indicator: % of non-electrical heat consumption met from renewable sources
On-Track Assessment (Milestones/Targets): We announced recently that we intend to bring forward a revised Bill for consideration by the Scottish Parliament later in 2025 with a target for decarbonising heat by 2045. We are currently considering how this will be reflected in the revised Bill. In the meantime, we will continue to report against this indicator.
Most Recent Data: May 2025 publication
Data Source(s): Renewable Heat Dataset from Energy Saving Trust
Assessment: Too early to say
Commentary: In order to comply with existing statutory requirements, our Heat in Buildings Strategy set out a provisional target (22%) for the proportion of non-electrical heat demand in buildings supplied by renewable sources (either directly, or via a heat network). The Renewable Heat Target (RHT), as currently defined, is an important factor in monitoring Scotland's wider 2030 renewable ambitions. However, we believe that reporting against the Heat in Buildings Monitoring and Evaluation Framework which we published in November 2023 will provide a more useful and relevant means for tracking progress against the Heat in Buildings Strategy.

Our Heat in Buildings Strategy made clear that the scope of the RHT does not include industrial heat.

However, we only provide the proportion of all non-electrical heat demand met by renewable sources below. This is because it is not possible to robustly estimate the amount of some fuels (including gas) used for industrial purposes and thus to separate these out. Neither is it always possible to determine whether renewable heat output is used for industrial purposes.

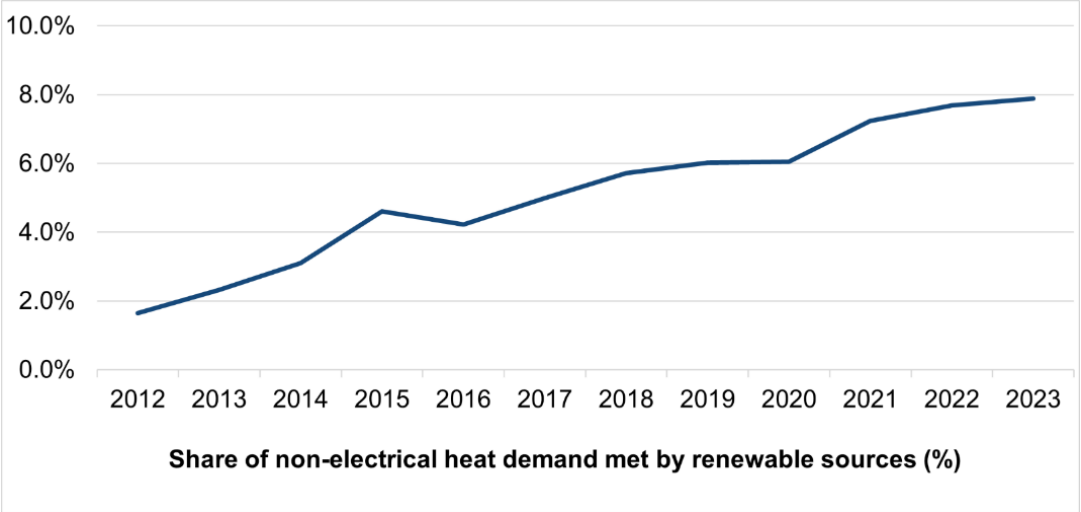
Therefore, similarly to last year we will report on the percentage of all non-electrical heat demand met by renewable sources in 2023.Please see the methodology section below for more details on how this is now estimated as of 2024.

In 2023, the percentage of non-electrical heat demand met by renewable sources was estimated at 7.9%]. The non-electrical heat demand estimated for 2023 is provisional as sub-national consumption estimates for non-gas fuels will not be available until released by the Department for Energy Security and Net Zero (DESNZ) in September 2025.

Renewable heat output in 2023 was 1.4% higher than the previous year, while estimated demand was 1.2% lower. These estimates demonstrate a continued rise in renewable heat output over the longer term, increasing by 74% since 2016. Demand for non-electrical heat has fallen in recent years and is lower than any year in the time series, which goes back to 2005.

Figure 1 presents a time series of the percentage of non-electrical heat demand met by renewable sources from 2012 to 2023. The headline percentage reported for 2023 is dependent on overall non-electrical heat demand. This continues to underline the importance of improving the energy efficiency of Scotland's buildings in contributing to progress against this metric.

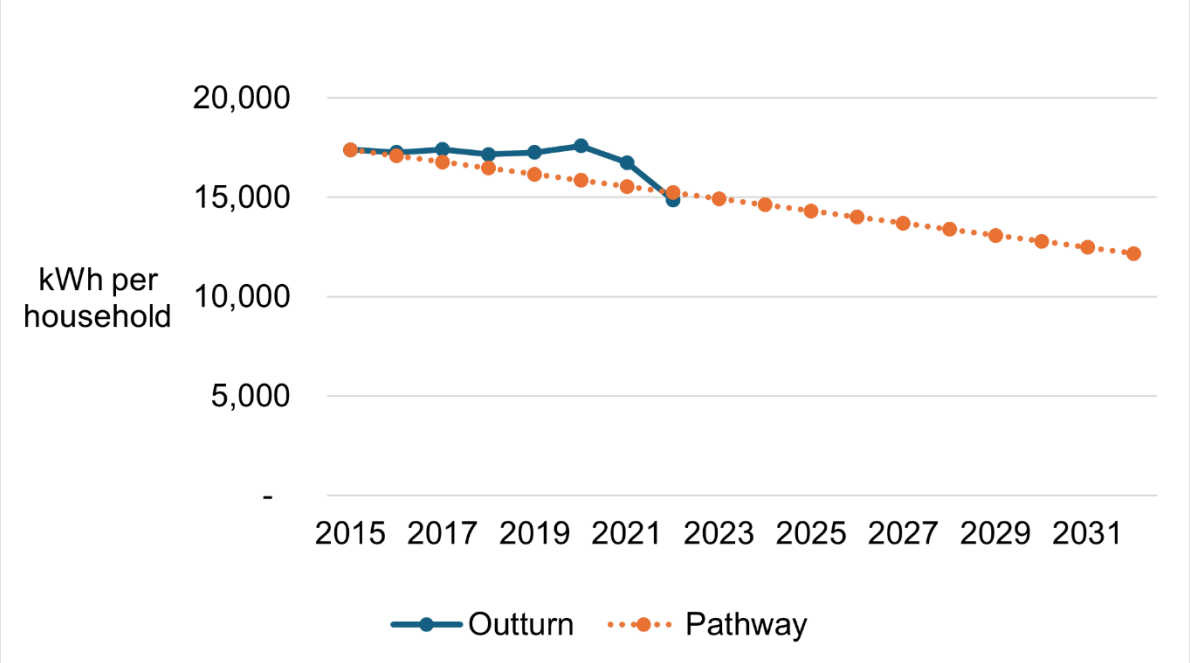
Figure 1: Percentage of non-electrical heat demand met by renewable sources, 2012-2023



* Non-electrical heat demand data for 2023 is provisional as it is based on 2023 gas consumption and 2022 consumption for all other non-gas fuels.

Policy Outcome: 2
Indicator: Energy intensity of residential buildings (kWh per household)
On-Track Assessment (Milestones/Targets): To fall by at least 30% by 2032 (relative to 2015).
Most Recent Data: Residential energy intensity was 14,873 kWh per household in 2022
Data Source(s):
Households and Dwellings in Scotland, 2023 - National Records of Scotland (NRS)
https://assets.publishing.service.gov.uk/media/66f2c25686ba7c46c40c6eae/Subnational_total_final_consumption_2005_2022.xlsx
Assessment: On track
Commentary:
In 2022, household energy intensity was 14,873 kWh per household. This is a significant reduction from previous years, at –11% compared to 2021 and –15% compared to 2020. This reduction may be due to changes such as improvements to the energy efficiency of domestic properties and continuing high energy prices, as well as a natural reduction from 2020, when household energy intensity was high due to restrictions related to the Covid-19 pandemic.
A simple pathway to meet the 2032 target is shown below. The recorded energy intensity of households in 2022 is slightly below the target of 15,241 kWh, so is rated as on track.

Household energy intensity (kWh per household)



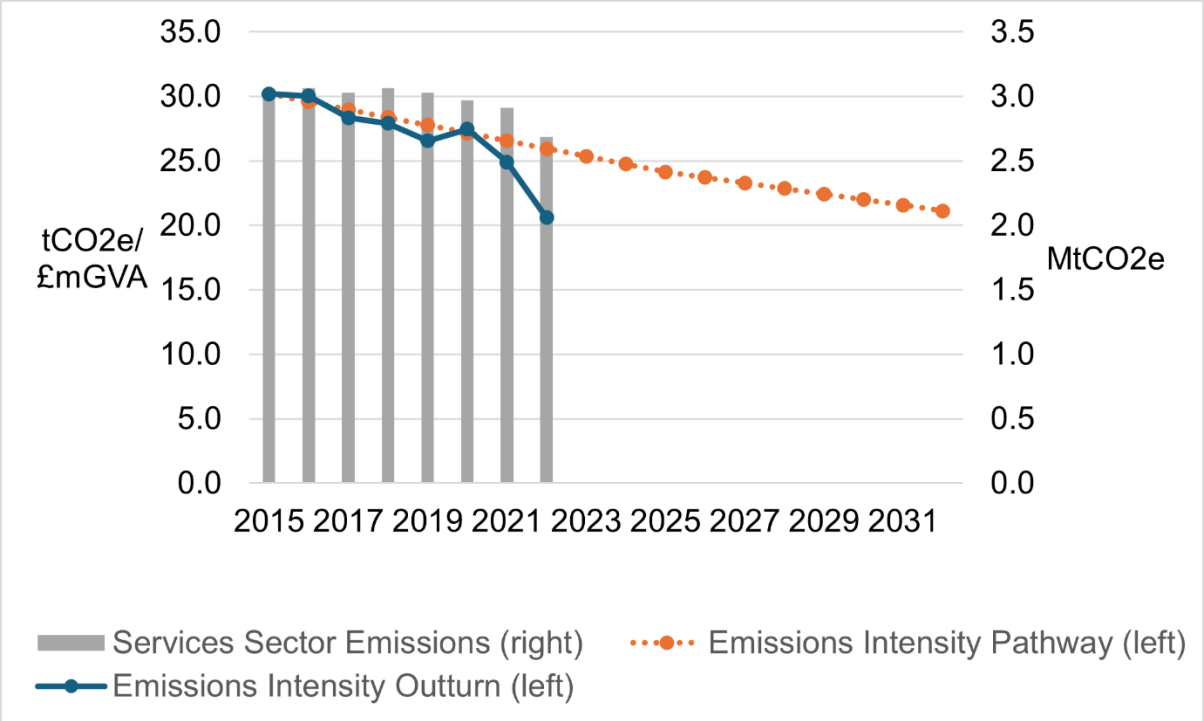
Policy Outcome: 2
Indicator: Emissions intensity of non-domestic buildings CO2e per £ million Gross Value Added)
On-Track Assessment (Milestones/Targets): To fall by at least 10% by 2020, 20% by 2025, and 30% by 2032 (relative to 2015)
Most Recent Data: 20.59 tCO2e/£m GVA in 2022
Data Source(s):
Supporting documents - Scottish Greenhouse Gas Statistics 2022 - gov.scot
Supporting documents - GDP Quarterly National Accounts: 2024 Quarter 3 (July to September) - gov.scot
Assessment: On-track
Commentary:
The emissions intensity of the Services sector was 20.59 tCO2e/£m GVA in 2022, representing a decrease of 17% (4.31 tCO2e/£m GVA) compared to 2021[15]. This is because Services emissions decreased by 8% (from 2.91 MtCO2e to 2.69 MtCO2e) and Services gross value added (GVA) increased, rising by 12% (from £116.856 billion to £130.509 billion). This represents a continuing downward trend in Services emissions intensity since 2015.

The 2018 CCP set an ambition in the Services sectors to reduce emissions intensity by 10% by 2020, 20% by 2025, and 30% by 2032, relative to a 2015 baseline of 30.2 tCO2e/£m GVA. In previous monitoring reports we committed to reviewing this indicator. This review will take place alongside a fuller review of all indicators when the next Climate Change Plan (CCP) is published, to ensure they are fit for purpose under the new plan and to avoid making successive changes to the set of indicators.

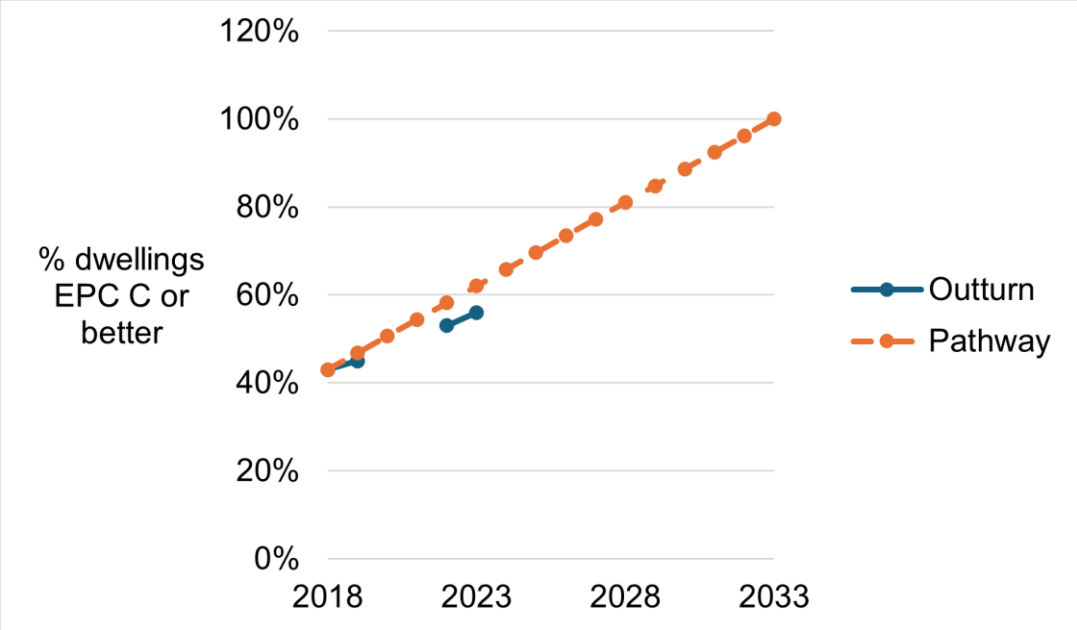
A simple pathway to meet the 2020, 2025 and 2032 targets is shown below. As the recorded emissions intensity of the Services sector in 2022 is below the target of 26.0 tCO2e/£m GVA by 5.37 tCO2e/£m GVA, progress is currently considered to be on-track. To note, the figure also plots the outturn of Services emissions in MtCO2e on the right-hand side vertical axis.

[15] The figure for 2021 is 24.9 tCO2e/£mGVA. The emission intensity of Scotland's service sector for years prior to 2021 was calculated using an unpublished sectoral breakdown of quarterly national accounts. The emission intensity for 2021 and previous years has now been revised to use the published breakdown of GVA for Scotland's service sector.

Emissions intensity of the Services sector (tCO2e/£m GVA) and Services sector emissions (MtCO2e)



Policy Outcome: 2
Indicator: % of homes with an Energy Performance Certificate (EPC) (EER, or equivalent) of at least C
On-Track Assessment (Milestones/Targets): To reach 100% by 2033, subject to technical feasibility and cost-effectiveness
Most Recent Data: An Estimated 56% of Scottish homes were rated as EPC band C or higher under the Standard Energy Procedure (SAP) 2012 (RdSAP v 9.93) in 2023
Data Source(s): Scottish House Condition Survey (SHCS) 2023
Assessment: Off-track
Commentary:
In 2023, 56% of Scottish homes were estimated to have an EPC C rating of C or better under SAP 2012 (RdSAP v9.93), compared to 52% in 2022. The proportion of properties in the lowest EPC bands (E, F, or G) was 10%, compared to 12% in 2022. A simple pathway to meet the 2033 target is shown below. Although there has been continued improvement in the energy efficiency of Scotland's housing stock, as the proportion of dwellings with an EPC rating of C or better is lower than estimated in the simple pathway approach, this indicator is assessed as off track.
Dwellings with an EPC rating of C or better, outturn and simple pathway



Policy Outcome: 2
Indicator: % new homes built with a calculated space-heating demand of not more than 20 kWh/m^2/yr
On-Track Assessment (Milestones/Targets): Positive year-to-year change
Most Recent Data: Analysis of new-build domestic Energy Performance Certificates (EPCs) lodged in 2024.
Data Source(s): EPC data for Q1 to Q4 2024 lodged with the Scottish Energy Performance Certificate Register (SEPCR)
Assessment: On track
Commentary:
Without applying any moderation to remove potentially erroneous values, 2,625 records reported a space-heating demand intensity of 20 kW/m2/year or less. This represents 15.9% of new-build domestic EPCs lodged for 2024. In both absolute and relative terms, this is an increase on previous years[16].

Distribution of space-heating demand intensity of new-build EPCs lodged in 2024 (kW/m^2/year) – without potentially erroneous values removed

Minimum	1st Quartile	Median	3rd Quartile	Maximum
0.00	24.58	32.95	41.07	216.30

Removing the 0.5% of lodged records with the lowest space-heating demand intensity and the 0.5% with the highest space-heating demand intensity in effect removes all records with a space-heating demand intensity of less than approximately 3.0 kW/m2/year, and removes all records with a space-heating demand intensity of greater than approximately 90.1 kW/m2/year. This leaves 2,542 records (15.5%) with a space heating demand intensity of 20 kW/m2/year or less.

Distribution of space-heating demand intensity of new-build EPCs lodged in 2024 (kW/m^2/year) – with potentially erroneous values removed

Minimum	1st Quartile	Median	3rd Quartile	Maximum
3.02	24.69	32.95	40.98	90.11

Whilst positive year-to-year change is occurring, further significant improvement in the indicator is likely linked to review and improvement to the minimum standards for building fabric set by building regulations.

Implementation of the February 2023 energy standard for new homes included improvement in the minimum levels of insulation for all new homes, improving element values by 13% to 23%. This will reduce space heating demand further and increase the percentage of new homes delivered that achieve or improve upon the indicator value.

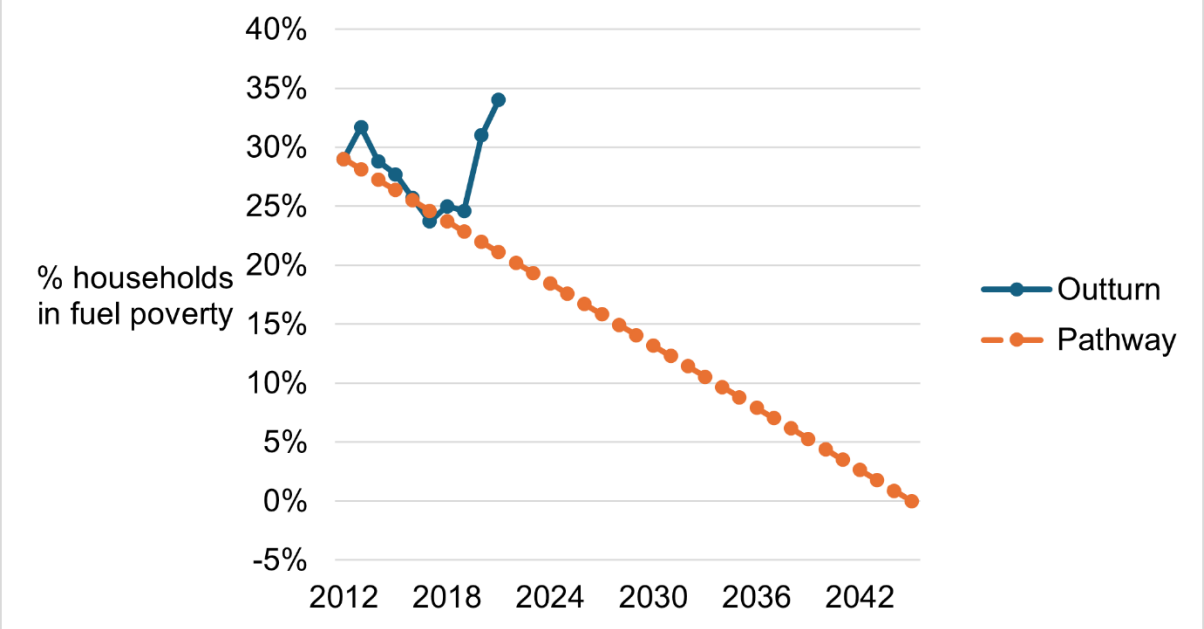
[16] Our previous CCP Monitoring Report, for 2024, reported data for this indicator for the period Q1 to Q4 2023 and showed that 2,501 records reported a space-heating demand intensity of 20 kW/m2/year (12.3% of EPCs lodged during this period).

As data to report on this indicator relies on information available on completed new homes, it is still too soon to assess the impact of the changes made in February 2023.

Policy Outcome: 3
Indicator: % of households in fuel poverty
On-Track Assessment (Milestones/Targets): 2030: no more than 15%; 2035: no more than 10%; 2045: no more than 5%
Most Recent Data: In 2023, 34% of households were estimated to be in fuel poverty, including 19.4% estimated to be in extreme fuel poverty
Data Source(s): Scottish House Condition Survey (SHCS) 2023
Assessment: Off track
Commentary:
In 2023, 861,000 households (34% of all households) were estimated to be in fuel poverty, of which 491,000 (19.4% of all households) were in extreme fuel poverty. This is higher than the 2022 estimates of 31% (780,000 households) for fuel poverty but similar for extreme fuel poverty 18.5% (465,000 households).

The main driver of fuel poverty is surges in energy prices, which the Scottish Government has limited powers to influence. These surges have resulted in a huge increase in fuel poverty in Scotland since 2020. Our Heat in Buildings programme aims to both reduce emissions and remove poor energy efficiency as a driver of fuel poverty, and we continue to make progress in improving the overall energy efficiency of our homes.

We have been urging the UK Government to introduce a social tariff which we believe can have a substantial impact in addressing fuel poverty and will continue to make the case for a mechanism of this kind.



3.3 Part C – Information on Implementation of Individual Policies

Outcome 1: The heat supply to our homes and non-domestic buildings is very substantially decarbonised, with high penetration rates of renewable and zero emissions heating

Outcome 2: Our homes and buildings are highly energy efficient, with all buildings upgraded where it is appropriate to do so, and new buildings achieving ultra-high levels of fabric efficiency

Policy: Energy Company Obligation (ECO) requires obligated energy supply companies to deliver energy efficiency measures in homes. Historically these have mainly been insulation-based measures and gas boiler replacements.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
While Scotland's overall share of measures has declined compared with previous ECO schemes, Scottish households have benefitted from a higher share of clean heat and microgeneration measures. The Scottish Government continues to work with local councils, energy suppliers and other local delivery partners to support take-up of ECO finance in Scotland.
With support from the Scottish Government, 31 out of 32 Scottish councils have published an ECO4 Statement of Intent to enable local ECO flex schemes to operate. As of December 2023, Scotland has benefitted from the second highest share of ECO4 Flex referrals across Britain (7,076 measures or 17% of the GB total). We estimate that these measures helped attract around £40 million in ECO finance over the last nine months of the ECO4 scheme. This has included a higher share of heat pump and renewable installations funded by energy suppliers, particularly in rural areas such as Dumfries and Galloway.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Scotland has the second highest number of flex measures installed of any UK region, with around 17% respectively of all the ECO4 flex measures in Great Britain.
Timeframe and expected next steps: The ECO is a UK Government scheme that operates across GB, and decisions about its design and delivery are reserved to the UK Government. We recently wrote to the UK Government to note the inclusion of ECO finance as part of its Warm Homes Plan, reiterating our commitment to maximising the benefit of this investment alongside local and national delivery schemes in Scotland. Discussions with the UK Government also considered whether ECO finance might be more easily deployed alongside public funding in future to maximise cost-effectiveness.

Policy: Heat in Buildings Delivery Schemes:

- Area Based Schemes (ABS)

- Warmer Homes Scotland (WHS)
- Home Energy Scotland (HES) Advice and Support Service
- Home Energy Scotland Grant and Loan Scheme for zero emissions heating technologies and energy efficiency measures
- Business Energy Scotland (BES) Advice and Support Service
- Small and Medium Enterprise (SME) Loan and Cashback Scheme for zero direct emissions heating technologies and energy efficiency measures
- Social Housing Net Zero Heat Fund (SHNZF)

Date announced: 2020-21 PfG

Progress on implementation since time of last report / CCPu:

Area Based Schemes (ABS) - the programme continues to target fuel poor households living in 'hard to treat' properties requiring external wall or complex cavity wall insulation. We have published details of measures delivered through Area Based Schemes on the Scottish Government website. We anticipate that these have delivered significant savings upon household bills and lifetime CO2 emissions, further details can be found on our website.

Warmer Homes Scotland (WHS) - we re-launched WHS on 2 October 2023 with more funding and more help for households to receive a clean heating system. Since the scheme re-launched in October 2023 to January 2024, Warmer Homes Scotland has helped 7,425 households, and installed 22,383 heating, insulation, and renewable measures.

Home Energy Scotland Advice Service - in 2023-24, the HES network delivered 489,000 advice interactions, supported over 128,000 unique households, and recorded over 894,000 users of their website. Just under 12,000 households were referred through to the new Warmer Homes Scotland scheme and HES advisors referred or signposted 15,904 households on to providers of crisis funding for vulnerable consumers and those who needed immediate assistance.

Home Energy Scotland (HES) Grant and Loan Scheme for zero emissions heating technologies and energy efficiency measures - the HES Grant and Loan Scheme, which was launched in December 2022, has continued to deliver funding to households for clean heating systems and energy efficiency measures. We have made necessary changes to the HES Grant and Loan scheme to ensure available funds are targeted at measures which best support direct decarbonisation of heat in homes. The scheme no longer provides new funding offers for solar photovoltaics (PV) or energy storage. Eligibility of self-builders was also removed from the scheme from 1 August 2024. In 2023-24, the scheme helped to install over 2,000 energy efficiency measures and nearly 9,000 renewables/clean heat measures.

Business Energy Scotland (BES) - BES remains in high demand. We introduced measure-specific fast track energy assessments in 2023-2024 to enable more businesses to quickly access advice and financial support. BES provided in depth support to over 3500 unique SMEs in Scotland in 2023-24 related to low carbon heat and energy efficiency and recorded over 43,000 unique visits to its website. BES also completed 1,384 energy assessment reports for small and medium-sized

enterprises (SME) identifying estimated annual carbon savings of 15,219 tCO_2 and annual cost savings of over £14 million.
SME Loan and Cashback scheme for zero emissions heating technologies and energy efficiency measures - the SME Loan and Cashback scheme continues to deliver funding to Scottish organisations for the implementation of energy efficiency and renewable heating technologies. From 9 May 2023, necessary changes were made to the SME Loan and Cashback scheme to target available funds at measures more closely aligned to the Heat in Buildings Strategy. As such, solar PV is no longer eligible under the scheme. In 2023-2024, the scheme supported over 250 energy efficiency measures and nearly 160 renewables/clean heat installations.
Social Housing Net Zero Heat Fund (SHNZHF) - the SHNZHF launched in August 2020 for social landlords to retrofit their existing housing stock. The fund supports both the deployment of clean heating and “fabric first” enhancements, helping landlords deliver warmer and more energy efficient homes and reducing the cost of energy that social housing tenants pay in these properties.
In 2024-25, the scheme supported over 2000 social housing properties to install energy efficiency measures and over 300 properties to install renewables and/or clean heat measures.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these:

ABS - since 2013, the programme has supported over 125,000 households (as of March 2024). The Scottish Government has maintained our investment in ABS at £64 million as part of the 2024-2025 Budget. This is expected to help around 6,000 fuel poor households to benefit from warmer homes and reduced heating costs.
WHS - since 2015, Warmer Homes Scotland has supported over 40,000 households to install heating and energy efficiency measures enabling them to live in warmer, healthier homes which are more affordable to heat.
HES advice service – we have published the number of unique households supported by HES advice service, since 2019, in our annual Heat in Buildings Progress Report[17].
HES Grant and Loan Scheme - since April 2023, the scheme has funded the installation of over 4500 heat pumps and paid out over £54m in funding for these measures.
BES - since launching in 2022, BES has provided energy assessment reports to over 3,000 Scottish businesses, identifying over £31 million annual cost savings.
SME Loan and Cashback scheme - Since 2019, the scheme has helped to install over 1,300 energy efficiency measures and almost 500 renewables/clean heat measures.
SHNZHF – since launching in 2020, the scheme has supported over 12,000 social housing properties to install energy efficiency measures and over 3,000 properties to install renewables and/or clean heat measures[18].

[17] Heat in Buildings: Progress Report 2024
[18] Data include projects due to complete by March 2025.

Timeframe and expected next steps: N/A

Policy: Review support programmes: we will review existing Scottish Government funding schemes to ensure that they support the deployment of low and zero emissions heat. We will expand the provision of loans to the SME sector and enhance the wider energy efficiency and heat advice service and provision of tailored start-to-end support.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu:
The new Warmer Homes Scotland scheme, launched on 2 October 2023, follows a whole house retrofit process and a clean heating first approach to maximise the number of households able to install clean heating where this is not detrimental to fuel poverty objectives.
As part of a refresh in 2023 to the Social Housing Net Zero Heat Fund, the intervention rate for the costs of clean heating systems was increased to 60% while energy efficiency measures will continue to be supported at 50%. We continue to assess the support provided to the social housing sector to ensure it supports the decarbonisation of its existing housing stock.
The SME Loan and Cashback Scheme introduced a Cashback grant in October 2020 to stimulate the uptake of energy efficiency and renewable heat measures in non-domestic properties. This offer enabled SMEs to apply for a 75% cashback grant of up to £10,000 towards the costs of a renewable heating system, and a further 30% cashback grant up to £10,000 for energy efficiency measures. This offer was revised in October 2022 to increase the energy efficiency cashback grant to 75% up to a maximum of £20,000.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Procure a new national delivery scheme, to replace the existing Warmer Homes Scotland contract, to open in 2022.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The successor scheme for Warmer Homes Scotland was successfully procured and the new contract commenced on 2 October 2023. Since the scheme re-launched in October 2023, Warmer Homes Scotland has helped 7,425 households, and installed 22,383 heating, insulation, and renewable measures.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The new contract will run to 2028 with a possibility of extension to 2030. We will continue to review the effectiveness of the new scheme to ensure it is efficiently meeting its aims over this period.

Policy: Energy Efficiency Standard for Social Housing: will be met by social landlords by 2020.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
The Scottish Housing Regulator (SHR), who has responsibility for monitoring social landlord's performance with the Energy Efficiency Standard for Social Housing (EESSH1), reports that 88% of social rented homes met the 2020 milestone at 31 March 2022, which was the last reporting year against the standard.
EESSH was reviewed in 2018-19 with a view to setting a new milestone for 2032, known as EESSH2. A consultation on proposals for a new Social Housing Net Zero Standard to align with net zero targets and replace EESSH2 closed on 8 March 2024. The responses have been under independent analysis, with results to be published in due course.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: New Build Heat Standard (NBHS): requiring new buildings, applying for a building warrant from 2024 onwards, to use clean heating systems.
Date announced: 2020-21 PfG + CCPu
Progress on implementation since time of last report / CCPu: The NBHS is one of the most important steps we have taken in the past year towards decarbonising our buildings and reaching net zero in buildings. The NBHS prohibits direct emissions main heating systems in new buildings and some conversions with some exceptions. The Standard first came in force on 1 April 2024 and was subsequently amended following a review to accommodate the use of bioenergy and peat systems to tackle concerns expressed by rural and island communities, and industry. The prohibition on mains gas and oil boilers as main heating systems in new builds, as introduced in the original regulations, remains.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Review of energy standards within building regulations. The review investigates the potential for further, significant improvement on 2015 standards and how building standards can support other carbon and energy policy outcomes, including our decarbonisation of heat agenda.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The review commenced in 2020, and its outcomes were published in June 2022. We have

published revised standards and guidance applicable to new construction from 1 February 2023, which set more challenging energy and emission targets for new development and enable early adoption/response to the components of the 2024 New Build Heat Standard. Review completed.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The revised standards and guidance from 1 February 2023 are expected to improve outcomes reported under indicator 2.4 – '% new homes built with a calculated space heating demand of not more than 20 kWh/m²/yr' from 2024 onward.
Timeframe and expected next steps: In response to a Members Bill proposal, a Ministerial commitment to Parliament on further review of standards to deliver 'a Scottish equivalent to Passivhaus' was made in December 2022. This including laying of enabling regulations within two years. This review is underway, with a Stage 1 consultation concluded and amending regulations laid in December 2024. A Stage 2 consultation on the detail of proposed changes is scheduled for summer 2025, with the intent of completing and publishing the outcome of the review in the first half of 2026. It is also the intent to implement changes in early 2028.

Policy: Heat in Buildings regulation: Put in place regulation to increase uptake of zero emissions heating systems and improve energy efficiency standards across owner occupied and private rented homes to come into force from 2025.
Date announced: Heat in Buildings Strategy
Progress on implementation since time of last report / CCPu: We consulted on proposals for a Heat in Buildings Bill from 28 November 2023 to 8 March 2024. The consultation received over 1,600 responses. The Minister for Climate Action recently confirmed our intention to introduce a revised Heat in Buildings Bill in Year 5 of this Parliamentary session. The Bill will create a target for decarbonising heating systems by 2045, and send a strong signal to homeowners, landlords and other building owners on the need to prepare for change. The Bill will also include powers to introduce minimum energy efficiency standards in the owner occupied and non-domestic sectors in the future. The development of regulations to introduce a minimum energy efficiency standard (MEES) in the private rented sector (PRS) will be implemented under existing powers in the Energy Act 2011.These changes are designed to avoid exacerbating fuel poverty as we make the essential transition to clean heat.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Low Carbon Infrastructure Transition Programme (LCITP) - supports investment in decarbonisation of business and the public sector.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: The LCITP is now closed to applications (as of April 2022) but is supporting projects that are currently under construction that will deliver significant carbon savings including strategically important low carbon heat networks.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Expanded £1.6 billion Heat in Buildings capital funding over the next parliament building on the Low Carbon Infrastructure Transition Programme (LCITP) and existing energy efficiency and zero emissions heat support programmes.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: We have allocated £1.6bn through our Heat in Buildings schemes this Parliamentary Session.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Capital funding allocations will be subject to future budget decisions.

Policy: Non-Domestic Public Sector Energy Efficiency (NDEE) Framework: a four-year framework which first launched in March 2016, designed to support public and third sector organisations to procure Energy Efficiency retrofit work. NDEE Project Support Unit (PSU) accelerates the number of projects and delivery timescales of public sector energy efficiency projects using the NDEE Framework and supports our wider ambitions around energy demand reduction.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The previous iteration of these frameworks ended on 31 March 2024. Since then, we have been working on procuring a new framework and project support unit.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We are currently working on a project programme for the NDEE framework and PSU. Estimated launch dates have yet to be agreed.

Policy: The Renewable Heat Incentive (RHI) - a GB-wide scheme created by the UK Government (with the agreement of the Scottish Government). UK Government is extending both the domestic and non-domestic RHI out to 2022.

Date announced: August 2020
Progress on implementation since time of last report / CCPu:
1,136.9 MW of accredited capacity under the non-domestic RHI (NDRHI) between November 2011 and March 2024.[1]
1,829 GWh of heat had been paid for between April 2014 and March 2024 under the domestic RHI scheme in Scotland.[2]
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The domestic RHI closed from 31 March 2022. The non-domestic RHI scheme in Great Britain closed to all new applications for accreditation on 31 March 2021, with some applicants able to apply up to 31 March 2023 under particular circumstances.

Policy: UK Green Gas Support Scheme – a GB-wide Green Gas Scheme is planned to come into force in 2022, stimulating biomethane injection into the gas grid
Date announced: UK Government announcement.
Progress on implementation since time of last report / CCPu: The UK Government's Green Gas Support Scheme (GGSS) provides tariff-based support for plants producing biomethane via anaerobic digestion which is injected into the gas grid. The scheme is funded by the Green Gas Levy which is applied to all licenced fossil fuel gas suppliers. It follows the non-domestic RHI after it closed. The GGSS opened on 30 November 2021 and is open for applications until 31 March 2028, following UK Government consultation on a mid-scheme review.
To follow the GGSS, a holistic policy framework will be needed to ensure the wider benefits of biomethane production are realised and that the industry can meet its potential. In February 2024, UKG issued a call for evidence (CfE) to inform post-GGSS policy development, assess the barriers to growth in the sector, and the options available to address them. It is currently considering the responses received from the CfE and developing policy options on a future framework.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: UK Clean Heat Grant - a GB-wide Clean Heat Grant is planned to come into force in 2022, supporting uptake of heat pumps (and limited biomass boilers) via upfront grants.
Date announced: UK Government announcement
Progress on implementation since time of last report / CCPu: The UK Government launched the Boiler Upgrade Scheme, (formerly the Clean Heat Grant) in April 2022. The Boiler Upgrade Scheme (BUS) provides upfront capital grants to support the installation of heat pumps and biomass boilers in homes and non-domestic buildings in England and Wales. The UK Government announced an additional £30 million of

funding for the Boiler Upgrade Scheme this financial year (2024-25) and committed to almost doubling the budget to £295 million for next year (2025-26). The Scottish Government opted out of the Boiler Upgrade Scheme in favour of boosting our existing programmes.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Statistics for the scheme published monthly
Timeframe and expected next steps: N/A

Policy: Support for Heat Networks: continue providing funding towards the capital costs of heat networks through Scotland's Heat Network Fund, which offers £300m in grant funding until 2026, and through low interest loans offered by the District Heating Loan Fund.
Date announced: Originally: CCP 2018, updated 2023
Progress on implementation since time of last report / CCPu: Scotland's Heat Network Fund continues to be open to support the establishment and expansion of district and communal heating systems utilising clean heat sources. Together with the funding awarded under the Low Carbon Infrastructure Transition Programme, £29.3 million (as of May 2025) has been awarded to heat network projects since the CCP was published in March 2021.
Following a review of our support for heat networks and the financial position of projects in development, the District Heating Loan Fund closed to new applications in 2024. This is to help prioritise capital budgets for awarding grants through Scotland's Heat Network Fund to help deliver strategically important heat networks with funding gaps.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We expect demand for Scotland's Heat Network Fund to increase due to the activity of the Heat Network Support Unit and growth of the heat network market.

Policy: Implement the provisions of the Heat Networks (Scotland) Act 2021 to create a strong regulatory framework to support delivery in 2024.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: We last published a review of the Heat Network Delivery Plan in March 2024. This report provided a further update on progress towards meeting the provisions of the Act and other supporting policies.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The Heat Networks (Heat Network Zone and Building Assessment Reports) (Scotland) Regulations have been introduced alongside guidance and proformas. These regulations have introduced duties on local authorities to identify areas particularly suitable for the development of heat

networks and for those responsible for public sector buildings to provide data on their energy use and current heating systems. To date, approximately 500 Building Assessment Reports have been received.
Timeframe and expected next steps: Work continues on the development of the heat network licensing and consenting regime. Ofgem has been appointed as the Scottish licensing authority, and we are working to. Ofgem have now raised concerns about their ability to assess applications against these criteria, due to the specialist expertise that they may require and that building this capability would lead to increased fees being charged to applicants, which would be passed onto consumers in turn. The Scottish Government has been preparing a public consultation on licensing with a view to introducing the necessary regulations later in 2025. However, we must now carefully consider Ofgem's concerns, as it is important that any regulations can become operational in practice.
We will provide a further update on progress through a review of the Heat Network Delivery Plan by March 2026. We will review the 2035 and, if appropriate, other heat network targets once more evidence is available. The 2021 Act allows Ministers to modify these targets, if appropriate.

Policy: Continue supporting the development of heat network projects in Scotland through the Heat Network Support Unit, which is a collaboration between organisations offering advice, guidance, and funding to heat networks projects in the pre-capital stages of development.
Date announced: Maintained
Progress on implementation since time of last report / CCPu: The Scottish Government launched its Heat Network Support Unit (HNSU) in 2022 to support prospective heat network projects in the pre-capital development stages. It is a partnership between the Scottish Government, Zero Waste Scotland and Scottish Futures Trust and acts as the successor to the Heat Network Partnership.
Since September 2022, the HNSU has supported 39 projects across Scotland.
The HNSU recently launched the 2025 District Heating Mentoring Programme where, in collaboration with the UK government, we are bringing both Scottish and English local authority participants together for the first time, to form a GB-wide scheme. 20 Scottish local authorities are taking part in this year's scheme.
In November 2023, the HNSU launched its Strategic Heat Network Support for local authorities. This support includes both funding and advise to help local authorities build on their Local Heat and Energy Efficiency Strategies (LHEES) to develop their approach to establishing district heating networks in their areas. Seven local authorities are currently in receipt of Strategic Heat Network Support.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The HNSU will continue to support projects in the financial year 2025-26.

Policy: Net Zero Carbon Public Sector Buildings Standard will be introduced in 2021 and progressively rolled out across the public sector, as announced in the Programme for Government 2019.
Date announced: 2020-21 PfG + CCPu
Progress on implementation since time of last report / CCPu: The original Standard Document Suite was launched in 2021 to address new buildings and major refurbishment. In August 2023, the scope of the Standard was extended to include the transition of existing buildings. As such, documents in this suite will be progressively re-released to reflect this update.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We intend to review the Standard every five years from 2025 to account for relevant developments.

Policy: Local Heat and Energy Efficiency Strategies (LHEES) will be in place by the end of 2023, setting out preferred heat solutions zones, guiding building owner decision making about replacement heating systems, and forming the basis for local delivery plans targeting heat and energy efficiency investment.
Date announced: 2020-21 Programme for Government (PFG) + CCPu
Progress on implementation since time of last report / CCPu: The Scottish Parliament passed legislation in April 2022 requiring all local authorities to publish a Local Heat and Energy Efficiency Strategy and Delivery Plan by the end of 2023 and update them on a five-year basis. The Scottish Government published guidance regarding what is required to fulfil this duty in October 2022. At the time of publication, 30 of the 32 local authorities have published their LHEES,
The published LHEES provide an evidence base for what interventions are needed to decarbonise Scotland's buildings and tackle poor energy efficiency as a driver of fuel poverty, as well as importantly, where these buildings are located.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The statutory deadline for publishing LHEES sits with the local authorities themselves.
Timeframe and expected next steps: We are working to align Scottish Government delivery programmes with the emerging LHEES Delivery Plans. For example, our Heat Network Support Unit is working with local authorities to take the indicative heat network zones identified through LHEES and develop them into projects through feasibility and business case support.

Policy: Assessment of Energy Performance and Emissions Regulations (Non-Domestic Buildings) - The Assessment of Energy Performance of Non-domestic Buildings (Scotland) Regulations 2016 require assessment of the energy performance and emissions of larger non-domestic buildings (those over 1,000 m^2).

