



Green Economy: Promoting Resource Efficiency and Zero Carbon Usage

Debate on 12 March 2020

On 12 March 2020, the House of Lords is due to debate a motion moved by Baroness Parminter (Liberal Democrat) that “this House takes note of the case for investing in, and embracing, a green economy that promotes resource efficiency and zero carbon usage”.

Summary

A ‘green economy’ can be defined as one in which the economic value of protecting the environment is recognised and economic growth does not negatively affect the environment. The independent advisor body the Committee on Climate Change has identified different ways to achieve this in the UK. These include increasing the supply of low-carbon electricity and increasing the energy efficiency of homes and businesses. The committee has also argued progress is needed in areas of the economy where carbon reduction has proved difficult to achieve, such as transport, buildings, and agriculture.

The Government has said that it is possible to grow the UK economy, improve environmental standards and meet its international obligations to reduce carbon emissions. It has argued the development of low carbon technologies would benefit the UK economy as well as reduce carbon emissions, including through the creation of new jobs. This would in part be funded through the expansion of private sector investment in environmental schemes, referred to as ‘green finance’. The Government has set a target of net-zero carbon emissions by 2050.

The Government has also made commitments to reduce environmentally damaging waste and increase recycling. These were set out in the 25-year environment plan, published in 2018. Measures to help reduce the amount of environmentally harmful waste created in the UK are also included in the Environment Bill. This was originally introduced in the 2019 session but was reintroduced in 2020. The bill includes provisions such as the introduction of an extended packaging producer responsibility scheme. This is intended to ensure producers of packaging are responsible for the net costs of managing waste arising from their products, including the cost of their disposal.

The Committee on Climate Change has said the Government has set out the right priorities to achieve its target of net-zero carbon emissions by 2050. However, it has argued the Government is not currently on track to meet this target. It has argued progress has been delayed due to a lack of cross-government coordination.

Edward Scott | 5 March 2020

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I. Green economy

The term ‘green economy’ dates back to at least the 1980s. For example, David Pearce, the economist and advisor to the then Secretary of State for the Environment, Chris Patten, used the term in his report *Blueprint for a Green Economy*, published in 1989. Pearce argued achieving a green economy was an objective of environmental policy.¹ He believed it would be achieved through changing economic behaviour in such a way as to mitigate the negative environmental impacts of economic growth. Pearce said that, in “crude terms”, this was often framed as an argument about how people “should be less greedy”.² However, he concluded instead the issue was that environmental protection had not been valued properly as an economic benefit.

More recently, in 2011, the Coalition Government gave the following definition of the term:

A green economy is not a sub-set of the economy at large—our whole economy needs to be green. A green economy will maximise value and growth across the whole economy, while managing natural assets sustainably.³

In its analysis of the Coalition Government’s environmental policy, the House of Commons Environmental Audit Committee said it heard different views of what was meant by the green economy. The committee said of the evidence it had received:

In the current economic climate many [views] have been focused on developing environmental goods and services—so called ‘green growth’. [...] Some witnesses however saw a green economy as a new economic model, tackling perceived failures of the current one, and not just a way of stimulating ‘growth’ in response to the recent global downturn. [...] Such new economic models seek to recognise that there are ‘limits’ that the environment places on sustainable economic activity, and potentially that there are certain absolute physical barriers to growth that a genuinely green economy would not overstep.⁴

The committee argued that environmental policies would have to be implemented across all sectors for the UK to become a green economy. It said:

The whole economy will need to be green and traditional sectors will need to be transformed. This will require the Government taking a longer-term view, driven by a clear definition of a green economy.⁵

Economic costs and benefits

The current Government has argued that it is possible to grow the UK economy, improve environmental standards in the UK and meet the UK’s international obligations to reduce carbon emissions.⁶ The Government has argued that achieving net zero would offer the opportunity to

¹ David Pearce, ‘[Green Economics](#)’, *Environmental Values*, 1992, vol 1 no 1, pp 3–13.

² *ibid.*

³ HM Government, [Enabling the Transition to a Green Economy: Government and Business Working Together](#), 2011, p 4.

⁴ House of Commons Environmental Audit Committee, [A Green Economy](#), 21 May 2012, HC 1025 of session 2010–12, p 9.