A review programmed for 2021 will investigate and consult upon amended scope of standards and more challenging improvement targets to create a viable pathway for all existing non-domestic buildings to deliver the level of energy demand and emissions reductions needed.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: Our consultation on proposals for a Heat in Buildings Bill set out a proposed regulatory framework to decarbonise non-domestic buildings. The Minister for Climate Action recently confirmed our intention to introduce a revised Heat in Buildings Bill in Year 5 of this Parliamentary session. This Bill will include a target for decarbonising heating systems by 2045, sending a strong signal to building owners on the need to prepare for change. It will also include provisions to boost heat network development by developing requirements for large, non-domestic premises, including powers to require public sector buildings to connect to district heating when available. It will also include powers to set minimum energy efficiency standards for non-domestic properties.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: A revised Heat in Buildings Bill will be introduced in Year 5 of this Parliamentary session.

Policy: Support for community low and zero emissions heat projects through CARES.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: CARES continues to support communities across Scotland to participate in, and benefit from, the energy transition by providing advice and funding to communities looking to develop renewable energy, heat decarbonisation and energy efficiency projects. Heat decarbonisation has been a key focus of the current CARES contract and will remain an important part of the new contract which started in April 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Strategic policy direction is provided to the contract delivery body through the Scottish Government's contract manager to ensure CARES is aligned with Scottish Government objectives, with feedback on progress monitored through regular engagement and reporting commitments. Since its inception CARES has advised over 1200 organisations and provided over £67 million in funding to communities throughout Scotland, supporting over 960 projects.
Timeframe and expected next steps: The current CARES contract runs from April 2021 – March 2025. Following the successful completion of a public procurement exercise, a consortium led by Energy Saving Trust have been awarded the contract to deliver CARES from 2025-2029.

The Scottish Government has announced a total of £9 million in CARES funding for 25/26, which includes £4.5 million to decarbonise community owned buildings, supporting a whole building retrofit approach covering energy efficiency measures, zero emissions heating and small-scale generation.

Policy: Salix financing facility to support investment in non-domestic buildings retrofit.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: Scotland's Public Sector Heat Decarbonisation Fund launched in October 2023 and is delivered by Salix on behalf of the Scottish Government. The funding scheme is designed specifically for local authorities, universities, and arms-length external organisation to progress 'whole building' approached projects that decarbonise heating systems and improve the energy performance of buildings. The Scottish Government approved funding for 15 applications in 2024/25, totalling more than £20 million of capital investment. It provided grant funding for the financial year 2023-24 to public sector organisations, including local authorities, universities, and arm's length external organisations (ALEOs), to install heat decarbonisation and energy efficiency measures. The scheme has so far helped to install 55 energy efficiency measures and nearly 20 other renewables/clean heat measures in these organisations' buildings.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Phase 2 of this funding scheme was launched on 26th March 2025 for projects that will complete in 2025/2026. The application portal will open between April and May with grant offer letters expected to be issued no later than August.

Policy: Work with social landlords to bring forward the review of the existing Energy Efficiency Standard for Social Housing (EESSH2) with a view to strengthening and realigning the standard with net zero requirements.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The Scottish Government has been working with a stakeholder review group, since September 2022, on a review of EESSH2. Following this, we consulted on proposals for a new Social Housing Net Zero Standard) to replace the Energy Efficiency Standard for Social Housing (EESSH2). The proposals in the Social Housing Net Zero Standard consultation were co-developed with stakeholders as part of the review of EESSH2. We have analysed the responses and will be re-engaging with the stakeholder group on next steps during the first quarter of 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Work with our partners, including the UK Government, local authorities, and utility providers to determine the best approach to heat decarbonisation for buildings currently heated by natural gas.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: Work is underway to develop an understanding of the decarbonisation options for buildings currently using gas. Local authorities have published Local Heat and Energy Efficiency Strategies (LHEES) which set out the long-term plan for decarbonising heat in buildings and improving their energy efficiency across their local authority area. LHEES will identify strategic heat decarbonisation zones and set out the principal measures for reducing buildings emissions within each zone.
We will continue to work collaboratively on areas of common ground with the UK Government. However, action by the UKG in reserved areas remains critical to help ensure that the transition is fair and affordable. The key areas are:

- Action to rebalance gas and electricity prices to incentivise the installation of clean heating systems in a way that alleviates fuel poverty and the cost-of-living crisis.
- A decision on the future of the gas grid, which will have significant implications for any decisions we may make in the future regarding regulating building owners.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: As of April 2025, 30 of 32 local authorities have published their LHEES.
Timeframe and expected next steps: We are in regular discussion with those local authorities yet to publish their Strategies and expect all to have published their final LHEES by the end of June 2025.

Policy: Review the system of building assessments and reports on energy performance and heat to ensure a system that is fit for purpose in meeting net zero emissions objectives for heat in buildings.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: In Summer 2023 we consulted on revised proposals for Energy Performance Certificate (EPC) reform, building on feedback from previous consultations. The Scottish Government published its response to this consultation in January 2025[19]. The Government Response confirmed that we will lay new EPC regulations in Autumn 2025. Subject to Parliamentary approval, the new regulations, new EPC rating system and redesigned certificates are expected to be brought into force during 2026. Our

[19] Energy Performance Certificate reform consultation: response - gov.scot (www.gov.scot)

reforms mean that EPCs will be redesigned with a new rating system to give consumers a clearer picture of their home's energy performance and to link better with the drive to cut emissions from homes and buildings. The new rating system will give clearer information on the fabric energy efficiency of a property; the emissions, efficiency and running costs of its heating system; and the cost of energy to run the home. This responds directly to advice from the Climate Change Commitee (CCC)[20] on how to improve the information contained on EPCs. The validity of EPCs will also be reduced from ten to five years to ensure consumers have more up-to-date information.

Progress on implementation since time of last report / CCPu: Subject to Parliamentary approval, the new regulations, new EPC rating system and redesigned certificates are expected to be brought into force during 2026.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps: N/A

Policy: Work with stakeholders to further understand and support the application and use of low and zero emissions heating within designated historic environment assets and traditional buildings.

Date announced: CCPu

Progress on implementation since time of last report / CCPu:

The Scottish Government continues to work closely with Historic Environment Scotland, and key stakeholders across the wider historic environment sector, to develop and refine policy on improving the energy efficiency of our traditional and protected buildings and transitioning them to clean heating systems.

We continue to be guided by the final report of the independent Tenements Short Life Working Group, which was convened by Scottish Ministers to provide options on the best approach to decarbonise Scotland tenement buildings. The recommendations of this Working Group served to inform the approach we took in proposing exemptions and flexibility for complex-to-decarbonise buildings as part of our consultation into proposals for a Heat in Buildings Bill.

We have also published research, commissioned by Scottish Government through ClimateXChange, examining the suitability of different clean heating options for challenging building types, including traditional and protected buildings, tenements and flats, and properties in rural areas. We are considering the findings of this research.

Scottish Ministers continue to press the UK Government to remove/reduce VAT on the retrofit of existing buildings. This would bring retrofit projects into line with new build projects which are zero-rated for VAT; an important step in encouraging the uptake of energy efficiency improvements in our traditionally built homes and buildings.

[20] Letter: Reform of domestic EPC rating metrics to Patrick Harvie MSP - Climate Change Committee

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Our consultation on proposals for a Heat in Buildings Bill sought views on how best to ensure that complex-to-decarbonise buildings are afforded the flexibility required under any future regulation. The Minister for Climate Action recently confirmed our intention to introduce a revised Heat in Buildings Bill in Year 5 of this Parliamentary session. We will ensure that any regulations we bring forward will provide suitable flexibility to account for circumstances where certain types of buildings are more challenging to decarbonise, such as traditional and protected properties.

Policy: Develop and introduce future regulation for non-domestic buildings and launch a consultation on these proposals.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Our proposed regulatory approach for non-domestic buildings was included within the consultation on proposals for a Heat in Buildings Bill. The Minister for Climate Action recently confirmed our intention to introduce a revised Heat in Buildings Bill in Year 5 of this Parliamentary session. This Bill will include a target for decarbonising heating systems by 2045, sending a strong signal to building owners on the need to prepare for change. It will also include provisions to boost heat network development by developing requirements for large, non-domestic premises, including powers to require public sector buildings to connect to district heating when available. It will also include powers to set minimum energy efficiency standards for non-domestic properties.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Undertake work to identify the capacity and output of renewable electricity generation required in Scotland to support the projected rollout of heat pumps.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: As part of the research that we have commissioned into the energy transition in Scotland, we have assessed potential ranges of energy demand and generation, including for electricity, out to 2045 under three future energy scenarios[17]. These scenarios have informed the roadmap included in the draft Energy Strategy and Just Transition Plan and further assessments are underway as part of the next CCP.
These scenarios suggest that if current renewables deployment ambitions are met, Scotland will continue to be a net exporter of electricity to the rest of Great Britain (GB), even after accounting for increased demand from electrification (including from heat pumps) across Scotland. This is further evidenced by the National Energy

System Operator (NESO) Future Energy Scenarios[21], which explores decarbonisation pathways for the GB energy system and also suggests that even under high electrification scenarios, Scotland will continue to be a net exporter of electricity due to the significant increases in renewable electricity generation capacity that are projected.
We will continue to update our assessments.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: ongoing

Policy: Consider whether to extend Permitted Development Rights (PDR) for zero-emission heat networks (HNs) and micro-renewable technologies.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We are carrying out a multi-phase review of permitted development rights (PDR) in Scotland. Phase 3 of the review focussed on new and extended PDR for domestic and non-domestic renewable energy equipment. The measures brought forward streamline the planning process for various low carbon technologies and alteration/replacement windows by removing the need to apply for planning permission to install them. Legislation came into force on 24 May 2024. Draft PDR for heat networks has been prepared and are being considered by heads of planning.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Work is in part dependent on progress with the wider legislative framework on heat networks. in terms of uptake of PDR, this is difficult to monitor as the Scottish Government do not collect information from planning authorities on numbers of planning applications for specific development. As PDR remove the need for a planning application and therefore do not necessarily get notified to the relevant planning authority, data on impacts is not available.
Timeframe and expected next steps: We are continuing to explore delivery of improvements via (i) exemption from heat network consenting, and (ii) inclusion in the scope of PDR, if more appropriate. We will know more about our plans to take this forward following our consultation on consenting proposals, which is planned over Summer.

Policy: Undertake work to better understand the impact on electricity networks of projected heat pump deployment. Work with the Distribution Network Operators through the Heat Electrification Partnership to build an evidence base to inform business planning. Work with industry and networks to understand need for heat pumps systems to be smart enabled and identify options to integrate smart systems

[21] Future Energy Scenarios (FES) | National Energy System Operator

into our delivery programmes; and to explore how innovation can help to improve the consumer experience.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Scottish Government established the Local Electricity Network Coordination Group (LENCG). The purpose of the group is to identify and address issues that can prevent or frustrate connections of heat and transport low carbon technologies including heat pumps and electric vehicle chargers to local electricity networks. It brings together representatives from the heat and transport industries to enable transparency between industry stakeholders and DNOs by facilitating communication and allowing for the identification and progression of solutions to any issues raised.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Heat and Transport subgroups have also been formed with the LENCG currently under review to align with the group's Terms of Reference which requires a review on the requirement of the group to be undertaken after 18 months.

Policy: Support heat networks through: Introducing a Non-Domestic Rates Relief for renewable and low carbon heat networks until 2023-24.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: We carried out a review of rates relief for district heat networks during 2023.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The 2024-25 Budget announced that the 90% District Heating Relief for district heat networks that use a heat source generated from renewables would be extended until 31 March 2027. In addition, the relief was expanded to include not only new district heat networks, but all district heating networks, where at least 80 % of the thermal energy generated derives from renewable generation It was agreed at that time, that this relief would be kept under review, with a view to possibly extending it later and advice will be provided to Ministers in due course.
Timeframe and expected next steps: A review of rates relief regulations for district heating networks will take place in 2026-27.

Policy: Through National Planning Framework 4 (NPF4), ensure that local development plans take account of where a Heat Network Zone has been identified.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: As set out in previous reports, NPF4 (adopted in February 2023) sets out that Local Development Plans (LDP) should consider the area's Local Heat & Energy Efficiency Strategy (LHEES).

The spatial strategy should consider areas of heat network potential and any designated Heat Network Zones.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Complete

Policy: Explore how local tax powers could be used to incentivise or encourage the retrofit of buildings, and commission further analysis to identify potential options.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We will continue to explore options to incentivise buildings retrofit / transition to clean heat using local tax powers. This includes under the new deal for business non-domestic rates sub-group consideration of, amongst other things, how non-domestic rates levers support Scotland's transition to net zero.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Policy options will be considered in light of the findings and any recommendations from these considerations. Decisions on non-domestic rates, including any reliefs, are generally made in the context of the Scottish Budget in line with other government priorities.

Policy: Design future delivery programmes to ensure significantly accelerated retrofit of buildings, with new programmes to be in place from 2025.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Our delivery programmes will continue to evolve to meet the scale of change required and align with any regulations we introduce.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Outcome 3: Our gas network supplies an increasing proportion of green gas (hydrogen and biomethane) and is made ready for a fully decarbonised gas future.

Policy: Hydrogen for heat demonstrator – providing £6.9 million support for SGN's H100 hydrogen for domestic heat demonstrator.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: SGN's H100 project continues to make good progress towards the expected launch date in the second half of 2025. Key contracts have been awarded, over 300 households are expected to have signed up by the launch date, and the demonstration homes were opened to the public by the First Minister in early February 2025.
In line with the Hydrogen Action Plan[22] hydrogen will not play a central role in the overall decarbonisation of domestic heat, however, it could have a part to play in certain specific areas in Scotland, subject to the successful outcome of trials.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The H100 Fife hydrogen network is scheduled to go live in 2025.

Policy: Work with UK Government on product standards, with a view to making new gas boilers hydrogen-ready.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Product standards for boilers are a reserved matter but the Scottish Government continues to engage with the UK Government on this policy area, while calling for the phase-out of gas boilers to be expedited from the mid-2030s.
The UK Government consulted on product standards to improve the efficiency of home heating systems and reduce energy consumption in early 2025. These policy proposals are reserved and apply in Scotland. The UK Government's position, set out in this consultation is that hydrogen-ready boiler standards will not be considered through this update to ecodesign and energy labelling. The UK Government has recently announced its intention to assess the current evidence base before consulting in 2025 on the role of hydrogen in home heating, and it will consider whether any changes to the approach to hydrogen-ready boilers is warranted following that consultation process.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: 2026

[22] Hydrogen action plan - gov.scot

Outcome 4: The heat transition is fair, leaving no-one behind and stimulates employment opportunities as part of the green recovery

Policy: Develop a long-term public engagement strategy and begin implementation of early actions.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We published the Heat in Buildings Public Engagement Strategy (PES) in December 2023. This sets out a strategic framework for how we will work and collaborate with partners and stakeholders to raises awareness of energy efficiency and clean heat, over the coming years.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: In Chapter 5 of our strategy, we set out the indicators we will use to track Scottish public awareness and understanding of clean heating and public engagement in the heart transition. It is closely aligned with the wider Monitoring ad Evaluation Framework for the Heat in Buildings Programme.
Timeframe and expected next steps: The PES covers the period 2023 to 2026 with a commitment to review after that period. Current activity includes progressing work to establish a strategic partnership group and work to improve the customer journey.

Policy: Smart Meter installation: All homes and businesses will be offered a smart meter by 2020 under a UK Government initiative, providing the opportunity for a greater understanding of final energy consumption.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The smart meter programme is owned and led by the UK Government who have responsibility for the policy, regulatory and commercial framework. The UK Government introduced a four-year 'Targets Framework' on 1 January 2022, which sets energy suppliers annual smart meter installation targets.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The UK Government has set expectations for suppliers to achieve a minimum installation coverage in homes of 74% by the end of 2025. These targets are binding obligations set out in licence conditions and Ofgem is responsible for regulation and enforcement. There are now over 37 million smart and advanced meters in homes and small businesses across Great Britain. Latest statistics show over half (65%) of energy meters in Great Britain are now smart meters[23].
Timeframe and expected next steps: The UK Government is currently in Year 4 of the four-year smart meter Targets Framework. Following the completion of this framework, work will continue towards making smart meters available for all consumers who wish to install them. The Smart Metering Implementation

[23] Smart meters in Great Britain, quarterly update September 2024 - GOV.UK

Programme is in the process of looking into the future of the smart metering framework, including maintaining smart meter functionality, ensuring 4G compatibility, and understanding the appropriate pace of new smart metering installations. The UK Government is also envisaging consulting on regulatory options for encouraging new installations in the near future.

Policy: Work with the Scottish Cities' Alliance and the seven cities on the opportunities to accelerate activity on heat and energy efficiency.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The Verity House Agreement was signed by the Scottish Government and Convention of Scottish Local Authorities (COSLA) on 30 June 2023, setting out a vision for a more collaborative approach to delivering shared priorities for the people of Scotland. Aligned with the Verity House Agreement, we have worked with the Scottish Cities Alliance and COSLA to develop a Climate Delivery Framework between national and local government to agree shared approaches to delivering action on climate change. National and local leaders have met twice (December 2024 and March 2025) to jointly shape key climate change polices and implementation at the national, regional, and local level and so drive more effective delivery of policy and programmes against climate goals. Work is progressing to finalise priority areas for focus and workplans to bring forward delivery.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Ongoing

Policy: Provide capital investment for Scottish colleges for equipment to deliver training for energy efficiency and heat.
Date announced:CCPu
Progress on implementation since time of last report / CPUs: Thanks to previous investment, infrastructure in Scottish Colleges broadly matches the current levels of training demand. However, training is not equally available across all geographic areas. The Scottish Government has invested in a mobile heat pump training centre to ensure training is available to any college in Scotland to deliver on site heat pump training.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The Scottish Government will continue to work in partnership with the sector to ensure that appropriate support and training provision are aligned with business needs and future local demands.

Policy: Respond to the recommendations of the Expert Advisory Group on a heat pump sector deal for Scotland, by Q1 2022
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The Scottish Government's response was published on 11 November 2022.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Complete

Policy: Bring forward and support demonstrator projects, such as: hybrids and high temperature heat pumps; the use of hydrogen for space and water heating; projects to understand the impact of heat transition on existing energy networks.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: In November 2022, the Scottish Government launched the Green Heat Innovation Support Programme that makes available funding for Scottish based companies to develop ideas that support growth of the clean heat sector. This includes funding for feasibility studies as well as large-scale research & development and capital investment projects.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: As of February 2025, the programme has provided almost £1.5 million in funding to support the research and development of innovation projects within the clean heat and energy efficiency sector.
Timeframe and expected next steps: A review of future green heat innovation support programme (GHISP) funding is currently underway to ensure that the programme continues to meet the demands of the sector and identify opportunities to support research and development in Scotland's heat transition.

Policy: Publish a 'Heat Network Investment prospectus' in 2021-22 - a first cut of heat network zones across Scotland, combined with information on decarbonisation needs of existing networks.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
Further to the First National Assessment of Potential Heat Network Zones published in April 2022, local authorities have also carried out assessments of potential heat network opportunities at a local level through their Local Heat and Energy Efficiency Strategies (LHEES).
The projects receiving pre-capital and capital support via the Heat Networks Support Unit and the Scotland's Heat Network Fund are included in our quarterly reports to give potential investors, the supply chain and building owners considering connecting to a heat network a clear view on the pipeline of projects the Scottish Government is supporting.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A.
Timeframe and expected next steps: N/A

Policy: Establish a short life working group on finance for the heat transition.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We established an independent Green Heat Finance Task Force in 2021 to explore potential new and innovative financing mechanisms to attract private financing at scale to support the transition to clean heat. The Taskforce published its Part 1 Report in November 2023 and its Part 2 Report in April 2025. The Scottish Government will formally respond outlining priorities and the partners we will work with in acting upon Taskforce conclusions.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We are considering the recommendations made by the Green Heat Finance Taskforce and will reply in due course.

Policy: Establish principles to underpin our commitment to 'no-one being left behind' in the heat transition, ensuring our approach neither increases the fuel poverty rate nor increases the depth of existing fuel poverty. This will include the effective design and targeting of our fuel poverty and heat in buildings programmes.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The Heat in Buildings Strategy sets out the principles that will guide our delivery programmes, to assess the impacts of our programmes on fuel poverty rates, and to ensure we only take forward actions where they are found to have no detrimental impact on fuel poverty rates, unless additional mitigating measures can also be put in place. We remain committed to these principles, for example through our delivery schemes, which offer targeted to support to those in or at risk of fuel poverty. The main driver of fuel poverty is surges in energy prices, which the Scottish Government has limited powers to influence, and these surges have resulted in a huge increase in fuel poverty in Scotland since 2020. We have been urging the UK Government to introduce a social tariff which we believe can have a substantial impact in addressing fuel poverty and will continue to make the case for a mechanism of this kind.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A
Policy: Ensure Local Heat and Energy Efficiency Strategies are developed through extensive engagement with local communities.
Date announced:CCPu

Progress on implementation since time of last report / CCPu: We published Guidance setting out what is required when developing an LHEES in October 2022. The Guidance included a requirement for extensive engagement as local authorities develop their LHEES, including with local communities.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Complete

Policy: Continue delivery of energy efficiency investment to support fuel poor households and conduct further modelling and analysis to better understand the potential impact of the heat transition on fuel poor households and the scale of, and options for, mitigation that may be required.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We continue to provide a broad range of delivery programmes to provide advice and support to people related to energy efficiency and clean heating, including to support those least able to pay, delivered through our Warmer Homes Scotland and Area Based schemes. The Heat in Buildings Monitoring and Evaluation Framework, published in November 2023, is designed to demonstrate the extent to which our Heat in Buildings policies and programmes are delivering emission reductions and achieving wider outcomes, including people not being pushed into fuel poverty as we decarbonise our homes. In accordance with the Fuel Poverty 2019 Act, the first 3-year fuel poverty progress report will be published and laid in Parliament by the end of 202425. This will cover progress since publication of our Tackling fuel poverty in Scotland strategy in December 2021, with the steps, and the progress made towards addressing the four drivers of fuel poverty and meeting the fuel poverty targets.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We will continue to build on the evaluation work undertaken, which will be set out in our forthcoming 3-year statutory progress report. Together with continued ongoing engagement with the Scottish Fuel Poverty Advisory Panel, including waiting for the outcome of their own statutory report to Scottish Ministers. We will consider their advice and recommendations to inform and shape future policy direction and guide budget allocations.

Policy: Urge the UK Government to rebalance levy costs on energy bills to make gas and electric systems relatively more cost comparable.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The UK Government has committed to consult this year on rebalancing the price of gas and electricity by moving policy costs away from electricity and onto fossil fuels when current high gas prices fall. We continue to press the UK Government on this.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Ongoing

4. Chapter 3: Transport

4.1 Part A - Overview of sector

The outturn emission statistics for 2022 (published in 2024) show a position of **12.9 MtCO2e**.

The CCPu sets out the following policy outcomes for this sector, the indicators for which are summarised below:

To address our overreliance on cars, we will reduce car kilometres by 20% by 2030	On Track	Off Track	Too Early to Say
% reduction in car kilometres	-	x	-

We will phase out the need for new petrol and diesel cars and vans by 2030	On Track	Off Track	Too Early to Say
% of new car registrations that are ultra-low emissions vehicles (ULEV)	-	x	-
% of new van registrations that are ULEV	-	x	-

To reduce emissions in the freight sector, we will work with the industry to understand the most efficient methods and remove the need for new petrol and diesel heavy vehicles by 2035	On Track	Off Track	Too Early to Say
% of new Heavy Goods Vehicle (HGV) registrations that are ULEV	-	-	x

We will work with the newly formed Bus Decarbonisation Taskforce, comprised of leaders from the bus, energy, and finance sectors, to ensure that the majority of new buses purchased from 2024 are zero emission, and to bring this date forward if possible.	On Track	Off Track	Too Early to Say
% of new bus registrations that are ULEV	x	-	-

We will work to decarbonise scheduled flights within Scotland by 2040.	On Track	Off Track	Too Early to Say
% reduction in emissions from scheduled flights within Scotland.	-	-	x

Proportion of ferries in Scottish Government ownership which are low emission has increased to 30% by 2032	On Track	Off Track	Too Early to Say
% of ferries that are low emissions	x	-	-

By 2032 low emission solutions have been widely adopted at Scottish ports.
There are no indicators for this policy outcome. More information is provided in Part C.

Scotland's passenger rail services will be decarbonised by 2035.	On Track	Off Track	Too Early to Say
% of single track kilometres electrified	-	x	-
% of train kilometres powered by alternative traction	-	x	-

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector Commentary on Progress

Transport emissions rose again in 2022, following the impact of COVID-19 lockdowns and restrictions on transport demand in 2020 and 2021, resulting in the sector's emissions exceeding the envelope (9.4 MtCO2e) by around 3.5 MtCO2e.

Although cars continued to be the main source of transport emissions in 2022 – accounting for around 39% of all transport emissions – the main driver of the transport emissions increase over the year to 2022 was a doubling of emissions from international aviation, with smaller increases from road transport and domestic aviation. Overall, transport including international aviation and shipping (IAS) remained the largest contributing sector to total Scottish greenhouse gas emissions.

The Scottish Government recognises that the Transport sector needs to decarbonise in order for us to achieve net zero. We can and must cut emissions, by changing how people, goods and services move around our country and beyond.

Since last year's report we published our draft Transport Just Transition Plan for consultation in February 2025. We want to make sure that the costs and benefits of the transition – including the benefits of new economic opportunities – are shared fairly. It means using this period of change to eradicate poverty and enhance wellbeing – for example, through measures that promote healthier lifestyles, improve access to transport, or support the natural environment. It means making sure that, as our country transitions to net zero and adapts to a changing climate, no one is left behind.

The AECOM Travel Demand Management Options Study, which explores fair and progressive options to reduce unnecessary car use, was published on 11 December 2024 alongside a Scottish Government (SG) Position Statement. The SG does not have a policy position to progress national (Scotland-wide) road pricing. We continue to call for a collaborative four-nation approach with the UK Government who have key levers of power and responsibility for Fuel Duty reform to support the just transition to Net Zero.

Scotland now has over 6,500 EV public charge points and in October 2024 achieved its target for the delivery of 6,000 public charge points two years ahead of the 2026 target date, through a combination of public funding and increasing private sector investment.

In November 2024 we announced the award of a further £6.3 million to support 11 Local Authorities across North, East and South Ayrshire and across the 8 Local Authorities of the Glasgow City Region, to deliver approximately 3,550 additional public EV charge points in partnership with the private sector.

In December 2024, the Scottish Government published its draft Vision Implementation Plan for public consultation this plan identifies proposed action to deliver the Scottish Government's Vision for public EV charging as well as providing a route map for delivering approximately 24,000 additional public EV charge points by 2030, largely delivered by the private sector.

In January 2024, Scotland introduced the Vehicle Emissions Trading Schemes legislation, alongside England and Wales, extending to UK-wide from January 2025. A four nations joint consultation on a series of amendments to the Vehicle Emissions Trading Schemes (VETS) Order 2023 closed on 18 February and a consultation response will be published in the Summer of 2025, subject to signoff by Ministers from all four nations. It is estimated that by 2040 this legislation will have saved carbon emissions equivalent to all the carbon emissions generated by Scotland in 2022.

Our ScotZEB 2 challenge fund awarded £41.7 million to Zenobe Energy and their innovative consortium; which will cover 2024-25 and 2025-26 delivering 252 new, zero emission buses and coaches and the beginnings of a pan-Scotland charging network for other large vehicle fleets.

Over 2.3 million children, young people, disabled and older people in Scotland are now benefiting from free bus travel, making over 3 million journeys every week.

Following the publication in March 2024 of our Zero Emission Truck Taskforce's HGV Decarbonisation Pathway for Scotland, we published research exploring where charging and fuelling sites for zero emission HGVs will be required in Scotland in September. This can be found at Towards Zero Emission HGV Infrastructure in Scotland.

On Aviation, we published the Aviation Statement in July which sets out new actions where the Scottish Government can contribute to decarbonising aviation, growing Scotland's international connectivity and securing lifeline services in the Highlands and Islands.

The Statement built on existing commitments on working to decarbonise scheduled passenger flights within Scotland by 2040 and to creating a zero-emission aviation region, in partnership with Highlands and Islands Limited.

Developments in Monitoring Arrangements Since Last Report

N/A

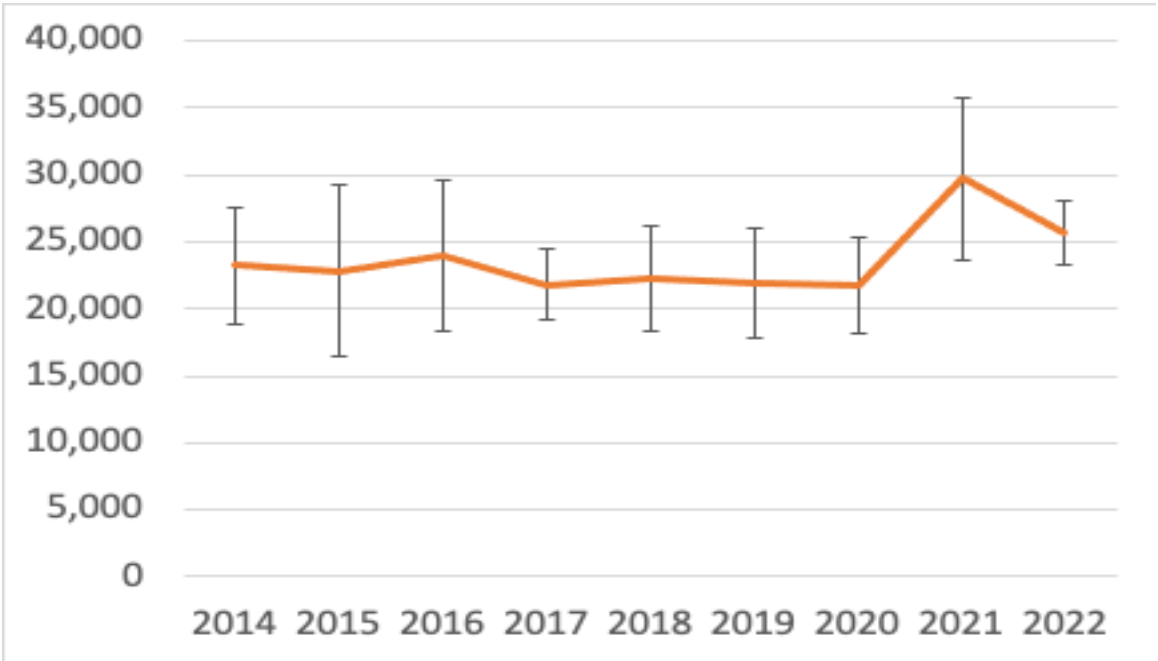
4.2 Part B – Progress Policy Outcome indicators

Policy Outcome: Cross-sectoral social and economic
Indicator: FTE employment in Low Carbon Renewable Energy Economy Indicator
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 2022
Data Source(s): Low Carbon and Renewable Energy Estimates, Office for National Statistics (ONS)
Assessment: Too early to say
Commentary: Data for the year 2023 is due to be published later this year, following the release of this report.

In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs. Estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval.

Scottish LCREE employment in 2022 is lower than in 2021 but the difference is not statistically significant, and caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates

Policy Outcome: 1
Indicator: % reduction in car kilometres
On-Track Assessment (Milestones/Targets): Change relative to base year (2019)
Most Recent Data: -3.6% (2019-2023)
Data Source(s): Scottish Transport Statistics 2024
Assessment: Off track
Commentary: Car kilometres rose for the third consecutive year in 2023 following car traffic reductions in 2020 due to the onset of the COVID-19 pandemic. Despite changes to travel patterns via increased use of digital connectivity which enables people to work and connect with others remotely, car kilometres almost recovered to pre-pandemic levels in 2023.

Future travel patterns remain uncertain; however, car use is expected to rise in forthcoming years and would require demand side interventions to deliver car traffic reductions.

The Auditor General and the Accounts Commission Scotland's Sustainable Transport report also notes that "it is unlikely that the Scottish Government will achieve its target of reducing car kilometres driven by 20 per cent by 2030." The report sought for Scottish Government to, "clarify its commitment to reducing transport emissions through the car kilometre target" and Scottish Ministers have announced that we will now revise the 20% by 2030 target to set a new, longer-term target for car use reduction, informed by Climate Change Committee (CCC) advice and updated evidence on the transport decarbonisation pathway, and aligned with development of the draft Climate Change Plan.

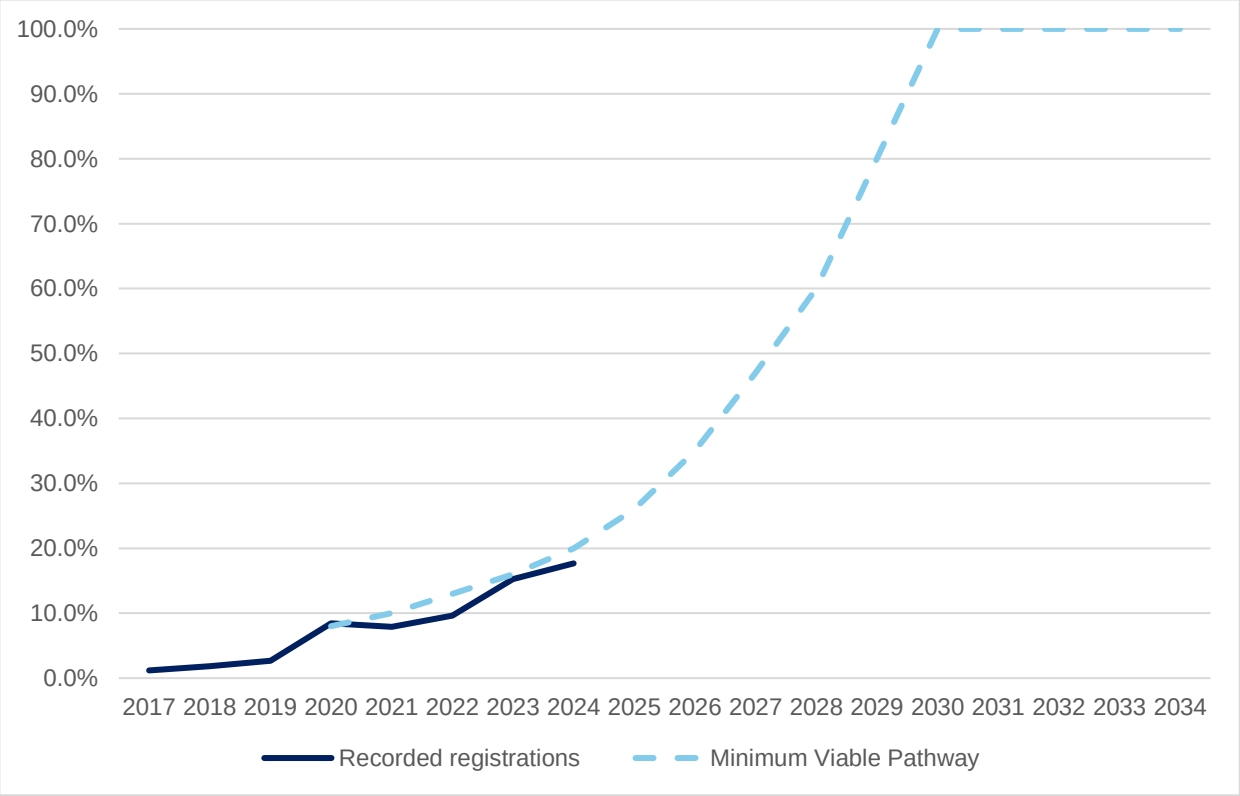
Policy Outcome: 2
Indicator: % of new car registrations that are Ultra Low Emissions Vehicles (ULEV)
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 15.3% (Year to Q2 2024) / 17.7% (2024)
Data Source(s): Department for Transport (DfT) and Driver and Vehicle Licencing Agency (DVLA); Society of Motor Manufacturers and Traders (SMMT)
Assessment: Off track
Commentary: Significant data delays have resulted in the reporting period being brought forward to Q2 (year ending June) from Q3 (year ending September) as was the case in previous updates.

ULEVs accounted for 15.3% of new car registrations in the 12 months to June 2024, slightly down from 15.8% in the previous year to June 2023.

However, more recent data from the SMMT covering the full year of 2024 shows that ULEVs accounted for 17.7% of new car sales in 2024, up from 15.2% in 2023. A record high of almost 30,000 new ULEVs were registered in Scotland in 2024, an increase of over 19% compared to the previous year

Despite this overall progress in 2024, the rate of new ULEV car registrations is below the Minimum Viable Pathway threshold of 20%, therefore this indicator is considered to be off-track.

ULEV car registrations and the minimum viable pathway



Source: Society of Motor Manufacturers and Traders (SMMT)

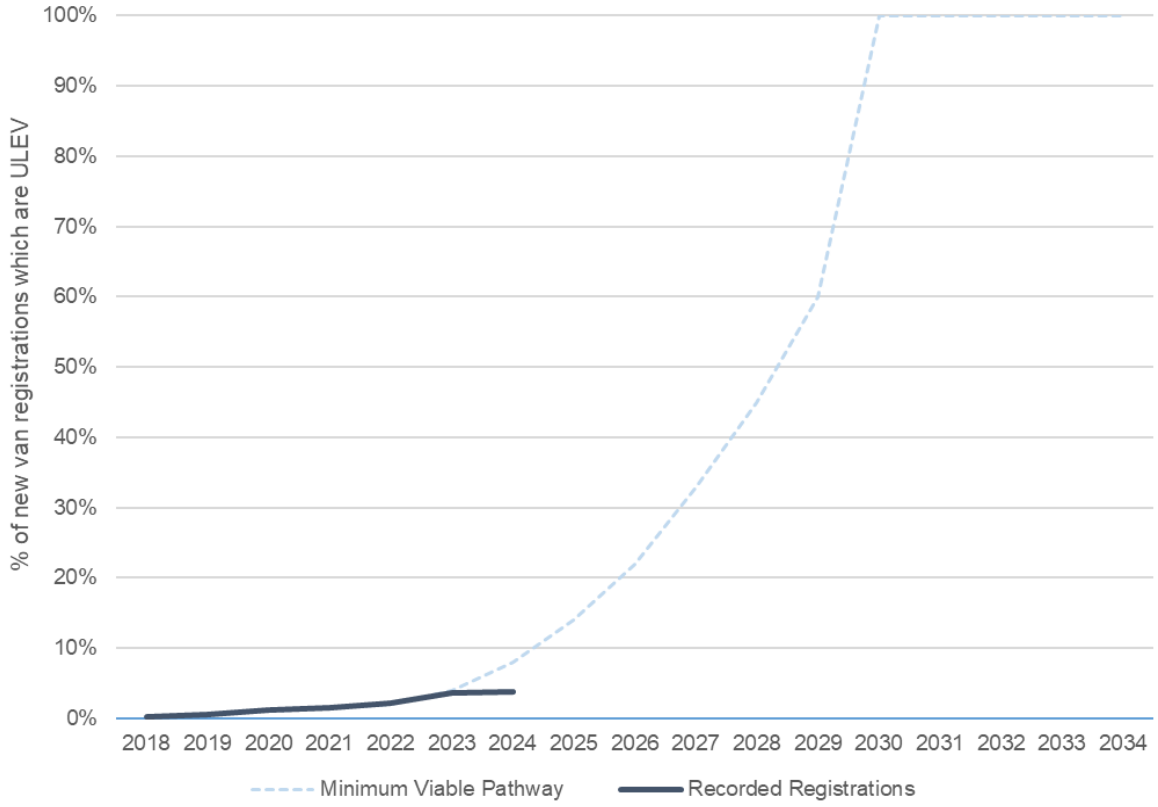
Policy Outcome: 2
Indicator: % of new van registrations that are ULEV
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 3.8% (Year to Q2 2024)
Data Source(s): Department for Transport (DfT) and Driver and Vehicle Licencing Agency (DVLA)
Assessment: Off track
Commentary: Significant data delays has resulted in the reporting period being brought forward to Q2 (year ending June) from Q3 (year ending September) as was the case in previous year's updates.

Over the 12 months to June 2024, ULEV van registrations were 3.9% of all new van registrations, up slightly from 3.6% in the previous 12-month period.

ULEV van registration rose again, with more than 900 new ULEV van registrations over the previous 12-month period - this equates to a 20% increase.

Despite the increase of ULEV vans over the past year, the rate of new registrations fell further behind the minimum viable pathway in 2024 (8.0%) meaning that progress towards this policy outcome is assessed as off-track.

ULEV van registrations and the minimum viable pathway



Source: Department for Transport (DfT) and Driver and Vehicle Licensing Agency DVLA)

Policy Outcome: 3
Indicator: % of new HGV registrations that are ULEV
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 0.3% (Year to Q2 2024)
Data Source(s): Department for Transport (DfT) and Driver and Vehicle Licencing Agency (DVLA)
Assessment: Too early to say
Commentary: Significant data delays has resulted in the reporting period being brought forward to Q2 (year ending June) from Q3 (year ending September) as was the case in previous year's updates.

8 new ULEV HGVs registrations were made in the 12 months to June 2024, representing less than 1% of all new HGV registrations during the same period. This is to be expected with the technological and energy infrastructure challenges that persist for the roll out of lower emission truck solutions at this time.

However, following the publication of the HGV Decarbonisation Pathway for Scotland in March 2024 by Scotland's Zero Emission Truck Taskforce, which set out actions for the public and private sector to increase the rate of transition to zero emission HGVs, a report was published by Transport Scotland in September 2024 exploring the sites for charging and fuelling for zero emission trucks within Scotland.

Policy Outcome: 4

Indicator: % of new bus registrations that are ULEV
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 12.3%
Data Source(s): Department for Transport (DfT) and Driver and Vehicle Licencing Agency (DVLA)
Assessment: On track
Commentary: Significant data delays mean it has not been possible to update progress against this indicator in the usual way.

However, alternative data collected by the Department for Transport shows that the share of buses used as Public Service Vehicles that are zero-emission (electric or hydrogen) increased from 11.9% in 2023 to 14.5% in 2024. As such, progress towards decarbonising the bus fleet in Scotland is considered to be on-track.

Policy Outcome: 5
Indicator: % reduction in emissions from scheduled flights within Scotland
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 2024
Data Source(s): Loganair
Assessment: Too early to say
Commentary: Over the past year to 2024, emissions from Loganair's scheduled flights within Scotland have risen by 9% even though the number of Loganair scheduled flights fell by 3%. Despite there being inconclusive explanations for the trends, different aircraft used from year-to-year and changes in the volume of flights per route could be why emissions have risen whilst flights fell.