⁵ *ibid.*, p 12.

⁶ HM Government, [The Clean Growth Strategy: Leading The Way To A Low Carbon Future](#), October 2017, p 2

“innovate and grow the economy” through the creation of new clean technologies and jobs.⁷ It has also argued it would create benefits in terms of improving air quality and the energy efficiency of homes.⁸ In 2019, the Government laid the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to set a target for net-zero UK carbon emissions by 2050.⁹

The Committee on Climate Change is an independent statutory body whose role is to advise the UK Government and devolved administrations on emissions targets. It also reports to Parliament on progress made on implementing these targets. The committee has argued the UK will be able to achieve its carbon emission targets while growing its economy. It has estimated that the effect of achieving the Government’s target of net-zero carbon emissions by 2050 would be an annual resource cost of up to 1–2% of GDP.¹⁰ It noted that, between 1990 and 2018, the UK reduced its emissions by 40%, during which time gross domestic product grew by over 70%.¹¹

The House of Commons Science and Technology Committee has argued that both the economic benefits and the costs of environmental policies should be “shared fairly among citizens”.¹² It made the following recommendations about how this might be achieved:

The Government must ensure that its policies for achieving net-zero emissions consider the economic impacts on individuals. For example, the Government should aim to cover the costs of measures through progressive means rather than through energy bills. In line with the Government’s focus on ‘place’ in its Industrial Strategy, the Government should include the potential for supporting economic growth in disadvantaged regions in its determination of where to locate demonstration projects and other initiatives.¹³

2. UK government policy

The Committee on Climate Change identified the following policy areas that needed to be addressed as part of any strategy to reduce the UK’s carbon emissions and improve the environment:¹⁴

- Increasing the supply of low-carbon electricity
- Improving the energy efficiency of buildings and increasing low-carbon heating
- Expanding the use of electric vehicles
- Developing carbon capture and storage
- Diverting biodegradable waste from landfill
- Phasing-out of fluorinated gases

⁷ House of Commons Science and Technology Committee, [Clean Growth: Technologies for Meeting the UK’s Emissions Reduction Targets: Government and Ofgem Responses to the Committee’s Twentieth Report of Session 2017–19](#), 1 November 2019, HC 287 of session 2019, p 1.

⁸ *ibid.*

⁹ Climate Change Act 2008 (2050 Target Amendment) Order 2019, SI 2019/1056.

¹⁰ Committee on Climate Change, [Net Zero: The UK’s Contribution to Stopping Global Warming](#), May 2019, p 12.

¹¹ *ibid.*, p 20.

¹² House of Commons Science and Technology Committee, [Clean Growth: Technologies for Meeting the UK’s Emissions Reduction Targets](#), 22 August 2019, HC 1454 of session 2017–19, p 9.

¹³ *ibid.*

¹⁴ Committee on Climate Change, [Net Zero: The UK’s Contribution to Stopping Global Warming](#), 2 May 2019, p 11.

- Increasing afforestation
- Implementing measures to reduce emissions on farms

The Government's current strategy for achieving a reduction in carbon emissions and improving the environment is set out in its clean growth strategy and its industrial strategy. Both of these strategies were published in 2017. At this point, the Government's target was to reduce carbon emissions by 80% by 2050. Since the publication of these strategies, the Government committed to a new target of reducing the UK's carbon emissions to net-zero by 2050. However, the Government has kept its clean growth strategy and its industrial strategy as the means of delivering a reduction in carbon emissions.¹⁵

2.1 Net-zero carbon emissions target

The following timeline summarises how the UK's target for reducing carbon emissions has developed since 2016.