In July 2024, we published an Aviation Statement setting out actions the Scottish Government will take to help grow Scotland's international connectivity, secure lifeline services in the Highlands and Islands, and play its part in international efforts to decarbonise aviation. This includes:

- Examining how low and zero emission aircraft could improve connectivity for islands and rural communities;
- Considering options for increasing the production and use of Sustainable Aviation Fuel (SAF) in Scotland;
- Considering buying hydrogen/electric aircraft for use on public service obligation (PSO) routes to replace current aircraft owned by Highlands and Islands Airports Limited (HIAL)
- Support HIAL to consider how to develop the infrastructure, equipment and training needed for hydrogen and electric aircraft and explore options for accessing UKG funding.

Policy Outcome: 6
Indicator: % of Government owned ferries that are low emissions.
On-Track Assessment (Milestones/Targets): Progress to target [30% by 2032]
Most recent data: 7% of the current Scottish Government Fleet consists of low emission vessels.
Data source(s): Transport Scotland
Assessment: On track
Commentary: The Vessels and Ports Plan for the Clyde and Hebrides and Northern Isles networks (2025-2045) (published 2 May 2025) sets out proposals for fleet modernisation and port upgrades to 2045 to meet the Outputs set out in the initial Islands Connectivity Plan (ICP) Strategic Approach paper including "reduction in emissions across the vessel fleets due to vessel modernisation, optimal vessel and hull design, adoption of alternative fuels and an increase in provision of shore power".

The Small Vessel Replacement Programme (SVRP), under which Caledonian Maritime Assets Ltd (CMAL) have just awarded a contract, will provide fully electric, zero-emission capable vessels, significantly increasing the number of low emission vessels in the Scottish Government fleet. New vessel delivery will enable an increase in the resilience of the major vessel fleet through the retention of a “resilience vessel” and allow for the deployment of two summer vessels for the Little Minch routes. These decisions increase the size of the current Clyde & Hebrides Ferry Services (CHFS) major vessel fleet by two.

The expected delivery dates for the new Small Vessels are later than anticipated, impacting the share of low emissions vessels and the trajectory, however, it is still on course to meet the target by 2032.

The indicative share of low emission ferries in each year is set out below. Relative to last year, the delivery dates for the new Small Vessels have now been confirmed following the conclusion of CMAL’s procurement. As noted above, these are later than had been anticipated, which has led to an adjustment in the expected trajectory to the target. However, as plans and programmes are in place, as set out the Vessels and Ports Plan (published in May 2025] to deliver a sufficient number of low emissions vessels by 2032, progress towards the target is on-track. The 2023 share was revised down due to the inclusion of the short-term charter vessel from Pentland Ferries, as part of the fleet for the 2023-2025 period, consistent with the planned increase in overall fleet size, for resilience purposes, set out in VPP.

Expected share of vessels in Scottish Government fleet that are low/zero emission:
2018 - 8%
2019 - 8%
2020 - 8%
2021 - 8%
2022 - 8%
2023 - 7%
2024 - 8%
2025 - 7%
2026 - 7%
2027 - 10%
2028 - 19%
2029 - 24%
2030 - 24%
2031 - 24%
2032 - 30%

Policy Outcome: 8
Indicator: % of single track kilometres electrified
On-Track Assessment (Milestones/Targets): Progress to target [70% by 2034]
Most Recent Data: In December 2023, 27 single track kilometres of electrification was commissioned as part of the Barrhead Electrification project. This increased the length of electrified route from 885[24] single track kilometres to 912 single track kilometres. The total route length in Scotland is 2,695[25] single track kilometres. No additions were made in 2024-25. The electrification scheme planned for entry in to service is electrification of the East Kilbride line, which is currently on target to complete in December 2025.
Electric train operations make up 75% of passenger journeys and 58% of passenger vehicle miles in Scotland.
Good progress continues to be made with delivery of new electric power Feeder Stations to support future electrification and resilience of the rail. Of the six Feeder Stations planned as part of Phase 1 of the traction power programme, two have now been completed with Currie Feeder Station entering in to service in 2024-25.
Data Source(s): Office of Rail and Road
Assessment: Off track
Commentary: Scotland has already proved successful in delivering electrification projects efficiently. However, significant upfront capital investment is required to electrify the network. The major infrastructure cost components of electrification are:

- Clearance of structures and route;
- Installation of Overhead line electrification;
- Power feeding and substations; and
- Development, design, and project management.

These can limit the routes on which electrification can be cost effective and provide value for money. The economic case for electrification is best on lines which are more intensively used. This is because capital costs for electrification are driven by the extent of electrification whilst benefits are driven by the utilisation of this infrastructure.

Significant delivery challenges exist in respect of available budget given that the capital cost of the rail decarbonisation (including electrification) programme is forecast to exceed available budgets.

[24] ORR Rail infrastructure and assets, April 2022 to March 2023
[25] ORR Rail infrastructure assets, April 2022 to March 2023

Policy Outcome: 8
Indicator: % of train kilometres powered by alternative traction.
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: Whie untested on the Scottish network, battery trains are increasingly being operated internationally. Scotland is uniquely positioned to become a leading nation in the production of reliable, competitive, sustainable hydrogen owing to the combination of its natural resources, infrastructure, and skilled energy workforce. The Hydrogen Policy Statement[26] published in 2020 confirmed that both renewable and low-carbon hydrogen will play an increasingly important role in Scotland's energy transition to net zero.
Data Source(s): Transport Scotland, the Hydrogen Action Plan
Assessment: Off-track
Commentary: The Hydrogen Action Plan[27] provides an overview of some of the sectors where hydrogen might be more or less likely adopted as a route to decarbonisation based on current alternatives and available opportunities. Subject to price and availability, hydrogen in the transport sector could act as a complementary energy source alongside electrification, providing an option for heavy duty vehicles and parts of the rail network, where full electrification is challenging.
The use of battery-electric trains with discontinuous electrification as the end-state for routes where freight does not operate is an option for decarbonisation. This approach offers the opportunity to decarbonise the railway at a lower capital cost than with full electrification. Depending on the extent of electrification required to operate these hybrid trains, for some routes where freight is a factor, this provides an interim or transitional solution which would allow early benefits realisation and optimisation of value for money by significantly reducing capital costs to the taxpayer.

Testing to date has shown that Hydrogen trains only deliver 34% of the efficiency of electric trains (though this is an improvement over diesel). It is expected that technology advancements will be made in the coming years to improve the efficiency of hydrogen fuel cells, but it remains a considerable way behind electrification.

[26] Scottish Government Hydrogen Policy Statement
[27] Scottish Government Hydrogen Action Plan

4.4 Part C - Information on implementation of individual policies

Outcome 1: To address our overreliance on cars, we will reduce car kilometres by 20% by 2030

Policy: If the health pandemic has moved to a phase to allow more certainty on future transport trends and people's behaviours – and work and lifestyle choices future forecasting – we will publish a route-map to meet the 20% reduction by 2030 in 2021.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: A draft route map was published in January 2020 followed by public consultation. Engagement has continued with COSLA, Regional Transport Partnerships (RTPs) and SCOTS on development of the car use reduction policy and agreement has been reached on the approach for joint publication of a renewed policy statement in Spring 2025, including actions relating to a timeline on demand management, a commitment set out in the Scottish Government's Programme for Government in September 2024.

AECOM Travel Demand Management Options Study was published on the Transport Scotland website on 11 December adding to the evidence base, alongside a Scottish Government Context and Policy Position stating that this is not Scottish Government policy. Following the Audit Scotland recommendation to clarify our commitment to the target, the Scottish Government will revise the existing target informed by the forthcoming advice of the Climate Change Committee, to develop a new, longer-term target.

In response to Audit Scotland's recommendation to report on 'how spending in the year has affected the desired outcomes of fewer people using their car and more people travelling via sustainable modes such as active travel and public transport.'
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The main indicator to-date is year to year change in % car km reduction (Scottish Transport Statistics 2024 provides the latest data), with localised data also available, as per Audit Scotland's Sustainable Transport report which uses Road Traffic Statistics from the Department for Transport.
Timeframe and expected next steps: Working in collaboration with COSLA, a 'renewed policy statement' will be published in Spring 2025. This will be followed by subsequent development of delivery plan(s) working closely with COSLA, Regional Transport Partnerships and SCOTS, starting later in 2025. As outlined above we will also revise the 20% by 2030 target.

Policy: Commit to exploring options around remote working, in connection with our work on 20-minute neighbourhoods and work local programme.

Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: Local living and 20-minute neighbourhood guidance was published in April 2024 which includes case studies, tools and resources that support the implementation of local living principles and engagement with communities in urban and rural areas. To enable delivery, we also continue to implement the Place Principle, and this is supported by tools for good placemaking such as the Place Standard tool hosted on the Our Place | Our Place website to support engagement and delivery.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: N/A

Policy: COVID-19 has impacted on how we work. We launched a Work Local Challenge to drive innovation in workplace choices and remote working to support flexible working and our net zero objectives.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, the Work Local Challenge Programme ran between July 2020 and March 2022 to support innovation and address the challenges caused by the shift in workplace settings and working patterns resulting from the COVID-19 pandemic. The programme is now closed – funding came to an end and the projects are all concluded.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: We will work with the UK Government on options to review fuel duty proposals, in the context of the need to reduce demand for unsustainable travel and the potential for revenue generation.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: Scottish Ministers have written on several occasions to UK Government Ministers (most recently to the Chancellor of the Exchequer prior to the 2024 UK Autumn Budget) requesting meaningful engagement on plans for structural reform of reserved motoring taxation, which the UK Government itself acknowledged is inevitable and required in their recent Net Zero Review. To date, the previous and current UK Government have been unwilling to engage and set out its plans or a timescale for engagement.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: Timeframes on engagement are at the discretion of the UK Government, who have so far been unwilling to engage on the

issue. However, Scottish Government Ministers and officials will continue to press for meaningful dialogue, including a four nations approach.

Policy: We will work with local authorities to continue to ensure that their parking and local transport strategies have proper appreciation of climate change, as well as the impact on all road users, including public transport operators, disabled motorists, cyclists, and pedestrians.
Date announced: CCPu Although continuation of work already underway
Progress on implementation since time of last report / CCPu: Updated Local Transport Strategy (LTS) guidance published in June 2024 which is framed around need to address climate change and has some references to parking policies.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: Commitment complete. Transport Scotland officials are available to guide local authorities through the development of their local transport strategy (LTS) if required.

Policy: To support the monitoring requirement for the National Transport Strategy set out in the Transport (Scotland) Act 2019, and to further our understanding of how and why people travel, we will develop a data strategy and invest in data.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Transport Scotland took part in a cohort for the Scottish Government Data Maturity Programme to understand our current data maturity, collaborate with others and receive guidance and resources to enable data transformation. A data maturity assessment was undertaken to help us determine where our strengths are and where we need to make improvements. We continue to use expertise and resources available from the Data Maturity Network via the Knowledge Hub Group. In November 2024, we engaged with local authorities, regional transport partnerships and other industry stakeholders at our Land use and Transport Integration in Scotland (LATIS) Appraisal and Modelling User Group meeting at Victoria Quay to get external feedback on data priorities.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Further engagement with stakeholders via Mobility as a Service (MaaS) Scotland. Consult on internal draft in Autumn.
Policy: Continue to support the Smarter Choices, Smarter Places (SCSP) programme to encourage behaviour change. Continue to support the provision of child and adult cycle training, and safety programmes including driver cycling awareness training through Bikeability.
Date announced: CCP 2018

Progress on implementation since time of last report / CCPu: As noted in the 2024 report, the Smarter Choices, Smarter Places (SCSP) programme was brought to a close at the end of March 2024 as part of wider changes delivered through the Active Travel Transformation Programme. The majority of our funding for behaviour change is now provided directly to Regional Transport Partnerships, through the People and Place programme.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: We will grant fund CoMoUK to increase awareness of the role and benefits of shared transport and look at the barriers to uptake of car clubs.
Date announced: PfG 2018
Progress on implementation since time of last report / CCPu: Although no direct funding is provided from Transport Scotland, Collaborative Mobility UK (CoMoUK) have received small pockets of funding from Regional Transport Partnerships through the People and Place programme to support shared transport and hubs. We expect further support to be provided in 2025-26 as we expand the scope of the programme to more formally include Sustainable Travel.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No, although we are developing indicators through our refreshed Monitoring and Evaluation Framework for the People and Place programme for 2025-26.
Timeframe and expected next steps: 2025-26; Quarterly reports via RTPs

Policy: Support transformational active travel projects with a £500 million investment, over five years, for active travel infrastructure, access to bikes and behaviour change schemes. Enabling the delivery of high quality, safe walking, wheeling, and cycling infrastructure alongside behaviour change, education, and advocacy to encourage more people to choose active and sustainable travel. Support the use of E-bikes and adapted bikes through interest free loans, grants, and trials.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: We remain committed to our 2030 vision for active travel. The Active Travel budget allocated for 2024/25 was over £157 million which means over the last 4 years, £500 million has been invested to make walking, wheeling, and cycling more accessible for everyone for short everyday journeys.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Looking ahead to 2025-26, support for Active Travel remains a priority for this Government, and in 2025-26 we will invest £188.7 million to support high quality active travel and bus infrastructure, sustainable travel

integration and behaviour change investment to promote walking, wheeling, and cycling for everyday shorter journeys.

Policy: We have re-purposed almost £39 million of active travel funding for the Spaces for People; this is enabling local authorities to put in place the temporary measures such as pop-up cycle lanes and widening walkways that are needed to allow people to physically distance during transition out of the COVID-19 lockdown.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, the programme has delivered changes and is now closed.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Support increased access to bikes for all including the provision of public bike and e-bike share.
Date announced: 2019-2020
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, under Access to Bikes we funded the Free Bikes for Schoolchildren commitment. The pilot programme funded 10 pilot projects to test various delivery models and informed the creation of the Free Bikes Partnership run by Cycling Scotland. The pilot projects delivered 3800 bikes and the Free Bikes Partnership a further 612 in FY 2023-24. In FY 2023-24, the Energy Saving Trust provided interest free loans for the purchase of 439 e-bikes. Regional Transport Partnerships can choose to support access to bikes where they deem it a priority to meet the local needs within their area.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Mobility as a Service and increased use of peer-to-peer car sharing which will help reduce the number journeys made by car. To do this we are harnessing innovation within our transport system through investing up to £2 million over three years to develop ‘Mobility as a Service’ in Scotland.
Date announced: PfG 2018
Progress on implementation since time of last report / CCPu: Evaluation of the MaaS Investment Fund projects was completed in 2024, with the final programme report published in February 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps: For 2025, work will concentrate on establishing a new working group to focus on delivery of future programme objectives such as creation of a national evaluation framework and a Scottish MaaS code of practice. Longer term ambitions include definition of the necessary governance and delivery structure needed, as well as reviews of any legislative requirements and development of a specification for a national MaaS platform.

Policy: We will work to improve road safety, ensuring people feel safe with appropriate measures in place to enable that. We will publish Scotland's Road Safety Framework to 2030, following consultation on an ambitious and compelling long-term vision for road safety where there are zero fatalities or serious injuries on Scotland's roads by 2050.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: As part of the Road Safety Framework to 2030 we have undertaken a National Speed Management Review (NSMR) and public consultation on the potential reduction of the national speed limit on single carriageway roads from 60mph to 50mph. The consultation closes on the 5 March and a report on the outcomes will be completed by May.
The reduction in speed limits is based on road safety and the reduction in the number of people being killed and seriously injured on our roads, however, there are marginal benefits on the reduction of emissions.
We will complete the national roll out of 20mph speed limits on appropriate roads in scotland, this will result in our streets becoming safer, with more people cycling and walking and therefore reducing the number of trips made by vehicles resulting in a reduction of emissions.
We are also delivering a number of road safety measures through the Road Safety Improvement Fund to promote modal shift and make our streets safer for pedestrians and cyclists.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The framework sets out a vision for Scotland to have the best road safety performance in the world by 2030 and an ambitious long-term goal where no one is seriously injured or killed on our roads by 2050. It sets challenging targets for the years ahead as we strive to meet our vision to 2030. The targets, along with our progress as of 2022 (which is comparative to the 2014-18 baseline), can be found below.
We expected an increase in road casualties due to traffic returning to our roads following the pandemic. However, the rise in fatalities has been higher than anticipated, hence the reason there has been a greater focus on road safety.

- 50% reduction in people killed (achieved – 11%)
- 50% reduction in people seriously injured (achieved – 29%)
- 60% reduction in children (aged <16) killed (achieved – 11%)
- 60% reduction in children (aged <16) seriously injured (achieved – 31%)

For the first time, mode, and user specific targets for key priority groups (listed below) have been created to focus attention by partners on our priority areas:

- 40% reduction in pedestrians killed or seriously injured (achieved – 29%)
- 20% reduction in cyclists killed or seriously injured (achieved – 41%)
- 30% reduction in motorcyclists killed or seriously injured (achieved – 24%)
- 20% reduction in road users aged 70 and over killed or seriously injured (achieved – 11%)
- 70% reduction in road users aged between 17 to 25 killed or seriously injured (achieved – 36%)

Percentage of motorists driving/riding within the posted speed limit the casualty rate for the most deprived 10% Scottish Index of Multiple Deprivation (SIMD) areas is reduced to equal to the least deprived 10% SIMD areas.
Timeframe and expected next steps: The outcomes of the NSMR will be completed by May 2025. 20mph speed limits on appropriate roads will be completed by December 2025. Road safety schemes to promote modal shift will be completed by the end of March and will continue into future Road Safety Improvement Fund delivery plans.

Policy: We are committed to taking forward policy consultation in advance of drafting supporting regulations and guidance to enable local authorities to implement workplace parking levy schemes that suit their local circumstances.
Date announced: 2019-2020
Progress on implementation since time of last report / CCPu: Regulations came into force in March 2022 and guidance was published in June 2022, so local authorities are now able to use their discretionary powers to implement WPL schemes.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The milestones (regulations in force and guidance published) have been completed in 2022.
Timeframe and expected next steps: The policy milestones have been completed. It is now a decision for local authorities whether to take forward local schemes.

Policy: We will bring forward a step change in investment with over £500 million to improve bus priority infrastructure to tackle the impacts of congestion on bus services and raise bus usage. We will launch the Bus Partnership Fund in the coming months to support local authorities' ambitions around tackling congestion
Date announced: 2019-22 PfG
Progress on implementation since time of last report / CCPu: None due to the pausing of the Bus Partnership Fund in 2024-25 due to budgetary constraints. As per last year's report, we have provided £26.9 million of funding for bus priority through

the Bus Partnership Fund since it commenced. This has delivered bus gates, enforcement cameras and traffic light equipment to help buses get through them more quickly in North Ayrshire, Glasgow, Inverness, and Edinburgh. It has also made a number of temporary measures, such as bus lanes, permanent in Edinburgh and Glasgow. Bus gates in Aberdeen City Centre have reduced journey times for passengers by up to 25% benefitting over 600,000 passengers each month. A bus gate at Raigmore Hospital in Inverness is also due to open at the end of March. A number of business cases have also been completed which identify further bus priority measures.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The draft budget for 2025-26 indicated that a Bus Infrastructure Fund is proposed for 2025-26. This will deliver bus priority as well as other bus infrastructure measures. The fund is currently under development and details will follow in due course.

Policy: We remain committed to delivering a national concessionary travel scheme for free bus travel for under 19s, and have begun the necessary preparations including planning, research, legal review, and due diligence.
Date announced: 2020-21 PfG and Budget 2020
Progress on implementation since time of last report / CCPu: In 2021 it was announced that this scheme would be extended to under 22s, and in the three years since the scheme started in January 2022, over 200 million journeys had been made by cardholders, demonstrating the appetite for sustainable travel in Scotland
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The Year One Evaluation of the Young Persons Scheme (YPS) was published in December 2023 and can be found at https://www.transport.gov.scot/publication/summary-report-year-1-evaluation-young-persons-free-bus-travel-scheme/. Further evaluations will be undertaken in the coming years.
Timeframe and expected next steps: The Scheme has proved very successful in providing free bus travel for all young people in Scotland. Further evaluations will be undertaken in the coming years.

Policy: We are also carrying out a review of discounts available on public transport to those under the age of 26 – due for completion end of December 2020 (with consultation planned on young people's views on the impacts of COVID 19 and post lockdown measures on public transport usage and behaviour).
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: As noted in 2024 report, Scottish Government has carried out analysis on a range of options including the cost of extending free bus travel and on concessionary travel across all modes of

public transport to those under the age of 26. This included cost and benefit analysis. The review has concluded and was published on the Transport Scotland website on 22 September 2022 at Under 26 Concessionary Fares Review.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Delivery of our first Active Freeways – segregated active travel routes on main travel corridors connecting communities and major trip attractors.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: A number of new projects being delivered through the Places for Everyone programme already meet the definition of an Active Freeway; this includes South City Way in Glasgow, the Edinburgh East West Route and the Broughty Ferry project that will link to central Dundee.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: That spending in the year is resulting in fewer young people using their car and travelling more via sustainable modes such as active travel and public transport
Date announced:
Progress on implementation since time of last report / CCPu: The Scottish Government's young person's free bus travel scheme for under-22s started in January 2022 with an aim to embed positive sustainable travel behaviours; open up social, education, employment and leisure opportunities; and reduce household outgoings to aid children, particularly those living in poverty. Popularity is growing – with almost 800,000 young people in Scotland owning a card, and more than 80 million journeys having taken place during FY 2024-25. As a result, Government spending to reimburse operators for journeys made under the scheme has increased again – around £190 million in the latest year.
An evaluation of the scheme after its first year has indicated signs of progress in delivering against most of the aims and expected outcomes. The report found that the scheme was enabling young people to develop positive sustainable travel habits, even though evidence of modal shift from car use to buses was limited. There was clear evidence of the scheme creating social, leisure, educational, employment and voluntary opportunities for young people, making support services more accessible, and helping to reduce household outgoings through cost savings related to travel. Good progress was made in 4 of the 5 short term outcomes, with mixed evidence in relation to outcome 2 (fewer young people learning to drive). All 3 medium-term outcomes were on course to be achieved, and half of the 4 long-term outcomes were

on track – more time will be required to assess changes to poverty rates amongst young people and private car kilometres.
In 2024-25, we allocated over £66 million to Sustrans to fund local authorities and others to deliver active travel infrastructure, and upgrade and expand the National Cycle Network. Although there are currently no indicators available around how this funding has directly reduced car use, data from Cycling Scotland show increases of over 30% in the number of cycle journeys in summer 2024 compared with summer 2023, with a site in Stirling recording a 100% increase.
Further analysis has shown that Investment in two key urban cycle routes in Glasgow and Edinburgh have resulted in a record share of journeys by bike in Scotland, with the also showing peaks in morning and evening rush hours, indicating that these routes are being used for everyday journeys.
More time will be required to assess options for indicators or milestones on how in year funding for sustainable travel modes has affected car use.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: As above
Timeframe and expected next steps: As part of a shift in our approach, in 2025-26, through the Active Travel Infrastructure Fund, Transport Scotland will directly fund local authorities, regional transport partnerships and national parks for both the design and construction of active travel infrastructure.
To support the continued ambitions and leadership of our towns and cities – and to make walking, wheeling, and cycling easier for shorter everyday journeys, in 2025-26 the Scottish Government will invest £188 million to make it even easier for people to choose sustainable active travel.

Outcome 2: We will phase out the need for new petrol and diesel cars and vans by 2030.

Policy: We will consider and develop new financing and delivery models for electric vehicle charging infrastructure in Scotland and working with the Scottish Future Trust to do so.
Date announced: Boosted in 2019-20 PfG
Progress on implementation since time of last report / CCPu: New financing delivery models are being implemented through the £30 million Electric Vehicle Infrastructure Fund supporting local authorities to work in partnership with the private sector to leverage private investment to continue grow public EV charging infrastructure across Scotland. To date 18 local authorities have had funding confirmed and are progressing public procurement.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Funded projects are expected to attract approximately £30 million in matched private sector funding and deliver approximately 6,000 additional public electric vehicle charge points across Scotland. The total amount of private sector investment secured, and the total number of public charge points funded will be identified once all participating local authorities have completed public procurement.
Timeframe and expected next steps: All funding will have been awarded by March 2025 and local authorities will have commenced or will shortly commence public procurement with the expectation that they will complete the delivery of these projects by the end of 2028/29.

Policy: We have invested over £30 million to grow and develop the ChargePlace Scotland network which is now the 4th largest in the UK. We will continue to develop the capacity of the electric vehicle charging network.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: As noted in the 2024 report this is complete – we have now invested over £65 million to develop the Charge Place Scotland network. We will continue to develop the capacity of the electric vehicle charging network via the EV infrastructure Fund (see above) as we shift away from the CPS model to one that is more commercially oriented in order to meet future demand at the necessary pace and scale.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Our Low Carbon Transport Loan has provided over £185 million of interest free loans to individuals and businesses across Scotland supporting the transition to low carbon vehicles. We have now refocused the scheme to focus on used vehicles

as well as targeting Small and Medium Enterprises along with Third Sector Organisations.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: With the introduction of the four nation Vehicle Emissions Trading Schemes (VETS) Order 2024, regulation now exist mandating the sale of zero emission vehicles. As a result of this legislation electric vehicles have made up around one in five of all new cars sold across the UK in each month in late 2024 and early 2025. As a result of this "mainstreaming" of electric vehicles consumer support through the Low Carbon Transport Loan has prioritised supporting those with household incomes of £50,000 or less to purchase affordable used electric vehicles as part of a Just Transition. Our Low Carbon Transport Loan has now provided over £230m of interest free loans to individuals and businesses across Scotland.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No, this is an ongoing support package.
Timeframe and expected next steps: Subject to the need for a continued policy intervention, and available funding, this scheme will continue to operate to support drivers to make the transition to zero emission vehicles.

Policy: We will continue to promote the uptake of ULEVs in the taxi and private hire sector.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The uptake of ULEVS in the taxi and private hire sector is supported through the Low Carbon Transport Loan.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No, this is an ongoing support package.
Timeframe and expected next steps: Subject to the need for a continued policy intervention, and available funding, this scheme will continue to operate to support drivers to make the transition to zero emission vehicles.

Policy: Continue to promote the benefits of EVs to individuals and fleet operators (exact nature of promotion to be decided annually).
Date announced: 2018
Progress on implementation since time of last report / CCPu: We continued to promote and support the uptake of EVs through a range of consumer incentive schemes delivered by the Energy Saving Trust, and independent organisation working to address the climate emergency.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No, this is an ongoing support package.

Timeframe and expected next steps: Subject to the need for a continued policy intervention, and available funding, we will continue to provide support to consumers and businesses to transition to zero emission vehicles.

Policy: We will work with public bodies to phase out the need for any new petrol and diesel light commercial vehicles by 2025.
Date announced: 2019-20 PfG
Progress on implementation since time of last report / CCPu: We have continued to support public bodies to decarbonise their fleets, working with the Energy Savings Trust (EST) to provide advice and support. Through the Fleet Manager Forum EST have promoted best practice and provided opportunities for fleet managers to learn from peers and understand the range of services and technologies available from the private sector. We are also supporting the public sector fleet decarbonisation through the development of a Public Sector Fleet Decarbonisation Action Plan, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Publication of the Public Sector Fleet Decarbonisation Action Plan in mid to late 2025, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Timeframe and expected next steps: We will continue to work with the public sector to take forward actions identified in the published Public Sector Fleets Decarbonisation Action Plan.

Policy: We will support the public sector to lead the way in transitioning to EVs, putting in place procurement practices that encourage EVs. In the Programme for Government we committed to work with public bodies to phase out the need for any new petrol and diesel light commercial vehicles by 2025.
Date announced: 2019-20 PfG
Progress on implementation since time of last report / CCPu: We have continued to support public bodies to decarbonise their fleets, working with the Energy Savings Trust (EST) to provide advice and support. Through the Fleet Manager Forum EST have promoted best practice and provided opportunities for fleet managers to learn from peers and understand the range of services and technologies available from the private sector. We are also supporting the public sector fleet decarbonisation through the development of a Public Sector Fleet Decarbonisation Action Plan, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Publication of the Public Sector Fleet Decarbonisation Action Plan in mud to late 2025, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.

Timeframe and expected next steps: We will continue to work with the public sector to take forward actions identified in the published Public Sector Fleets Decarbonisation Action Plan.

Policy: Create the conditions to phase out the need for all new petrol and diesel vehicles in Scotland's public sector fleet by 2030.
Date announced: 2019-20 PfG
Progress on implementation since time of last report / CCPu: We have continued to support public bodies to decarbonise their fleets, working with the Energy Savings Trust (EST) to provide advice and support. Through the Fleet Manager Forum EST have promoted best practice and provided opportunities for fleet managers to learn from peers and understand the range of services and technologies available from the private sector. We are also supporting the public sector fleet decarbonisation through the development of a Public Sector Fleet Decarbonisation Action Plan, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Publication of the Public Sector Fleet Decarbonisation Action Plan in mud to late 2025, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Timeframe and expected next steps: We will continue to work with the public sector to take forward actions identified in the published Public Sector Fleets Decarbonisation Action Plan.

Policy: We will continue to invest in innovation to support the development of ULEV technologies and their adoption.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, Transport Scotland worked closely with Scottish Enterprise to fund innovation through the Can Do Innovation Fund as well as providing funding via a Zero Emission Mobility Innovation Fund. In total over 15 projects were funded supporting small to medium-sized enterprises (SMEs) and large companies to innovate. Transport Scotland also created an Academic Network providing early-stage funding for businesses to work with academic expertise across Scotland's universities.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Take forward the initiatives in respect of connected and autonomous vehicles set out in A Connected and Automated Vehicles (CAV) Roadmap for Scotland.
Date announced: CCP 2018

Progress on implementation since time of last report / CCPu: Transport Scotland continued to support CAVForth 2 during 2024, during which time an incident took place during testing of the service which resulted in the suspension of autonomous operation. Transport Scotland were then notified that the service was due to be withdrawn at the end of February 2025 due to low patronage.

In relation to the initiatives set out in the CAV Roadmap for Scotland, Transport Scotland has focused on developing our approach to connecting our service. This is covered by two broad areas of delivery in directly communicating with road users in trip and by harnessing the benefits of connected vehicle data.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A - Transport Scotland has delivered all of its commitments as a partner in Project CAV Forth.
Timeframe and expected next steps: We will continue to develop our connected vehicle strategy and document this in our planned Future Vision for the Traffic Scotland Service.

Policy: With local authorities and others, evaluate the scope for incentivising more rapid uptake of electric and ultra-low emission cars and vans.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: We have continued to support public bodies to decarbonise their fleets, working with the Energy Savings Trust (EST) to provide advice and support. Through the Fleet Manager Forum EST have promoted best practice and provided opportunities for fleet managers to learn from peers and understand the range of services and technologies available from the private sector. We are also supporting the public sector fleet decarbonisation through the development of a Public Sector Fleet Decarbonisation Action Plan, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Publication of the Public Sector Fleet Decarbonisation Action Plan in mud to late 2025, developed in partnership with public sector fleet operators to identify current routes to decarbonisation.
Timeframe and expected next steps: We will continue to work with the public sector to take forward actions identified in the published Public Sector Fleets Decarbonisation Action Plan.

Outcome 3: To reduce emissions in the freight sector, we will work with the industry to understand the most efficient methods and remove the need for new petrol and diesel heavy vehicles by 2035.

Policy: To support businesses, we will establish a Zero Emission heavy duty vehicle programme and will invest in a new zero drivetrain testing facility in 2021.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: A Zero Emission Mobility Innovation Fund (ZEMIF) was established in 2022 with a national budget of £28m over four years to support the manufacture and deployment of zero emission heavy duty vehicles. However, due to budget pressures, the fund was withdrawn in 2023. Additionally, Transport Scotland made available up to £7 million for the development of the Low Carbon Transport Applications Centre (LOCATE) facility for testing and developing zero emission drivetrains. Initially intended to be deployed at the Michelin Scotland Innovation Parc in Dundee, work is under way to establish the facility at the Energy Technology Zone (ETZ) in Aberdeen.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: A single ZEMIF award of £5 million was made before the programme closed, to support a wider £13 million grant made by Scottish Enterprise to Alexander Dennis Ltd for the establishment of a facility to develop and manufacture zero emission buses. The delivery of the project, including the setting of milestones and assessment of progress, is managed by Scottish Enterprise. The LOCATE facility is under development.
Timeframe and expected next steps: There are no further steps planned for the ZEMIF scheme, which is considered closed. An assessment of the suitability to establishing LOCATE at the ETZ is expected shortly.

Policy: Explore the development of green finance models to help business and industry to invest in new road transport technologies.
Date announced: CCPu
Progress on implementation since time of last report / CCPu: Transport Scotland are taking forward an action from the HGV Decarbonisation Pathway to convene a forum for financiers and operators in March 2025. We are working with Scottish Futures Trust drawing together haulage operators, commercial finance, charge point operators and manufacturers. Good interaction with Green Finance Institute on their work around residual value guarantees for zero emission HGVs. ScotZEB 2 continues to be in the delivery phase, and we are monitoring progress for lessons learned opportunities from the bus financing to see what can be applied to the heavy-duty vehicle sector.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: On March 19 2025 Transport Scotland hosted a Financing Forum for the HGV sector. This forum brought together HGV fleet

operators, innovative and traditional financiers, manufacturers and charge-point operators to explore proactive actions which can be taken by the sector and government in the short-term in order to unlock HGV decarbonisation in Scotland. Financing will play a key role in unlocking decarbonisation at pace and scale for HGVs, and the forum sought to strengthen relationships and share learning between financiers and operators. Engagement with the sector will continue and actions from the forum will be taken forward by the sector and government respectively.

Policy: We will engage with industry to understand how changing technologies and innovations in logistics (including consolidation centres) can help to reduce carbon emissions, particularly in response to the increase in ecommerce
Date announced:CCPu
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, the Zero Emission Truck Taskforce published its HGV Decarbonisation Pathway for Scotland in March 2024 with collaborative actions focusing on unlocking transition. This was a collaboration among senior industry leaders alongside government.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: As noted in the 2024 report, implementation of actions for Scottish Government and others within the pathway; expectation to update the pathway in 3 years as technology matures.

Policy: Continue to investigate the role that other alternative fuels, such as hydrogen, and biofuel can play in the transition to a decarbonised road transport sector. Consider the scope for testing approaches to alternative fuels infrastructure and supply
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, we commissioned research on the potential opportunities for Scotland in alternative fuels in the decarbonisation of transport. The research suggested the most promising opportunities were around alternative fuels for aviation and maritime. Exploration of the opportunity around sustainable aviation fuel is ongoing with industry.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: As noted in the 2024 report, Aviation, and maritime sector teams to continue to explore the role of alternative fuels.

Policy: Launched the new Hydrogen Accelerator (H2A) Programme to attract technical experts to help scale up and quicken the deployment of hydrogen technologies across Scotland.
Date announced: July 2020
Progress on implementation since time of last report / CCPu: As reported in last year's report, the Hydrogen Accelerator ran from 2020 to March 2024 and supported projects in the development of hydrogen for transport including a hydrogen rail demonstrator which was showcased at COP26.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Funding for the Hydrogen Accelerator ended in March 2024.

Outcome 4: We will work with the newly formed Bus Decarbonisation Taskforce, comprised of leaders from the bus, energy, and finance sectors, to ensure that the majority of new buses purchased from 2024 are zero-emission, and to bring this date forward if possible.

Policy: We have introduced a revised green incentive of the Bus Service Operators Grant.
Date announced: April 2019
Progress on implementation since time of last report / CCPu: As noted in the 2024 report, this policy ran until 31 March 2022 when the Network Support Grant replaced the Bus Service Operators Grant, where there is no longer a green incentive given the numbers of zero emission buses now coming into operation.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: On 31 March 2024, the 5-year transition period for light commercial vehicles (LCV) ended. The remaining green incentives will complete their 5-year transition period by 31 March 2027.
Timeframe and expected next steps: The incentive will totally cease from 31 March 2027.

Policy: We launched a £9 million Scottish Ultra Low Emission Bus Scheme (SULEBS).
Date announced: August 2020
Progress on implementation since time of last report / CCPu: SULEBS ran in 2020 and 2021.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Through SULEBS, 272 zero-emission vehicles and their supporting infrastructure were acquired by Scottish bus operators, supported by over £50 million of government subsidy.
Timeframe and expected next steps: Scheme was superseded by the Scottish Zero Emission Bus Challenge fund (ScotZEB).

Policy: In the context of the National Transport Strategy Delivery Plan and Transport Act, we will examine the scope for climate change policies, in relation to buses, across the public sector in high-level transport legislation strategies and policies.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: We introduced The Transport Partnerships (Transfer of Functions) (Scotland) Order 2024; The Bus Services Improvement Partnerships (Multi-operator travel cards) (Scotland) Regulations 2024; The Transport (Scotland) Act 2019 (Commencement No.8) Regulations 2024; The Public Service Vehicles (Registration of Local Services) (Bus Services Improvement Partnerships Service Standards Decisions) (Appeals) (Scotland) Regulations 2024; Package of SSIs making provision about the appeals

against certain decisions of the Traffic Commissioner (excluding service standards decisions); The Local Service Franchises (Traffic Commissioner Notices and Panels) (Scotland) Regulations 2024; and work is ongoing on the delivery of the transitional process for franchising regulations and on the delivery of the Partnership and Franchising guidance which will complete remaining regulations and guidance to fully deliver bus franchising and partnership powers.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The last remaining franchising regulation will be laid in Spring 2025 followed by guidance, which will give the partnership and franchising powers full effect.

Policy: We will work to align government financial support of £120 million over the next 5 years with private sector investment to drive forward a fully decarbonised future for Scotland's bus fleet and support the Scottish supply chain.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: An award of £41.7 million was made to Zenobe Energy Ltd., leading an innovative consortium comprised of bus operators of various sizes who will deliver 252 new zero emission buses for Scotland. Supporting the transition will be a number of electrified bus depots, with charging infrastructure to support the buses provided through ScotZEB, and opened to third parties where possible to enable other road users - particularly HDV fleets - to have the confidence to transition.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Through Scottish Government interventions SULEBS and ScotZEB, we have supported the acquisition of zero emission buses and their supporting infrastructure, bringing the total number of zero emission buses up from less than 20 to more than 800.
Timeframe and expected next steps: ScotZEB 2 FY1 will be concluding in March 2025. The first year has seen considerable success, and the full suite of benefits promised in the application are expected in FY2. This is inclusive of 252 new zero emission buses, charging infrastructure and depots open to 3rd party charging for other road users.

Outcome 5: We will work to decarbonise scheduled flights within Scotland by 2040.

Policy: We will aim to create the world's first zero emission aviation region in partnership with Highlands and Islands Airports Limited (HIAL). This will include taking action to decarbonise airport operations in the HIAL region.
Date announced: Green New Deal 2019
Progress on implementation since time of last report / CCPu: We published an Aviation Statement in July 2024, which sets out the actions we will take to encourage aviation decarbonisation including in the HIAL area.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: The Aviation Statement notes Ministers' intentions to hold regular meetings with the sector to determine progress on decarbonisation, including what further action is required.

Policy: We will begin trialling low or zero emission planes in 2021.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: As noted in the 2020 report, this commitment has been delivered with a test flight taking place in 2021.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: The Scottish Government will continue to engage with Aviation sector to encourage sustainable growth post COVID-19.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Our Aviation Statement commits Ministers to meeting regularly with aviation stakeholders to discuss the progress being made on reducing emissions. Ministers intend to hold their first ministerial roundtable on aviation decarbonisation in 2025, focusing on the infrastructure required for hydrogen and electric flight. This will contribute to encouraging sustainable growth.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: N/A

Policy: Explore the potential for the purchase of zero/low emission aircraft by the Scottish Government, for lease back to operators, with more detailed assessment in the forthcoming Aviation Strategy.
Date announced:CCPu

Progress on implementation since time of last report / CCPu: The Aviation Statement contained a modified action to "Consider buying hydrogen/electric aircraft for use on PSO routes to replace current HIAL-owned aircraft."
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: Hydrogen/electric aircraft are not yet commercially available with no certainty over when they will be. We will consider the practical issues that need to be addressed in advance of such craft becoming available so that we are well positioned to consider purchasing them.

Policy: Explore options for incentivising the use of more sustainable aviation fuel as we develop our Aviation Strategy, recognising that significant levers in this area are reserved.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The Sustainable Aviation Fuel (SAF) working group met on 3 occasions and considered policy options around SAF. Its work was put on hold as Project Willow was considering the possibility of developing SAF at Grangemouth.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: We await the outcome of Project Willow to determine whether the SAF working group should be reinstated.

Outcome 6: Proportion of ferries in Scottish Government ownership which are low emission has increased to 30% by 2032.

Policy: Continue to examine the scope for utilising hybrid and low carbon energy sources in the public sector marine fleet as part of our vessel replacement programme.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The finalised versions of the two initial Islands Connectivity Plan (ICP) documents (the Strategic Approach and the Vessels and Ports Plan) are in the final stages of approval before publication imminently. There is no significant further update to add to the 2024 Progress Report.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: The progress of this work is tied in with the programme for procurement of new ferry vessels.

Policy: Working with the UK Government to support proposals at the International Maritime Organisation (IMO) to significantly lower shipping carbon emissions in the global sector, including the option of introducing a global levy on marine fuel to fund research in cleaner technologies and fuels.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: Work is continuing, with aims for the maritime sector to join the Emissions Trading Scheme (ETS) advancing at pace this year, and key IMO votes on maritime regulations expected shortly.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: IMO work is ongoing. No set deadlines.

Outcome 7: By 2032 low emission solutions have been widely adopted at Scottish ports.

Policy: Working with individual ports and the British Ports Association to consider a process for encouraging shared best practice initiatives for reducing emissions across the sector.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Scottish stakeholders have been successful in being awarded funding through the UKSHORE initiative. Ports are continuing to move their facilities towards zero and lower carbon technologies. Work is ongoing with UKG, Ofgem, National Energy System Operator and network companies to develop grid improvements, to enable more shore side power.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: N/A

Policy: Working with the ports sector and with its statutory consultees through the Harbour Order process to ensure future port developments are environmentally underpinned.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Environmental consideration is key to any works Harbour Orders being progressed. Often port developments are required to help facilitate new offshore renewable works.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: N/A

Outcome 8: Scotland's passenger rail services will be decarbonised by 2035

Policy: Our commitment to decarbonise (the traction element of) Scotland's railways by 2035 will be delivered through investment in electrification and complementary alternative traction systems. Transport Scotland has published the Rail Services Decarbonisation Action Plan (July 2020) which will be updated as appropriate. Work is ongoing by industry partners to develop the initial schemes.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: This commitment was updated in December 2024 to decarbonise (the traction element of) Scotland's railways by 2045. Construction works on the East Kilbride electrification and enhancement project have continued throughout 2024, towards a planned completion in December 2025. Good progress on delivering Feeder Stations to make existing power supplies for electrification more resilient and provide power for the next phase of electrification schemes is being made.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The rail decarbonisation target date is being revised to 2045, as the 2035 target is considered unachievable. This was advised to the Net-Zero Committee in December 2024.
Timeframe and expected next steps: An update to the Rail Services Decarbonisation Action Plan is to be published in 2025. Significant delivery challenges exist in respect of available budget on the basis that the capital cost of the rail decarbonisation programme is forecast to exceed available budgets.

Policy: We will establish an international rail cluster in Scotland to unlock supply chain opportunities using the interest at Longannet as a catalyst. This will be built around existing strengths in rail in Scotland and will seek to enhance the innovation and supply chain in the decarbonisation of our rolling stock and wider network.
Date announced: Part of Rail Services Decarbonisation Action Plan July 2020
Progress on implementation since time of last report / CCPu: To date 709 individuals have registered with the rail cluster project, 501 registered companies and 308 SME's registered.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: An updated Rail Services Decarbonisation Action Plan is due to be published in 2025. A replacement for the High-Speed Train (HST) fleet which operates on its InterCity routes between Glasgow, Edinburgh, Aberdeen, and Inverness is currently being procured.

Policy: Continue to deliver our Rail Freight Strategy.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: On-going work continues, in conjunction with industry partners and third-party investors, to increase rail freight on the Scottish network. The Scottish Ministers have set a regulatory target for Network Rail to grow rail freight by 8.7% with an expectation that 10% may be achievable in the current rail control period which runs from 2024-2029. Network Rail is also required to put a plan in place for longer-term growth and has been working collaboratively with the rail freight industry and customers on how both short and longer term growth can be achieved. The plans that have been developed include outputs on demystifying rail freight and a draft land strategy which has maps showing the locations of all of the freight terminals in Scotland. This work is designed to make rail freight more accessible to companies that have not used rail previously. Network Rail is also reaching out to companies who do not currently use rail to promote the benefits of rail and help to understand how any potential barriers can be overcome.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: There are no official annual targets or indicators, but Network Rail monitors the targets for the control periods on a quarterly basis.
Timeframe and expected next steps: There are no defined or specific Scottish Government/Transport Scotland timescales for completing the actions. Network Rail's regulatory targets have their own associated milestones and timescales, and evaluation will take place at the end of the control period (post end March 2029).

5. Chapter 4: Industry

5.1 Part A – Overview of sector

The outturn emission statistics for 2022 (published in 2024) show a position of **8.8 MtCO2e**.

The CCPu sets out the following two policy outcomes for the sector, the indicators for which are summarised below:

Scotland's industrial sector will be on a managed pathway to decarbonisation, whilst remaining highly competitive and on a sustainable growth trajectory.	On Track	Off Track	Too Early to Say
Industrial energy productivity (£GVAm per GWh)	-	X	-
Industrial emissions intensity (tCO2e per £GVAm)	-	X	-

Technologies critical to further industrial emissions reduction (such as carbon capture and storage and production and injection of hydrogen into the gas grid) are operating at commercial scale by 2030.	On Track	Off Track	Too Early to Say
% of Scottish gas demand accounted for by biomethane and hydrogen blended into the gas network	-	-	X

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services.

The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition.

Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector commentary on progress

There has been a considerable decline in Scotland's industrial emissions since 1990, falling by 55% (to 8.8 MtCO2e) between 1990 and 2022. Research estimates that emissions from Scotland's large industrial sites could feasibly reduce by 80% or more by 2045, while maintaining output.

In 2021, 22% of total Scottish GHG emissions came from the industry envelope. This remained constant in 2022. For 2022, 75% of emissions originated from combustion (i.e. energy), with the remaining 25% coming from industrial processes (chemical/mineral/metal production processes).

Our CCPu estimates that by 2032 industrial emissions need to decrease by 43% compared to 2018 levels to meet Scotland's climate change targets, whilst ensuring Scottish industry remains globally sustainable and competitive. The latest data for 2022 suggest annual industrial emissions had reduced by 18% against 2018 levels (8.8 MtCO2e from 10.8 MtCO2e). However, caution should be made when interpreting the longer-term implications of this, given the substantial impact the COVID-19 pandemic had on the Scottish economy and overall emissions. A further reduction of 2.6 MtCO2e from 2022 levels would be required to meet the 2032 target of 6.1 MtCO2e, however large uncertainties exist around the immediate emissions trajectory.

The balance of reserved and devolved responsibilities for industrial decarbonisation means that progress is often dependent on UK Government and/or international policy and markets. This year will see the publication of the UK Government's Invest 2035 Industrial Strategy and Industrial Decarbonisation Strategy. The final content of these strategies will have a material impact on Scotland's decarbonisation capabilities. Additionally, we will engage closely with UK Government on the next iteration of funding support for industrial decarbonisation projects to ensure it is relevant and works for Scottish industry. This collaboration will be essential to creating effective incentives across the UK economy for decarbonising industry while ensuring that the specific interests and needs of Scottish manufacturers are sufficiently represented.

Additionally, UK Government decision-making on where to focus its support to develop Carbon Capture Utilisation and Storage (CCUS) and the lack of clarity this is delivering for Scottish projects, has direct implications on Scotland's ability to reduce emissions and realise its net zero objectives and economic ambitions. While the UK Government has committed to spending £22 billion on Track-1 clusters in England, there remains no clear timeline for financial support for the Acorn Project and Scottish Cluster.

It is essential to provide support for our manufacturing base, ensuring that decarbonisation is achieved through transformation rather than deindustrialisation. The Climate Change Committee has identified that the largest contributor to industrial decarbonisation will be from electrification of industrial heat processes and the UK Government are establishing policy following their response to the Call for Evidence on Industrial Electrification. Therefore, supporting electrification where this offers the most commercially viable and sustainable method of decarbonisation and enabling Scottish industry to benefit from flexible demand opportunities, or proposed market reform, is a significant policy focus over the coming years.

Significant parts of the industrial sector are subject to the UK Emissions Trading Scheme (ETS), which remains the key carbon pricing tool across the UK.
The scheme is developed and managed by the UK ETS Authority, comprising of the Scottish Government, UK Government, Welsh Government, and the Department for Agriculture, Environment and Rural Affairs for Northern Ireland. Since the UK ETS started in 2021, the Authority has made substantial changes to strengthen the scheme, including through better alignment with net zero and Just Transition objectives by strengthening the overall cap and increasing the proportion of free allocations under industry cap. The Authority has also consulted on markets and free allocations policy, and on further expansion of the ETS to new sectors, such as maritime, energy from waste and greenhouse gas removals. The Authority is working to publish responses to this consultation in due course. Lastly, the Authority has announced its intention to continue the UK ETS until 2050, so it remains a key part of Scotland’s climate policy toolkit for the future.

Developments in Monitoring Arrangements Since Last Report

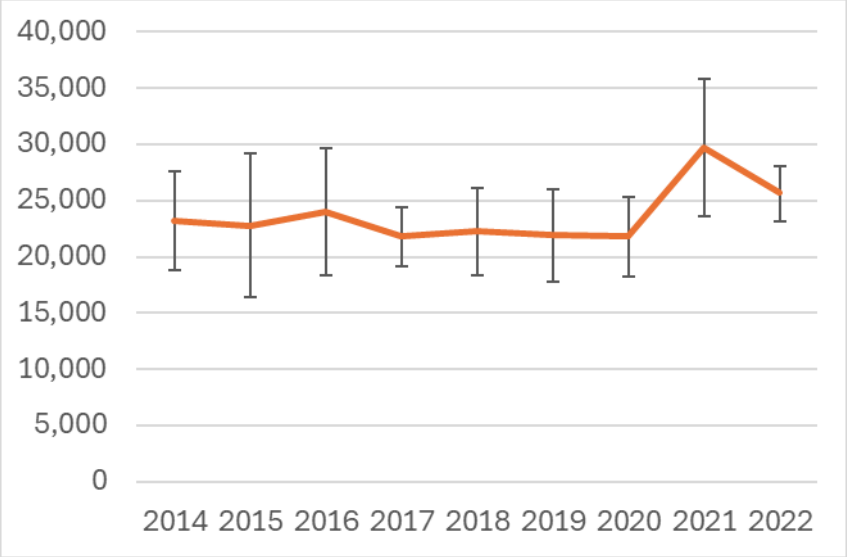
There have been no changes to the methodology since the last report.

5.2 Part B - Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic
Indicator: FTE employment in Low Carbon Renewable Energy Economy Indicator
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 2022
Data Source(s): Low Carbon and Renewable Energy Estimates, Office of National Statistics
Assessment: Too Early to Say
Commentary:

- In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs.
- The estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval.
- Scottish LCREE employment in 2022 is lower than in 2021 but the difference is not statistically significant, and caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates

- LCREE only shows employment in roles in Industries directly involved in the transition to Net Zero.
- The Office for National Statistics (ONS) also releases experimental statistics on a wider perspective of green activity in the economy with their experimental estimates of green jobs.

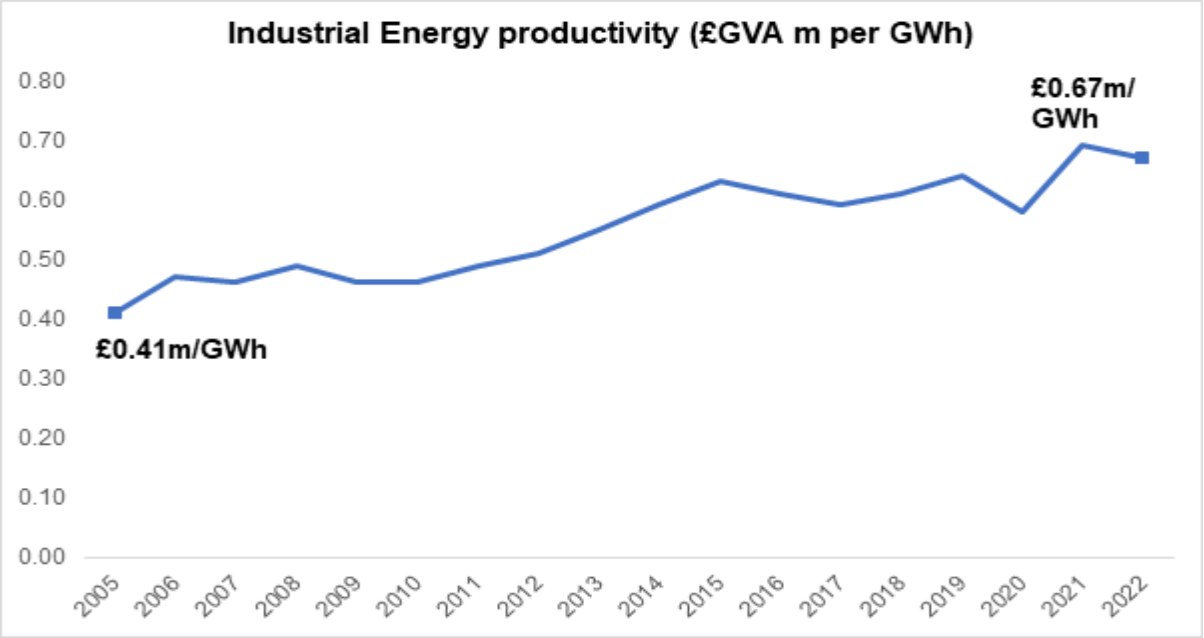
- These statistics reflect green activities in both LCREE and non-LCREE sectors. The latest publication was in March 2024.
- This found that 19% of working adults in Great Britain described any part of their job as green in a survey carried out in January 2024.
- UK employment in green jobs was estimated to have been around 640,000 full-time equivalents (FTEs) in 2022, an increase of 8.4% compared to 2021.
- In contrast, three industries accounted for more than 62% of total UK emissions and only 14% of all UK employees in 2022. These were the electricity, gas and air conditioning industry, manufacturing, and the transportation and storage industry.
- When looking at greenhouse gas emissions per employee, the highest figures were found for the electricity and gas sector, followed by the mining and quarrying sector and the agriculture, forestry, and fishing sector.

Policy Outcome: 1
Indicator: Industrial energy productivity (£GVAm per GWh)
On-Track Assessment (Milestones/Targets): [Increase 30% by 2032][2]
Most Recent Data: 2022
Data Source(s): DESNZ sub-national energy consumption statistics, DESNZ Energy Consumption in the UK statistics, Scottish Government Quarterly National Accounts Sectoral breakdown (unpublished)

Assessment: Off track – however, it should be noted that there is a high level of uncertainty with this assessment rating. Fundamental decisions on the Scottish CCUS Cluster status and UK ETS could have a material impact on the assessment of this indicator.

Commentary:

- Industrial GVA comprises the manufacturing, construction, and mining sectors.
- Industrial energy productivity in Scotland (the GVA obtained through each GWh of energy used in the industrial sector) grew steadily, by over 50%, from 2005-2015, followed by a 6% decline over the next two years.
- Despite a year-on-year decrease of 9% in 2020 due to the COVID-19 pandemic, the indicator recovered in 2021 with a 19% increase.
- Compared to the previous year, 2022 saw a decrease of 3%. This was driven by a larger increase in industrial energy consumption (6%) than in industrial GVA (2%).
- Compared to the 2015 baseline year industrial energy productivity has increased by 6% in 2022, although this lower than the 10% increase on the baseline in 2021.
- Industrial GVA increased 12% over the period 2005 to 2022, the second highest level after 2015.
- Industrial energy consumption saw a 6% increase in 2022 compared to 2021, however remained lower when compared to 2005 by 31%.
- Improvements on this indicator are likely to be stepped, or lumpy, rather than gradual year-year changes, as success depends on substantial process changes at a small number of large sites. We will continue to review the suitability of the indicators used to reflect success in the sector and refine these as needed.


Industrial Energy productivity (£GVA m per GWh)
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
£0.67m/ GWh
£0.41m/GWh
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

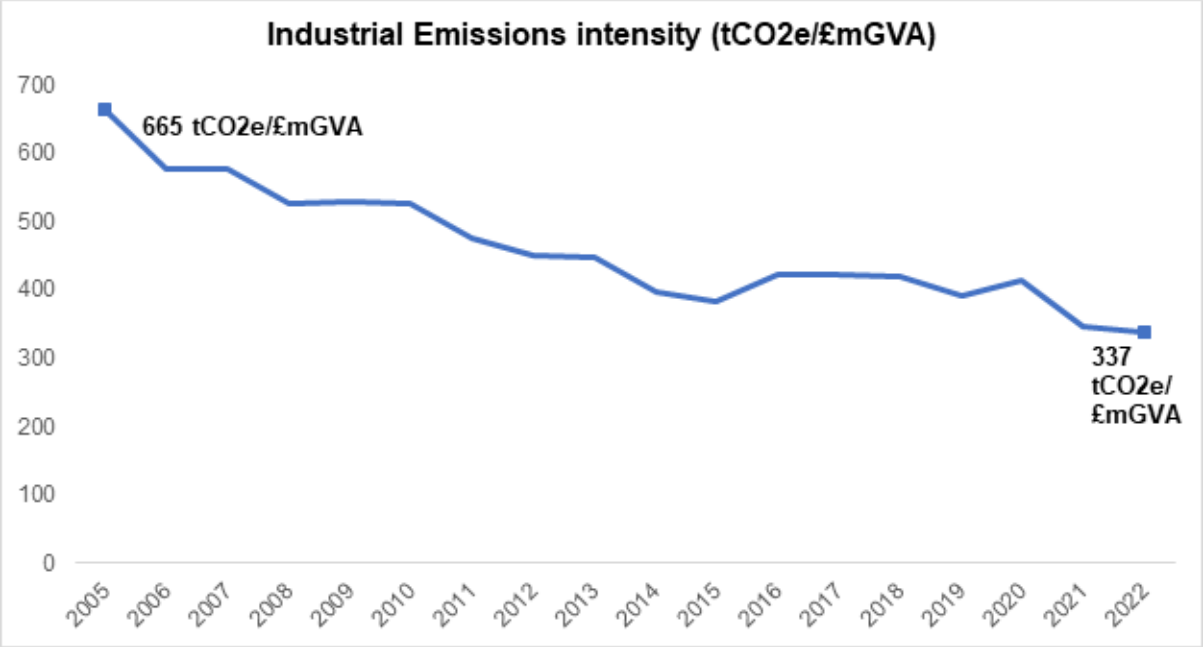
Policy Outcome: 1
Indicator: Industrial emissions intensity (tCO2e per £GVAm)
On-Track Assessment (Milestones/Targets): [Reduce 30% by 2032][3]

Most Recent Data: 2022
Data Source(s): Scottish Government Greenhouse Gas Emissions publication, Scottish Government Quarterly National Accounts Sectoral breakdown (unpublished)

Assessment: Off track – however, it should be noted that there is a high level of uncertainty with this assessment rating. Fundamental decisions on the Acorn Project and the Scottish CCUS Cluster status and UK ETS could have a material impact on the assessment of this indicator.

Commentary:

- Industrial emissions intensity in Scotland (the volume of emissions produced through each £1m of GVA in the industrial sector) fell by 43% 2005- 2015, rose 10% in 2017 compared to 2015, but fell again in the following years to 2019, by 7%.
- Year-on-year industrial emissions intensity rose again by 6% in 2020 reflecting a large decrease in overall GVA without an equivalent decline in emissions but subsequently recovered in 2021 with a 16% decline.
- Industrial emissions intensity continued to decline in 2022, with a year-on-year decrease of 3%. This was driven by increasing industrial GVA while industrial emissions remained flat between 2021 and 2022.
- Improvements on this indicator are likely to be stepped, or lumpy, rather than gradual year-year changes, as success depends on substantial process changes at a small number of large sites.
- Compared to the 2015 baseline year industrial emissions intensity has decreased by 12% in 2022.
- Total industrial emissions fell by 43% between 2005 and 2022. This is reassuring given the period 2014-2017 saw continuous year-on-year rises in industrial emissions before falling by 19% between 2017 and 2022.
- We will continue to review the suitability of the indicators used to reflect success in the sector and refine these as needed.


Industrial Emissions intensity (tCO2e/£mGVA)
700
600
500
400
300
200
100
0
665 tCO2e/£mGVA
337 tCO2e/ £mGVA
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

Policy Outcome: 2
Indicator: % of Scottish gas demand accounted for by biomethane, and hydrogen blended into the gas network.
On-Track Assessment (Milestones/Targets): Based on Trend
Data Source(s): Scottish Gas Network (SGN); Department for Energy Security and Net Zero (DESNZ) Sub-national Gas Consumption Statistics
Assessment: Too early to say

Commentary:

- In 2023, 1.8% of Scottish gas demand was accounted for by biomethane blended into the gas grid, up from 0.3% in 2015, but a decrease on the 2.1% figure recorded for 2022.
- Although moderate, this longer-term growth in biomethane levels has contributed to a lower emissions intensity of the gas grid.
- The most recent data shows that there was 126 GWh of biomethane injected into the SGN in 2015 and 764 GWh in 2023, a 506% increase on 2015.
- Data for 2024 biomethane injections suggest that biomethane injection rates may have risen, with 1,054 GWh being injected into the SGN. This represents a 735% increase from 2015. This is likely to result in a larger percentage of Scottish gas demand being accounted for by biomethane in 2024 than in 2023, depending on sub-national gas consumption statistics which are due to be released by DESNZ in December 2025.
- The UK Government confirmed their 'minded to' policy decision to amend regulations and legislation to support hydrogen blending in 2023 – this decision provided some clarity for gas networks and hydrogen producers; however, a final decision on this is not expected until 2026.
- No hydrogen blending into the gas grid has occurred - for hydrogen, the injection of hydrogen gas into the grid requires changes by the UK Government to the Gas Safety (Management) Regulations 1996 . Decisions on the future of the UK gas grid and powers to allow blending of hydrogen are expected in 2026.
- We urge the UK Government to accelerate hydrogen blending and decisions on the role of 100% hydrogen in the gas grid currently committed to be reached in 2026 to enable our ambition to maximise volumes of renewable hydrogen in our energy system as quickly as possible.

5.3 Part C – Information on implementation of individual policies

Outcome 1: Scotland's Industrial sector will be on a managed pathway to decarbonisation, whilst remaining highly competitive and on a sustainable growth trajectory.

Policy: The United Kingdom Emissions Trading Scheme (UK ETS): the UK ETS is a cap-and-trade system that places a market-determined price on carbon emissions, creating a cost-effective incentive for decarbonisation. The ETS represents ~19% of Scotland's emissions, based on 2022 data, and it covers the energy-intensive industries (oil and gas, refining, manufacturing, and construction), non-renewable power generation, and short-haul aviation. The UK ETS was established on 1 January 2021 by the UK ETS Authority, which is formed of the Scottish, UK and Welsh Governments and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland (DAERA) in Northern Ireland, replacing the UK's participation in the EU ETS.
Date announced: June 2020
Progress on implementation since time of last report / CCPu: The UK ETS was established in January 2021 and is jointly administered by the four governments of the United Kingdom. Since establishment we have made a number of changes to strengthen the scheme, including better alignment with Net Zero and Just Transition objectives, with planned expansion of the scheme to other sectors such as maritime and non-pipeline transportation of CO2. We are also considering how we could include energy from waste and greenhouse gas removals into the scheme. In 2024, the Authority announced its intention to continue the ETS for the long term until at least 2050. The Authority also consulted on the future of the ETS in early 2025. Lastly, the UKG announced the implementation of a Carbon Border Adjustment Mechanism (CBAM) from 2027. The Authority has been working with HMT on how this new policy would interact with free allocations within the UK ETS for mitigating against the risk of carbon leakage– any issues related to trade and business impacts are outside the scope and agency of the ETS.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Further policy work to strengthen the UK ETS, including scope expansion to new sectors.

Policy: Deliver an Energy Transition Fund (ETF) to provide support for a sustainable, secure, and inclusive energy transition in the North East.
Date announced: June 2020
Progress on implementation since time of last report / CCPu: All 4 funded projects are in full delivery with 2 due to complete delivery on ETF funded elements at the

end of 2024-25. One project has had its funding timescales extended to the end of 2025/26 (The Energy Transition Zone) and one project has been partially successful in fulfilling its objectives.Examples of delivery progress within the four projects since last update include:

- 1. The Energy Transition Zone has delivered the new EnergyWorks site on the innovation campus in Altens Industrial Estate in Aberdeen. This Scotland-first facility for developing and manufacturing green energy technologies and the rapid scale-up of the companies. It will provide industrial and collaboration spaces alongside entrepreneurial and advanced manufacturing guidance, knowledge and support to firms based there.
- 2. The Global Underwater Hub has created 28 new roles over 2024-25 with the majority at the Aberdeen HQ. Additionally, they have supported members by enhancing access to international markets and collaboration opportunities, including creation of an Operator Forum Springboard – to allow supply chain companies direct access to Operators to share solutions.
- 3. The Net Zero Technology Transition Programme (Delivered by the Net Zero Technology Centre) has reached “Ready to Adopt” stage on all of the 7 projects developed with ETF funding support. This means the outputs are now all at a level where industry is able to adopt them into their operational working practices.
- 4. The Aberdeen Hydrogen Hub project continues to roll-out hydrogen infrastructure in the city, including supporting the fleet of hydrogen powered buses operated by First Bus.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: All projects have ongoing monitoring against agreed outcomes and outputs. These are monitored on a quarterly basis, and in some cases may extend beyond the funding timescales for the ETF itself.
Timeframe and expected next steps: One ETF supported project (the Energy Transition Zone) will continue to be funded through this route into 2025-26.

Policy: Establish and deliver a Scottish Industrial Energy Transformation Fund (SIETF) – to support the decarbonisation of industrial manufacturing.
Date announced: June 2020
Progress on implementation since time of last report / CCPu: We continue to deliver the Scottish Industrial Energy Transformation Fund to match investment that supports industry to reduce emissions and increase their competitiveness.
To date, £17 million has been offered, which will generate over £50 million investment in 28 projects across a range of sectors. The 2023 Programme for Government committed up to £9 million during 2024-25 with further investment planned.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Each £1 of public funds is matched by over

£1.75 of private, therefore, assuming full expenditure over the programme's lifetime, SIETF could leverage private investment amounting to £90 million+ over 30 Scottish industrial sites. Analysis indicates that SIETF has the potential to save over 100,000 tCO2e per year.
In addition to incentivising investment and reducing industrial emissions, SIETF has the potential to deliver c£14m of savings per annum to energy costs from 2026
Timeframe and expected next steps: SIETF opened to Expressions of Interest (EoI) in March 2025 for projects seeking funding in 2025/26.

Scottish Ministers have agreed to liaise with UK Government Ministers on the development, design, and delivery of future industrial decarbonisation programmes.

Policy: Making Scotland's Future: multi-faceted programme will boost manufacturing productivity, innovation, and competitiveness, supporting manufacturing businesses to make the transition to net zero and realise the opportunities of a low carbon economy.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: The programme framework refresh was successfully implemented, and the inclusion of a Just Transition and Net Zero theme was adopted amongst partners.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The delivery of the National Manufacturing Institute Scotland (NMIS) flagship facility was a key milestone for the Programme and NMIS continues to be central to the delivery of our goals. Indicators and milestones vary across Making Scotland Future partners and their individual projects. The emphasis is on the collaborative nature of the programme, helping partners to work together to help realise the key priorities of the sector.
Timeframe and expected next steps: We will consider refreshing the programme to align the new strategy with the current strategies relevant to manufacturing in place within Scotland, including the Innovation Strategy and the Green Industrial Strategy. The new UK Government Industrial Strategy is also expected to be published in 2025.

Policy: Low Carbon Manufacturing Challenge Fund: to support innovation in low carbon technology, products, and processes. This will be delivered as a Research and development scheme with focus on implementing product circularity through design, reducing product/process waste and reducing emissions through product lifecycle
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: The Fund was closed to further expressions of interest in January 2024 as a result of the need to make budgetary savings.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: projects of over £0.5 million the gross

impacts of the project are estimated, in particular Gross Value Added (GVA) and employment. Additionality adjustments are then made to drive the net impacts of each intervention. Impact ratio (net GVA per £1 of support) cost per job created or safeguarded. As of 30th of April 2024, 744.5 jobs paying the real living wage to date, with a total forecast of 817.5 jobs anticipated as a result of the fund; 117,020.73 tonnes of carbon savings, with a total forecast of 117,023.73 tonnes of carbon savings anticipated as a result of the fund; and Capital investment to date of £28,658,606, forecasted to reach £33,164,321.
Timeframe and expected next steps: Scottish Enterprise has been managing the contracts for awarded projects from alternative budgets – the length of these will vary across projects until the end of FY 2025/26.

Policy: The Renewable Heat Incentive (RHI) is a GB-wide scheme created by the UK Government (with the agreement of the Scottish Government).
Date announced: August 2020
Progress on implementation since time of last report / CCPu: 1,136.9 MW of accredited capacity under the non-domestic RHI (NDRHI) between November 2011 and March 2024.[4]
1,829 GWh of heat had been paid for between April 2014 and March 2024 under the domestic RHI scheme in Scotland.[5]
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The domestic RHI closed from 31 March 2022.[6] The non-domestic RHI scheme in Great Britain closed to all new applications for accreditation on 31 March 2021[7], with some applicants able to apply up to 31 March 2023 under particular circumstances.

Policy: Scottish Industrial Decarbonisation Partnership (SIDP): Scottish Government convened cross-sector energy-intensive industrial (EII) stakeholder forum with representatives from manufacturing sites. Initial objectives: bring together other initiatives; build a shared narrative between government/industry on decarbonisation' and disseminate best practice
Date announced:CCPu
Progress on implementation since time of last report / CCPu: SIDP development was stopped because many of the proposed co-ordination or convening functions began to be carried out by other partnerships or groups. The NECCUS alliance of industry government and experts which is driving changes needed to cut industrial carbon emissions, and the Grangemouth Future Industry Board (GFIB) continue to capture industry and wider views and commission vital evidence.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The proposal's purpose including for public engagement and a leadership role with wider stakeholders is under review as

industrial decarbonisation policy develops during 2025, noting how other partnerships operate in this area in both Scottish and UK contexts.

Policy: Deliver a Net Zero Transition Managers Programme to embed Managers in organisations tasked with identifying, quantifying, and recommending decarbonisation opportunities for the business.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Programme development was paused following initial engagement with partners from Scotland's food and drink sector. The challenges for industrial decarbonisation workforce planning are set out in the Industrial Decarbonisation Research and Innovation Centre (IDRIC) Policy Synthesis Report for Scotland 2024. Many of the skills required for industrial decarbonisation match transferrable skills prevalent in the current oil & gas and process industries, the extent to which skilled workers will be available will depend on the timing and speed of growing demand. A Robert Gordon University review on UK Offshore Energy Workforce Transferability showed over 90% of the UK's oil and gas workforce have medium to high skills transferability and are well positioned to work in adjacent energy sectors. We are working with the energy sector to plan for a multi-skilled workforce, one that can benefit from opportunities across the energy system. This includes enabling skilled offshore workers to carry their experience and expertise into different roles as our energy sector evolves.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Feedback from industry will continue to inform policy development to tackle the challenges which manufacturing businesses face when raising capacity to design then deliver site-specific industrial decarbonisation projects.

Policy: Establish a Grangemouth Future Industry Board (GFIB) – forum to coordinate public sector initiatives on growing economic activity at the Grangemouth industrial cluster, whilst supporting its transition to our low carbon future.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: To formalise collaboration on Grangemouth between the Scottish and UK Governments on Grangemouth, GFIB is now co-chaired by the Cabinet Secretary for Net Zero and Energy, Gillian Martin MSP, and the Secretary of State for Energy Security and Net Zero, Rt. Hon. Ed Miliband MSP. The membership of the group has also expanded to include more industry representation. The draft Grangemouth Just Transition Plan has recently finished its public consultation. Consultation responses will be analysed and feed into recommendations in the final plan.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The Grangemouth Just Transition Plan is due for publication later this year.
Timeframe and expected next steps: GFIB to take ownership of, and drive, Grangemouth Just Transition Plan actions, including advising on deployment of Just Transition Fund.

Policy: Develop policy on providing market-benefit for Scottish industries that invest to decarbonise production.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: In December 2023, the UK Government outlined its intention to implement a carbon border adjustment mechanism (CBAM) by 2027. We remain engaged with the UK Government on related impacts on Scottish production including products standards.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Sector or product specific benchmarking is noted in 2021 Scottish Government research[28]
Timeframe and expected next steps: We will focus on promoting lower carbon intensity production in Scotland whilst liaising with UK Government who will consult on low-carbon products (classifications and embodied emissions) during 2025.

Policy: Green Jobs Fund, to help businesses create new, green jobs, working with enterprise agencies to fund businesses that provide sustainable or low carbon products and services to help them develop, grow, and create jobs. Further funding will help to 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.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: Published forecast figures on green job numbers are derived from projects where funding from the Green Jobs Fund has already been agreed and, in financial year 2024-25, support will continue for projects where commitments have been contractually agreed. Enterprise Agencies may have deployed further funds available beyond this to support projects aligned with the objectives of the Green Jobs Fund.
Latest figures to be quoted are: Since the Fund's creation, between the Enterprise Agencies and Scottish Ministers, 122 projects have been supported with grant funding of £38.7 million through the Green Jobs Fund. Figures provided by the recipients of these awards estimated that these projects will support up to 7354 jobs over the life of the individual projects.
The Green Jobs Fund has been discontinued. In addition to financial pressures associated with its continuation, the Fund formed a relatively small part of the

[28] Improving the market benefits for lower-carbon industrial production in Scotland | ClimateXChange

Scottish Government's broader investment in the transition to net zero. This includes many institutions, funding packages and investment vehicles which provide advice, support, and financial assistance for businesses at the forefront to building Scotland's green economy. The Green Industrial Strategy provides further strategic direction on how such investment supports the development, growth and scale-up of existing and new businesses seeking to take advantage of the global opportunities of the transition.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: ONS release of their "Green jobs update, current and upcoming work: March 2023" on the 13th March 2023, defined a green job as: "Employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change". Estimates are provided using three approaches: industry-based, occupation-based, and firm-based.
Despite the Fund being discontinued, Scottish Ministers will of course retain an interest in tracking the creation of green jobs.
Timeframe and expected next steps: N/A

Policy: Seizing the economic opportunity, we will work across government, enterprise agencies and the innovation system to identify strengths that can be built on as part of the decarbonisation journey, for example on The Clyde Mission and continued support for the Michelin Scotland Innovation Parc (MSIP).
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Glasgow City Region (GCR) partners took on leadership of Clyde Mission in 2023. In the time since the transfer, GCR have appointed a Head of Place to oversee this work and commissioned work towards the development of a Masterplan for the area (funded by £1.5 million from Scottish Government). Work on developing the Heat Decarbonisation Fund (funded by £25 million from Scottish Government) is ongoing with the fund expected to be launched during 2025/26.

Scottish technical textiles manufacturer Wilkie formally announced its acquisition of the majority shareholding of MSIP on 10 January with Scottish Enterprise remaining as a minority shareholder in support until 2026. This is key to a significant planned investment by Wilkie and a tripling of the workforce over 5 years. Wilkie has committed to operating within the ethos of MSIP and seeks to use the facilities on site such as the Innovation Hub, Skills Academy, and on-site renewable energy to support innovation and new technologies in textiles.
MSIP has also recently concluded its 5th Business Accelerator cohort, providing access to skills, knowledge, networks, and advice for another 12 new businesses that are developing a range of future-thinking products and services, including sustainable mobility, renewable energy, robotics & manufacturing, sustainable built environment, AI, IoT, data, and procurement.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these:
Clyde Mission: Heat Decarbonisation Fund to be designed and launched by Glasgow City Region – ongoing.
MSIP: 5 Business Accelerator Cohort – completed
Timeframe and expected next steps:
Clyde Mission: Heat Decarbonisation Fund to be designed and launched by Glasgow City Region – 2025-26.
MSIP: Wilkie to be operational at MSIP – 2025-26
MSIP: Wilkie has indicated an intention to adapt buildings to the south of the site to house its operations and to connect to the various renewable energy opportunities of the MSIP site including energy from the waste plant and installation of Solar panels – 2025/26 (indicative)

Outcome 2: Technologies critical to further industrial emissions reduction (such as carbon capture and storage and production and injection of hydrogen into the gas grid) are operating at commercial scale by 2030

Policy: ACORN CCS Project: support the delivery of the Carbon Capture Storage (CCS) and Hydrogen capability at St. Fergus Gas Processing complex by 2025.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
The Scottish Government has provided funding and policy support to the Acorn CCS project positioned at St. Fergus, Aberdeenshire, through its feasibility and development phases.
The Scottish Government is supporting the National Gas SCO_2T Connect project with £2m to explore the technical feasibility and viability of repurposing the Feeder 10 pipeline for transporting CO2 from the central belt to the Acorn Project. This funding will accelerate this project which is a critical element in the deployment of the Acorn project and Scottish Cluster.
In December 2024, the new UK Government stated that the previous UK Government's ambition to capture and store 20-30 Mtpa CO2 by 2030 is 'no longer achievable' due to them having left no adequately funded policy proposal for how to achieve this. They also stated, however, that UKG are deeply supportive of future CCUS deployment, and that further decisions, including on Track-2, will be announced in due course. It is anticipated that a further announcement will be received at the comprehensive spending review in late spring 2025.
No hydrogen blending into the gas grid has occurred - for hydrogen, the injection of hydrogen gas into the grid requires changes by the UK Government to the Gas Safety (Management) Regulations 1996 which have not been changed yet. Decisions on the future of the UK gas grid and powers to allow blending of hydrogen are expected in 2026.

Hydrogen production at St Fergus Gas Processing complex is dependent on a positive decision from UKG on CCUS Cluster 2 and there remains no clear timeline for financial support for the Acorn Project and Scottish Cluster

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these:

No milestones have been set; the UK Government are dictating the pace of deployment. The Scottish Government are working constructively with the new UK Government, pressing for a meaningful Track 2 update, to ensure the Acorn Project and Scottish Cluster secure the fastest possible deployment.

Timeframe and expected next steps:

Continued support of Acorn and the Scottish Cluster, aiming for CCS to be functioning at Acorn by 2032.

Blue Hydrogen production from Acorn relies on CCS infrastructure being in place.

Policy: Establish and deliver a Carbon Capture and Utilisation (CCU) Challenge Fund.

Date announced: 2020-21 PfG

Progress on implementation since time of last report / CCPu:

We made available up to £5 million of financial support for Carbon Capture and Utilisation through our CO2 Utilisation Challenge Fund which ran from 2022 to 2024. No applications were received and so the money was reprioritised. As targeted market engagement did not identify a single specific reason for this lack of applications; a range of issues are thought to be potential contributors, including other funding streams in this area, industry difficulties with building project consortia and changes and challenges to the global supply chain.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps: N/A

Policy: Emerging Energy Technologies Fund – to support the development of Hydrogen, CCUS and Negative emissions technologies.

Date announced:CCPu

Progress on implementation since time of last report / CCPu: Launched in 2022, the Hydrogen Innovation Scheme (HIS) is targeted at supporting innovation under the themes of renewable hydrogen production, hydrogen storage and distribution, and the integration of hydrogen into our energy system**.** Since then, the HIS has awarded grants worth a total of nearly £7 million to 31 projects; most of these have now drawn to a close, with the remainder due to conclude in 2025.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: A report celebrating the successes and outputs from the HIS will be published later in 2025. In lieu of opening the Green Hydrogen Fund by late 2023 as originally planned, we worked with Scottish Enterprise to assess funding proposals on a case-by-case basis, which saw a £3.1 million grant award to the Storegga Speyside Hydrogen Project. We later worked

with SE to develop arrangements for a funding call that aims to provide support to strategically important renewable production projects and projects which will help to develop related supply chain, transport, and storage infrastructure.
Timeframe and expected next steps: The 2024-25 funding call was launched in September 2024; grant awards will be publicly announced in spring 2025. Planning to conduct a similar funding call within 2025-26 is underway.

Policy: Carbon Capture Utilisation and Storage (CCUS): work closely with the UK Government to achieve commercial, policy and regulatory frameworks required to support CCUS at scale in the UK.
Date announced: 2020-21
Progress on implementation since time of last report / CCPu:
The Scottish Government continues to work closely with the UK Government at official and Ministerial level, with the aim of accelerating deployment of CCUS within Scotland. A Ministerial Forum for CCUS was established, having its inaugural meeting on 18 December 2023. Policy officials have regular engagement with the UK Government Department for Energy Security and Net Zero on regulatory and policy matters related to the development of at-scale CCUS in the UK.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No indicators set.
Timeframe and expected next steps: Officials are awaiting confirmation from UK Government colleagues of the forward plan for the Ministerial Forum following the change of UK Government.

Policy: Forums for CCUS and Blue (low carbon) Hydrogen: to bring together industry, academics, and membership organisations to promote and attract investment in CCUS and Blue Hydrogen.
Date announced: NECCUS 2019
Progress on implementation since time of last report / CCPu:
The Scottish Government has continued to work collaboratively with the Centre for Energy Policy at the University of Strathclyde, as well as to engage with IDRIC who we commissioned to produce a Policy Synthesis Report. We have also continued to support industry body NECCUS whose second annual DecarbScotland event was held at Murrayfield, Edinburgh on 1 February 2024 bringing together a national and international audience from across industry, academia, government and other membership organisations to showcase the opportunities and discuss the challenges of industrial decarbonisation, with a focus on CCUS, in Scotland. The third DecarbScotland event took place on 13 March 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No indicators set.

Timeframe and expected next steps: The Scottish Government will discuss with NECCUS their remit within the context of the Scottish Cluster over 2025. Scottish Government will co-ordinate an industry roundtable in the first half of 2025.

Policy: Evidence for CCUS and Blue Hydrogen: building the evidence base on impact of technology, regulatory and market barriers.
Date announced: 2020/21 PfG
Progress on implementation since time of last report / CCPu:
The Scottish Government continues to build our evidence base for CCUS on transport, storage, skills, infrastructure and growing international markets. A study on nearshore storage potential was conducted in 2024 to look at the potential for storage which may be under the jurisdiction of Scottish Ministers. This has been followed up by the setting up of a short life working group comprising interested agencies and subject matter experts. Scottish Government have also worked with Scottish Enterprise and the Scottish Cluster to facilitate workshops covering topics including collaboration and co-ordination, leadership, skills, and supply chain. Additionally, we commissioned IDRIC to produce an Industrial Decarbonisation Policy Synthesis Report, tailored to Scotland's specific context. IDRIC synthesised key insights from industry experts, academic policy research and other authoritative sources, to inform SG policy development. This report was published on 10 September.in September 2024.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No indicators set.
Timeframe and expected next steps: The Scottish Government will continue to commission relevant research projects to further build the evidence base, utilising the ClimateXChange framework where appropriate.

Policy: Strategic development of Scotland's hydrogen economy – this is a cross-portfolio proposal that will impact on the delivery of multiple outcomes.
Date announced: Hydrogen Assessment and Policy Statement 2020, draft Hydrogen Action Plan 2022
Progress on implementation since time of last report / CCPu: Co-produced with stakeholders in the hydrogen sector, our 'Hydrogen Export Plan: A Trading Nation - Realising Scotland's Hydrogen Potential' plan for exports was published in November 2024. This plan aligns with our Hydrogen action plan and Green industrial strategy. It details the steps required for Scottish businesses to grasp the export opportunities hydrogen presents, as both a commodity and in the supply chain.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A – There are no specific indicators in the CCPu regarding this policy.
Timeframe and expected next steps: In October 2024, we established the Scottish Hydrogen Industry Forum – Chaired by the Minister for Climate Action. This

stakeholder forum provides important insight and understanding of the challenges facing this emerging sector, consideration of the potential solutions to barriers to deployment, informs developing policy, and helps the realisation of the Scottish Government's hydrogen ambitions.
Hydrogen production capacity is growing - this year 2025-26 will see 5MW's of installed hydrogen production capacity come on-line followed by a further 20.5MW's in construction and coming on-line in 2026-27.

Policy: Hydrogen Demonstration: to replicate and scale-up demonstration projects and the evidence base for hydrogen-based technologies.
Date announced: Hydrogen Assessment and Policy Statement 2020, draft Hydrogen Action Plan 2021, final Hydrogen Action Plan 2022
Progress on implementation since time of last report / CCPu: The Hydrogen Innovation Scheme (HIS), launched in 2022, is providing support for the production, storage and integration of renewable hydrogen including feasibility and demonstration projects. HIS grant awards to date have totalled nearly £7m, shared across 31 projects.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: There are no specific indicators in the CCPu.
Timeframe and expected next steps: The majority of HIS projects had concluded by the end of 2024; of those still in progress, 5 are due to draw to a close by the end of March 2025, and the remaining 2 by Autumn 2025. A HIS outputs report will be published later in 2025.

6. Chapter 5: Waste And The Circular Economy

6.1 Part A – Overview of Sector

The outturn emission statistics for 2022 (published in 2024) show a position of **1.6 MtCO2e**.