Timeline: development of net-zero target

- **Prior to 2016**, the UK had committed to reduce its net carbon emissions by 80% in 2050.¹⁶ The Climate Change Act 2008 set this target in UK law. The UK had been the first country in the world to adopt a legally binding long-term emissions target.¹⁷
- In **2016**, the UK signed the Paris agreement.¹⁸ The agreement's aim was to limit global warming.¹⁹ To achieve this, the agreement said parties must achieve net-zero carbon emissions by 2050.²⁰ However, the UK did not immediately adopt this target.
- In **October 2018**, the Intergovernmental Panel on Climate Change (IPCC) published a report recommending global temperature increase should be kept at a maximum of 1.5 Celsius (°C).²¹ It argued that achieving a maximum temperature increase of 1.5°C could help to slow rising sea levels, the melting of ice in the Arctic Ocean and the loss of coral reefs. The IPCC said the only way to achieve a 1.5°C increase in global temperatures was to reduce global net anthropogenic carbon emissions to zero by 2050. The IPCC argued that achieving this target would require "rapid, far-reaching and unprecedented changes" in "land, energy, industry, buildings, transport, and cities".²²
- In **May 2019**, the Committee on Climate Change recommended the UK should adopt the target of net-zero greenhouse gas emissions by 2050.²³ It said this would be necessary to deliver on the UK's commitments under the Paris agreement. The Committee on Climate Change argued it would only be possible for the UK to meet this target if "clear, stable

¹⁵ [HL Hansard, 9 September 2019, col 1288.](#)

¹⁶ Climate Change Act 2008, s 1(1) (as enacted). The baseline for this target was set at 1990 carbon emission levels.

¹⁷ Committee on Climate Change, [Net Zero: The UK's Contribution to Stopping Global Warming](#), May 2019, p 11.

¹⁸ United Nations, [Paris Agreement](#), 2015.

¹⁹ *ibid.*

²⁰ *ibid.*, article 4.

²¹ Intergovernmental Panel on Climate Change, [Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C Approved by Governments](#), 8 October 2018.

²² *ibid.*

²³ Committee on Climate Change, [Net Zero: The UK's Contribution to Stopping Global Warming](#), May 2019, p 11.

and well-designed policies” were introduced “across the economy without delay”.²⁴

- In **2019**, the Conservative Government, then led by Theresa May, amended the 2008 Act.²⁵ This set a new target to achieve net-zero carbon emissions by 2050 in UK law. The commitment to meet the net-zero target by 2050 was subsequently included in the Conservative Party’s manifesto for the 2019 general election.

The Government’s target is to achieve a ‘net’ reduction in carbon emissions. Therefore, under the 2008 Act as amended, it is possible for the UK to meet its commitment through carbon trading. This would involve the purchase of carbon credits to offset its emissions. In its 2019 report on achieving net-zero, the Committee on Climate Change recommended that the target should be achieved by domestic action without relying on carbon trading.²⁶ The Government stated that it would retain the ability to use carbon credits but that it did not intend to use them.²⁷

Further information on the implementation of the 2050 target is provided in the House of Lords Library briefing, [Net Zero Carbon Emissions Target and Climate Change: Role of Technological and Lifestyle Efforts](#) (30 January 2020).²⁸

2.2 Industrial strategy

The Government has said the development of low carbon technologies would benefit the UK economy as well as reduce carbon emissions. It has argued there is a “global shift to clean growth”, describing this as one of the four ‘grand challenges’ for the UK economy in its industrial strategy.²⁹ The Government said in its industrial strategy that it would:

[...] maximise the advantages for UK industry from the global shift to clean growth—through leading the world in the development, manufacture and use of low carbon technologies, systems and services that cost less than high carbon alternatives. [...] Whole new industries will be created and existing industries transformed as we move towards a low carbon, more resource-efficient economy.³⁰

The Government said in November 2019 the industrial strategy remained part of its “basis for action” to achieve its net-zero carbon emissions target.³¹ As part of the industrial strategy, the Government has sought to agree ‘sector deals’ with business in different parts of the economy.³² For example, the Government has agreed sector deals with both the Nuclear Industry Council and the Offshore Wind

²⁴ Committee on Climate Change, [Net Zero: The UK’s Contribution to Stopping Global Warming](#), May 2019, p 11.

²⁵ The target was amended by the passing of the Climate Change Act 2008 (2050 Target Amendment) Order 2019, SI 2019/1056. This order came into force on 27 June 2019.

²⁶ Committee on Climate Change, [Net Zero: The UK’s Contribution to Stopping Global Warming](#), May 2019, p 15.

²⁷ [HC Hansard, 12 June 2019, col 663](#).

²⁸ This briefing also provides a summary of the argument put forward by UK FIRES that the UK should seek to achieve ‘absolute zero’ rather than ‘net zero’ through avoid measures such as carbon credits and carbon capture technology.

²⁹ HM Government, [Industry Strategy: Building a Britain Fit For The Future](#), November 2017, p 23.

³⁰ *ibid*, p 42.

³¹ House of Commons Science and Technology Committee, [Clean Growth: Technologies for Meeting the UK’s Emissions Reduction Targets: Government and Ofgem Responses to the Committee’s Twentieth Report of Session 2017–19](#), 1 November 2019, HC 287 of session 2019, p 1. Further Information on the Government’s industrial strategy is provided in the House of Commons Library briefing, [Industrial Strategy](#) (7 August 2019).

³² HM Government, [Industry Strategy: Building a Britain Fit For The Future](#), November 2017, p 11.

Council. These sector deals include the provision of government research and development funding, which is intended to support the growth of new technologies in these sectors.³³

2.3 Clean growth strategy

The clean growth strategy, published at the same time as the industrial strategy, identified eight policy areas the Government would concentrate on to meet its carbon emissions targets and grow the ‘green economy’. The Government committed to the following policy objectives:³⁴

- **Financing clean growth:** Ensuring public and private sector financial investment was provided to support the development of the green economy. This included a commitment to develop with the British Standards Institution a set of voluntary green and finance management standards. The Government would also provide investment to support the development of clean technology.
- **Business and industrial efficiency:** Supporting businesses to improve their energy productivity. This included measures intended to improve the energy efficiency of business buildings and the recycling of heat produced in industrial processes. The Government also committed to support the development of new carbon capture and storage technologies.
- **Energy efficiency of homes:** Improving the energy efficiency of homes through measures including upgrading the energy performance rating for homes in fuel poverty to energy performance certificate band C by 2030. The Government said this would be supported through the energy company obligation, under which energy suppliers are required to promote measures to improve energy efficiency.³⁵ The strategy also included proposals to improve standards for new boilers and provide financial support for the development of new heating technologies.
- **Low carbon transport:** Lowering the transport sector’s carbon emissions through measures including ending the sale of conventional petrol and diesel cars and vans by 2040 and supporting the use of “ultra-low emission vehicles”. The strategy also included measures to: support the uptake of low emission taxis and buses; encourage cycling and walking; and increase the use of rail for freight transport.
- **Reducing emissions from power:** Supporting low-carbon energy through measures including phasing-out coal fired power generators that do not use carbon capture technology (referred to as ‘unabated coal’). The Government would also seek to increase alternative forms of energy. This would include the new nuclear power station at Hinkley Point C and measures to support the expansion of renewable energy, such as wind.

The strategy also included measures intended to reduce the energy cost for households and businesses. For example, the Government said it would introduce a cap on the standard variable and default energy tariffs for consumers.

- **Natural resources:** Enhancing the natural environment through establishing new forests, supporting peatland and managing emissions from landfill. The strategy also stated the Government would introduce a new system of financial support for farmers following the

³³ Further Information on sector deals is provided in the House of Commons Library briefing, [Industrial Strategy](#) (7 August 2019, pp 9–14).

³⁴ HM Government, [The Clean Growth Strategy: Leading The Way To A Low Carbon Future](#), October 2017, pp 12–16.

³⁵ Ofgem, ‘[About the ECO Scheme](#)’, accessed 3 March 2020. The scheme is funded by a levy on consumer bills. Further information is provided in the House of Commons Library briefing, [Housing and Net Zero](#) (25 February 2020).

UK's departure from the EU. This would incentivise land management that improved the natural environment and addressed climate change. These measures were later included in the Agriculture Bill, which the Government introduced in 2020.³⁶

- **Public sector:** The Government would introduce a new carbon emissions target for central government and a new voluntary target for the rest of the public sector.
- **Government leadership:** The Government committed to setting up a clean growth inter-ministerial group, which would be responsible for monitoring the implementation of the clean growth strategy.