The CCPu sets out the following four policy outcomes for the sector:

Reduction in waste sent to landfill	On Track	Off Track	Too Early to Say
Total amount of landfilled waste (tonnes)	-	X	-
Total amount of biodegradable landfilled waste (tonnes)	X	-	-

Reduction in emissions from closed landfill sites	On Track	Off Track	Too Early to Say
Number of closed landfill sites with exploratory landfill gas capture/ flaring	-	X	-

A reduction in food waste	On Track	Off Track	Too Early to Say
Household and non-household food waste reduced (tonnes)	-	X	-

Reduce waste and establish a more circular economy, where goods and materials are kept in use for longer	On Track	Off Track	Too Early to Say
Total waste generated (tonnes)	X	-	-

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of

businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector commentary on progress

Emissions from the waste management sector are currently around 1.6 MtCO2e per year (2022). We aim to reduce these emissions to 0.9 MtCO2e by 2025, and 0.7 MtCO2e by 2030.
To achieve this, we must: accelerate action across society to reduce the demand for raw material in products; encourage reuse and repairs through responsible production and consumption; and recycle waste and energy to maximise the value of any waste that is generated, while minimising its environmental and climate impact.

Scotland has made good long-term progress towards reaching these ambitions, and some of our key indicators are on track for delivery. The total amount of waste going to landfill in Scotland has halved over the past decade, with the indicator standing at 2 million tonnes in 2023. In the same reporting year, we met our 2025 target and CCPu indicator to reduce all waste by 15%.
Meanwhile, the latest official recycling statistics (for 2022) show that over 62% of Scotland's waste was recycled.

Despite this progress, in some areas progress has not been at the pace and scale required, and some indicators remain off track. For example, we are off track on our target to reduce food waste, and we saw a 5% increase (or 2% per capita) against the 2013 baseline according to the most recent estimate (2021).
As well as the amount of methane generated by the decomposition of biodegradable waste, methane emissions from landfill also depend on the rate of methane gas capture at landfill sites. It is anticipated that the methane generated within landfill sites will continue to reduce, but it will also be important to monitor the methane collection efficiency to help ensure we maximise emissions reductions.
It is important to recognise that our previous 2025 waste and recycling targets (which form some of the CCPu indicators) are important milestones but should not be the end destination. The world has changed since many of these targets were set in 2010. As our final Circular Economy and Waste Route Map to 2030 sets out, in some cases, the 2025 targets are not the best indicators to deliver our circular economy, net zero or nature restoration objectives. Many of our existing "all waste"

targets are weight-based, do not specifically measure emissions reduction or other environmental impacts, and do not account for the varying environmental or carbon impact of individual materials. This was reinforced by 2022 Climate Change Committee (CCC) advice to the Scottish Government and Parliament.

The Route Map's review of our resources and waste system found that the sustainable choices are still not the easy choices for households, businesses, or those in the waste sector. Large-scale and rapid system change is required to drive progress and ensure a more rapid transition to net zero and a fully circular economy in Scotland.
To ensure this progress is realised, the Scottish Government has continued to make progress in delivering key policy measures set out in our CCPu, while in some places, such as the forthcoming ban on the sale and supply of single-use vapes, we have gone further than the CCPu.

2024 marked a key point in Scotland's circular economy journey. To lay the foundations for this transformation, and to set out priority actions to accelerate more sustainable use of our resources and reduce emission associated with resources and waste, we published our final Circular Economy and Waste Route Map to 2030 in December 2024, delivering our commitment set out in the CCPu.
Alongside this, the Circular Economy (Scotland) Act was passed unanimously by the Scottish Parliament in June 2024 and contains provisions to underpin Scotland’s transition to a circular economy and modernise Scotland’s waste and recycling services. The Act delivers new powers, and working in tandem with the Route Map sets out a framework and key priorities for action into the future. The direction and actions set out in the Route Map are complemented by the provisions in the Act, and in some places are dependent on enabling powers flowing from the Act.
These actions complement the existing, wide-ranging measures we have delivered or are delivering to support our waste reduction, recycling, and emission reduction objectives. Current measures to divert waste from landfill, include a ban on biodegradable municipal waste going to landfill from 31 December 2025, and support for local authorities to secure contracts that comply with the landfill ban.We are working with the UK and devolved governments on reforms to extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries, which will help drive circular economy outcomes. Packaging EPR fees and payments will commence this year and is anticipated to increase recycling rates for packaging materials to 76% by 2033. It requires producers to cover the full net cost of managing household packaging when it becomes waste. The revenue from fees will generate an estimated £160 million annually to support Scottish local authorities with the cost of managing household packaging waste. PackUK have been appointed as the scheme administrator and will commence payment to local authorities in November 2025.

Our £70 million Recycling Improvement Fund was launched in March 2021, and more than £66 million has been awarded to 27 local authority projects to improve recycling infrastructure, projected to save over 57,000 tonnes of CO2e per year. We also remain committed to the delivery of a successful Deposit Return Scheme (DRS) for single use drinks containers in Scotland and are working alongside the UK Government and DAERA towards the launch of the scheme on a three-nation basis by October 2027. The Scottish Ministers have decided that UK Deposit Management Organisation Limited should be designated as the scheme administrator and a Designation Order is subject to approval by the Scottish Parliament. The draft Deposit and Return Scheme for Scotland (Amendment Regulations) 2025 and the draft Deposit and Return Scheme for Scotland (Designation of Scheme Administrator) Order 2025 were laid in the Scottish Parliament on 2 May 2025.

Developments in Monitoring Arrangements Since Last Report

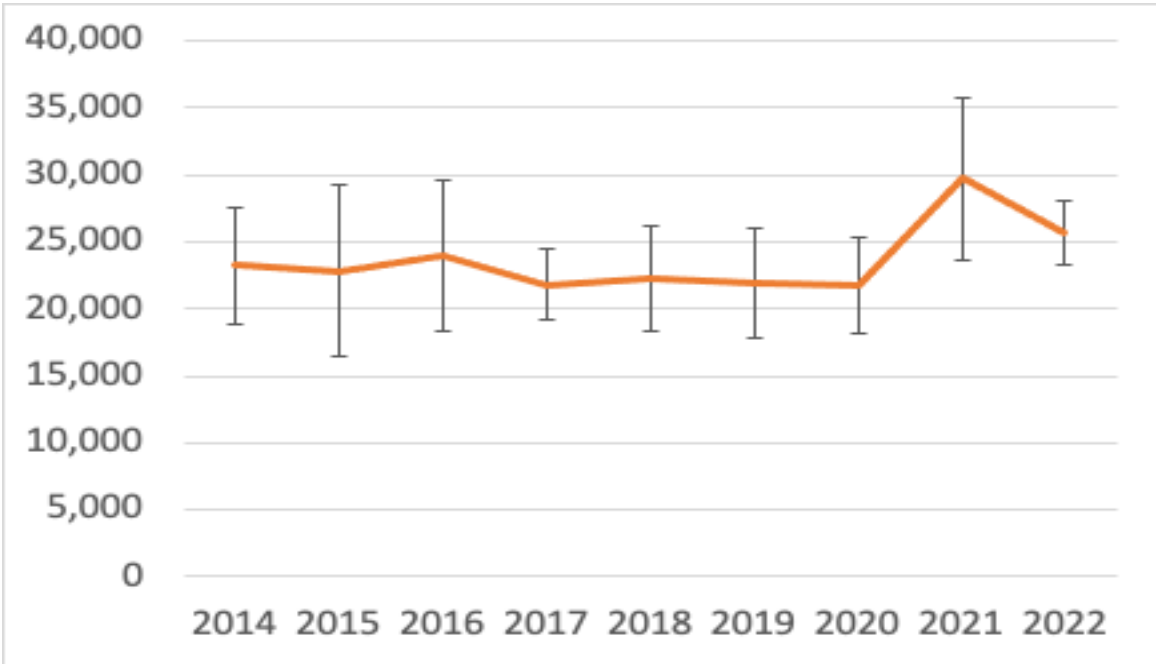
There are no new arrangements in CCPu monitoring, however moving forward, work is focused on the development of a circular economy monitoring and indicator framework. It was clear from the response to both Circular Economy and Waste Route Map consultations (2022 and 2024), and through recent recommendations from the Climate Change Committee, that there is broad support for a new suite of indicators to track Scotland’s progress in moving to a circular economy and ensuring sustainable management of resources, aligned to our efforts to tackle the climate and nature emergencies.
To strengthen the strategic approach to progressing Scotland's circular economy, there is now a requirement on Scottish Ministers to publish or refresh a circular economy strategy every 5 years, as set out in the Circular Economy Act. The setting of statutory circular economy targets is also now a requirement under the Act. Alongside the strategy an associated monitoring and indicator framework will be developed. This will monitor progress towards delivering a circular economy and inform the development of future targets.
A joint consultation for the strategy and framework will take place during the summer of 2025 with publication of both documents in 2026. We intend to set new circular economy targets from 2027.
The outputs of this work will be considered as indicators are set for future CCPs.

6.2 Part B – Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic.
Indicator: FTE employment in Low Carbon Renewable Energy Economy Indicator.
On-Track Assessment (Milestones/Targets): Year-to-year change.
Most Recent Data: 2022.
Data Source(s): Low Carbon and Renewable Energy Estimates, Office for National Statistics (ONS).
Assessment: Too early to say.
Commentary: Data for the year 2023 is due to be published later this year, following the release of this report.

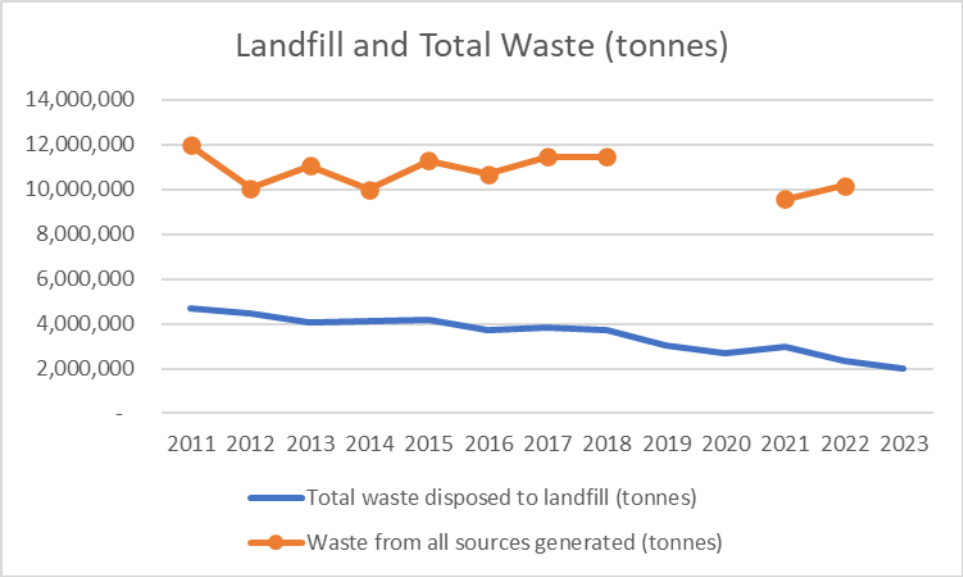
In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs. Estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval. Scottish LCREE employment in 2022 is lower than in 2021 but the difference is not statistically significant, and caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



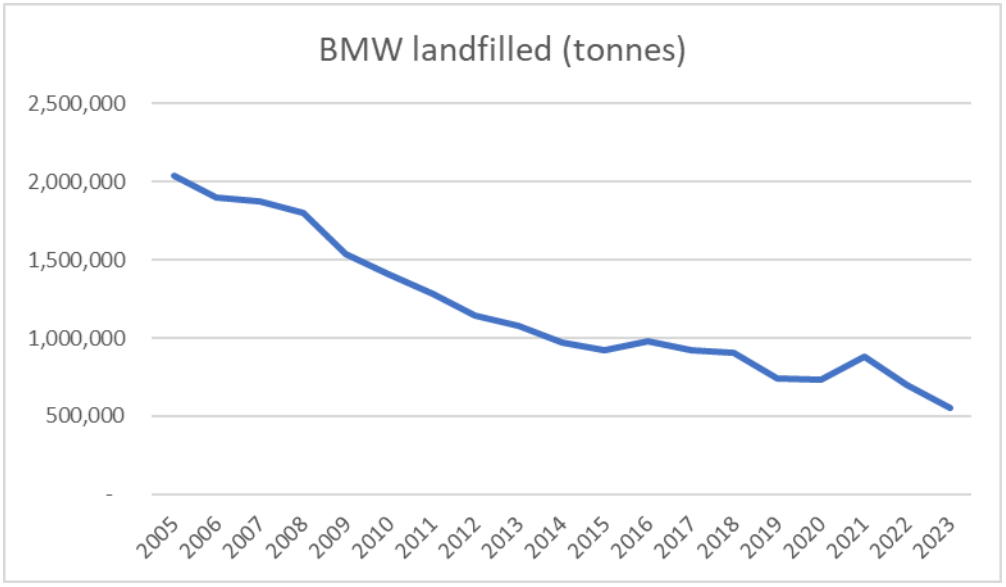
Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates.

Policy Outcome: 1
Indicator: Total amount of landfilled waste (tonnes).
On-Track Assessment (Milestones/Targets): Progress to target [no more than 5% of all waste to landfill by 2025].
Most Recent Data: Waste landfilled in Scotland reduced from 2.3 million tonnes in 2022 (23% of waste generated) to 2.0 million tonnes in 2023. The percentage of total waste sent to landfill in 2023 will not be available until SEPA publish the Waste from all sources statistics for 2023.
Data Source(s): Scottish Environment Protection Agency (SEPA) official statistics – Waste landfilled in Scotland 2023, Waste from all sources 2023.
Assessment: Off Track.
Commentary: Currently, Scotland landfills less than a third of the amount landfilled in 2005, with waste sent to landfill falling from around 7 million tonnes in 2005 to 2.0 million tonnes in 2023. The percentage of Scottish waste landfilled in 2023 will not be available until SEPA publish the Waste from all sources statistics for 2023.



Achieving the weight-based, 5% to landfill target represents a significant challenge and the pace of reduction would need to accelerate markedly to meet the target. It should be noted however, that the types of waste being landfilled have changed significantly, with 'household and similar waste' (responsible for much of the biodegradable waste, which produces landfill gas) reducing from 46% of waste landfilled in 2005 to 27% of waste landfilled in 2023.
Much of the remaining material we landfill has a low carbon impact when landfilled or cannot easily be recycled or disposed of by other means. As we set out in the Circular Economy and Waste Route Map (2024), the 5% to landfill target does not account for the carbon intensity of waste being diverted to landfill and is not a good indicator to measure the sector's progress to net zero. Achieving our 5% target does not fully align with our emissions reduction commitments or other environmental ambitions in the long term.

Policy Outcome: 1
Indicator: Total amount of biodegradable landfilled waste (tonnes).
On-Track Assessment (Milestones/Targets): Year-to-year change + Progress to interim target [0 tonnes of biodegradable municipal waste landfilled by 31st December 2025].
Most Recent Data: Biodegradable municipal waste (BMW) landfilled has reduced from 2.0 million tonnes in 2005 to 0.55 million tonnes in 2023.



Data Source(s): SEPA official statistics – Waste landfilled in Scotland 2023
Assessment: On Track
Commentary: Clear reductions have been seen over the past 15 years in the amount of BMW landfilled. The amount of biodegradable municipal waste (BMW – the biodegradable component of Municipal Waste) disposed to landfill in 2023 was 554,000 tonnes, a decrease of 144,000 tonnes (21%) from 2022 and a reduction of 1.5 million tonnes (73%) since 2005. The longer-term downward trend is expected to continue as we move towards the ban on landfilling biodegradable municipal waste, which will come into force on 31 December 2025. Work continues to support local authorities to put in place alternative solutions to comply with the ban.

Policy Outcome: 2
Indicator: Number of closed landfill sites with exploratory landfill gas capture/ flaring.
On-Track Assessment (Milestones/Targets): Progress to target [12 by 2025].
Most Recent Data: N/A
Data Source(s): To be determined.
Assessment: Off Track.
Commentary: This was a new policy, as outlined in the CCPu, to accelerate Landfill Gas Capture, working with SEPA and key industry partners to scale up the existing landfill gas capture programme to mitigate effects of landfill and environmental impact of closed landfill sites. This is supported by additional funding from the Low Carbon Fund, with the aim to harness the energy generated from landfill gas capture and maximise circular economy opportunities. Due to other unavoidable resource and budget implications, including COVID-19 contingency work, progress on this policy outcome has been challenging.
The final Circular Economy and Waste Route Map reaffirms our intention to work with industry and the public sector to maximise landfill gas capture opportunities in Scotland. Subject to future budget outcomes, we will seek to extend the landfill gas capture programme to increase the number of sites undertaking investigative or development work, to optimise and increase the amount of landfill gas captured in Scotland and minimise environmental and climate impacts of closed landfill sites. We intend to support this with research to explore current and emerging options for low-level gas capture. We will set out further detail on this work in our next draft Climate Change Plan in 2025. Please see Part C for more information.

Policy Outcome: 3
Indicator: Household and non-household food waste reduced (tonnes).
On-Track Assessment (Milestones/Targets): Progress to target [reduce all food waste by 33% from 2013 baseline by 2025].
Most Recent Data: An estimated 1,037,671 tonnes of food and drink in Scotland was wasted in 2021.
Data Source(s): 2021 Scottish Food Waste Estimate – Zero Waste Scotland, January 2024 2021 Scottish Food Waste estimate
Assessment: Off Track.
Commentary:

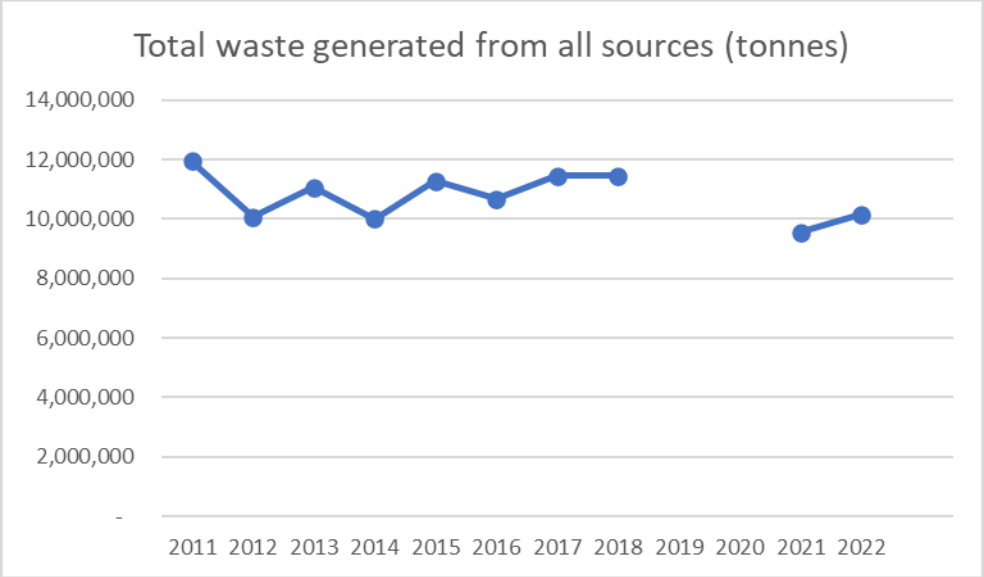
Comparison of food waste estimates in 2013, 2018, and 2021

Sector	2013 baseline (tonnes)	2018 estimate (tonnes)	2021 estimate (tonnes)	2025 target (tonnes)
Food & drink Manufacturing	248,229	282,682	281,396	171,032
Households	598,890	600,312	610,167	412,640
Other sectors	140,964	144,107	146,109	97,125
Total	988,083	1,027,102	1,037,671	680,797

A review of Scotland's Food Waste Reduction Action Plan was published in 2024, along with a food waste estimate for the year 2021. The Review shows that progress to reduce food waste was limited by the COVID-19 pandemic and the cost-of-living crises. Overall, it found that actions set out in 2019 were not enough – food waste has not decreased. The 2021 food waste estimate indicated that there was a 5% increase compared to 2013, which represents a 2% increase per capita against the 2013 baseline. According to 2021 data, the two largest sector sources of food waste are Household & Consumer (59%) and Food & Drink Manufacturing (27%). While supporting change within Scottish households is required, the relationships between the consumer, the retailer and the supply chain are complex, with each influencing the others' decisions and behaviour. The remaining 14% is food waste generated by the Hospitality & Catering, Wholesale & Retail, Education, and Healthcare sectors. Scotland is not alone in facing this challenge. Globally, no country has successfully demonstrated how to reduce food waste at a sufficient scale; a comparable increase in food waste has been seen across the UK during the same period between 2018 and 2021.
The Circular Economy and Waste Route Map was published in December 2024. It marks a collective reset of our approach to tackling food waste as part of wider, cross-government food policy, noting that continuing on the same path will not yield

the results we need to see. The actions set out in the Route Map are based on the evidence we have available and set out how we will reset our approach to accelerate a reduction of national food waste and move towards the UN Sustainable Development Goal (SDG) target of a 50% reduction by 2030.

Policy Outcome: 4
Indicator: Total waste generated (tonnes).
On-Track Assessment (Milestones/Targets): Progress to target [reduce total waste by 15% by 2025 against 2011 baseline].
Most Recent Data: The estimated total quantity of waste generated in Scotland in 2022 was 10.16 million tonnes.



Data Source(s): SEPA official statistics – Waste from all sources 2022.
Assessment: On Track.
Commentary: The total amount of waste generated in 2022 was 10.16 million tonnes, an increase of 6.2% from 2021. This equates to an 15.1% reduction compared with 2011. Despite the annual increase, for the second year in a row Scotland has met its 2025 target to achieve a 15% reduction of all waste against 2011 levels.
However, it should be noted that 2021 was an atypical year due to the impact of COVID-19 and, even in years not affected by COVID-19, year-to-year changes in waste can be marked – generally driven by year-to-year variability in construction and demolition waste. In 2022, most of the increase in waste generated is construction type wastes such as Soils and Mineral waste from construction and demolition. Due to the level of year-to-year fluctuation, the target has been met in 4 years (2012, 2014, 2021, 2022) but not the other 5 years for which data is available. Excluding construction and demolition waste, the trend is clearer with a decline in combined household and commercial & industrial waste from 6.8 million tonnes in 2011 to 5.5 million tonnes in 2022, a drop of around 18% in 11 years. As a result of

the December 2020 cyber-attack on SEPA, waste from all sources publications for 2019 and 2020 were not available.
In December 2024, our Circular Economy and Waste Route Map set out measures to accelerate progress towards sustainable resource use and a circular economy in Scotland through to 2030. This included measures designed to cut waste, challenge the current approach to consumption and production by mainstreaming reuse and repair, and incentivising and promoting sustainable choices; focusing on reducing food waste from all sources; and embedding circular construction practices to reduce resource needs, reduce waste and carbon, and encourage refurbishment and re-use.

6.3 Part C – Information on Implementation of Individual Policies

Outcome 1: Reduction in waste sent to landfill

Policy: End landfilling of biodegradable municipal waste by 2025, reduce the percentage of all waste sent to landfill to 5% by 2025 and recycle 70% of all waste by 2025 by:

- Continuing our commitment to delivering a different approach to our economy, one where we move from a "take, make and dispose" model to one where we value materials and keep them in use.
- Delivering our Circular Economy and Waste Route Map which was published in December 2024, following two public consultations and extensive engagement across public, private and third sectors. The Route Map sets out an ambitious plan to deliver the priority actions to 2030 that will help us to progress to a circular economy and ensure we maximise the positive impact of the new Circular Economy Act for communities across Scotland.
- Establishing a £70 million fund to improve local authority recycling collection infrastructure.
- Further promoting reuse and recycling, in line with EU requirements, ensuring separate collection of textiles by 2025; and ensuring that biowaste (e.g. garden waste), is either separated and recycled at source, or is collected separately and is not mixed with other types of waste by 2023.
- Considering an extension to the forthcoming ban on biodegradable municipal waste to landfill to include biodegradable nonmunicipal wastes, subject to appropriate consultation and work to provide assurance around some specific waste streams, in response to a recommendation from the CCC.

Date announced: 2020-21 Programme for Government (PfG).

Progress on implementation since time of last report / CCPu: The ban on biodegradable municipal waste being landfill will commence on 31 December 2025. In December 2024 Scotland's Circular Economy and Waste Route Map to 2030 was published, following two consultations in 2022 and 2024. This fulfils the commitment set out in the CCPu. The Route Map focuses on the delivery of 11 priority actions with clear timelines to drive progress and maximise impact to 2030.

Since 2021, over £66 million has been allocated to local authority recycling and reuse collection infrastructure from the Scottish Government's Recycling Improvement Fund, including 16 garden and food waste schemes which are helping to get organic waste out of residual waste streams.

We are further promoting reuse and recycling, including consulting on separate collection of textiles and expansion of food waste collections to more rural areas.

Strengthening approach to household recycling collection services - gov.scot

In response to a recommendation from the CCC, in March 2025 we published a Call for Evidence around the potential to extend the forthcoming ban on biodegradable municipal waste to landfill (which starts on 31 December 2025) to include biodegradable non-municipal wastes, and work to provide assurance around some specific waste streams.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: See above, and the final Circular Economy & Waste Route Map. Scotland's circular economy and waste route map to 2030 - gov.scot
Timeframe and expected next steps: See above.

Policy: Work with the Convention of Scottish Local Authorities (COSLA) in the coming year to evaluate the Household Recycling Charter and review its Code of Practice as a key step in developing a future model of recycling collection.
Date announced: 2020-21 PfG.
Progress on implementation since time of last report / CCPu: As part of the Circular Economy and Waste Route Map, and as outlined in the Circular Economy (Scotland) Act 2024, we are reviewing the Household Recycling Charter's supporting Code of Practice using a co-design process with Local Government.
The Code of Practice will be put on a statutory basis to deliver better and more consistent recycling services across Scotland. This new statutory Code will aim to provide clear guidance for both householders and waste practitioners, ensuring best practices are the easiest options.
Working closely with local authorities is integral to this review, as their input ensures the practicality and effectiveness of the new Code across diverse communities. Co-design will help address the diverse sociological, geographic, and population differences across Scotland.
These efforts aim to provide households with simpler, more intuitive recycling systems while ensuring waste practitioners have a clear and robust framework to support Scotland's circular economy ambitions.
Work has commenced with local government stakeholders to agree a co-design methodology and agree the programme of research required to underpin development of the new Code of Practice. This has included initial engagement events with local government and other stakeholders. As set out in the Circular Economy & Waste Route Map, published in December 2024, the co-design process for high quality, high performing household recycling and reuse services will take place across 2024 – 2026.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The new household recycling Code of Practice will be completed by the end of 2026, after which it will be made available for consultation.

Policy: Underpinning this we will take steps to improve waste data, continuing to work with UK Government, other devolved governments, and agencies to develop electronic waste tracking, which will help deliver a step change in the quality and usefulness of waste data for decision making. This will include taking the necessary steps alongside SEPA to drive implementation of the system in Scotland.
Date announced: Low Carbon Fund 2020.
Progress on implementation since time of last report / CCPu: In January 2025, the Digital Waste Tracking launch date was delayed to April 2026, subject to further reviews and updates in May 2025.
More broadly, the Circular Economy and Waste Route Map (December 2024) sets out our intention to set new circular economy targets from 2027, with work to develop a monitoring and indicator framework before this.
Improvements in waste data are overseen by the multi-stakeholder Scottish Waste Data Strategy Board. Across the Circular Economy and Waste Route Map there are a range of measures that rely on timely data and evidence to maximise delivery of meaningful benefits. To ensure this happens, and we have a data landscape that remains fit for the future, we intend to work closely with partners to review and refresh the strategy's action plan. We will also give due consideration as to whether the strategy itself should be refreshed. We will seek to undertake this work to align with the outputs of the new strategy and monitoring and indicator framework for Scotland's circular economy, and emission reduction-related monitoring requirements, which will both inform future data requirements. We will account for the changes to the data landscape that key measures like extended producer responsibility schemes, modernising recycling reform, and the Digital Waste Tracking service, will have.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: See above.
Timeframe and expected next steps: See above.
Following the publication of a circular economy monitoring and indicator framework in 2026, circular economy targets will be developed and set by 2027.

Outcome 2: Reduction in emissions from closed landfill sites.

Policy: Accelerate Landfill Gas Capture and Landfill Legacy Management: we will work with SEPA and key industry partners to scale up the existing landfill gas capture programme to mitigate effects of landfill and environmental impact of closed landfill sites.
Date announced: Low Carbon Fund 2020.
Progress on implementation since time of last report / CCPu: This policy has not been progressed due to competing budget pressures and priorities.
The Route Map sets out our commitment to work with industry and the public sector to maximise landfill gas capture opportunities in Scotland. Subject to future budget outcomes, we will seek to extend the landfill gas capture programme to increase the number of sites undertaking investigative or development work, to optimise and increase the amount of landfill gas captured in Scotland and minimise environmental and climate impacts of closed landfill sites.
We intend to support this work with research to explore current and emerging options for low-level gas capture. Further details will be set out in our next draft Climate Change Plan later in 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: None.
Timeframe and expected next steps: As above, further details will be set out in our next draft Climate Change Plan later in 2025.

Policy: Landfill gas capture on closed sites: in association with SEPA and the waste industry, double the number of landfill gas capture sites that undertake investigative or development work (from 12 to 24 sites) by 2025, in order to harness energy generated from landfill gas capture and maximise other circular economy opportunities. SEPA has already identified 12 sites for potential investigative work.
Date announced: Low Carbon Fund 2020.
Progress on implementation since time of last report / CCPu: Same as above.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Same as above.
Timeframe and expected next steps: Same as above.

Outcome 3: A reduction in food waste

Policy: Scottish Government has committed to reduce food waste by 50% by 2030, in line with UN Sustainable Development Goal (SDG) 12.3.
Date announced: Food Waste Reduction Action Plan (FWRAP) published 2019; 2020-21 PfG; Review of FWRAP published 2024.
Progress on implementation since time of last report / CCPu: Reducing food waste remains a significant and growing challenge, as the 2024 review of FWRAP set out. Key milestones in policy development have been achieved through the unanimous passing of the Circular Economy (Scotland) Act 2024 and the publication of the Circular Economy and Waste Route Map – both of which support work to tackle food waste. The Circular Economy and Waste Route Map was published in December 2024. It marks a collective reset of our approach to tackling food waste as part of wider, cross-government food policy, noting that continuing on the same path will not yield the results we need to see. The actions set out in the Route Map are based on the evidence we have available and set out how we will reset our approach to accelerate a reduction of national food waste, and towards the UN Sustainable Development Goal (SDG) target of a 50% reduction by 2030.
The two Route Map priority actions are developing an intervention plan to guide long-term work on household food waste reduction behaviour change (by 2026-27), and from 2025/26, developing with stakeholders effective options to implement mandatory public reporting for food waste and surplus by businesses.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: As above.
On data, it remains the case that measuring food waste is a costly and time intensive process. We acknowledge that improving how we measure food waste and identifying where and why it occurs across businesses and households, is a critical step: to better understand the volume and make-up of waste which will allow for more effective interventions and allow for resources to be targeted to make a real impact. The measures outlined above are designed to help address this challenge while also acting as effective interventions that will reduce food waste.
Timeframe and expected next steps: See above.
Next steps include establishing an advisory group to support working with stakeholders on effective options to implement mandatory public reporting of food waste and surplus by businesses (from 2025-26) and supporting Zero Waste Scotland on the development of an intervention plan to guide long-term work on household food waste reduction behaviour change (by 2026-27).

Policy: Improving local authority segregated food waste collections to help break down barriers to food waste reuse and recycling. Supporting leadership, innovation, effectiveness and efficiency in Scotland's public, private and hospitality sectors by expanding pilot programmes across the education sector and public sector buildings; Support the development and implementation of an NHS Scotland national action

plan on food waste; develop best practice guidance for public sector procurement teams to drive new ways of working and more transparent supply chains. A sustained approach to public engagement and communications to enable the public to make changes in their choices and behaviours around food and food waste, in partnership with Zero Waste Scotland.

Date announced: Food Waste Reduction Action Plan 2019 andCCPu.

Progress on implementation since time of last report / CCPu: The Scottish Government's Recycling Improvement Fund has funded 16 food waste recycling schemes which are helping to get organic waste out of residual waste streams. The Scottish Government is also reviewing the current rural food waste exemption, which started with a consultation launched in March 2025. The findings of this consultation, alongside research currently being undertaken by Zero Waste Scotland on effective approach to organic waste collections, will inform subsequent policy development to increase collection of food waste and other organic waste, potentially through the co-design of the new household recycling Code of Practice. Progress has focussed on delivering overarching milestones including the passage of the Circular Economy (Scotland) Act and the consultation and publication of the final Circular Economy and Waste Route Map to 2030.

Particular progress has been made through our programme partners at Zero Waste Scotland who have continued to support leadership and innovation through their one-to-many approach to business engagement, which has included work with key partners to help influence others in the sector. Zero Waste Scotland have also progressed work to support NHS Scotland action on food waste and issued guidance to all Health Boards in Scotland through the Catering Services Expert Group to empower their food service operations. However, due to financial constraints, efforts to deliver targeted communication campaigns have been hampered and instead resource has been redirected to priority actions. Social media infographics have continued to be shared to raise awareness about food waste.

Wider actions to drive a reduction in food waste and develop public procurement opportunities to reduce the environmental impact of public spending, are set in the final Circular Economy and Waste Map.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: See above, and the final Circular Economy and Waste Route Map.

Timeframe and expected next steps See above, alongside the final Circular Economy and Waste Route Map.

Outcome 4: Reduce waste and establish a more circular economy, where goods and materials are kept in use for longer.

Policy: We will work with local authorities and the future DRS administrator to explore options that will unlock reprocessing investments, including pricing and incentive schemes, to create jobs and a ready supply of recycled material for new packaging.
Date announced: 2020-21 PfG.
Progress on implementation since time of last report / CCPu: As referred to above, the Circular Economy and Waste Route Map sets out a range of measures to be delivered in the coming years to improve recycling and waste management services, increase the recyclability of products, increase capture at end-of-life and provide greater incentives for domestic reprocessing. This includes extended producer responsibility (EPR) schemes for packaging, waste electrical and electronic equipment (WEEE) and batteries.
We are working with Zero Waste Scotland to support delivery of measures set out in the Route Map, including actions to increase the quantity and quality of materials captured for recycling and to develop the capacity and infrastructure required to reprocess more materials domestically. This work will help maximise the economic opportunities from recycling in Scotland and reduce our reliance on export, while supporting a just transition to net zero. As set out in the Circular Economy Act, we are also developing a waste reprocessing infrastructure report for publication in 2025. This will help inform future investment and policy decisions to ensure Scotland has the capacity to manage more of its waste onshore.
Legislation for packaging EPR came into force in January 2025.
Packaging EPR fees and payments will commence this year and is anticipated to increase recycling rates for packaging materials to 76% by 2033. It requires producers to cover the full net cost of managing household packaging when it becomes waste. Funding will go to local authorities to fund effective and efficient collection systems for household packaging waste. PackUK have now been appointed as the scheme administrator and will commence payment to local authorities in November 2025. We have also published a four-nation joint policy statement on packaging EPR which sets out the intended environmental effects of the policy and how it is intended that the policy will achieve those effects.
We also remain committed to the delivery of a successful DRS for single use drinks containers in Scotland and are working alongside the UK Government and DAERA towards the launch of the scheme on a three-nation basis by October 2027. (Further information is provided below).
To reduce Scotland's global carbon impact, we must take responsibility for our own waste, managing and processing as much as possible here in Scotland. A large majority of Scotland's waste is already managed within Scotland, but around 15% is currently processed elsewhere, representing a lost economic opportunity and an environmental cost too. Measures within Modernise recycling and Decarbonise disposal chapters of the Route Map are focussed on tackling this. The recycling co-design action will help consider the available markets and reprocessing capacity for

collected materials, and opportunities to facilitate this. This will complement existing measures like extended producer responsibility schemes and our planned waste reprocessing infrastructure report. To strengthen public confidence in where recycling goes, we intend to consult on the introduction of end destination public reporting of household recycling collected.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The reprocessing infrastructure report will be laid in parliament before the Act gains royal assent.
Timeframe and expected next steps: With local authorities and other waste sector stakeholders, we will co-design high quality, high performing household recycling and reuse services in order to develop a new statutory Code of Practice for household waste services by the end of 2026. The Scottish Government plans a similar exercise to co-design measures to improve commercial waste service provisions by 2030.
Packaging EPR comes into force from January 2025, first year of the Scheme begins April 2025. Producers to begin paying local authorities the full net cost of managing household packaging waste: first local authority payments will be made from November 2025.

Policy: Measures to encourage more sustainable consumer purchasing, including plans to take further steps to consult on a charge on single use disposable beverage cups and to increase the carrier bag minimum charge from 5p to 10p in this parliamentary session.
Date announced: Boosted in 2020-2021 PfG.
Progress on implementation since time of last report / CCPu: Bag Charge was increased to 10p on 1 April 2021.
A consultation on proposals to implement a minimum charge on single-use beverage cups ran from 22 August 2024 – 14 November 2024. Responses from the consultation will be considered when developing policy proposals further.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps The consultation analysis will be published in 2025

Policy: Banning priority single use items: We will consult on banning a number of problematic plastic items identified in the EU's Single Use Plastics Directive (with a view to introducing legislation in 2021) and outline how we will give effect to the wider requirements of the Directive before the end of 2020.
Date announced: 2020-21 PfG.
Progress on implementation since time of last report / CCPu: Legislation banning the supply and manufacture of some of the most problematic single-use plastic items came into force in 2022.

A ban on the sale and supply of single-use vapes will come into force later in 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No.
Timeframe and expected next steps: An evaluation of the implementation of the 2022 single-use items ban regulations will be published by Zero Waste Scotland in Spring 2025.

Policy: Implementation of our Deposit Return Scheme (DRS) for single use drinks containers.
Date announced: CCP 2018.
Progress on implementation since time of last report / CCPu: We remain committed to the delivery of a successful DRS for single use drinks containers to increase recycling rates for single use drinks containers to at least 90%.
We continue to work closely with the UK government and DAERA to launch the scheme across the three nations in October 2027. The schemes will cover England, Northern Ireland and Scotland when launched in 2027, but the legislation for the scheme in Scotland must be determined by the Scottish Parliament. Regulations covering the English and Northern Ireland DRS were approved by the UK Parliament on 21 January 2025.
The application process for organisations wishing to become the DRS Scheme Administrator for Scotland, England and Northern Ireland closed on 3 Feb 2025. A single application was received for the 3-nation DRS schemes with wide support from industry. Officials have worked collaboratively with colleagues from UKG and DAERA to assess that application. The Scottish Ministers have decided that UK Deposit Management Organisation Limited (UK DMO) should be designated as the scheme administrator and a Designation Order is subject to approval by the Scottish Parliament. DEFRA and DAERA have also appointed UK DMO as the scheme administrator for DRS in England and Northern Ireland, effective from 2 May 2025.
We are amending legislation to give effect to the agreed joint policy positions which allows an interoperable three nation approach to a DRS. The draft Deposit and Return Scheme for Scotland (Amendment Regulations) 2025 and the draft Deposit and Return Scheme for Scotland (Designation of Scheme Administrator) Order 2025 were laid in the Scottish Parliament on 2 May 2025.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The draft amending regulations require Scottish Ministers to review the DRS in Scotland by 1st October 2032.
Timeframe and expected next steps: We are aiming to launch the DRS in October 2027. The draft amending DRS regulations and the draft designation order were laid in the Scottish Parliament on 2 May 2025. Parliamentary scrutiny should be complete by the end of June and subject to approval by the Parliament the scheme administrator (UK DMO) will be designated.

Policy: We will also work collaboratively across the public sector developing tools and guidance and a practical approach to influence and empower buyer, supplier and key stakeholder communities to use public procurement to support a green recovery and our wider climate and circular economy ambitions through procurement, embedding climate considerations in organisational procurement strategies by 2021 and reporting progress in annual procurement reports.
Date announced: 2020-21 PfG.
Progress on implementation since time of last report / CCPu: We continue to promote our national suite of online Sustainable Procurement Tools to support Scottish public sector procurers to adjust to a more resource efficient and sustainable procurement practice, with learning and guidance provided on climate and the circular economy. The latest annual report is available at (Procurement: annual report 2022 to 2023 - gov.scot
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: The Circular Economy & Waste Route Map was published on 18 December 2024 and sets out 11 priority actions that we need to take to deliver sustainable use of our resources and progress towards a circular economy in Scotland by 2030.
This includes action to further develop public procurement opportunities to reduce the environmental impact of public spending, including scoping new legislative circular economy requirements for contracting authorities under section 82 and 82A of the Climate Change (Scotland) Act 2009.

Policy: We are introducing extended producer responsibility for packaging from 2025 alongside the other UK governments, which will see producers paying local authorities the full net cost of running an efficient and effective household packaging collection service.
Date announced: 2020-21 PfG.
Progress on implementation since time of last report / CCPu: The Producer Responsibility Obligations (Packaging and Packaging Waste) Regulations 2024 were made on 11 December 2024 and are now in force.
PackUK was appointed as the scheme administrator on 12 December 2024, by all four nations, representing a key milestone in the delivery of the scheme. Scottish Government officials will continue to work closely with the other UK governments and PackUK on the delivery and development of the scheme.
PackUK's functions will include setting packaging fee rates, raising these fees from obligated producers and making packaging waste disposal payments to local authorities. The revenue from fees will generate an estimated £160m annually to support Scottish local authorities with the cost of managing household packaging waste.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: PackUK is required to set out how it will measure and report on delivery of its objectives and outcomes. The key performance indicators it will apply will be set out in its yearly Operational Plan. Together, with the other UK nations, we will monitor the PackUK's performance, including through its annual report, the first of which will be due by 30 September 2026 for year 1 of EPR for packaging and each year thereafter.
Timeframe and expected next steps: A final version of the EPR producers' fees for year one of the scheme is expected to be published by summer 2025 using tonnage data reported by producers for the full year of 2024.
Local authorities will receive their first packaging EPR payment in November 2025, followed up by subsequent payments in January and March 2026 for the first year.

Policy: We are boosting our commitment to building a circular economy, where goods and materials are kept in use for longer. We will deliver this by embedding circular recovery principles in the wider green recovery. Through Zero Waste Scotland and Scottish Environment Protection Agency (SEPA), we will intensify our work with industry and businesses to address emissions associated with production, consumption, and waste of products/resources; and to promote resource efficiency.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: The Circular Economy (Scotland) Act 2024 was unanimously passed by Parliament in June 2024. The Act establishes the legislative framework to support Scotland's transition to a zero waste and circular economy, significantly increase reuse and recycling rates, and modernise and improve waste and recycling services.
The Act requires that Scottish Ministers publish a circular economy strategy and make regulations to set circular economy targets. The strategy and associated monitoring and indicator framework are currently being developed jointly with ZWS and with SEPA input.
We published the Circular Economy and Waste Route Map on 18 December 2024 setting out actions that we need to take to deliver sustainable use of our resources and progress towards a circular economy in Scotland by 2030.
Scotland's circular economy and waste route map to 2030 - gov.scot

We also published the Green Industrial Strategy on 11 September 2024 which identifies areas of strength and opportunity for Scotland to grow globally competitive industries in the transition to net zero and outlines what government and partners will do to support stakeholders to create an enabling environment for investment and growth.

Green industrial strategy - gov.scot

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: A monitoring and indicator framework is being developed as part of the strategy which will track progress towards a more circular economy.
Timeframe and expected next steps: A consultation on the strategy and monitoring framework is planned for summer 2025 with publication in 2026. Development of targets will follow in 2027.

Policy: In the context of the latest CCC recommendations and building on progress already made by the sector, we will consider measures to ensure new energy from waste plants are more efficient, and 'future-proofed' for Carbon Capture and Storage technology.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: Since 2020 the Scottish Government has commissioned, published, and responded to an independent review on the role of incineration in Scotland's waste hierarchy[29].
In its response to the review, the Scottish Government recognised and adopted this recommendation, which goes further than ensuring new facilities are CCS ready, while remaining conscious of relevant statutory obligations which must apply to all planning decisions. The response also highlights actions to improve the efficiency of energy from waste plants and the appropriate use of Carbon Capture Use or Storage technology.
National Planning Framework 4 (NPF4) was adopted and published by Scottish Ministers on 13 February 2023 and sets out that development proposals for energy-from-waste facilities will not be supported except under limited circumstances, where a national or local need has been sufficiently demonstrated, and where relevant criteria are met. This includes the requirement to show consideration was given to methods to reduce carbon emissions of the facility (for example through carbon capture and storage); and, supplying an acceptable decarbonisation strategy aligned with Scottish Government decarbonisation goals.

As a matter of law, all planning applications must be determined in accordance with the development plan, unless material considerations indicate otherwise. NPF4 forms part of the statutory development plan and will directly influence all planning decisions. This includes considerations for new Energy from Waste (EfW) facilities.
The Circular Economy and Waste Route Map to 2030, published in December 2024, sets out a range of actions to incentivise further decarbonisation of the waste sector, including energy from waste.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A.

[29] Stop, Sort, Burn, Bury - incineration in the waste hierarchy: independent review - gov.scot

Timeframe and expected next steps Apart from the completed work on NPF4, we will also consider what additional fiscal measures and supporting policies could be introduced to reduce the carbon emissions associated with disposal further, particularly through the Sector-Led Plan to minimise Carbon Impacts of Energy from Waste, due to be published in 2027.

Policy: As part of our work on developing a route map to 2025, we will undertake a specific and focused piece of work to examine the range of fiscal measures used by other countries to incentivise positive behaviours and to develop proposals to go further in this area.
Date announced:CCPu.
Progress on implementation since time of last report / CCPu: The Scottish Government is working closely with our UK nations co-members of the UK Emissions Trading Scheme (ETS) Authority to support the inclusion of energy from waste and incineration in the UK ETS. In 2023 the Authority published a response to its first consultation on expanding the UK ETS to include incineration and a second consultation closed in August 2024. The response to the second consultation is expected to be published in due course. We believe the UK ETS could facilitate reductions in the incineration of plastics, emissions, and increased efficiency of EfW plants through incentivising increased levels of recycling, mixed waste sorting to remove fossil content from residual waste, and CCS. The UK ETS Authority is also exploring if it would be possible to incentivise heat offtake.
However, we acknowledge the barriers to some of these decarbonisation options, such as cost and infrastructural difficulties around CCS and heat offtake and the relative immaturity of chemical recycling technologies.
As set out in the Circular Economy and Waste Route Map, we will also consider what additional fiscal measures and supporting policies could be introduced to reduce the carbon emissions associated with disposal further, particularly through the Sector-Led Plan to minimise Carbon Impacts of Energy from Waste, due to be published in 2027.
In 2023 research was undertaken to look at international examples of direct variable charging models and the lessons we can learn for future service design in Scotland. Direct Variable Charging, a system in which the cost of residual waste collections reflects the amount of waste created, incentivises the use of recycling and food waste collection services and the minimisation of residual waste produced. The research showed limited potential benefits and highlighted the complexity of setting up a new system. Direct Variable Charging has not been taken forward and there are no current plans to explore the policy further in Scotland.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: UK ETS expansion to include incineration Government response expected in due course, which will set out details of timeframes and next steps.

7. Chapter 6: LULUCF

7.1 Part A - Overview of sector

The outturn emission statistics for 2022 (published in 2024) show a position of **0.2 MtCO2e**.

The CCPu sets out the following three policy outcomes for the sector, the indicators for which are summarised below:

We will introduce a stepped increase in the annual woodland creation rates from 2020-2021 to enhance the contribution that trees make to reducing emissions through sequestering carbon.	On Track	Off Track	Too Early to Say
Hectares of woodland created per year	-	X	-
Woodland ecological condition	-	-	X
Woodland Carbon Code: Projected carbon sequestration (validated credits)	X	-	-

Increase the use of sustainably sourced wood fibre to reduce emissions by encouraging the construction industry to increase its use of wood products where appropriate.	On Track	Off Track	Too Early to Say
Annual volume (in millions of cubic metres) of Scottish produced sawn wood and panel boards used in construction	-	X	-

To enhance the contribution of peatland to carbon storage, we will support an increase in the annual rate of peatland restoration.	On Track	Off Track	Too Early to Say
Hectares of peatland restored per year	-	X	-
Peatland Code: Projected emissions reduction (validated units)	-	X	-

We will establish pilot Regional Land Use partnerships (RLUPs) over the course of 2021.

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector commentary on progress

Forestry

There were 15,040 hectares of new planting in 2023-24. This was the highest level for 34 years and included 7,700 hectares of native woodland.
Following the forestry summit with leaders from across the forestry sector in December 2023, Scottish Forestry has released a woodland creation route map which brings together policies, actions, and improvements to deliver woodland creation in the period to 2030.
A 57% cut in the budget will significantly restrict woodland creation in 2024-25, and the 2024-25 PfG set out a revised commitment to 10,000 hectares this year. As of 31st December 2024, approximately 9800 hectares of woodland creation applications have been approved for 2024/25. Scottish Forestry has taken steps to limit the attrition of approvals into claims (trees planted), including an extension to the closing window for claims which will facilitate some further planting by the end of March. It is expected that there will be 8-9,000 ha of actual woodland creation. In addition, Forestry and Land Scotland will create approximately 750 ha of new woodland on the national forest estate. This also counts towards the 2024-25 PFG commitment.
Scottish Forestry has increased the targeting of FGS funding and the leverage of carbon finance through the Woodland Carbon Code, including changes to FGS funding of larger productive schemes to reduce grant intervention rates. Interim statistics show that 10.4M woodland carbon credits had been validated in Scotland as of December 2024. This was a 9% increase from just under 9.6M in March 2024.

Peatland

The Scottish Government has committed £250 million over 10 years to restore 250,000 hectares of degraded peatlands by 2030. To date, we have achieved around 75,000 hectares of this. Recent years have seen strong increases including, in 2023-24, over 10,000 hectares restored in a single year for the first time.
In the 2024 Programme for Government, we committed to restoring over 10,000 hectares in 2024-25 and our ambition is to restore at least 14,000 hectares in 2025-26.

The £35.5 million 2025-26 budget allocation is a 32% increase on the 2024/25 budget and includes £8.6 million capital from ScotWind revenues which will be invested to maximise our delivery of restored hectares while also investing in our future restoration pipeline.
Increasing capital investment on its own will only take us so far in terms of realising the potential carbon savings from restoring our peatlands. It is therefore imperative that we continue to leverage additional resources and generate efficiencies in terms of carbon savings generated by managing our peatlands better.
The Natural Capital Markets Framework was launched 4 November 2024 and includes a commitment to explore approaches to integrating public and private funding for peatland restoration. Scottish Government is currently assessing blended finance mechanisms for peatland restoration to encourage greater responsible private investment while maximising the value of public spending.
To boost the development of this nascent sector, Peatland ACTION have provided training on peatland restoration across private, public and third sectors and Delivery Partners have established schemes to help facilitate new entrants to the sector. Focus will continue on these efforts, while also looking at how to more effectively use the resources currently available

Developments in Monitoring Arrangements Since Last Report

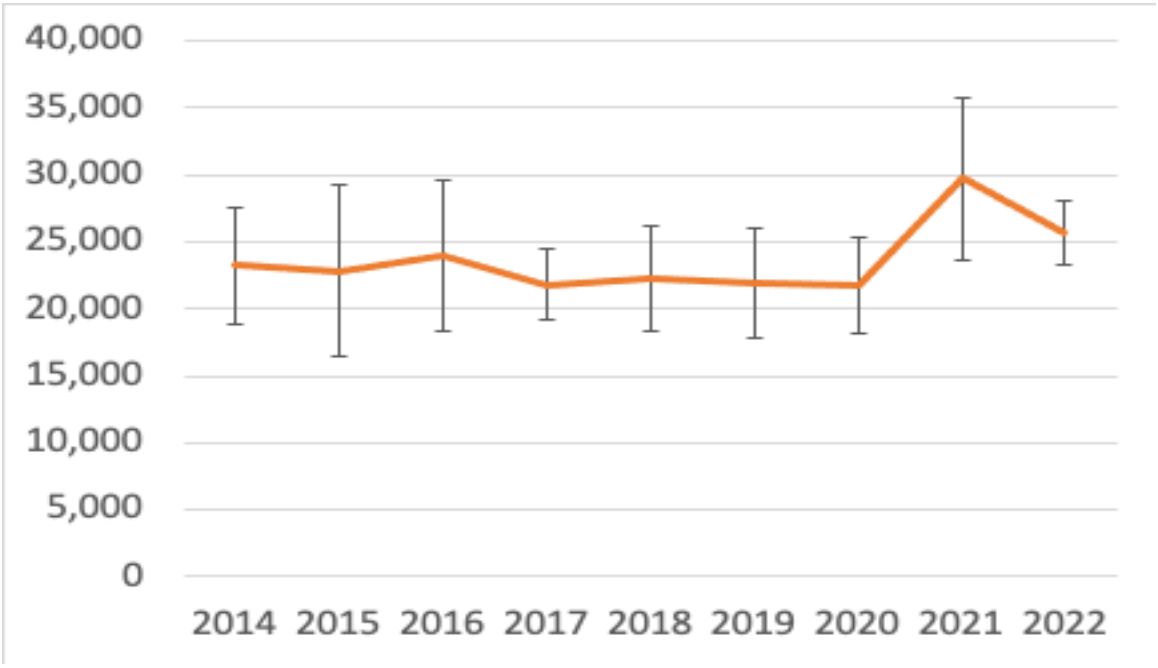
NatureScot-Peatland ACTION have developed a monitoring strategy – Peatland ACTION Monitoring Strategy 2023-2030 - which is now available through their site[30]
The Monitoring Strategy was first implemented in 2019 and has been revised to improve the structure in 2023

[30] Peatland ACTION - Monitoring strategy | NatureScot

7.2 Part B - Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic
Indicator: FTE employment in Low Carbon Renewable Energy Economy Indicator
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 2022
Data Source(s): Low Carbon and Renewable Energy Estimates, Office for National Statistics (ONS)
Assessment: Too early to say
Commentary: Data for the year 2023 is due to be published later this year, following the release of this report.
In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs. Estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval. Scottish LCREE employment in 2022 is lower than in 2021 but the difference is not statistically significant, and caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates

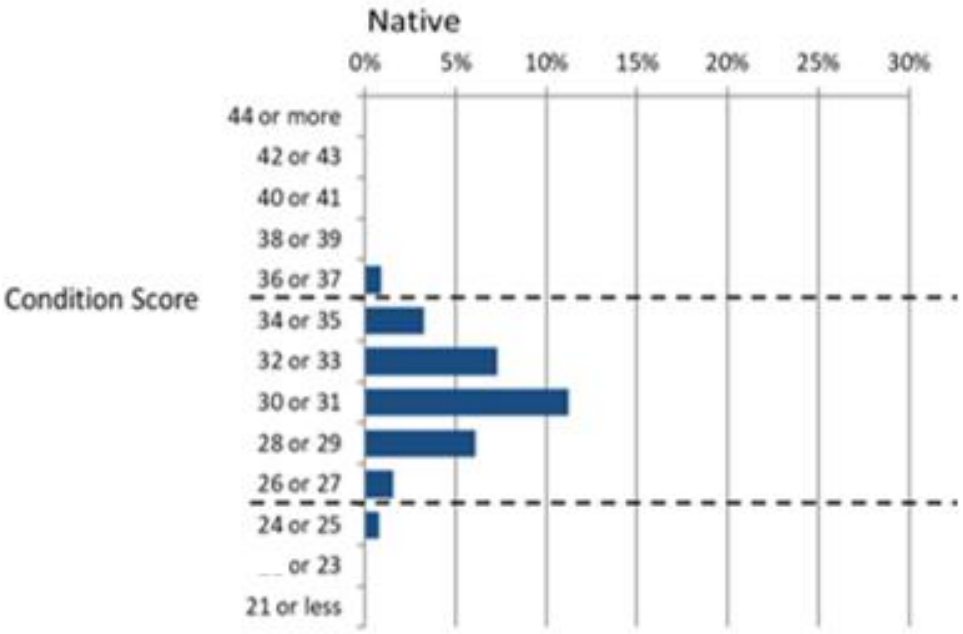
Policy Outcome: 1
Indicator: Hectares of woodland created per year
On-Track Assessment (Milestones/Targets): 2020/21 = 12,000 ha/yr, 2021/22=13,500 ha/yr, 2022/23 = 15,000 ha/yr, 2023/24 = 16,500 ha/yr, 2024/25 = 18,000 ha/yr
Most Recent Data: Forestry Statistics 2024
Data Source(s): Forestry Statistics
Assessment: Off Track
Commentary: There was a significant rise in woodland creation in 2023/24 to 15,040 hectares, an (84%) increase from 2022/23, a little below the target of 16,500 hectares for that year. This included 7,700 hectares of native woodland. Official data on woodland creation for 2024-25 will be released in June 2025.

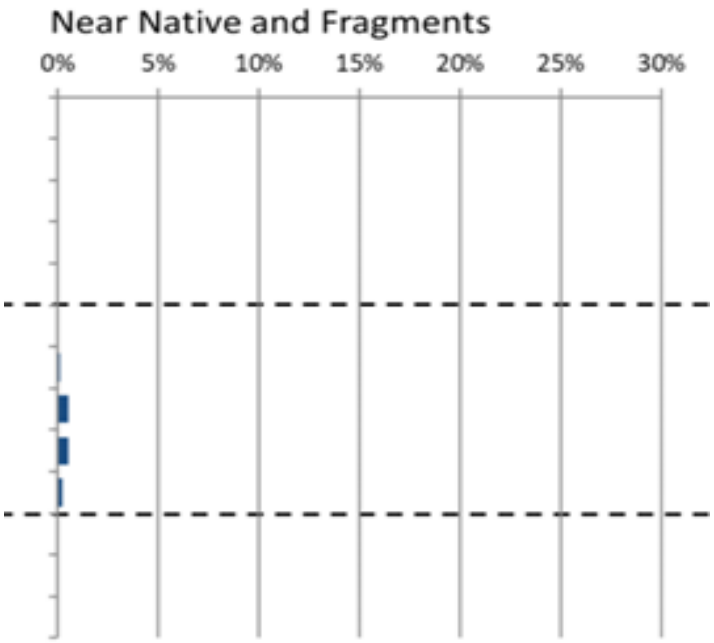
Policy Outcome: 1
Indicator: Woodland ecological condition
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: Published February 2020
Data Source(s):
Assessment: Too early to say
Commentary: Published as official statistics by the National Forest Inventory (NFI), the study into Woodland Ecological Condition (WEC) is the largest and most in-depth assessment of the ecological condition of any habitat in Great Britain.

It reveals that in Scotland 442,611 hectares are now classified as native woodland and that the majority of this is Northeast and West Scotland. The statistics reveal that over 430,000 ha of these native woodlands are in overall ‘favourable’ or ‘intermediate’ condition.

They also show that Scotland’s non-native woodlands make a positive ecological contribution, with less than 6% in ‘unfavourable’ ecological condition. Furthermore, the survey demonstrates that the active management of a forest for wood production delivers higher biodiversity as well as a renewable supply of wood to help sustain an industry that benefits climate change mitigation, jobs, and the economy - at minimal cost to the public purse.

The last WEC report was published in 2019 and was based on data collected in the first cycle of field survey 2010 to 2015, so the analysis has a time stamp of 2013 (the average age of the data). The plan is for the next report on WEC in 2024/25.




Near Native and Fragments
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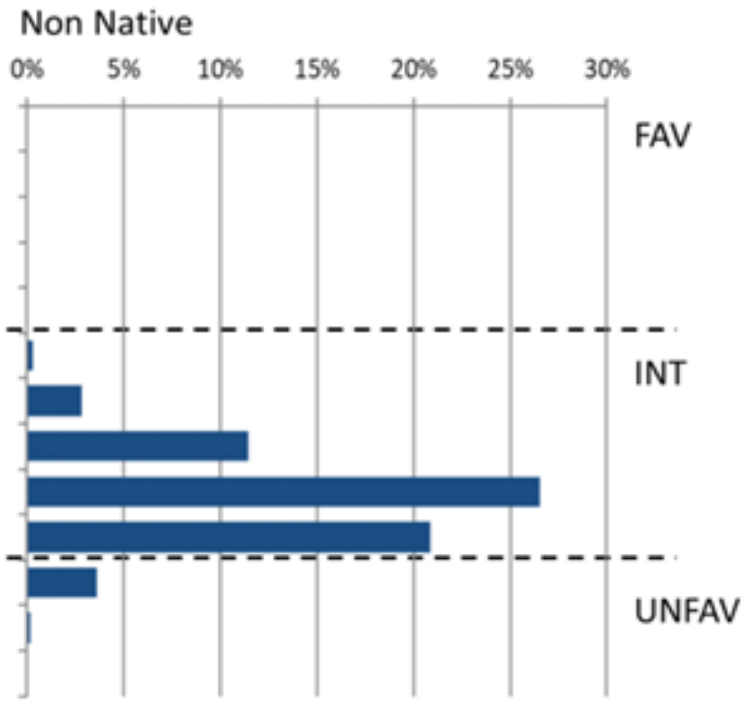
Non Native
0%
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FAV
INT
UNFAV

Policy Outcome: 1
Indicator: Woodland Carbon Code: Projected Progress to target carbon sequestration (validated credits).
On-Track Assessment (Milestones/Targets): Progress to target (increase 50% by 2025)
Most Recent Data: Forestry Statistics 2024, and Woodland Carbon website for latest unofficial data
Data Source(s): UK Land Carbon Registry, Forestry Statistics (Forest Research)
Assessment: On track
Commentary:
There was a 9% increase in the number carbon credits validated in Scotland under the Woodland Carbon Code between April 2024 and December 2024 Interim Statistics note that 10.4M carbon credits had been validated in Scotland in December 2024. Data for 2024-25 will be released in in the publication of Forestry Statistics in June 2025.

Policy Outcome: 1
Indicator: Annual volume (in millions of cubic metres) of Scottish produced sawn wood and panel boards used in construction.
On-Track Assessment (Milestones/Targets): Progress to Targets [2020/21 = 2.6 million m3, 2026/27 = 2.8 million m3, 2031/32 = 3.0 million m3]
Most Recent Data: 2.14 million m3 estimated in construction in 2023
Data Source(s): Forestry Statistics 2023
Assessment: Off Track
Commentary: Official Statistics on timber are published annually in September. These provide the best dataset to estimate volume of Scottish timber used in construction. The figure reported here, of 2.14 million cubic metres of timber used in construction in 2023, is based on these statistics. The decline in timber used in construction in 2023 compared to 2022 and 2021 reflects the general state of the UK economy. In this situation, where builders are not struggling to source timber, domestic suppliers of timber are finding it difficult to penetrate the house building sector against strong competition from imported timber.

Policy Outcome: 3
Indicator: Hectares of peatland restored per year
On-Track Assessment (Milestones/Targets): 20,000 ha/y[31]
Most Recent Data: Final verified figures for the f/y 24/25 will be available from June 2025.
Data Source(s): NatureScot published annual restoration figures
Assessment: Off track
Commentary:
Scottish Government has committed £250 million over 10 years to restore 250,000 hectares of degraded peatlands by 2030. To date, we have restored around 75,000 hectares against a 1990 baseline.
The average rate of peatland restoration has more than doubled in the last two years and 2023-24 saw 10,360 hectares restored. However, despite these successes, restoration remains below the stated annual 20,000-hectare target.
The Scottish Budget 2025-26 proposes an investment of £35.5 million towards peatland restoration. With this funding the ambition of the Peatland ACTION partnership is to restore at least 14,000 hectares in 2025-26. The funding will also enable the Peatland Action partnership to invest in designing a large number of new projects for future years. This will ensure the sustainability of the sector, allowing us to be more responsive to funding and continue to accelerate the programme's success.

[31] Area of peatland restored is a proxy measure which doesn't directly represent the reduction in emissions, an emissions reduction indicator may be adopted in the future. Also, the current per annum area restoration target figure is under review and may be increased, updates will be reflected in future annual reporting.

Policy Outcome: 3
Indicator: Peatland Code: Projected emissions reduction (validated units)
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 3,222,258 validated units from 99 Peatland Code projects in Scotland as of 21 January 2025.
Data Source(s): Peatland Code, IUCN Peatland Programme
Assessment: Off track
Commentary: Based on registration data, as of 21 January 2025, a total of 283 projects have registered under the Peatland Code in Scotland with a total of 9.2 million units (tCO2e) registered. This represents about 92% of all registrations in the UK. However, only 35% of the registered projects are so far validated which creates a risk for new project developers if they face significant waiting time for project validation.

7.3 Part C – Information on implementation of individual policies

Outcome 1: We will introduce a stepped increase in the annual woodland creation rates from 2020-2021 to enhance the contribution that trees make to reducing emissions through sequestering carbon.

Policy: Forestry grants: we will provide funding via a grant scheme, to support eligible land owners establish appropriate woodlands.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu: This policy was boosted through an additional £100 million of funding (announced in the PfG in 2020) to support an increase in woodland creation up to 2025, although there has been a 57% reduction in FGS funding for woodland creation in 2024-25. This has significantly constrained the amount of woodland creation that can be delivered in 2024-25. Scottish Forestry released a woodland creation route map in February 2024 that outlines the policies and actions that are being taken to deliver woodland creation in the period to 2030.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The indicator for woodland creation is hectares planted per year. Approvals by Scottish Forestry indicate a sustained high level of applications for woodland creation.
Timeframe and expected next steps: The targets for woodland creation have consisted of stepped increases until 2024-25 when the target reaches 18,000 hectares per year. SF is examining how FGS funding can best be used, alongside finance from the Woodland Carbon Code, to maximise woodland creation in future. In 2024, it introduced a new FGS category whereby projects over 50 hectares can claim a reduced rate of FGS grant in order to be eligible to receive carbon credits under the Woodland Carbon Code.

Policy: Woodland creation on Scotland's national forests and land: Forestry and Land Scotland will deliver an annual contribution towards the overall woodland creation target by creating new sustainable woodland on Scotland's national forests and land, including through partnerships with external organisations to scale carbon capture opportunities.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: FLS continues to create woodlands and is developing partnerships with a range of potential partners to undertake woodland creation for carbon capture
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: In 2024-25 FLS will create around 750 ha of woodland
Timeframe and expected next steps: FLS will continue to create woodlands each year on an ongoing basis.

Policy: Awareness-raising: We will continue to deliver a programme of farm based events to demonstrate and support improved productivity through integration of farming and forestry enterprises.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: This policy has been maintained, with a series of events to demonstrate the benefits of trees on farms. These aim to encourage more farmers and crofters to plant trees and to raise awareness of the multiple benefits that planting trees can bring to agricultural businesses. The benefits include but are not limited to: providing shelter for livestock; habitat for wildlife; increasing biodiversity; reducing carbon footprint; providing diversification opportunities for future income; and prevention of flooding
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No hard indicators. But a series of events is underway associated with the establishment of a monitor farm network that includes farm forestry. Sharing first hand experiences and providing wide-ranging advice including on the practicalities of accessing funding, where to plant the trees, and the multiple business and environmental benefits
Timeframe and expected next steps Ongoing – annual series of events and developments to increase uptake of farm forestry e.g. through the Integrating Trees Network. Encouraging more trees to be planted, in the right place, for the right reason, and to give guidance on how this can be practically achieved.

Policy: Woodland standards: The Scottish Government will continue to lead on the work with the UK and other UK Governments to maintain a UK Forestry Standard that articulates the consistent UK wide approach to sustainable forestry. The Standard defines how woodland should be created and managed to meet sustainable forest management principles and provides a basis for monitoring.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The four administrations of the UK have revised the UK Forestry Standard (UKFS). The review takes place every five years. The revised version came into operation in October 2024 and ensures that the UKFS is up to date and continues to safeguard and promote sustainable forestry practice in the UK, whilst reflecting the international context in which forestry operates. The UKFS is the technical standard which underpins the delivery of the forestry policies of the four UK countries.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps. The Scottish Government will continue to oversee the UK Forestry Standard and will decide with the other UK governments whether and when further changes are needed in future

Policy: Woodland carbon capture: The Scottish Government will further develop and promote the Woodland Carbon Code in partnership with the forestry sector, and will work with investors, carbon buyers, landowners, and market intermediaries to attract additional investment into woodland creation projects and increase the woodland carbon market by 50% by 2025.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Scottish Forestry is providing technical support to private sector investors, land managers and advisors, and intermediaries in the woodland carbon market. We are taking further measures to develop the Code to facilitate further expansion of the market.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Quantity of validated carbon units under the Woodland Carbon Code
Timeframe and expected next steps: 50% increase in validated carbon units by 2025 (already met)

Policy: Forestry and woodland strategies: Forestry and woodland strategies continue to be prepared by planning authorities, with support from Scottish Forestry. They provide a framework for forestry expansion through identifying preferred areas where forestry can have a positive impact on the environment, landscape, economy, and local people.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: A number of current strategies are being reviewed and updated. The Forestry Strategy Implementation Plan 2022-25 (now extended to 2026) has an action to review the Scottish Government Forestry and Woodland Strategy (FWS) guidance by 31 March 2025. A focused review is underway.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Options for updating SG guidance will be considered during FY 2025-26.

Policy: Support forestry sector on plant and seed supply strategy to help meet the increased planting targets: A programme of technical innovation to develop and adapt modern horticultural practices will help improve seed preparation and handling, techniques to reduce environmental impacts, and increase nursery production. Funding to support increased production of young trees is available through the Harvesting and Processing grant.
Date announced: Scottish Forestry Implementation Plan
Progress on implementation since time of last report / CCPu: There has been good take up of the grant scheme. We are still working with the UK Confederation of

Forest Industries (Confor) and other stakeholders to obtain better data on plant production. Defra has introduced its own grant support scheme for the forest nursery sector that will also support the forest nursery sector
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: No
Timeframe and expected next steps: N/A

Policy: Forestry and Land Scotland will begin development of a new approach to woodland investment with a view to acquiring more land to establish further woodland on Scotland's national forests and land for the benefit of future generations and to optimise carbon sequestration. This includes partnering with private sector and other organisations to enhance scale and funding of carbon capture projects.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Acquisition Strategy has been prepared setting out FLS approach to investing in new woodland and is being applied. Disposal criteria are being reviewed to reflect FLS' strategic asset management approach and sustainability objective.
Scottish Government funds from LCIF have been allocated against new land purchases along with left-over NWIP funds which FLS now holds in a Strategic Acquisition Fund for strategic land and asset purchases.
A number of carbon off-setting agreements and partnerships are being explored and are at various stages of discussion. Variations in market pricing along with a strong demand for land make this a challenging area of business
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: Key indicator for land acquisition is to fully invest the Scottish Government funds available. For FY 2022/23 this is projected to be £15.5 million. The largest acquisition in FY 2022/23 was the purchase of the 3434 hectare Glenprosen Estate in the Angus Glens. The immediate adjacency of Glenprosen to Scotland's national forests and land, and that of other public bodies will result in Scottish Ministers owning a 10,400 hectare block of land, much within the Cairngorm National Park. Providing landscape scale land management / restoration opportunities. The estate has the potential for the creation of approximately 2000 hectares of woodland, making a significant contribution to the Scottish Government's woodland creation target and/or the target for native woodland creation as set out in the Bute House Agreement. In addition, it has the potential for peatland restoration and/or significant habitat restoration opportunities
Timeframe and expected next steps: New Governance and business Rules have been set up and are now being implemented. Monitoring is undertaken by the Strategic Acquisition Board.

Outcome 2: Increase the use of sustainably sourced wood fibre to reduce emissions by encouraging the construction industry to increase its use of wood products where appropriate.

Policy: In collaboration with the private forest sector and other public sector bodies the Scottish Government will implement the Timber Development Programme through an annual programme of projects that support the promotion and development of wood products for use in construction.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: SF have funded a number of projects this year arising from the Roots for Further Growth economic strategy produced by SFTT ILG, including:

- Research project by Edinburgh Napier University into domestic potential for Wood Fibre Insulation (£23.5k)
- Ongoing co-funding for 3 PhDs – 2 in biorefining and 1 around tree genetics (2 * £7k = £14k)

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: On-going

Outcome 3: To enhance the contribution of peatland to carbon storage, we will support an increase in the annual rate of peatland restoration

Policy: Restoration grants: We will provide grant funding to support eligible land managers to deliver peatland restoration. Levels of funding will enable at least 20,000 hectares of peatland restoration per year. We will undertake research to inform where restoration can deliver the greatest emission savings per hectare
Date announced: Budget 2020/21, Reinforced in 2020-2021 PfG
Progress on implementation since time of last report / CCPu:
In 2023-24, 10,360 hectares of peatland were restored through the Peatland ACTION Partnership and we are on track to restore over 10,000 hectares in 2024-25. The Scottish Budget 2025-26 proposes an investment of £35.5 million towards peatland restoration. With this funding the ambition of the Peatland ACTION partnership is to restore at least 14,000 hectares in 2025-26. However, despite recent increases in annual restoration rates, restoration remains below the stated annual 20,000 hectare target.
The 2025-26 funding package will enable the Peatland ACTION partnership to invest in designing a large number of new projects for future years. This will ensure the sustainability of the sector, allowing us to be more responsive to funding and continue to accelerate the programme's success.We know that a blend of public and private investment in Scotland's natural capital will be essential to meet our emissions reduction targets. The Scottish Government's Natural Capital Markets Framework was launched 4 November 2024 and includes a commitment to explore approaches to integrating public and private funding for peatland restoration.
This includes consideration of 'blended finance' mechanisms where public funding is used in a more targeted way to support increased nature restoration activity by 'crowding-in' responsible private investment. Scottish Government is currently assessing blended finance mechanisms for peatland restoration to encourage greater responsible private investment while maximising the value of public spending.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Awareness raising: Working through partnership, we will put in place tools and information to promote peatland restoration and develop the capacity, skills, and knowledge of land owners, land managers, contractors, and others to deliver peatland restoration.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:

The skills package for peatland restoration is currently driven by the Peatland Skills Action Plan led by the NatureScot Peatland ACTION team on behalf of the Peatland

ACTION partnership. This plan is focused on the development and strengthening of the peatland restoration sector as it has grown over the past few years. This work has enabled the peatland restoration sector to grow to a level capable of delivering between 10,000 to 15,000 hectares per year.
Peatland ACTION has provided training on peatland restoration across private, public and third sectors since 2020. It has also established a New Entrants Scheme since 2022 involving intensive on-site training, with mentoring being provided by experienced operators. These initiatives will increase the supply of skilled labour (designers, surveyors, contractors), reduce labour costs, and help relieve supply side constraints.
As a result of these ongoing efforts, previous concerns about contractor capacity as a barrier to delivery of restoration is much reduced. Designer capacity is felt to be sufficient to deliver adequate projects to meet current annual restoration levels. Focus will continue on these efforts, while also looking at how to more effectively use the resources currently available to the sector.
The NatureScot Peatland ACTION Skills team are currently undertaking a review across the existing Peatland ACTION contractor community to identify what would be required to upscale capacity to 2030 levels.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: With partners, refresh our vision for Scotland's peatlands and review peatland restoration support mechanisms to overcome embedded barriers and improve how we fund and deliver this activity.
Date announced: 2020-21 PfG
Progress on implementation since time of last report / CCPu:
Protecting, managing, and restoring degraded peatlands restores the multiple benefits they can offer. It enhances the resilience of peatland ecosystems and their ability to adapt to the changing climate. It also supports our Just Transition to net zero by providing good green jobs in the rural economy across Scotland.
Alongside restoration we are aligning peatlands with a wide range of other strategies and policies. These include the Scottish Biodiversity Strategy and Delivery Plan, the Agriculture Reform Programme, National Planning Framework 4, the Flood Resilience Strategy, the Onshore Wind Policy Statement, and we continue work towards banning the sale of horticultural peat.
Alongside government's significant investment, we also need increased responsible private investment in Scotland's peatlands. The Natural Capital Markets Framework was launched 4 November 2024 and includes a commitment to explore approaches to integrating public and private funding for peatland restoration.
We are also investing in the science needed better to understand other ways we may be able to reduce peatland emissions, and are also working towards new tools

to target restoration at sites that simultaneously deliver the most for carbon, nature, and other benefits.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Phase out the use of peat in horticulture by increasing uptake of alternative materials, undertaking stakeholder engagement to understand transitional challenges, to improve the uptake of alternatives and develop a timescale plan.
Date announced: 2019-20 PfG
Progress on implementation since time of last report / CCPu:
In the latter half of 2024, policy officials undertook a series of stakeholder workshops with various parts of the horticulture industry (retail, growing media, fruit and vegetables, potatoes, ornamentals, garden centres) to build upon evidence gathered through public consultation and understand transitional challenges and needs.
In addition, research was commissioned, via ClimateXChange, to examine the supply, suitability and sustainability of peat alternatives and the readiness of industry for transition.
Work continued on Impact Assessments, with a Business and Regulatory Impact Assessment undertaken by the James Hutton Institute.

The Scottish Government engages regularly with UK Government and the other devolved governments at both Ministerial and Official levels through the Inter-Ministerial Group for Environment, Food and Rural Affairs, a four nations horticultural peat group and *ad hoc* correspondence. Through these channels, all legislative options for sales restrictions on peat are currently being explored.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Develop opportunities for private sector investment in peat restoration, engaging with sectors to establish investment pathways, enabling both public and private sector to invest in a range of measures to help mitigate effects of climate change.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
As of 21 January 2025, a total of 283 projects have registered under the Peatland Code in Scotland with a total of 9.2 million units (tCO2e) registered. Uptake of the Peatland Code is increasing with 92% of current UK projects registered to the Peatland Code located in Scotland.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: The Scottish Government's Natural Capital Markets Framework was launched 4 November 2024 and includes a commitment to explore approaches to integrating public and private funding for peatland restoration.
Timeframe and expected next steps: Scottish Government is currently assessing blended finance mechanisms for peatland restoration to encourage greater responsible private investment while maximising the value of public spending.

Policy: Explore how best to restore all degraded peat in the public estate and also within formally designated nature conservation sites, including through statutory mandate.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
Scottish Government is working with the six[32] main landowning public bodies in Scotland to explore how activity on public land and the Scottish Crown Estate can be scaled up to maximise benefits for communities, climate change and biodiversity. This includes consideration of how strategic nature restoration activity can be delivered at the landscape scale, by different public landowners coming together to work collaboratively across ownership boundaries.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Explore the development of a Peatland Restoration Standard to ensure best practice and continuous development in the success and effectiveness of peatland restoration.
Date announced:CCPu

[32] Forestry and Land Scotland, NatureScot, Scottish Water, Crown Estate Scotland, Scottish Ministers Crofting Estate and Ministry of Defence.

Progress on implementation since time of last report / CCPu:
The Peatland ACTION Technical Advice Working Group continue to progress the development of a Peatland Restoration Standard in collaboration with the Peatland ACTION Delivery Partners, IUCN, and others.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps N/A

Outcome 4: We will establish pilot Regional Land Use partnerships (RLUPs) over the course of 2021.

Policy: Establishment of pilot Regional Land Use Partnerships to help ensure that we maximise the potential of Scotland's land to help achieve net zero.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The three-year Regional Land Use Pilot (RLUP) programme ended in March 2024. Following on from the successes of this, the Scottish Government have committed to transition four of the pilot RLUPs to a formal initiative:

- Northwest 2045 region (Highland)
- Cairngorms National Park
- Loch Lomond and the Trossachs National Park
- South of Scotland (Dumfries and Galloway and Scottish Borders Councils).

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: This transitional period means that the partnerships can continue to develop organically whilst allowing the Scottish Government to further develop our understanding of how partnership working can help to optimise land use in a fair and inclusive way, meeting local and national objectives and supporting Scotland's just transition to net-zero. The Scottish Government also announced plans in April 2024 to support a wider national roll-out of RLUPs. Given wider financial pressures, this will begin in a phased roll-out once we have learned the lessons from the next stage of partnership delivery (and not before 2026).

Policy: Publication of Scotland's third Land Use Strategy (LUS3) by statutory deadline of 31 March 2021
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Scotland's third land use strategy was published in March 2021 and sets out our vision, objectives, and policies to achieve sustainable land use.
Have any implementation indicators / milestones been set: N/A
Timeframe and expected next steps: Scotland's fourth Land Use Strategy is due for publication in 2026, and initial development of this began in late 2024

8. Chapter 7: Agriculture

8.1 Part A – Overview of sector

The outturn emission statistics for 2022 (published in 2024) show a position of **7.7 MtCO2e**.

The CCPu sets out the following six policy outcomes for the sector, the indicators for which are summarised below:

A more productive, sustainable agriculture sector that significantly contributes toward delivering Scotland's climate change, and wider environmental, outcomes through an increased uptake of climate mitigation measures by farmers, crofters, land managers and other primary food producers.

There are no indicators for this policy outcome. More information is provided in the body of this report.

More farmers, crofters, land managers and other primary food producers are aware of the benefits and practicalities of cost effective climate mitigation measures	On Track	Off Track	Too Early to Say
Increased engagement with Farm Advisory Services on environmental issues and climate change	X	-	-

Nitrogen emissions, including from nitrogen fertiliser, will have fallen through a combination of improved understanding efficiencies and improved soil condition	On Track	Off Track	Too Early to Say
Use of Nitrogen fertilisers	X	-	-
Spreading precision of Nitrogen fertilisers	X	-	-
Nitrogen use efficiency for crop production	-	-	X

Reduced emissions from red meat and dairy through improved emissions intensity	On Track	Off Track	Too Early to Say
Time taken from birth to slaughter and increased efficiency through improved health and reduced losses	-	X	-

Reduced emissions from the use and storage of manure and slurry.	On Track	Off Track	Too Early to Say
Improvement in covered slurry storage	-	-	X

Precision application of manure and slurry			X

Carbon sequestration and existing carbon stores on agricultural land have helped to increase and maintain our carbon sink.	On Track	Off Track	Too Early to Say
Area of woodland on agricultural land	X		

Just Transition and Cross Economy Impacts:

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE) publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector commentary on progress

The Scottish Government's Vision for Agriculture outlines our aim to transform how we support farming and food production in Scotland to become a global leader in sustainable and regenerative agriculture. To deliver the ambition set out in the Vision:
The Agriculture and Rural Communities (Scotland) Act 2024 (the Act) will provide the powers required to deliver the Agricultural Reform Programme. The Act sets the overarching objectives of Scottish agricultural policy as:

- the adoption and use of sustainable and regenerative agricultural practices,
- the production of high-quality food,
- the promotion and support of agricultural practices that protect and improve animal health and welfare, and
- the facilitation of on-farm nature restoration, climate mitigation and adaptation.

It also introduced new requirements, including the publication of a "Rural Support Plan" and a "Code of Practice for Sustainable and Regenerative Agriculture."

The Land Reform (Scotland) Bill includes several measures to radically reform tenant farming legislation to make it fit for the future. It will provide more opportunities for tenant farmers to deliver improvements to the land they work on to become more sustainable and productive and play their part in supporting biodiversity and climate change.
The Agricultural Reform Route Map was updated in summer 2024, when requirements for 2025 were published. The route map still makes clear the existing framework of support will continue, sets out what changes recipients of current farm payments will be expected to make from 2025 and beyond, and sets out the process for changing to a new agricultural future support framework from 2026. It still includes information on important dates, the measures being considered, when current schemes will transition or end, the support available, and how to prepare for these first changes from 2025.
Two pieces of regulations have been bought into force:

- The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2024 added a condition to the Scottish Suckler Beef Support Scheme. It also added enhanced requirements under Cross Compliance to protect peatlands and wetlands.
- The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2025) brought into force the Whole Farm Plan. The Whole Farm Plan will help businesses to contribute to meeting Scotland's climate and nature targets and delivering on the Vision for Agriculture.

Preparing for Sustainable Farming continues to deliver transitional support for businesses to prepare for the future with three options that Scottish farmers, crofters, and agricultural contractors can claim funding for: carbon audits, soil sampling and analysis, and animal health and welfare interventions.

The Basic Payment Scheme (Tier 1), provides an element of financial certainty for farmers and crofters engaged in food production and actively managing the land. From 2026, we will launch the new Enhanced Payment (Tier 2), which will focus on measures that will reduce greenhouse gas emissions and restore and improve nature. From 2027 we will deliver further elements of the Future Support Framework, such as Elective (Tier 3), which will focus on funding targeted actions for climate change or nature restoration and Complementary support payments (Tier 4), which will focus on providing applicants with the skills and advice required.

It was confirmed it remains the case that 70% of funding would be allocated to Tier 1 (Base) and Tier 2 (Enhanced) and the Scottish Government intends to apply a funding split of 70/30 between Tiers 1 and 2. This ensures the majority of funding will remain open to the majority of farmers and crofters and delivers on our promise to a just transition and to support farmers and crofters as they transition to the new

support framework. Farmers and crofters will be expected to do more for the climate and farm more sustainably to continue to receive this funding.
In return for Basic Payment Scheme support in 2025, under the Whole Farm Plan, claimants will be expected to have started carrying out two out of five plans and audits that are relevant to their business. The plans are 1) Animal Health and Welfare Plan, 2) Biodiversity Audit, 3) Carbon Audit, 4) Integrated Pest Management Plan, or 5) Soil Analysis. All businesses will then be expected to have all of the plans and audits in place by 2028, with Nutrient Management Plans being added by 2028.
The Agricultural Transformation (Programme) Fund underpins support for the agricultural sector to reduce greenhouse gas emissions, improve efficiency, and enhance Scotland's natural environment through the period of transition. The 2024 round was allocated to provide an extension of support for slurry storage across Scotland (except in Nitrate Vulnerable Zones) and to increase the provision of irrigation lagoons. The Scottish Government also continues to support land managers to undertake actions that help to mitigate and adapt to climate change and restore nature through the Agri-Environment Climate Scheme.
A further £14 million will also be allocated to delivering the Future Farming Investment Scheme. The Future Farming Investment Scheme will offer flexible support for capital items that can be used to improve efficiency or support nature and climate-friendly farming. Details of this will operate are still be developed and a further announcement will be made during 2025.
The Scottish Government also continues to work with the Scottish Agricultural Organisation Society as the delivery partner for the MyHerdStats dashboard. Engagement is high, with around 30% of Scottish cattle keepers accessing the service.