In September 2019, Lord Duncan of Springbank, the then Parliamentary Under Secretary of State for the Department of Business, Energy and Industrial Strategy, indicated the Government intended to update the clean growth strategy in the light of its new net-zero target.³⁷ The Government subsequently stated that the commitments made in the clean growth strategy remained the framework for its carbon reduction plans.³⁸

During an evidence session before the House of Commons Treasury Committee in July 2019, the chief executive of the Committee on Climate Change, Chris Stark, said the clean growth strategy included the right priorities to achieve the Government's net-zero target.³⁹ However, he argued that the Government had yet to provide "the level of ambition and delivery in policy terms that will be necessary to get to net-zero".⁴⁰

2.4 Resource efficiency

In addition to the commitments in the clean growth strategy, the Government's 25-year environment plan includes the following commitments about waste reduction:⁴¹

- Working towards zero avoidable waste by 2050.
- Eliminating avoidable plastic waste by the end of 2042.
- Meeting existing waste targets, including reducing the use of landfill and increasing recycling, and developing future targets.
- Seeking to eliminate 'waste crimes'—such as fly-tipping—and the use of illegal waste sites.
- Reducing and—where possible—preventing marine plastic pollution.

In 2018, the then Government published its resource and waste strategy.⁴² This included the target that all plastic packaging in England should be recyclable, reusable, or compostable by 2025.⁴³ The Government also committed to work towards eliminating food waste going to landfill by 2030.

³⁶ Further information about the Agriculture Bill is provided in the House of Commons Library briefing, [Agriculture Bill 2019–20](#) (10 February 2020).

³⁷ [HL Hansard, 9 September 2019, col 1288](#).

³⁸ House of Commons, '[Written Question: Carbon Emissions](#)', 5 November 2019, 7226.

³⁹ House of Commons Treasury Committee, [Oral Evidence: Decarbonisation and Green Finance—The Economic Opportunity, HC 2233](#), 2 July 2019, Q3.

⁴⁰ *ibid.*

⁴¹ HM Government, [A Green Future: Our 25 Year Plan to Improve the Environment](#), 2018, p 29.

⁴² HM Government, [Our Waste, Our Resources: A Strategy for England](#), 2018. Further information on the Government's plastic waste policies is provided in the House of Commons Library briefing, [Plastic Waste](#) (7 January 2020).

⁴³ HM Government, [Our Waste, Our Resources: A Strategy for England](#), 2018, p 13.

Waste management and recycling: Environment Bill

In January 2020, the Government introduced the Environment Bill in the House of Commons.⁴⁴ The bill puts EU environmental standards into UK domestic law. It also amends existing environmental legislation intended to implement proposals in the Government's clean growth strategy. Proposals in the bill include the establishment of a new regulator, the Office for Environmental Protection (OEP). The OEP's remit will be to assess whether the Government and public bodies are taking account of environmental standards. The OEP will also pursue legal challenges for breaches of environmental law.⁴⁵

The Government has described one of the objectives of the Environment Bill as being to reduce the amount of environmentally harmful waste created in the UK.⁴⁶ It includes the following provisions regarding waste management and recycling:⁴⁷

- Enabling the Government to establish **an extended packaging producer responsibility scheme** to replace the existing producer responsibility schemes. The aim of the extended scheme would be to ensure producers of packaging are responsible for the net costs of managing waste arising from their products, including the cost of their disposal.⁴⁸
- **Extending existing powers held by the secretary of state and ministers in the devolved administrations to regulate eco-design standards.**⁴⁹ Powers would also be extended to regulate what information is provided on the resource efficiency of products. This is intended to enable consumers to make better decisions about which products are more environmentally sustainable.⁵⁰
- **Giving the government powers to introduce an electronic waste tracking system and increasing the powers of local government and regulators.** The bill also includes provisions concerning littering, enabling the Government to issue legal guidance to litter authorities.
- **Granting new powers to the secretary of state to regulate the import and export of waste,** including banning the export of plastic waste to non-OECD countries.
- **Standardising waste collection requirements across local authorities.** The bill would also enable the Government to start weekly food waste collections across the country, subject to consultation.
- **Establishing a framework to enable the Government to introduce charges for single-use plastic items.**
- **Establishing a deposit return scheme** for single-use drinks containers.

⁴⁴ [HC Hansard, 30 January 2020, col 959.](#)

⁴⁵ Further information on the bill is provided in the House of Commons Library briefing, [Commons Library Analysis of the Environment Bill 2019–20](#) (18 February 2020).

⁴⁶ Department for Environment, Food and Rural Affairs, '[Environment Bill 2020 Policy Statement](#)', 30 January 2020.

⁴⁷ [Environment Bill](#), clauses 47–68.

⁴⁸ Department for Environment, Food and Rural Affairs, '[Environment Bill 2020 Policy Statement](#)', 30 January 2020.

⁴⁹ This requirement is subject to some exceptions including for medicines and food.

⁵⁰ Department for Environment, Food and Rural Affairs, '[Environment Bill 2020 Policy Statement](#)', 30 January 2020.

The Environment Bill received second reading in the House of Commons on 26 February 2020.⁵¹ At the time of publication of this briefing, it has yet to start committee stage in the House of Commons.

2.5 Green finance

The Government has defined green finance as private sector investments in technologies, infrastructure and start-ups which assist in the creation of jobs, the expansion of businesses and the development of economic growth, whilst reducing greenhouse gas emissions.⁵² In 2017, as part of its clean growth strategy, the then Government established the Green Finance Taskforce, an independent group to advise on how to accelerate the growth of green finance.⁵³ This group recommended that the Government publish a strategy for the green finance sector. The Government also committed in its industrial strategy to the development of green financial standards.⁵⁴

In July 2019, the Government published its green finance strategy.⁵⁵ The stated aim of the strategy was to better enable the Government and the financial sector to work together to expand green finance.⁵⁶ The strategy includes the following goals:

- Ensure the financial risks from climate change and the opportunities from the development of green technologies are integrated into financial decision making.
- Establish financial support for the changes to the UK economy envisaged by the Government's carbon targets and clean growth strategy.
- Enable the UK financial sector to take advantage of opportunities, such as the development of new green financial products and services.⁵⁷

The strategy recommended the establishment of the Green Finance Institute to act as a “principal forum for collaboration between the public and private sector with respect to green finance”.⁵⁸ The Green Finance Institute was established in 2019.⁵⁹

3. Assessing government progress

Under the Climate Change Act 2008, the Committee on Climate Change sets five-yearly carbon budgets. The committee is due to publish advice on the sixth annual carbon budget in September 2020.⁶⁰

⁵¹ UK Parliament website, '[Environment Bill 2019–21](#)', accessed 3 March 2020.

⁵² HM Treasury and Department for Business, Energy and Industrial Strategy, '[UK Government Launches Plan to Accelerate Growth of Green Finance](#)', 18 September 2017. Further information on green finance is provided in the House of Lords Library briefing, '[Green Finance and the Resilience of the Financial Sector to Climate Change](#)' (12 January 2018).

⁵³ HM Government, '[Accelerating Green Finance: A Report to Government by the Green Finance Taskforce](#)', March 2018.

⁵⁴ HM Government, '[Industry Strategy: Building a Britain Fit For The Future](#)', November 2017, p 47.

⁵⁵ Department for Business, Energy and Industrial Strategy, '[Green Finance](#)', last updated 2 July 2019.

⁵⁶ HM Government, '[Industry Strategy: Building a Britain Fit For The Future](#)', November 2017, p 3.

⁵⁷ HM Government, '[Green Finance Strategy: Transforming Finance for a Greener Future](#)', 2 July 2019, p 7.

⁵⁸ *ibid.*

⁵⁹ Green Finance Institute, '[About Us](#)', accessed 4 March 2019.

⁶⁰ Committee on Climate Change, '[CCC to Publish Sixth Carbon Budget in September 2020](#)', 17 October 2019. Further information on carbon budgets is provided in the House of Commons Library briefing, '[UK Carbon Budgets](#)' (9 July 2019).