The farmer led Integrating Tree Network, continues to share their knowledge and expertise with other farmers and crofters who have shown an interest in planting trees on their land. The Scottish Government also continues to support, communicate, educate, and demonstrate the benefits of climate change mitigation and adaptation measures through initiatives like the Farming and Water Scotland and the Scottish Farm Advisory Service.

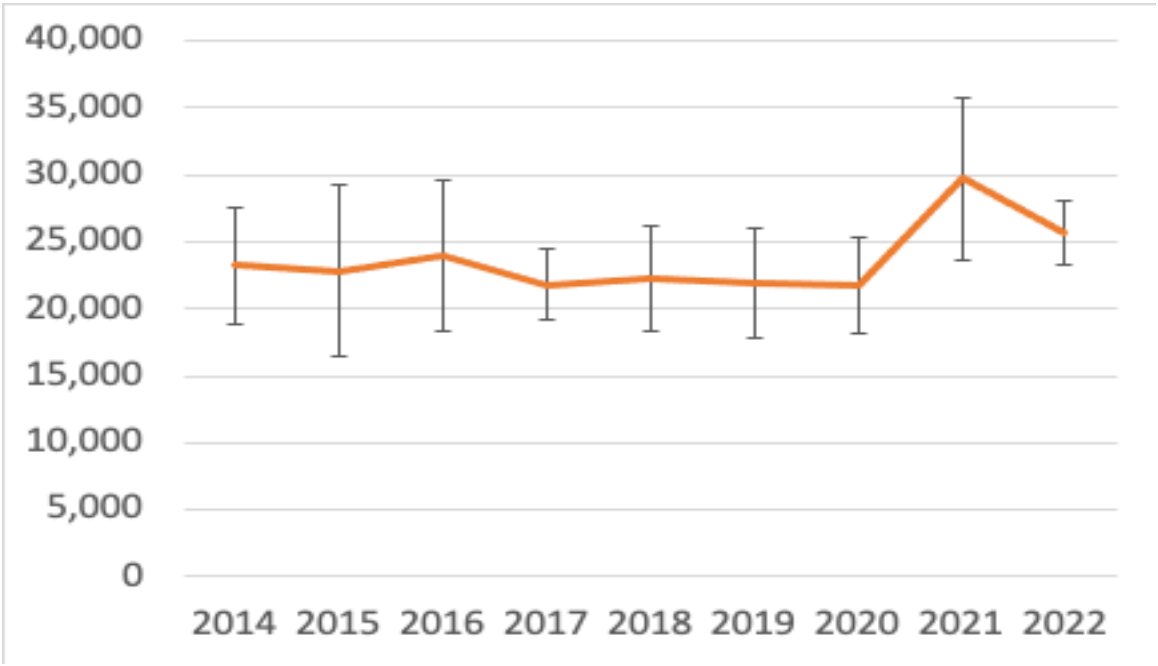
Developments in Monitoring Arrangements Since Last Report

N/A

8.2 Part B - Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic
Indicator: FTE employment in Low Carbon Renewable Energy Economy Indicator
On-Track Assessment (Milestones/Targets): Year-to-year change
Most Recent Data: 2022
Data Source(s): Low Carbon and Renewable Energy Estimates, Office for National Statistics (ONS)
Assessment: Too early to say
Commentary: Data for the year 2023 is due to be published later this year, following the release of this report.
In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs. Estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval. Scottish LCREE employment in 2022 is lower than in 2021 but the difference is not statistically significant, and caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates

Policy Outcome: 2
Indicator: Increased engagement with Farm Advisory Services on environmental issues and climate change.
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data: Farm Advisory Service reporting
Data Source(s): Farm Advisory Service annual and lifetime reports
Assessment: On track
Commentary: Scotland's Farm Advisory Service (FAS) maintains consistently high engagement and uptake on a range of advice the service offers. The service continues to support farmers and crofters through a period of significant uncertainty and change whilst innovating and continuing to evolve the service to address future challenges, in particular relating to the Scottish Government's target for net-zero greenhouse gas (GHG) emissions by 2045.

This includes advice to improve biodiversity, increase awareness of carbon sequestration and biodiversity benefits of woodland planting, promote climate change adaptation and mitigation opportunities, improve business management and efficiency, encourage inclusivity by supporting new entrants and women in agriculture, and helping to support the industry and Scottish Government to evolve to meet future challenges.

Uptake of FAS One-to-One support between 2022-23 to 2024-25

Activity	22/23	23/24	24/25	Overall Total Since 2016
Integrated Land Management Plan	54	58	42	553
Specialist Advice	200	273	346	1,447
Carbon Audits	446	122	366	2,712
Mentoring	22	30	30	172
General Enquires	1,185*	1,868*	1,287	12257*

*Numbers represent when service was delivered by FAS One-to-Many. This service moved to FAS One-to-One in July 2024.

FAS One to Many delivery between 2022-23 to 2024-25

Activity	22/23 (1)	23/24 (2)	24/25 (3)	Overall Total since 2016
FAS Connect Group Events	80	123	133	425
FAS Live Events & Webinars	138	137	167	1,677
Roadshow Events	16	14	16	30

Publications	208	199	191	1,941
Videos	126	126	110	938
Podcasts & Audio	71	94	82	501
Tools	5	2	2	53
Event Participants	3,910	6,640	6,715	45,482
Video Views	308,988	241,759	209,621	1,811,886
Podcast Listens	24,128	32,839	34,795	160,683
Publication Downloads	254,028	22,1091	89,498	1,131,961
Website Views	1,357,413	1,211,094	620,156	7,008,294

1) We would conservatively estimate that more than 50% of this FAS activity in 22/23 included elements of climate change adaptation and mitigation support.
2) We would conservatively estimate that more than 70% of this FAS activity in 23/24 included elements of climate change adaptation and mitigation support.
3) We would conservatively estimate that more than 70% of FAS activity in 24/25 included elements of climate change adaptation and mitigation support

Additional 2024/25 information

- **Newsletter:** By the end of 2024, the number of subscribers was 7067. The newsletter had an average open rate of 53%.
- **Podcasts:** 82 podcasts were produced in 24/25 (15 around climate change) with a total of 34,795 listens.

- **Videos:** There were 110 new videos published in 24/25 (18 around climate change) with 209,621 views.
- **Articles:** There were 191 publications in 24/25 (39 around climate change), downloaded 89,498 times in total.
- **Social media:** X, formerly known as Twitter, followers increased by 1.4% during the 24/25 to a total of 2,947 followers. While Facebook followers increased to 10,000, during 24/25, an annual increase of 18.5%.

Several specialist advice outputs have been undertaken under this FAS programme including:

34% Biodiversity, habitat, and landscape management
15% soil and nutrient management
14% improved farm efficiency
6% succession planning
6% resilience planning

Over 80% of service users stated they will implement all the actions recommended in their bespoke one-to-one consultancy advice supported by FAS One-to-One.

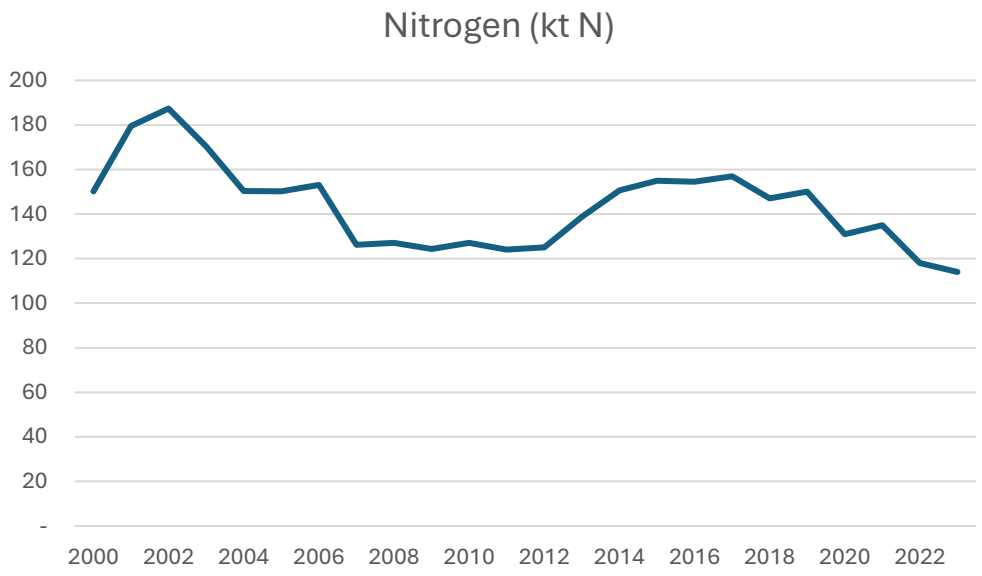
Additionally, 98% would rate the quality of the report as excellent or good. As of February 2025, there were 408 specialist advice plans focusing on biodiversity, and habitat landscape management for 2024-25, which is a 185% increase on the 143 such plans in 2023-24.

FAS event attendees consistently provide feedback that they had an improved understanding of soil/nutrient management and climate change.

Policy Outcome: 3
Indicator: Use of Nitrogen fertilisers
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data: 2023 (provisional)
Data Source(s): Dataset for the British Survey of Fertiliser Practice 2023, Table AA1.7
Assessment: On track
Commentary: This data shows that from 2000, the use of nitrogen fertilisers in Scotland has decreased overall, with some fluctuation.
Nitrogen use decreased between 2002 and 2007, then remained largely stable until 2012 when it began to increase. Since 2017, there has been a downward trend from 157 kt total nitrogen use in 2017 to an estimated 114 kt total nitrogen use in 2023 (provisional data).

Quantities of nitrogen used (kt N), Scotland 2000 to 2023

Crop year	Nitrogen used (kt N)
2000	150
2001	180
2002	187
2003	170
2004	150
2005	150
2006	153
2007	126
2008	127
2009	124
2010	127
2011	124
2012	125
2013	139
2014	151
2015	155
2016	155
2017	157
2018	147
2019	150
2020	131
2021	135
2022	118
2023	114

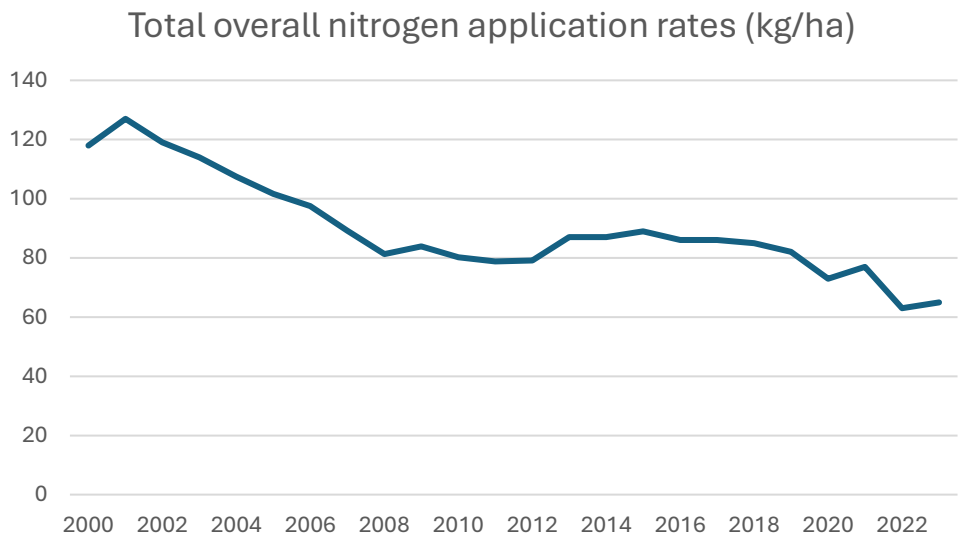


Note: Years are crop rather than calendar years (e.g. 2023 refers to the 2022-23 crop years, fertiliser consumption period July to June). Data for 2023[p] are provisional.

Policy Outcome: 3
Indicator: Spreading precision of Nitrogen fertilisers.
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data: 2023
Data Source(s): Dataset for The British Survey of Fertiliser Practice 2023, Table AA1.1
Assessment: On track
Commentary: This data shows that from 2000, the overall application rates of nitrogen fertilisers have decreased, with some fluctuation.
The trend shows that the overall nitrogen application rates decreased from 118 kg/ha in 2000 to 65 kg/ha in 2023.

Total overall nitrogen application rates (kg/ha), Scotland 2000 to 2023

Year	Total overall nitrogen application rates (kg/ha), crops and grass
2000	118
2001	127
2002	119
2003	114
2004	107
2005	102
2006	98
2007	89
2008	81
2009	84
2010	80
2011	79
2012	79
2013	87
2014	87
2015	89
2016	86
2017	86
2018	85
2019	82
2020	73
2021	77
2022	63
2023	65


Total overall nitrogen application rates (kg/ha)
140
120
100
80
60
40
20
0
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

Policy Outcome: 3
Indicator: Nitrogen use efficiency for crop production.
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data:
Data Source(s): Scottish Nitrogen Balance Sheet 2021, Table 1
Assessment: Too early

Commentary: Through The Climate Change (Nitrogen Balance Sheet) (Scotland) Regulations 2022, Scotland has committed to establishing a statutory whole-economy Nitrogen Balance Sheet, with regular formal review.

Crop production underpins much of wider food production, which in turn is the main engine of overall national nitrogen use in Scotland. Nitrogen Use Efficiency (NUE) is an important summary indicator metric that can be calculated from the comprehensive dataset on nitrogen flows assembled in the Scottish Nitrogen Balance Sheet.

It is important to note that NUE in arable production inherently varies depending on farm type/systems, management, environmental conditions (soils, climate) etc. While good management can reduce losses, in practice some losses are inevitable due to continuous nitrogen transformation processes in soils and leaching. As such, crop production NUE values between 50-90% can generally be considered desirable, but there is no simple one size fits all “good value.The 65% figure compares well with international data published for 124 countries (up to 2009), where crop production NUE ranged from 40 to 77% for EU countries.

Contributors to NUE in crop production

Inputs to arable land (excludes recycling terms)	Size of Input Flow (kt N per year)		
	2019, except for N deposition which is 2018	2020, except for N deposition which is 2019	2021, except for N deposition which is 2020
Mineral fertiliser (to arable/crops)	62.1	63.5	58.6
Slurry/manure (to arable/crops)	17.8	17.9	16.2
Atmospheric N deposition (to arable)	4	4.0	4
Digestate (non-crop/crop waste feedstocks only) (data not available as split between arable/grass - using 50%)	1.7	2.0	2.1

Seeds (sowing/planting)	1.7	1.7	1.7
Biological N fixation (BNF) by arable crops	1.6	1.8	2
Sewage sludge (data not split into arable/grass - using 50%)	1.2	1.2	1.2
Compost (assumed to go to arable/horticulture)	0.9	0.9	0.89
Total N inputs	**90.2**	**93.1**	**86.7**

Useful outputs	Size of Output Flow (kt N per year)		
	2019, except for N deposition which is 2018	2020, except for N deposition which is 2019	2021, except for N deposition which is 2020
Harvest (as food, includes human-edible crops that end up as livestock feed, seed materials or biomass)	56.3	56.7	54.6
Harvest (planted as fodder crops)	1.9	1.6	1.6
Total N outputs	**58.2**	**58.2**	**56.1**

Year	**2019**	**2020**	**2021**
NUE	63%	65%	65%

Note: Recycling terms are not included in either inputs or outputs for the purpose of this NUE calculation: digestate from crops, crop residues.

Policy Outcome: 4
Indicator: Time taken from birth to slaughter and increased efficiency through improved health and reduced losses.
On-track Assessment (Milestones/Targets): Based on Trend
Most Recent Data: 2024
Data Source(s): Cattle Tracing Scheme, analysis by SRUC
Assessment: Off Track

Average age of prime animal slaughter by farm type, Scotland 2015 to 2024

Farm type	Slaughter year	Mean age (months)	Number of animals
All farm types	**2015**	22.82	359,170
	2016	22.47	367,887
	2017	22.36	358,173
	2018	22.33	352,806
	2019	22.36	356,945
	2020	22.17	353,853
	2021	21.88	347,415
	2022	21.95	347,031
	2023	22.03	332,146
	2024	22.31	336,674
Beef	**2015**	21.82	150,240
	2016	21.55	156,219
	2017	21.39	147,616
	2018	21.33	139,058
	2019	21.44	146,732
	2020	21.35	145,846
	2021	21.08	146,073
	2022	21.12	143,609
	2023	21.17	123,167
	2024	21.43	122,808
Dairy	**2015**	22.32	17,303
	2016	22.13	17,280
	2017	22.09	14,210
	2018	22.37	12,073
	2019	21.95	12,299
	2020	22.03	10,493
	2021	21.96	8,658
	2022	22.29	9,055
	2023	23.50	8,421
	2024	23.69	11,144
Finisher	**2015**	23.61	171,298
	2016	23.24	178,557

	2017	23.08	179,135
	2018	23.09	183,740
	2019	23.10	180,458
	2020	22.79	182,186
	2021	22.47	180,580
	2022	22.51	178,634
	2023	22.48	181,404
	2024	22.71	188,154
Trader	**2015**	23.80	16,910
	2016	22.80	12,288
	2017	23.24	12,721
	2018	22.12	13,777
	2019	22.45	13,366
	2020	22.52	12,144
	2021	22.38	9,674
	2022	22.61	11,922
	2023	22.44	16,396
	2024	23.11	10,278
Grower	**2015**	24.52	3,419
	2016	24.78	3,543
	2017	23.57	4,491
	2018	23.19	4,158
	2019	23.91	4,090
	2020	23.95	3,184
	2021	23.94	2,430
	2022	23.64	3,811
	2023	24.07	2,758
	2024	24.47	4,290

Note: the animals need not have been slaughtered in Scotland. Figures include indirect routes to slaughter, which includes animals that have gone through markets and not immediately to a slaughterhouse.

Commentary: The average age of prime animal slaughter showed a downward trend between 2015 and 2021, before flattening and showing an increase in the most recent year. While the mean age of slaughter in 2024 (22.31 months) is lower than in 2015 (22.82 months), recent increases mean that the overall trend no longer appears to be downwards. The reason animals may be being slaughtered later in 2024 is complex and partially market-driven.

Policy Outcome: 5
Indicator: Improvement in covered slurry storage
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data: 2023
Data Source(s): Results from the Scottish Agricultural Census: Module June 2023 Table 14
Assessment: Too early to say

Manure and slurry storage system (in the past 12 months), Scottish Agricultural Census: June 2023

Storage system	Average percentage storage system used (%)	Holdings (Number)
Manure solid storage in heaps	58	4,134
Manure stored in compost piles	11	854
Manure stored in pits below animal confinement	8	801
Manure stored in deep litter systems	3	353
Liquid manure/slurry storage without cover	10	847
Liquid manure/slurry storage with permeable cover	2	154
Liquid manure/slurry storage with impermeable cover	2	212
Manure stored in other facilities (not elsewhere classified)	2	177
Daily spread	1	133
Other	3	218
All techniques	**100**	**5,547**

Note: Data is based on the number of respondents to this question in the Agricultural and Horticultural Census Module of June 2023 only. Average percentage relates to the manure/slurry that is stored using this this technique. Note holding number any holding recorded as using this technique.

Commentary: Data from the Scottish Agricultural Census: June 2023 - Agricultural production methods and nutrient application module show that on average farmers used a covered system for at least 14% of their manure and slurry storage. Covered storage includes manure in pits below animal confinement (8%), liquid manure/slurry with permeable or impermeable cover (4%) or manure in deep litter systems' (3%). On average farmers had the majority (79%) of their manure and slurry storage systems not covered – manure stored in heaps (58%) or compost piles (11%), or liquid manure/slurry storage without cover (10%) – and 1% spread daily.
It is not possible to tell if the remaining 6% of farmers' manure and slurry storage systems were covered.

Data is based on the number of respondents to this question in the Agricultural and Horticultural Census Module of June 2023 only.

These figures on manure and slurry storage systems are based on new questions asked for the first time in the June 2023 Scottish Agricultural Census. The 2023 figures are not comparable with previously reported data for this indicator. Earlier data on covered slurry stores were collected in the Scottish Survey of Farm Structure and Methods 2013 and 2016 and showed a small overall increase in the percentage of holdings with covered slurry stores between those years, from 85.8% to 86.6%.

Support for slurry stores is available through the Agri-Environment Climate Scheme and the Sustainable Agricultural Capital Grants Scheme (SACGS) 2022 focused on providing support for low-emission slurry spreading equipment and slurry store covers that are proven to reduce harmful ammonia emissions and reduce adverse impacts on water quality resulting from the storage and spreading of livestock slurry and digestate.

Policy Outcome: 5
Indicator: Precision application of manure and slurry
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data: 2023
Data Source(s): Results from the Scottish Agricultural Census: Module June 2023 Table 13
Assessment: Too early to say
Manure/slurry spreading techniques (in the past 12 months)

Manure / slurry spreading technique	Average percentage spreading technique used (%)	Holdings (Number)
Broadcast spreader with manure ploughed in within 4 hours of spreading	4.9	506
Broadcast spreader with manure ploughed in 4 or more hours after spreading	29.7	2,310
Broadcast spreader with manure not ploughed in	43.0	2,966
Band spreader with a trailing hose	8.9	657
Band spreading with a trailing shoe	3.6	274
Open-slot shallow injection spreader	1.3	95
Closed-slot deep injection spreader	0.2	20
Other	8.5	557
All techniques	**100**	**5,490**

Note: Data is based on the number of respondents to this question in the Agricultural and Horticultural Census Module of June 2023 only. Recorded as percentage - respondents were asked to supply a percentage for each type, equalling 100%, the answers have been averaged from this.

Commentary: Data from the Scottish Agricultural Census: June 2023 - Agricultural production methods and nutrient application module show that 14% of manure/slurry spreading techniques were ‘low-ammonia emission spreading’ (9% ‘band with a trailing hose’, 4% ‘band with a trailing shoe’, 1% ‘open-slot shallow injection’ and less than 0.5% ‘closed-slot deep injection’).

Data is based on the number of respondents to this question in the Agricultural and Horticultural Census Module of June 2023 only.

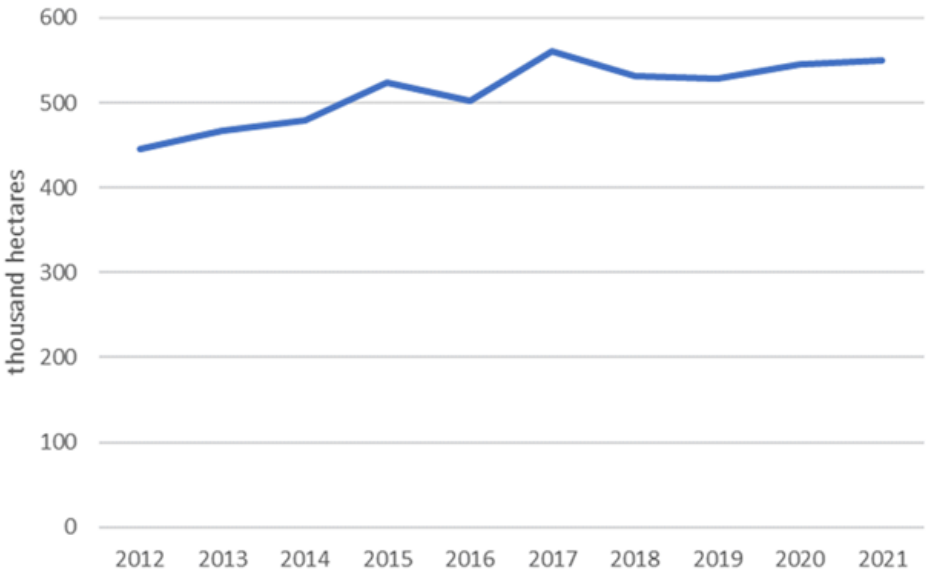
Previous data was gathered as part of the Scottish Survey of Farm Structure and Methods in 2016. While not directly comparable with the 2023 figures, this included the numbers of holdings applying manure and slurry, and tonnage, by method:
Method of manure and slurry application by tonnage, Scotland 2016

	holdings	tonnes
Broadcast		
Ploughed in or injected within four hours	920	385,842
ploughed in after four hours	5,146	2,117,346
Not ploughed in or injected	4,957	9,322,483
Bandspread		
Trailing hose	550	4,178,295
Trailing shoe	294	602,161
Injection		
Shallow/open slot	63	576,821
Deep/closed slot	11	31,043
Total applied	**9,246**	**17,213,991**

The Sustainable Agricultural Capital Grants Scheme (SACGS) 2022 focused on providing support for low-emission slurry spreading equipment and slurry store covers that are proven to reduce harmful ammonia emissions and reduce adverse impacts on water quality resulting from the storage and spreading of livestock slurry and digestate.

Indicator: Area of woodland on agricultural land.
Policy Outcome: 6
Indicator: Area of woodland on agricultural land.
On-track Assessment (Milestones/Targets): Based on trend.
Most Recent Data: 2021
Data Source(s): Forestry Statistics 2022 Table 1.12
Assessment: on track
Commentary: The area of farm woodland in Scotland increased between 2012 and 2021. The area of farm woodland in Scotland increased from 445 thousand hectares to 550 thousand hectares over the period 2012 to 2021.The area of woodland on agricultural land was estimated using data from the June Agricultural Census and administrative data sources. Data is currently available up to 2021 and published by Forest Research. Please note that users should use this data with caution following methodological changes in 2015.
The June Agricultural Census was reviewed in 2022, and this work highlighted further quality concerns with the farm woodland data, and therefore, estimates are not currently available after 2021.

Area of farm woodland, Scotland 2012 to 2021 (thousand hectares)	
2012	445
2013	467
2014	479
2015	524
2016	502
2017	560
2018	532
2019	529
2020	546
2021	550


600
500
400
300
200
100
0
thousand hectares
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021

8.3 Part C – Information on Implementation of Individual Policies

Outcome 1: A more productive, sustainable agriculture sector that significantly contributes towards delivering Scotland's climate change, and wider environmental outcomes through an increased uptake of climate mitigation measures by farmers, crofters, land managers and other primary food producers.

Policy: Scale up the Agricultural Transformation Programme across all the policies, including monitoring to assess the effectiveness of the pilot Sustainable Agricultural Capital Grant Scheme that will enable farmers and crofters to purchase equipment that should assist in reducing their greenhouse gas emissions, and support practice change

Date announced: 2019-20 PfG

Progress on implementation since time of last report / CCPu:

The Scottish Government continues to take forward actions to deliver the ambitions set in the Scottish Government's Vision for Agriculture. It includes a phased transitional approach to the new Future Support Framework, which was outlined in the updated Agricultural Reform Route Map during summer 2024. The Agriculture Reform Implementation Oversight Board continues to support the implementation of policy reform.

Scottish Government continues to update farmers and crofters on the changes that are coming, what they need to do to prepare, and the support that is on offer:

- The Agricultural Reform Route Map continues to be updated regularly.
- In July 2024, the Scottish Government wrote to all farmers and crofters (who completed a Single Application Form in 2024), letting them know what is changing in 2025 and where they can find more information and support.
- Our Agricultural Reform Programme Road Shows in 2024 visited 26 events across the country, to talk directly to farmers and crofters about the changes, and
- In November 2024, the Scottish Government published a guide to the changes in the Scottish Farmer.

The Agriculture and Rural Communities (Scotland) Act 2024 was passed by the Scottish Parliament on 18 June 2024 and received Royal Assent on 30 July 2024. It provides the powers required to deliver the Agricultural Reform Programme and includes the facilitation of climate mitigation as an overarching objective of Scottish agricultural policy. It also introduced new requirements, including the publication of a Rural Support Plan every five years, with the first plan to be published in 2025 and a "Code of Practice for Sustainable and Regenerative Agriculture".The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2024 (SSI 2024/380) came into force on 1 January 2025. The regulations added a calving interval requirement to the Scottish Suckler Beef Support Scheme which aims to encourage beef farmers to undertake steps that will help to reduce the emissions'

intensity of their cattle production systems and make them more financially efficient as well as enhanced requirements under Cross Compliance to protect peatlands and wetlands

The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2025 (SSI 2025) to bring into force the Whole Farm Plan (WFP) came into effect on 5 March 2025. The WFP will help businesses to make more informed use of the future support framework, selecting options that are right for their individual business and allowing them to be able to better identify opportunities for improvement, while working towards being more productive and profitable and better positioning themselves to contribute to meeting Scotland's climate and nature targets and delivering on the Vision for Agriculture.

As part of the eligibility requirement for Basic Payment Scheme in 2025, businesses must undertake (from the WFP) two from the following five baselines: Animal Health and Welfare Plan, Biodiversity Audit, Carbon Audit, Integrated Pest Management Plan or Soil Analysis. By 2028 at the latest, all businesses will need to have all relevant plans and audits in place, including Nutrient Management Plans which are being added to the WFP by 2028.

The Agricultural Transformation (Programme) Fund (ATF) is broad fund which is intended to underpin support for the agricultural sector to reduce greenhouse gas emissions, improve efficiency, and enhance Scotland's natural environment through the period of transition. The capital budget for ATF in 2024 was £3 million, plus a further £1.47 million from the Agri Environment Climate Scheme. It extended support for slurry storage and to increase the provision of irrigation lagoons across Scotland. Applications exceeded the original budget of £4.47 million, including 132 applications for slurry stores with a value of £5.96 million. Additional funding was made available to meet the excess demand. This fund is complemented by the Preparing for Sustainable Farming support.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps:

- Continue to increase awareness of timescales for Agricultural Reform throughout 2025.
- Under the Whole Farm Plan, all businesses by 2028 will be required to complete all plans, with the introduction of Nutrient Management plans by 2028.
- First Rural Support Plan is expected to be published in 2025.

Policy: Develop rural support policy to enable, encourage and where appropriate, require the shift to low carbon, sustainable farming through emissions reduction, sustainable food production, improving biodiversity, planting biomass crops and appropriate land use change developed in line with just transition principles.

Date announced:CCPu

Progress on implementation since time of last report / CCPu:

The Agriculture and Rural Communities (Scotland) Act 2024 will help support the introduction of the Future Support Framework (FSF) and will introduce new requirements, including the publication of a “Rural Support Plan” and a “Code of Practice for Sustainable and Regenerative Agriculture”.

The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2025 (SSI 2025) to bring into force the Whole Farm Plan (WFP) came into effect on 05 March 2025. The WFP will help all our farmers and crofters do more to produce food sustainably, to cut emissions, and to farm more for nature.

In February 2025, the First Minister re-confirmed 70% of funding would be allocated to Tiers 1 and 2 of the Future Support Framework. Of that 70% it being split 70/30 between Tiers 1 and Tiers 2. With The First Minister emphasising farmers and crofters will be expected to do more for the climate and farm more sustainably to continue to receive this funding. The policy approach ensures the majority of funding will remain open to the majority of farmers and crofters as they transition to the new future support Framework. Preparing for Sustainable Farming (PSF) is continuing to deliver transitional support for businesses to prepare for the future. PSF focuses on incentives to farmers and crofters to help them understand their carbon emissions and sequestration, identifying recommendations that can lower these emissions and increase efficiencies. Scottish farmers, crofters, and agricultural contractors can claim funding for carbon audits, soil sampling and analysis and animal health and welfare interventions until the end of February 2026.

Claims submitted under PSF between 1 January 2022 to 6 March 2025

Scheme	Claims Submitted	Claim value
Carbon Audits	4046	£2,023,000.00
Animal Health and Welfare	3746	£2,397,000.00
Soil Analysis	4735	£5,038,152.45
TOTAL	**12527**	**£9,458,152.45**

The Scottish Government expect to have launched a consultation in the early part of 2025 on our Just Transition Plan for Land Use and Agriculture. An extensive series of Just Transition stakeholder events, both in-person and online, took place across the country during 2023 and into 2024. These included eleven community-based workshops in rural areas, focusing exclusively on the land use and agriculture sector. They have provided access to a wealth of insight and lived experience of those who live and work on Scotland’s land, helping inform the ongoing consultation process.

The consultation on the draft Bioenergy Policy Statement closed in June 2024 and sought evidence for the use of bioenergy, as well as views on the potential to scale up domestic production of biomass via planting of perennial energy crops, while the draft policy statement also recognised the potential synergies and trade-offs between

goals for bioenergy, biodiversity, and food production. The evidence provided in the consultation will now be used to develop future policy positions, which will then be published in a final Bioenergy Policy Statement expected in 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The Preparing for Sustainable Farming has been extended, and farmers and crofters will be able to continue to access payments and funding to carry out soil analysis, carbon audits, and animal health and welfare interventions up until the end of February 2026.
- Final Bioenergy Policy Statement expected in 2025.
- Basic Payment Scheme remains in place.
- From 2026, we will launch the new Enhanced Payment (Tier 2), which will focus on measures that will reduce greenhouse gas emissions and restore and improve nature
- From 2027 we will seek to deliver further elements of the Future Support Framework, including Elective (tier 3) and Complementary support payment (Tier 4).
- A formal consultation on the Land Use and Agriculture Just Transition Plan will be launched in 2025.

Policy: Develop new schemes and approaches to support low carbon, sustainable farming, including through the Programme Board for the Beef Suckler Climate Group, other farmer-led groups on arable, dairy, and high value, nature farming and crofting which will report in 2021.
Date announced: 2020-21 PfG and Agriscot 2020
Progress on implementation since time of last report / CCPu:
The Scottish Government continues to update farmers and crofters on the changes that are coming, what they need to do to prepare, and the support that is on offer. The Agricultural Reform Route Map continues to be updated regularly, including during summer 2024, when updated detailed requirements for 2025 were published. The Preparing for Sustainable Farming is continuing to deliver transitional support for businesses to prepare for the future with three options that Scottish farmers, crofters, and agricultural contractors can claim funding for: carbon audits, soil sampling and analysis, and animal health and welfare interventions.

The Agriculture and Rural Communities (Scotland) Act 2024 will provide the powers required to deliver the Agricultural Reform Programme. It will help support the introduction of a Future Support Framework (FSF).

The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2025 (SSI 2025) brought into force the Whole Farm Plan (WFP). The

WFP will help businesses to make more informed use of the future support framework, selecting options that are right for their individual business.
The Scottish Government continues to work with the Scottish Agricultural Organisation Society (SAOS) as the delivery partner for the MyHerdStats (MHS) dashboard on both the maintenance and development. As of February 2025, sections delivered included those on Livestock Reconciliation and Stocktake, with several others in progress, such as the summary dashboard, calving interval section, abattoir weight and grade data, and deadweight cattle performance. Engagement is high, and the admin dashboard showed figures of over 3,250 County Parish Holdings having accessed MHS, around 30% of Scottish cattle keepers, an increase of 250 since December 2024. In January 2025, the Cabinet Secretary for Rural Affairs, Land Reform, and Islands approved the extension of Preparing for Sustainable Farming funding for MHS.
The Scottish Government continues to support land managers to undertake actions that help to mitigate and adapt to climate change and restore nature through the Agri-Environment Climate Scheme (AECS). The results of the 2024 round of AECS will see £7.1 million committed to 391 businesses in 2025-26. Following the awards from the 2024 round, to date a total of over £342 million has been committed to 3,435 businesses to fund a range of activities that help to maintain and enhance our rich and varied natural environment since the scheme launched in 2015.The 2025/26 Scottish Budget announced £23 million (including £20 million ring-fenced monies) to support transformation and reform in Scotland's farming and food production industry. Proposals for the £20 million are currently being prepared, however The First Minister announced announced £14 million will be allocated to delivering the Future Farming Investment Scheme (FFIS). The FFIS will offer flexible support for capital items that can be used to improve efficiency or support nature and climate-friendly farming. This forms part of the commitment to restore £46 million funding to the agricultural budget. Farmers, land managers, rural communities, and rural businesses should see the remaining £26 million in the budget for the following financial year.

The Scottish Government continued to work in partnership with NatureScot to deliver the Farming with Nature programme in 2024 to support positive management for climate and biodiversity and collaborative action across landholdings at a field, farm, and landscape level. This included wider user testing of the Farm Biodiversity Scotland App and continued development of the Landscape-Scale Natural Capital Tool, which is working towards launch in 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The Preparing for Sustainable Farming has been extended, and farmers and crofters will be able to continue to access payments and funding to carry out soil analysis, carbon audits, and animal health and welfare interventions, up until the end of February 2026.

- Further information on the Future Farming Investment Scheme will be made available during 2025.
- Basic Payment Scheme remains in place.
- From 2026, we will launch the new Enhanced Payment (Tier 2), which will focus on measures that will reduce greenhouse gas emissions and restore and improve nature
- From 2027 we will seek to deliver further elements of the Future Support Framework, including Elective (tier 3) and Complementary support payment (Tier 4).
- The 2025 round of Agri-Environment Climate Scheme opened for applications in February 2025 and sees the restrictions on Creation and Restoration of Hedgerows and Pond Creation lifted
- Work will continue on the development of MyHerdStats in 2025-26.
- Continue to increase awareness of timescales for Agricultural Reform throughout 2025.

Policy: Introduce Environmental Conditionality, from 2021 via implementation of the Beef Suckler Climate Report and, more widely from 2022, through the review of existing CAP Greening which will extend the requirements to all farmers and crofters to undertake environmental actions**.**
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2024 (SSI 2024/380) added a calving interval requirement to the Scottish Suckler Beef Support Scheme and enhanced requirements under Cross Compliance to protect peatlands and wetlands, while The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2025 (SSI 2025) brought into force the Whole Farm Plan.
The Scottish Government continues to update farmers and crofters on the changes that are coming to agricultural support, what they need to do to prepare, and the support that is on offer. The Agricultural Reform Route Map continues to be updated regularly, including during summer 2024, when updated detailed requirements for 2025 were published. For example, advising: Basic Payment Scheme (Tier 1), which provides an element of financial certainty for farmers and crofters engaged in food production and actively managing the land, will remain in place. From 2026 launch the new Enhanced Payment (Tier 2), which will focus on measures that will reduce greenhouse gas emissions and restore and improve nature. From 2027 we will seek to deliver further elements of the FSF, including Elective (Tier 3), which will focus on funding targeted actions for climate change or nature restoration and Complementary support payment (Tier 4), which will focus on providing applicants with the skills and advice.In February 2025, the First Minister confirmed the funding split between Tiers 1 and 2 of the Future Support Framework. The policy approach ensures the majority of funding will remain open to the majority of farmers and

crofters with the First Minister emphasising farmers and crofters will be expected to do more for the climate and farm more sustainably to continue to receive this funding.
The Preparing for Sustainable Farming is continuing to deliver transitional support for businesses to prepare for the future with three options that Scottish farmers, crofters, and agricultural contractors can claim funding for: carbon audits, soil sampling and analysis, and animal health and welfare interventions.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The Preparing for Sustainable Farming has been extended, and farmers and crofters will be able to continue to access payments and funding to carry out soil analysis, carbon audits, and animal health and welfare interventions, up until the end of February 2026.
- Under the Whole Farm Plan, all businesses by 2028 will be required to complete all plans, with the introduction of Nutrient Management plans by 2028.
- Basic Payment Scheme remains in place.
- From 2026, we will launch the new Enhanced Payment (Tier 2), which will focus on measures that will reduce greenhouse gas emissions and restore and improve nature
- From 2027 we will seek to deliver further elements of the Future Support Framework, including Elective (tier 3) and Complementary support payment (Tier 4).
- Continue to increase awareness of timescales for Agricultural Reform throughout 2025.

Policy: Further provision of advice for farmers and crofters who wish to retire: A new commitment to work with stakeholders to provide advice, including further extending the Land Matching Service and guidance for farmers and crofters who wish to step back from agricultural businesses by providing an opportunity to consider alternative land-uses or alternative agricultural uses
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Scottish Land Matching Service (SLMS) launched in September 2019 and is a free service offering independent advice and facilitation to those considering options for joint ventures in farming. It is available to anyone either seeking an opportunity to start on a joint farming venture (Seekers) or those looking to offer an opportunity on their farm (Providers).
In relation to farming opportunities, SLMS has received:

- 797 enquiries; of that, 599 were Seeker enquiries, 170 were Provider enquiries, and 28 General Enquiries.

- From the 797 enquiries, 54 individuals have been successfully matched, 312 individual enquiries have been ‘facilitated’, and 123 are marked ‘inactive’ or ‘archived’.
- As of 1 March 2025, there are 283 Seekers, 26 Providers and 1 General Enquiry currently active on the database.

In relation to crofting, SLMS has received

- 528 enquiries; of that, 519 were Seekers enquiries, 4 were Providers enquiries, and 5 General Enquiries.
- From the 528 enquiries, 1 set of Seekers and Providers have been matched, 156 Seekers & 5 General Enquiries are classified as inactive, archived, or facilitated, and 3 Providers have been classified as facilitated.
- Leaving a total of 362 Seekers currently active on the database.

Note: An enquiry is considered ‘facilitated’ when advice is provided that satisfies the enquirers needs.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps:

- Scottish Government is currently actively seeking to procure the next SLMS. It is anticipated that any contract will last for a minimum of three years.

Outcome 2: More farmers, crofters, land managers and other primary food producers are aware of the benefits and practicalities of cost effective climate mitigation measures.

Policy: The dissemination of information and advice on climate change mitigation measures in agriculture through a range of communication methods utilising technology and all media to best effect.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The current Scottish Farm Advisory Service (FAS) contract commenced in July 2024 and will conclude at the end of March 2027 (with an optional extension of up to 12 months). During 2024, FAS has continued to offer access to up- to-date and relevant climate change mitigation knowledge and information to all farmers and crofters through a network of advisory centres, peer-to-peer support groups, online resources, and a telephone advice facility. We conservatively estimate that over 50% of FAS activity was around climate change adaptation and mitigation support. FAS event attendees highlighted an improved knowledge of climate change, improved soil/nutrient management, and improved knowledge of environmental issues and opportunities. FAS also now contains the guidance and support material that previously appeared on the Farming for a Better Climate website.The Monitor Farm programme continues to instigate positive transformational change in innovative sustainable farming practices on nine Scottish farms and to use the learnings from these farms for the benefit of farmers across Scotland. The programme aims to build resilient, dynamic farms focused on attaining full economic, social, and environmental sustainability. The Monitor Farms have been successful in facilitating practical and effective knowledge exchange and have positively impacted on farm practices and performances, with feedback from meetings and events of over 70% of attendees planning to make a change (such as forage budgeting, taking faecal egg counts, utilising soil testing, blood sampling for minerals, and water pump to utilise more rotational grazing) after attending a Monitor Farm event.
The Next Generation Practical Training Fund supports new entrants to farming. One of its aims is to encourage more new and prospective new entrants/next generation to uptake training courses, including on ‘climate change adaptation and mitigation practices and biodiversity/habitats improvement.’ The Fund has supported several young people (ranging from children, adults leaving university, and career changers) looking to enter the agricultural sector by offering them practical skills in agriculture.
The Scottish Government also continues to communicate, educate, and demonstrate the benefits of climate change mitigation and adaptation measures through initiatives like the Integrating Tree Network and Farming and Water Scotland.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The existing Scottish Farm Advisory Service (FAS) contract will continue until 31 March 2027 (with an optional extension of up to 12 months). It is intended

that FAS will be included in the Agricultural Knowledge and Innovation System post April 2027.
- The Monitor Farm programme has funding until 2026.