The UK has met the Committee on Climate Change's first, second and third carbon budgets. However, the committee has warned the UK is not currently on track to meet its fourth. It found a lack of government coordination as one of the factors holding back progress. It argued:

Too often efforts have been isolated to single departments or have progressed too slowly. The foundations in the clean growth strategy have not been developed into a coordinated approach that will deliver even the existing carbon budgets.⁶¹

The committee named areas of the economy where it believed further progress was necessary. In its July 2019 progress report, it argued insufficient progress had been made on emissions in transport, buildings and agriculture.⁶² The Government has acknowledged that further action was needed to ensure the UK was on track to meet the fourth and fifth carbon budgets.⁶³

The House of Commons Science and Technology Committee has also argued the Government was not on track to meet its carbon reduction targets, although it noted "several significant policies and ambitions" had yet to be included in these calculations.⁶⁴ It recommended the Government achieve further reductions in emissions, including in areas of the economy where this had so far proven difficult. It said:

In order to meet the fourth and fifth carbon budgets, emissions reductions cannot continue only in sectors that have decarbonised successfully so far, and must be significantly accelerated in sectors such as transport, heating and agriculture that have made little progress. The step-change in decarbonisation required will need policies to support the deployment and roll-out of existing technologies alongside, and coordinated with, significant research, development and demonstration of less mature technologies.⁶⁵

The committee has warned that the rate of deployment for new low carbon technologies is lower than required to meet the Government's current ambitions.⁶⁶ UK FIRES, a research collaboration between five UK universities, has argued against an over dependence on technological solutions to combat climate change. It stated the development of new energy technologies tended to take a long time to be developed and introduced. It has said:

Policy discussions have prioritised breakthrough technologies in the energy system, particularly carbon capture and storage, but it is at such an early stage of development that it won't reduce emissions significantly by 2050. [...] new energy technologies have typically required much longer time to reach full scale: even if the technology is well-established, building a power station requires public consultation about finance, safety, land-rights, connectivity and other environmental impacts all of which take time. For new technologies, it takes much longer, as investors, operators and regulators all need to build confidence in the safety and performance of

⁶¹ Committee on Climate Change, [Reducing UK Emissions—2019 Progress Report to Parliament](#), 10 July 2019, p 11.

⁶² *ibid.*, p 13.

⁶³ House of Commons, '[Written Question: Carbon Emissions](#)', 2 March 2020, 18432.

⁶⁴ House of Commons Science and Technology Committee, [Clean Growth: Technologies for Meeting the UK's Emissions Reduction Targets](#), 22 August 2019, HC 1454 of session 2017–19, pp 26–7.

⁶⁵ *ibid.*

⁶⁶ *ibid.*

the system.⁶⁷

4. Recent policy developments

Since Boris Johnson became Prime Minister in July 2019, the Government has made further policy announcements on environmental protection and climate change:

- In October 2019, the Prime Minister **announced the creation of a Cabinet Committee on Climate Change**.⁶⁸ The stated purpose of this new committee was to “drive further action across government to protect our environment, reduce emissions and improve air quality”.⁶⁹
- In November 2019, **HM Treasury announced that it would conduct a net-zero review**.⁷⁰ This would consider how the policies to implement the net-zero target for carbon emission might affect people and business across the economy. This followed the Committee on Climate Change’s recommendation.⁷¹ Part of the Treasury’s net-zero review remit is also to consider how to ensure the UK can achieve net-zero carbon emissions whilst avoiding the use of carbon trading.⁷² The findings of this review are due to be published in autumn 2020.
- The Government has said it would publish **a new energy white paper and a transport decarbonisation plan** in 2020.⁷³ The Government has also confirmed that its energy white paper is due to be published at the end of March 2020.⁷⁴
- The Government has committed to publishing a **‘heat policy roadmap’** outlining policies to achieve the decarbonisation of heating for buildings.⁷⁵ It would publish this in 2020.
- The Government has confirmed it is working **on a strategy for conserving areas of peatland**.⁷⁶ It has also confirmed it would be consulting on **a new English tree strategy**.⁷⁷
- In February 2020, the Government launched **a consultation on banning the sale of new petrol, diesel and hybrid vehicles by 2035**.⁷⁸ This followed the Committee on Climate Change’s criticism that the Government’s existing target for phasing-out of petrol

⁶⁷ UK FIRES, [Absolute Zero](#), November 2019, p 10. Further information on the recommendations of the UK FIRES report is provided in the House of Lords Library briefing, [Net Zero Carbon Emissions Target and Climate Change: Role of Technological and Lifestyle Efforts](#) (30 January 2020).

⁶⁸ Prime Minister’s Office, [Prime Minister to Chair New Cabinet Committee on Climate Change](#), 17 October 2019.

⁶⁹ *ibid.*

⁷⁰ HM Treasury, [HM Treasury’s Review into Funding the Transition to a Net Zero Greenhouse Gas Economy: Terms of Reference](#), 2 November 2019.

⁷¹ Committee on Climate Change, [Net Zero: The UK’s Contribution to Stopping Global Warming](#), May 2019, p 272.

⁷² HM Treasury, [HM Treasury’s Review into Funding the Transition to a Net Zero Greenhouse Gas Economy: Terms of Reference](#), 2 November 2019.

⁷³ House of Commons, [Written Question: Carbon Emissions](#), 5 November 2019, 7226.

⁷⁴ [HL Hansard, 24 February 2020, col 5.](#)

⁷⁵ Department for Business, Energy and Industrial Strategy, [Heat in Buildings](#), accessed 4 March 2020.

⁷⁶ House of Commons, [Written Question: Peat](#), 3 July 2019, 268975.

⁷⁷ [HC Hansard, 26 February 2020, col 427.](#)

⁷⁸ Department for Transport and Office for Low Emission Vehicles, [Consulting on Ending the Sale of New Petrol, Diesel and Hybrid Cars and Vans](#), 20 February 2020.

and diesel cars by 2040 was too late.⁷⁹ The committee recommended the target be brought forward to 2030.

- In terms of international support for protecting the environment, the Government announced in September 2019 it would **increase the UK's investment in international climate finance** to £11.6 billion from 2021–25.⁸⁰
- In March 2020, the Government laid the Environmental Protection (Plastic Straws, Cotton buds and Stirrers) (England) Regulations 2020 before parliament.⁸¹ This statutory instrument would **ban the supply of plastic straws, stirrers and cotton buds in England**.⁸² There are exceptions to this ban, including supplying plastic straws where there is medical need or on the basis of a disability.

The UK and Italy will be co-hosting the UN Climate Change conference (COP 26) at the end of 2020. This will be held in Glasgow. The conference's focus is how to implement the Paris agreement's aims.

5. Alternative proposals for the green economy

Both the Labour Party and the Liberal Democrats have published alternative economic strategies, which include proposals intended to protect the environment and reduce carbon emissions. In 2017, the Labour Party published its industrial strategy [Richer Britain, Richer Lives](#). This contained a commitment to increase the proportion of the UK's energy generated from renewable sources to 60 percent by 2030.⁸³ In its manifesto for the 2019 general election, the Liberal Democrats said the party would increase the proportion of electricity generated from renewable sources to 80 percent by 2030.⁸⁴ It also proposed a new target for insulating all low-income homes by 2025.⁸⁵

The Green New Deal Group, a campaign group including Caroline Lucas (Green Party MP for Brighton, Pavilion) and Clive Lewis (Labour MP for Norwich South), has argued that any plan to tackle climate change should tackle what it described as a "parallel and linked social crisis".⁸⁶ In its proposals for an alternative to the government strategy, referred to as the 'green new deal', the group described the causes of environmental damage and poverty as the same:

[the UK] must also move away from chasing ever increasing economic growth as our primary goal and instead prioritise the improvement of people's health and well-being, the reduction of inequality, tackling the climate emergency, and the restoration and protection of the natural environment on which our lives and livelihoods ultimately depend.⁸⁷

⁷⁹ Committee on Climate Change, [Reducing UK Emissions—2019 Progress Report to Parliament](#), 10 July 2019, p 11.

⁸⁰ Department for International Development et al, '[UK Aid to Double Efforts to Tackle Climate Change](#)', 23 September 2019.

⁸¹ Environmental Protection (Plastic Straws, Cotton buds and Stirrers) (England) Regulations 2020,

⁸² Department for Environment, Food and Rural Affairs, '[Legislation to Ban Plastic Straws, Stirrers and Cotton Buds Enters Parliament](#)', 3 March 2020.

⁸³ Labour Party, [Richer Britain, Richer Lives](#), October 2017, p 3.

⁸⁴ Liberal Democrats, [Liberal Democrats Manifesto 2019](#), November 2019, p 40.

⁸⁵ *ibid*, p 42.

⁸⁶ Green New Deal Group, [The Green New Deal: A Bill to Make it Happen](#), September 2019, p 3.

⁸⁷ *ibid*, pp 3–4.