Policy: An agri-tech group will be established to share, disseminate, and encourage adoption of advances in agricultural science and technology as widely as possible
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Completed. The agri-tech group concluded, and engagement with industry on agricultural science and technology has continued through the farmer-led groups, Agriculture Reform Implementation Oversight Board, and the National Test Programme.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Launch a new and expanded peer to peer knowledge transfer initiative based on the success of our Young Climate Change Champions work.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
Completed - The Agriculture Biodiversity and Climate Change Network launched in June 2022.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Realign and enhance our established programmes and initiatives such as the Farm Advisory Service, the Knowledge Transfer and Innovation Fund and Monitor Farm Programme to create a more cohesive approach to ensure advice and support is focussed on helping industry to professionalise to support sustainable farming.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Agriculture and Rural Communities (Scotland) Act contains provisions to establish a Continuing Professional Development (CPD) regime and for support for knowledge, innovation, education, and training. Work has been undertaken to start to explore the inter-relationship of the Tiers in the Agricultural Reform Programme to see how CPD could be incorporated into it and the best ways that CPD could be used in the sector.
The Scottish Government has also analysed views received to an informal consultation on the Agricultural Knowledge and Innovation System (AKIS) and these are being used to further help develop proposals for the AKIS and the CPD regime in

Tier 4 of the Agriculture Support Package. Research through a SEFARI fellowship to evaluate the implementation and emergent outcomes of the AKIS measures identified in European member states' CAP Strategic Plans (2023-2027) was published in November 2024.
Promoting resource efficiency and supporting a shift towards a low carbon and climate resilient economy in agriculture is one of the objectives of the Knowledge Transfer and Innovation Fund. Projects were funded through the 2024 KTIF round to a value of £200K. Since 2015, the Scottish Government has supported 63 projects under KTIF with approximately £8.3 million awarded.
To support small producers, the Small Producers Pilot Fund (SPPF) aims to support a range of Scottish Government outcomes including 'Climate: to promote adaptive and sustainable as well as regenerative, climate and environmentally friendly practices enabling small producer participation in the transition to net zero and the achieving of environmental and biodiversity targets.' In 2024-25, £1 million of resource funding was allocated to SPPF and the Scottish Government is currently in the process of procuring a practical training fund, all of which will support small producers.
Scotland's Farm Advisory Service has continued to offer easy access to up-to-date and relevant climate change mitigation knowledge and the Scottish Government continues to communicate, educate, and demonstrate the benefits of climate change mitigation and adaptation measures through initiatives like the Integrating Tree Network and Farming and Water Scotland.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- Work will continue during 2025 on considering the governance structure of the Agricultural Knowledge and Innovation System.
- Work will continue during 2025 to explore the inter-relationship of the Tiers in the Agricultural Reform Programme to see how Continuing Professional Development (CPD) could be incorporated into it and options for a CPD regime.
- The existing Scottish Farm Advisory Service (FAS) contract will continue until 31 March 2027 (with an optional extension of up to 12 months).

Policy: Carbon Audits: in 2018, we will consult on how best to ensure maximum take up of carbon audits and how to enable tenant farmers and crofters in particular to benefit.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Under Preparing for Sustainable Farming (PSF), farmers and crofters can claim funding towards carbon audits to improve their knowledge of current environmental performance and improve efficiency. The Scottish Government will build on this by raising awareness during scheme year 2025. Since January 2022, PSF has funded

2,123 carbon audits. Carbon audits have also been funded through (FAS) and since 2016, 2,544 carbon audits have been delivered and completed.
From 2025, under the Whole Farm Plan (WFP) all businesses claiming basic support payments will be expected to have started carrying out two out of five plans, one of which is a carbon audit. By 2028 all businesses will be required to complete all plans under the WFP, with the introduction of Nutrient Management plans being added by 2028.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- Preparing for Sustainable Farming has been extended, and farmers and crofters will be able to continue to access funding for completing a carbon audit until the end of February 2026.
- The Whole Farm Plan commences in 2025; all businesses will be expected to have all of the plans and audits in place by 2028, with Nutrient Management Plans being added by 2028.

Policy: We will explore with stakeholders, including the Scottish Tenant Farmers Association and the Tenant Farming Commissioner, how best to engage tenant farmers to increase understanding of the environmental and economic benefits of low carbon farming.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
The Tenants and Trees group continues to hold discussions involving stakeholders on how to engage tenant farmers via the Tenant Farming Advisory Forum.
The Land Reform (Scotland) Bill (the Bill) was introduced in March 2024. The land management tenancy provision will create a new approach to land management, enabling people and communities to undertake a range of land management activities that help to deliver net zero, biodiversity, and sustainable and regenerative agricultural ambitions. It includes a number of measures to radically reform tenant farming legislation to make it fit for the future. It will provide more opportunities for tenant farmers to deliver improvements to the land they work, become more sustainable and productive, and play their part in supporting biodiversity and climate change. The Bill is still being considered by Parliament.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The Land Reform (Scotland) Bill continues its progress through the Scottish Parliament.

Policy: Marketing scheme: Determine the feasibility of a Low Carbon Farming marketing scheme.

Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Completed - Naturally Scottish launched in January 2024.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Outcome 3: Nitrogen emissions, including from nitrogen fertiliser, will have fallen through a combination of improved understanding, efficiencies, and improved soil condition.

Policy: Communicate and demonstrate the benefits of precision farming and nitrogen use efficiency in order to achieve a reduction in GHG emissions**.**
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Scottish Government funded Farming and Water Scotland provides guidance and advice to farmers and crofters on diffuse pollution and the water environment, including nutrient management . It also includes 'Know the Rules' information, which highlights what farmers need to do to comply with new requirements for slurry spreading under the Water Environment (Controlled Activities) Scotland Regulations 2021.
The Prevention of Environmental Pollution from Agricultural Activity (PEPFAA) code of good practice was reviewed and updated during 2024. A new version of the PEPFAA is available on the Farming and Water Scotland website. It provides practical advice to reduce nitrogen emissions to the environment while benefitting the farm business. Scotland's Farm Advisory Service (FAS) provides guidance and advice on precision farming and nitrogen use efficiency, while The Action Programme for Nitrate Vulnerable Zones provides mandatory measures aiming to ensure that within NVZs nitrogen fertilisers are used following best farming practice. Advice on following the Action Programme measures is found on FAS and the Scottish Government's website.
The current iteration of the Scottish Nitrogen Balance Sheet (SNBS) was published in May 2024, with the accompanying progress report. The SNBS will continue to help support progress towards Scotland's national climate targets by tracking nitrogen use efficiency. In addition, it will support a range of wider policy applications, such as air quality and the promotion of efficiency in food product.
Under Preparing for Sustainable Farming, we continue to offer funding for carbon audits and soil sampling to help farmers understand their current performance and identify opportunities for improvement. The aim of the option is to improve nutrient planning and nutrient management. It should reduce the loss of nutrients to the environment, reduce diffuse pollution and emissions, and improve carbon capture on farmland.
From 2025, under the Whole Farm Plan (WFP) all businesses claiming basic support payments will be expected to have started carrying out two out of five plans, and then all businesses by 2028 will be required to complete all plans under the WFP, with the introduction of Nutrient Management plans being added by 2028.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The existing Scotland Farm Advisory Service (FAS) contract will continue until 31 March 2027 (with an optional extension of up to 12 months).

- The next Scottish Nitrogen Balance Sheet is expected to be published in May 2025.
- Under the Whole Farm Plan, all businesses by 2028 will be required to complete all plans, with the introduction of Nutrient Management plans by 2028.

Policy: Work with the agriculture and science sectors regarding the feasibility and development of a SMART (specific, measurable, achievable, relevant and time bound) target for reducing Scotland's emissions from nitrogen fertiliser**.**
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Scottish Government commissioned ClimateXChange (CXC) to produce a report on "Target setting for nitrogen use efficiency in Scotland" which was published in November 2024. It recommended that a nitrogen use efficiency target for Scottish agriculture should not be set.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: From 2018 we expect farmers to test the soil on all improved land every five or six years, and we will work with them to establish how best to achieve this.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
Under Preparing for Sustainable Farming, land managers in Scotland will continue to be able to claim for their soil sampling and analysis during 2025. The aim is to improve nutrient planning and nutrient management along with a payment to cover personal development. This will encourage the best use of nutrients from inorganic and organic fertiliser by matching applications to crop requirements. It should reduce the loss of nutrients to the environment and improve soil health.
From 2025, under the Whole Farm Plan (WFP) all businesses claiming basic support payments will be expected to have started carrying out two out of five plans, and then all businesses by 2028 will be required to complete all plans under the WFP, with the introduction of Nutrient Management plans being added by 2028.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The Preparing for Sustainable Farming has been extended, and farmers and crofters will be able to continue to access payments and funding, up until the end of February 2026.
- Under the Whole Farm Plan all businesses by 2028 will be required to complete all plans, with the introduction of Nutrient Management plans by 2028.

Policy: Investigate the benefits and barriers of leguminous crops in rotation.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
The Environment, natural resources and agriculture - Strategic Research Programme 2022 to 2027, has two projects which, continue to run and are considering legumes, the projects are:

- The Impact of Novel Crops and Farming Technologies on the Scottish Agricultural Landscape.
- Crop Improvement for Sustainable production in a Changing Environment.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The projects under the Environment, natural resources, and agriculture - Strategic Research Programme, will run until March 2027.

Policy: Crop varieties with improved nitrogen-use efficiency.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
The Environment, natural resources, and agriculture - Strategic Research Programme 2022-2027 has two projects which, continue to run and are considering this, the projects are:

- The Impact of Novel Crops and Farming Technologies on the Scottish Agricultural Landscape.
- Exploring Barley Diversity for resilience and sustainability.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The projects under the Environment, natural resources, and agriculture - Strategic Research Programme, will run until March 2027.

Outcome 4: Reduced emissions from red meat and dairy through improved emissions intensity.

Policy: Commission and publish a report into the establishment of emissions intensity figures for beef, lamb, and milk.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Completed – August 2018 – ClimateXChange published “Emission intensity of Scottish agricultural commodities”.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Work with Quality Meat Scotland, ScotEID and livestock producers to encourage improved emissions intensity through genotyping, improving fertility, reducing animal mortality, and improving on farm management practices.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Scottish Government continues to work with the Scottish Agricultural Organisation Society (SAOS) as the delivery partner for the MyHerdStats (MHS) dashboard on both the maintenance and development. As of February 2025, sections delivered included those on livestock reconciliation and stocktake. Several other sections are progressing such as the summary dashboard, calving interval section, abattoir weight and grade data, and deadweight cattle performance. Engagement is high; the admin dashboard showed figures of over 3,250 county parish holdings having accessed MHS, around 30% of Scottish cattle keepers, an increase of 250 since December 2024. In January 2025, the Cabinet Secretary for Rural Affairs, Land Reform, and Islands approved the extension of Preparing for Sustainable Farming funding for MHS. The Scottish Government are awaiting further proposals from SAOS to continue work on MHS in 2025/26.
The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2024 (SSI 2024/380) came into force on 1 January 2025 and added a condition to the Scottish Suckler Beef Support Scheme so that calves would only be eligible for a payment if their dam has a calving interval threshold of 410 days or less, or if the calf is the first registered birth associated with that dam. This aims to improve productivity and so reduce emissions intensity.
Embedding the principles of sustainable livestock management will be key to attaining statutory climate change targets through improving the efficiency of livestock farms. In 2023 Animal Health and Welfare (AHW) provisions were added to Preparing for Sustainable Farming (PSF) to encourage uptake of well-established preventive veterinary medicine that increases cattle and sheep health, welfare, and production efficiency, leading to reduced Green House Gas emissions per kg of output (milt and meat). Latest figures under PSF show 3746 AHW claims since launch, worth a value of £2,397 million. The AHW interventions under PSF are again available during 2025.
The Scottish Government is currently funding a national pilot to help control Ovine Pulmonary Adenocarcinoma in the national sheep flock. This project aims to improve productivity and efficiency within the flock through improved biosecurity and animal health interventions.
The Scottish Government is funding a sheep scab control pilot on Lewis and Harris which is currently in its third year and will end in March 2025. A second round of the OP plunge dipping campaign was carried out in Autumn 2024 and successfully

dipped just under 30,000 sheep, which was an increase on the previous year. The Scottish Government is currently looking at creating a legacy for sheep scab controls on Lewis and Harris and are working with the Lewis and Harris Sheep Producers Association to achieve this.
Animal health and welfare guidance is available through Scotland's Farm Advisory Service and on the Scottish Government Animal Health and Welfare pages.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- Under the Whole Farm Plan, all businesses by 2028 will be required to complete all plans, with the introduction of Nutrient Management plans by 2028.
- The Ovine Pulmonary Adenocarcinoma Pilot will end March 2026.
- The Sheep scab control pilot on Lewis and Harris will end March 2025.
- Continue to monitor the effect of the introduction of a calving interval threshold on businesses. The calving interval threshold may lower in future years.

Policy: Determine the practicality of establishing a SMART target for reduction in the intensity of emissions for beef, sheep, and dairy sectors.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: The Scottish Government continues to work with the Scottish Agricultural Organisation Society as the delivery partner for the Livestock Digital Data project. This project has supported the development of a dashboard to provide all beef farmers in Scotland with performance indicators, literature suggests improvements to these performance metrics supports reductions in emissions intensity. The project also has a pilot, ending at the end of the financial year 2024/2025, with a final report due thereafter, which will help support policy development on how capital funding schemes and knowledge transfer could be deployed in the future to best effect.Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Consider the Livestock Digital Data pilot report.

Policy: Consult in 2018 to determine the nature of livestock health measures that the sector will adopt from 2019.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Completed - The detailed proposals and ideas supplied by the farmer led groups' reports continue to be considered as we work to create a new Future Support Framework.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Determine the practicalities and feasibility of using livestock feed additives as a means of reducing emissions.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
In April 2024, the Cabinet Secretary for Wellbeing Economy, Net Zero and Energy announced a pilot scheme with some Scottish farms to establish future appropriate uptake of methane suppressing feed products/additives. This pilot is being developed, but it is currently envisaged that it will contribute to establishing how future support can recognise uptake of these products as well as encouraging pioneering Scottish dairy farms to engage with the potential of these products.
The Scottish Government published its draft Agricultural Reform List of Measures back in February 2023, outlining the intention to develop future agricultural support conditionality options, which could recognise appropriate uptake of methane suppressing feed products by farmers.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Outcome 5: Reduced emissions from the use and storage of manure and slurry.

Policy: Engaging with farmers to explore their support requirements, establish how they can improve the use and storage of manure and slurry, including the potential for cooperatively owned and managed anaerobic digesters.
Date announced: Dec 2020, beforeCCPu
Progress on implementation since time of last report / CCPu:
The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021 updated and consolidated a range of measures to reduce emissions from the use and storage of manure and slurry, including anaerobic digestate, to protect the water environment. The measures are being introduced through a transitional period up to 1 January 2027 and include structural and storage capacity standards for slurry stores and introduce low-emission slurry application equipment requirements.

Since January 2024, silage and slurry stores built after 1991 (or that were substantially reconstructed or enlarged on or after 1st Sept 1991) and those with planning permission but not yet constructed must now be structurally compliant, and all liquid digestate stores constructed before January, or where planning permission was granted prior to 1st Jan 2022, must also now meet the requirements within the regulations. The Farming and Water Scotland website provides information that

highlights what farmers need to do to comply with these new requirements. A variety of awareness raising events were also delivered in 2024.
The Prevention of Environmental Pollution from Agricultural Activity code of good practice was reviewed and updated in 2024. A new version is available on the Farming and Water Scotland website. It provides practical advice to reduce emissions whilst benefiting the farm business from the use and storage of manure and slurry.
The Agricultural Transformation Fund 2024 was £3 million, plus a further £1.47 million from the Agri-Environment Climate Scheme. It extended support for slurry storage across Scotland. The Scottish Government actively encouraged the sector to apply for this funding, as the 2024 ATF round was the last opportunity for the sector to apply for slurry stores support before changes to the Water Environment (Controlled Activities) (Scotland) Regulations 2011 come into force in 2026. Applications exceeded the original budget of £4.47 million, with 132 applications for slurry stores, with a value of £5.96 million received. Additional funding was made available to meet the excess demand.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps

- From 1 January 2026, Silage and slurry stores built before 1991 (and not substantially enlarged or reconstructed since 1991) must be fully compliant and slurry stores located outside an NVZ must have capacity to store the total slurry likely to be produced in 26 weeks by housed pigs or 22 weeks by housed cattle by 2026.
- From 1 January 2027, all slurry application must be applied using precision equipment.

Policy: Investigate the practicalities of livestock grazing in rotation on current arable land.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Completed - The East/West Beed Grazing Collaboration Pilot run by Scottish Agricultural Organisation Society was supported under the Knowledge Transfer and Innovation Fund to work toward establishing evidence on the financial and environmental value of moving cattle to lower cost natural resources. The group produced case studies showing there are environmental and carbon sequestration benefits, especially where fodder crops are grown and grazed gradually over the winter period. The findings included significant potential fuel savings, that adopting 294 rotational grazing negates the necessity for artificial fertilisers and intensely farming the fields and that it was on the whole a low cost, low carbon system with less reliance on cereals-based diets and greater utilisation of grazing ground both in the summer and winter.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Conduct a feasibility study for the establishment of manure/ slurry exchange.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu: Completed - Slurry Storage on Scottish Farms – A Feasibility Study
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Determine how to consistently minimise emissions from slurry storage.
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
Research includes Slurry Storage on Scottish Farms – A Feasibility Study and Microsoft Word - IQ26-2019 - establishing a manure-slurry exchange in Scotland-a feasibility study - FINAL - 8 June 2020.docx
The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021 updated and consolidated a range of measures to reduce emissions from the storage and application of organic materials such as silage, slurry, and liquid digestate to protect the water environment. These measures are being introduced through a transitional period up to 1 January 2027. The Farming and Water Scotland website provides information which highlights what farmers need to do to comply with these new requirements.
The Scottish Government funded 132 applications for slurry stores through the 2024 round of the Agricultural Transformation Fund, with a value of £5.96 million, and will continue to monitor the impact of the recent current support which was offered for slurry stores and will consider if any further action, guidance, and support could be taken.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Review management of storage and application of organic materials such as silage, slurry and liquid digestate, including what support may be required to ensure best practice.
Date announced:CCPu
Progress on implementation since time of last report / CCPu:
The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021 updated and consolidated a range of measures to reduce emissions from the

storage and application of organic materials such as silage, slurry, and liquid digestate to protect the water environment. These measures are being introduced through a transitional period up to 1 January 2027. The Farming and Water Scotland website provides information which highlights what farmers need to do to comply with these new requirements.
The Prevention of Environmental Pollution from Agricultural Activity code of good practice was reviewed and updated in 2024. A new version is available on the Farming and Water Scotland website. It provides practical advice to reduce emissions whilst benefitting the farm business from the use and storage of manure and slurry.
The Scottish Government funded 132 applications for slurry stores through the 2024 round of the Agricultural Transformation Fund, with a value of £5.96 million, and will continue to monitor the impact of the recent current support which was offered for slurry stores and will consider if any further action, guidance, and support could be taken.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- From 1 January 2026, Silage and slurry stores built before 1991 (and not substantially enlarged or reconstructed since 1991) must be fully compliant and slurry stores located outside an NVZ must have capacity to store the total slurry likely to be produced in 26 weeks by housed pigs or 22 weeks by housed cattle by 2026.
- From 1 January 2027, all slurry application must be applied using precision equipment.

Outcome 6: Carbon sequestration and existing carbon stores on agricultural land have helped to increase and maintain our carbon sink.

Policy: Explore with the farming and forestry sectors how best to increase planting of trees and hedgerows which optimise carbon sequestration, including the role of agroforestry.
Date announced: 2020
Progress on implementation since time of last report / CCPu:
The Integrating Trees Network (ITN) is a joint Scottish Government and Scottish Forestry initiative. It is farmer-led and brings together twelve host farmers, who during 2024 shared their knowledge and expertise through a series of online and in-person events with other farmers and crofters who have shown an interest in planting trees on their land. Since 2021, the ITN has held over forty events, and through the ITN website it makes available videos, case studies, and publications, which aim to showcase the many benefits of planting trees on farms. The ITN initiative won the Chartered Institute of Ecology and Environmental Management award for Best Practice Knowledge Sharing in 2024.

The trees on farms sub-group of the Scottish Forestry Customer Representatives Group met throughout 2024. The forum is a collective for discussion around better integration of trees on farms and to articulate improvements in support to encourage further integration of trees on farms. A vital aspect of this work is to help to reverse polarisation of views in relation to woodland expansion and the perceived impact on the agricultural community, strengthening the integration of woodlands and agriculture, including the interaction between the Forestry Grant Scheme and proposals for the elective component of future support schemes for agriculture.
The Tenants and Trees group continues to hold discussions involving stakeholders on how to engage tenant farmers via the Tenant Farming Advisory Forum.
The Agriculture and Rural Communities (Scotland) Act 2024 provides the powers required to deliver the Agricultural Reform Programme. The Act contains a provision to allow for support to be provided to assist persons to create areas of woodland, manage woodland (and the creation of new areas of woodland) in a sustainable way, and develop and use systems in which trees are grown in combination with agricultural activity.
The Scottish Government is exploring potential additional measures to support tree planting on farms and crofts through the future agricultural support scheme.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps:

- The Integrating Trees Network will continue to support farmers and crofters throughout 2025.

Policy: Investigate the feasibility of payment for carbon sequestration taking into account any existing schemes such as the woodland carbon code as a means of encouraging the uptake of carbon sequestration on farms
Date announced: CCP 2018
Progress on implementation since time of last report / CCPu:
The Scottish Government continues to provide funding for The Facility for Investment Ready Nature in Scotland (FIRNS) managed by NatureScot. FIRNS funds projects testing different aspects of natural capital market development in Scotland, including voluntary carbon markets; for example, one project it has supported is the Soil Association - Governance mechanisms for whole-farm and farm cluster natural capital project implementation. Under the FIRNS programme, 35 projects have been awarded funding totalling £4,759,129.
In November 2024, the Scottish Government published our Natural Capital Markets Framework. This framework document sets out actions we are taking to enable responsible, values-led investment in natural capital, including the expansion of high-integrity voluntary carbon markets and the development of opportunities to invest in biodiversity.
Scotland continues to play a predominant role in the UK woodland carbon market. There are now over 34,000 hectares of woodland validated under the Woodland

Carbon Code across the UK (29,985 hectares in Scotland), which will remove over 11.4 million tonnes of CO_2 (9.6 million in Scotland) from the atmosphere over their lifetimes. A further 48,000 hectares have been registered but not yet validated, 37,000 hectares of which is in Scotland, indicating a strong future pipeline of projects. The amount of validated future CO_2 removals under the Woodland Carbon Code rose by 33% between 2022-23 and 2023-24.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps:

- Details on the FIRNS 2024 applications will be announced during 2025.

Policy: Increase woodland cover on suitable agricultural land.

Date announced: CCP 2018

Progress on implementation since time of last report / CCPu:

The Scottish Government is exploring potential additional measures to support tree planting on farms and crofts through the future agricultural support scheme.

The trees on farms sub-group of the Scottish Forestry Customer Representatives Group met throughout 2024. The forum is a collective for discussion around better integration of trees on farms and to articulate improvements in support to encourage further integration of trees on farms.

The Forestry Grant Scheme continues to offer financial support for the creation of new woodland, while the Integrating Tree Network has continued to hold events and, through the website, makes available videos, case studies, and publications, to showcase the benefits of planting trees on farms.Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps:

- The Integrating Trees Network will continue to support farmers and crofters throughout 2025.

Policy: Building on the successful work integrating woodland with farming businesses, help remove barriers for those on agriculture holdings, particularly in the tenanted sector who want to engage in woodland creation, including exploring the potential to reform legislation where appropriate.

Date announced:CCPu

Progress on implementation since time of last report / CCPu:

The Tenants and Trees group continues to hold discussions involving stakeholders on how to engage tenant farmers via the Tenant Farming Advisory Forum.

The Land Reform (Scotland) Bill was introduced to the Scottish Parliament in March 2024. It includes several measures to radically reform tenant farming legislation to make it fit for the future. It will provide more opportunities for tenants to deliver improvements to the land they work on to become more sustainable and productive

and play their part in supporting biodiversity and climate change, including taking advantage of tree planting.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps:

- Land Reform (Scotland) Bill continues its progress through the Scottish Parliament.

Policy: Work with stakeholders on options to increase peatland restoration on suitable agricultural and crofting land, to support delivery of policies in the LULUCF chapter. We will map peatland against this land which will allow modelling options for land-use change and inform opportunities for targeted support of peatland restoration and management.

Date announced:CCPu

Progress on implementation since time of last report / CCPu:

The Scottish Government Rural Payment Inspectorate Department is actively developing peatland restoration opportunities on Scottish Ministers' crofting estates in collaboration with our tenants. Using Peatland Action to support and develop these proposals, this will test if the available tools are adequate to deliver restoration on crofters common grazings.

The Scottish Government consulted on proposals for Crofting Law Reform in 2024. Through changes to crofting law, we wish to remove existing legislative barriers and make it easier for peatland restoration, biodiversity enhancements, and habitat restoration initiatives to proceed on croft land and have the necessary provisions for crofters and grazings committees to take advantage of any future support systems. The Scottish Government is carefully considering what we have heard during the consultation process and will have further discussions with key stakeholders, including the Crofting Commission and other members of the Crofting Bill Group.

The Rural Support (Improvement) (Miscellaneous Amendment) (Scotland) Regulations 2024 (SSI 2024/380) came into force on 1 January 2025. It added enhanced requirements under Cross Compliance to protect peatlands and wetlands. The requirements prohibit a range of damaging agricultural activities from being carried out on peatlands and wetlands including ploughing, cultivating, draining, creating tracks and planting trees.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps: N/A

Policy: Explore options for land use change to optimise uses beyond traditional farming and food production to multifaceted land use including forestry, peatland restoration and management and biomass production.

Date announced:CCPu

Progress on implementation since time of last report / CCPu:

The three-year Regional Land Use Pilot (RLUP) programme ended in March 2024. Following on from the successes of this, the Scottish Government have committed to transition four of the pilot RLUPs to a formal initiative:

- NorthWest 2045 region (Highland)
- Cairngorms National Park
- Loch Lomond and the Trossachs National Park
- South of Scotland (Dumfries and Galloway and Scottish Borders Councils).

This transitional period means that the partnerships can continue to develop organically whilst allowing the Scottish Government to further develop our understanding of how partnership working can help to optimise land use in a fair and inclusive way, meeting local and national objectives and supporting Scotland's just transition to net-zero.

The Scottish Government also announced plans in April 2024 to support a wider national roll-out of RLUPs. Given wider financial pressures, this will begin in a phased roll-out once we have learned the lessons from the next stage of partnership delivery (and not before 2026).

Scotland's third land use strategy sets out our vision, objectives, and policies to achieve sustainable land use. Scotland's fourth Land Use Strategy is due for publication in 2026, and initial development of this began in late 2024.

In March 2024, the draft Bioenergy Policy Statement was published with the consultation on the draft Bioenergy Policy Statement closing in June 2024. The evidence provided in the consultation will be used to inform policy positions, which will be published in a final Bioenergy Policy Statement in 2025.

The integration of trees into existing agricultural businesses is very much part of the woodland creation picture in Scotland and continues to be delivered through the Forestry Grant Scheme and other 3rd party schemes, such as the Croft Woodlands Project, while the farmer-led Integrating Trees Network continues to promote the benefits of trees on farms.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A

Timeframe and expected next steps:

- Formal consultation on the development of the next Land Use Strategy will take place in 2025.
- Plans for wider rollout of Regional Land Use Pilot will be considered form 2026.
- The Integrating Trees Network will continue to support farmers and crofters throughout 2025.
- Expect to publish the final Bioenergy Policy Statement in 2025.

9. Chapter 8: NETs

9.1 Part A – Overview of sector

Negative Emissions Technologies (NETs) are yet to be deployed in Scotland as they rely on carbon capture and storage (CCS) to deliver negative emissions. Whilst some technologies that could deliver negative emissions are currently deployed, such as energy from waste, these facilities would require retrofitting with carbon capture technology and a clear route to storage, to be considered a negative emissions technology.

The Climate Change Plan update (CCPu) includes policies and proposals for supporting and enabling early deployment from 2029 onwards. We currently do not track progress against the NETs envelope in the CCPu. In our last CCP (Climate Change Plan) Monitoring report, we committed to undertaking a feasibility study on NETs deployment in Scotland. This was published November 2023 and will help inform the development of our NETs policy going forward. The results of this study demonstrated the reliance of NETs deployment in Scotland on the UK Government's policies regarding carbon capture, usage, and storage (CCUS) Cluster Sequencing, in particular on delivering the Scottish CCUS cluster at pace, as well as the possible benefits of including removals in the UK ETS (Emissions Trading Scheme).
The CCPu sets out the following policy outcomes for the sector. Given that this sector chapter appeared first in the CCPu (2020), there are no indicators for these outcomes. In the next CCP we will update the policy outcomes and include indicators to track progress against these updated outcomes.

Detailed feasibility study on NETs will assess the opportunities for negative emissions in Scotland, and identify applications with the greatest potential, including specific sites where possible.

CCUS: the continued development of CCUS technologies and systems is prioritised to ensure these can be rolled out commercially and at scale by the late 2020s.

Bioenergy: a cross-sectoral approach for the appropriate and sustainable use of biomass in energy applications is agreed and implemented (taking into account competing land and feedstock uses).

Just Transition and Cross Economy Impacts

We wish to understand and report on the broader just transition and cross-economy impacts of our emissions reduction activities in addition to these sector specific policy outcomes and indicators. To do this, in this report we use data from the Office of National Statistics (ONS): Low Carbon Renewable Energy Economy (LCREE)

publication. The LCREE data presented in this report is based on survey data of businesses which perform economic activities that deliver goods and services that are likely to help generate lower emissions of greenhouse gases, for example low carbon electricity, low emission vehicles and low carbon services. The LCREE indicator is narrowly defined and, while useful within its limited scope, does not give us the full picture of the impacts on workforce, employers and communities and progress towards a just transition. Over the next year, we will work to develop a more meaningful set of success outcomes and indicators aimed at tracking the impacts of our policies on a just transition to net zero, which will inform our next CCP.

Sector commentary on progress

The CCPu included Negative Emissions Technologies (NETs) as a sector chapter for the first time, recognising the important role that emissions removals will need to play in reaching net zero, as highlighted by the IPCC Working Group 3 report. The 'learning by doing' approach set out in the CCPu more widely was also identified as being particularly important in the case of this sector, given uncertainties around technological development and critical dependencies on UK Government action, particularly with regard to carbon capture and storage.Policies included in the NETs chapter recognised these challenges and uncertainties and sought to develop an evidence base to allow for further policy development. We have since undertaken an initial review of evidence.

The review indicated that NETs in Scotland can deliver at scale in due course but not at the pace assumed in the CCPu. This is due to shifts in some evidence and key policy decisions since the time of the CCPu, including:

- The previous UK Government's decision in October 2021 not to award the Acorn Project during the Track-1 phase has delayed the deployment timeline for the carbon capture and storage system required for NETs.
- While the previous UK Government's Powering Up Britain announcements on 30 March 2023 reconfirmed their commitment to four UK CCUS clusters by 2030, the current UK Government has confirmed that 'ambition is no longer achievable'
- Despite updates from the UK Government on Track-2 there is still no timeline for a final decision on the Acorn project.
- It is important to note that no NETS projects were included in Track-1.
- The availability of home-grown sustainable biomass to supply large scale power bioenergy with CCS (BECCS); and
- No public commitment to date by a commercial operator to employ a NETs model for a single large power station in Scotland.

Given lead in times for development of such a facility and proposals for CCS deployment for the Peterhead Combined Cycle Gas Turbine (CCGT) power project

(which is subject to a live planning application), it is unlikely that a new NETs power facility will be developed within the next decade. We have since gained further knowledge and evidence of what scale of NETs can be delivered in Scotland and to what timescale, through undertaking a NETs feasibility study. The authors examined existing sites in Scotland which emit biogenic carbon and could deliver negative emissions if paired with CCS infrastructure, as well as biochar production. The study then explored the potential for new sites, including Direct Air Capture. To determine the feasible deployment of these technologies, the study modelled three pathways for NETs deployment, all of which assumed that the Acorn Project and Scottish Cluster would be able to permanently store CO2 by 2030. The pathways differed in the level of government action, such as policy supports, market design, or funding to support NETs.

This study estimated that the maximum Negative Emissions potential achievable in Scotland in 2030 is 2.2 MtCO2/year (60% of the available biogenic CO2 emissions), based on existing and future potential sites and given technical, economic, and other constraints. This is significantly lower than the stated NETs ambition in the CCPu of 5.7 MtCO2/year by 2032. With additional policy interventions from both the UK and Scottish Governments, the study suggests this figure could potentially reach 6.8 MtCO2/year by 2045 with technologies such as direct air carbon capture and storage (DACCS), bioenergy CCS (BECCS), energy from waste (EfW) and biomethane and distillery sites all playing a role.
As noted in the 2022 and 2023 monitoring reports, it is possible for NETs in Scotland to deliver at scale in due course, assuming that some of the obstacles for deployment are overcome – including high energy pricing, routes to commercialisation and access to storage.

Developments in Monitoring Arrangements Since Last Report:

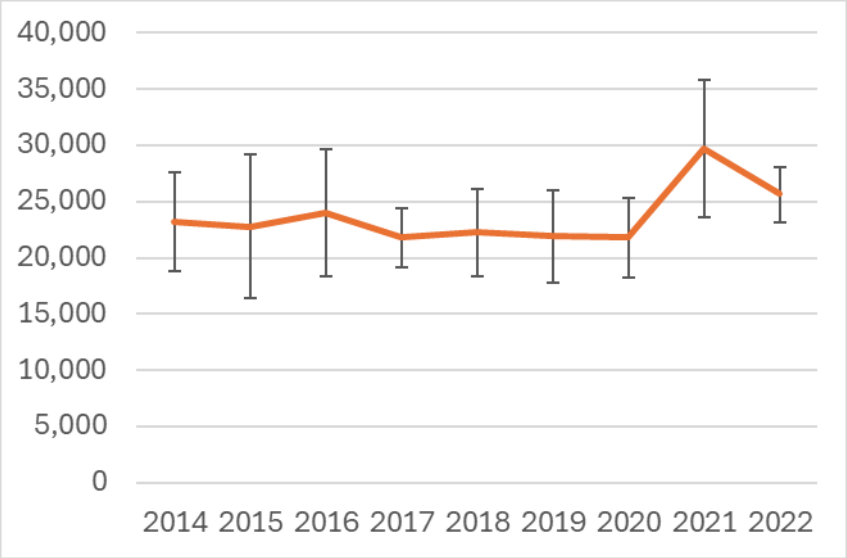
No changes.

9.2 Part B – Progress to Policy Outcome Indicators

Policy Outcome: Cross-sectoral social and economic
Indicator: Full-time equivalent (FTE) employment in Low Carbon Renewable Energy Economy Indicator
On-Track Assessment (Milestones/Targets): Year to year change
Most Recent Data: 2022
Data Source(s): Low Carbon and Renewable Energy Estimates, Office of National Statistics
Assessment: Too early to say
Commentary:

- In 2022, the Scottish low carbon renewable energy economy (LCREE) sectors were estimated to provide 25,700 FTE jobs.
- The estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval.
- Scottish LCREE employment in 2022 is lower than in 2021, but the difference is not statistically significant. Caution should be exercised when interpreting year on year changes due to a high degree of uncertainty in estimates.

Employment in Low Carbon Renewable Energy Economy, FTE



Source: Office of National Statistics (ONS) Low Carbon and Renewable Energy Economy Estimates
The estimates of LCREE are based on a relatively small sample of businesses and hence are subject to a wide confidence interval. Scottish LCREE employment in 2022 is above the average of previous years but the difference is not statistically significant.

9.3 Part C – Information Implementation of Individual Policies

Outcome 1: Detailed feasibility studies on NETs will assess the opportunities for negative emissions in Scotland, and identify applications with the greatest potential, including specific sites where possible.

Policy: In 2021-22 carry out a detailed feasibility study of opportunities for developing NETs in Scotland ready for the early 2030s. This will identify specific sites and applications of NETs, including developing work to support policy on Direct Air Capture and its role within NETs in our future energy system.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Studies to build our evidence on NETs and inform the scope of a detailed feasibility study have been commissioned and published within 2021-22. These outputs include research on bioenergy feedstock availability (Available here) and a horizon scan of international deployment of NETs (Available here). A detailed NETs feasibility study was published in November 2023, containing recommendations to government and proposed NETs implementation pathways. A study investigating the cost and profitability of DAC in Scotland will be published in April 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We will use the suite of research undertaken to inform the next CCP.

Policy: From 2022, based on the outcomes of the feasibility work, we will provide support for commercial partners to develop NETs proposals
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We have continued to build our evidence of NETs feasibility through the detailed feasibility study, and engagement following the conclusion of this work, including with industry. We are engaging with those key stakeholders which have the ability to implement NETs in Scotland to better understand the support that the Scottish Government may be able to offer, and early opportunities for NETs in Scotland.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We are investigating support measures for commercial partners which support NETs deployment. We will publish research looking at cost and profitability scenarios for Direct Air Capture deployment in Scotland in April 2025. Further research will be undertaken to understand the opportunities of early deployment of NETs to meet carbon demand for utilisation.

Policy: Put in place a continual process to review the development of NETs and progress against its envelope.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: This is assured by internal governance boards.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: Timing and arrangements to be confirmed in the next CCP.

Policy: We will work with UK Government to encourage that they bring forward suitable mechanisms to support the development of NETs business cases in relevant sectors.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: Recognising that many NETs support mechanisms are reserved to the UK Government, we are working with relevant departments, including the Department for Energy Security and Net Zero (DESNZ), to ensure support for prospective NETs developers in Scotland. In particular and following the outcome of the UK Government's cluster sequencing process in which the Acorn Project was unsuccessful in its bid to secure Track-1 status in October 2021 we have championed the timely deployment of CCS as being essential to enabling development of NETs. Work with the UK has further involved membership of a working group on GGR standards and engaging with relevant consultations, including responding to the Call for Evidence on greenhouse gas removals (GGRs) and the Business model for power bioenergy with carbon capture and storage (Power BECCS) consultation.
The UK Government is expected to bring forward further details on GGR support throughout 2025.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We will work with UK Government to encourage they bring forward suitable mechanisms to support the development of NETs business cases in relevant sectors, including via the UK ETS.

Outcome 2: CCUS: the continued development of CCUS technologies and systems is prioritised to ensure these can be rolled out commercially and at scale by the late 2020s.

Policy: Support the development of NETs technologies within Scotland.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: CCS is an essential part of NETs, and without a commitment from the UK Government on progressing Acorn via Track 2, it has been particularly difficult to provide any level of certainly to the NETs industry in Scotland. That said, while we wait for UK Government commitment on Acorn, the Scottish Government continues to work with NETs stakeholders to identify opportunities to support the early deployment of NETs including the viability of captured carbon as a commodity.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Support the inclusion of NETs in the development of strategic, industry lead pathways for CCUS infrastructure in Scotland.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: As above.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Policy: Funding through the Scottish Industrial Energy Transformation Fund to consider the development of NETs demonstrators.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: The programme continues to deliver and review the number and value of projects supported, projected emissions and energy productivity savings, and consider impacts against policy objectives within public sector financial constraints.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: N/A

Outcome 3: Bioenergy: a cross-sectoral approach for the appropriate and sustainable use of biomass in energy applications is agreed and implemented (taking into account competing land and feedstock uses).

Policy: We will publish a Bioenergy Update in early 2021, laying out our current position and understanding of the role of bioenergy in the energy system and setting out in more detail how we will move forward.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We published the Bioenergy Update on 24 March 2021.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: None

Policy: In 2021, building on the Bioenergy Update, we will establish a cross sectoral Bioenergy Expert Working Group to consider and identify the most appropriate and sustainable use for bioenergy resources across Scotland. It will also assess the volume of bioenergy resources that we can grow or produce within Scotland and confirm the level of import that we believe is compatible with a sustainable global trade in bioenergy.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We have published research which forecast the availability of domestic bioresources out until 2045. We will consider the impacts and interactions of increasing biomass production on existing agricultural land. We will publish a draft Bioenergy Policy Statement in advance of the next draft CCP. Following publication, we will establish an expert panel to review policy and suggest routes for developing the bioenergy sector.
Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these: N/A
Timeframe and expected next steps: We will establish an expert panel to review policy and suggest routes for developing the bioenergy sector following publication of the draft Bioenergy Policy Statement.

Policy: By 2023, in time to inform the next CCP, we will publish a draft Bioenergy Action Plan, incorporating the learning developed by the expert working group and our understanding of the options to use Bioenergy in both NETs and other applications.
Date announced:CCPu
Progress on implementation since time of last report / CCPu: We published a draft Bioenergy Policy Statement for consultation in March 2024. This draft Policy Statement was developed though a cross-sectoral approach. It was driven forward by a Bioenergy Policy Working Group which brought together officials from across

government. The consultation sought views on the principles for use and priority uses for bioenergy; the integration of carbon capture technology for bioenergy plants; and the potential to scale up the domestic biomass supply by planting perennial energy crops. The consultation closed in mid-June 2024 and the responses are currently being analysed. This evidence will be used to inform the development of the final Bioenergy Policy Statement.

Have any implementation indicators / milestones been set for this policy? If so, most recent data for progress against these:

- The publication of the analysis report
- the publication of the final Bioenergy Policy Statement

Timeframe and expected next steps: As above [33]

[33] [1] The Scottish Government also commissioned an independent analysis projecting future employment in the Energy Production Sector to inform the draft ESJTP. This can be found in Chapter 3 of the Energy system and Just Transition: independent analysis.

This publication is available at **www.gov.scot**

Any enquiries regarding this publication should be sent to us at

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