

MAY 24, 2019

The UK Committee on Climate Change Recommends 2050 “Net-Zero” Target

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Introduction

On 2 May 2019, the UK’s Committee on Climate Change (“CCC”) recommended that the UK Parliament legislate, without delay, to reduce domestic greenhouse gas (“GHG”) emissions to “net-zero” by 2050.¹ The CCC is the UK Government’s chief climate change advisory body, and its previous recommendations have been implemented.

Adopting the net-zero target would constitute a tightening of the current regime, which obliges the Government to reduce GHGs to 80% of their 1990 level by 2050. Such a target would have implications both for UK consumers and UK-based businesses. The CCC has advised that to implement and realise the net-zero target, the UK Government would need to introduce new policies across many sectors of the economy.

This briefing provides an overview of the UK’s domestic climate change regime, the impact of developments in the international climate change regime and climate change science on the UK’s obligations, the basis of the net-zero emissions recommendation and the possible implications for businesses and industry of its enactment into law.

The Climate Change Act

In November 2008, Parliament passed the Climate Change Act (“CCA”), partly to implement its international obligations related to climate change. The adoption of the CCA was the first occasion that any country, particularly a major developed economy, imposed long-term, legally-binding targets to reduce domestic GHGs.

Under section 1(1) of the CCA, the Government is currently obliged to ensure that, by 2050, the UK’s emissions of at least six GHGs are 80% lower than their levels in 1990. Emissions from international aviation and shipping are not formally included in this target.² The CCA also requires

¹ “Net Zero – The UK’s contribution to stopping global warming,” Committee on Climate Change, May 2019 (<https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>).

² CCA, section 30.

that the Government set, and comply with, “carbon budgets” covering five-year periods to facilitate a cost-effective and managed reduction in emissions.³

The CCA also established the CCC.⁴ The CCC’s functions include advising the Government on setting, implementing and achieving each of the carbon budgets as well as reporting annually to Parliament on progress towards meeting carbon budgets and the 2050 target.⁵

Under section 2 of the CCA, the Secretary of State may amend by order the overall percentage reduction (currently 80%) or the target date (currently 2050), in circumstances where there have been significant developments in (i) scientific knowledge about climate change; or (ii) European or international law or policy, that make it appropriate to do so. The CCA requires the Government to seek and obtain the advice of the CCC prior to making such an amendment.⁶

The Paris Agreement and the IPCC Report

In December 2015, government delegations agreed the so-called “Paris Agreement” under the auspices of the UN Framework Convention on Climate Change. Under the Agreement, its state parties committed to peak global GHG emissions “as soon as possible,” to “holding the increase in the global average temperature to well below 2°C above pre-industrial levels,” and to “pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”⁷ These commitments were adopted “recognizing” that they “would significantly reduce the risks and impacts of climate change.” The Agreement came into force in November 2016.⁸ Rather than setting binding GHG reduction targets, the Agreement requires its state parties to determine domestic GHG emissions reductions for themselves (so-called “Nationally Determined Contributions” or “NDCs”) and record them in a public register.⁹

³ CCA, sections 4 and 5. The UK has set five separate carbon budgets up until 2032. The current carbon budget is the third of those five budgets, and covers the period from 2018 to 2022. To give Government, businesses and consumers adequate time to prepare for future changes, carbon budgets must be set 12 years in advance of their start date. The next carbon budget, from 2033-2037, will be set by 2021.

⁴ CCA, section 32.

⁵ CCA, sections 9, 34(1), 36(1). See also section 38.

⁶ CCA, section 3(1)(a).

⁷ Paris Agreement, Article 2(1)(a).

⁸ The Paris Agreement required that it be signed by at least 55 countries that together account for at least 55% of global GHG emissions to enter into force. The Agreement has now been signed and ratified by more than 185 countries, who collectively account for more than 89% of global GHG emissions. See Paris Agreement – Status of Ratification (<https://unfccc.int/process/the-paris-agreement/status-of-ratification>). On 1 June 2017, President Trump indicated that the US would withdraw from the Paris Agreement. Under Article 28 of the Paris Agreement, a state party may give notice of withdrawal three years after the Agreement enters into force and such withdrawal will take effect one year after the date of that notice (unless a later date is specified).

⁹ Paris Agreement, Article 4. The Agreement requires each state parties’ NDC to become more significant over time and to reflect its “highest possible ambition,” while bearing in mind that each state parties’ ambition will vary based on the principle of “common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.” This means that, in line with the principle of “equity,” major economies are expected to implement economy-wide emissions-reduction targets. All state parties are obliged to report every five years on the volume of its emissions and its progress in implementing and achieving emissions reductions. The Paris Agreement also contains provisions on adaptation (Article 7), the provision of financial resources by developed countries (Article 9), technology development and transfer (Article 10), and new market-based mechanisms for emissions mitigation (Article 6). Collective progress towards achieving the objectives of the Agreement will be assessed at a ‘global stocktake’ in 2023 and then at five-yearly intervals thereafter (Article 14).

In the [Decision](#) that adopted the Paris Agreement, government delegations invited the Intergovernmental Panel on Climate Change (“IPCC”)¹⁰ to deliver a special report on the impacts of global warming above 1.5°C and the GHG emissions pathways that would be needed to limit the rise in global temperatures to 1.5°C. The IPCC’s [special report](#) was published in October 2018. It indicated that even with full compliance of existing NDCs, global warming would likely increase by 3°C above pre-industrial levels by 2100, with attendant adverse impacts. The IPCC also found that to limit warming to 1.5°C, “rapid and far-reaching” economy-wide transitions would be required by 2030, and net-zero emissions by 2050.

Following the special report, the UK’s Energy and Clean Growth Minister requested the CCC’s advice as to whether, in light of its obligations under the Paris Agreement and the special report, the UK should adjust its target emissions reduction or target date in section 1(1) of the CCA.¹¹ The CCC’s report of 2 May 2019 is its response to this request.

The CCC’s Recommendation

In its 2 May report, the CCC has [recommended](#) that the UK should target net-zero GHG emissions by 2050.¹² The CCC’s recommendation also applies to international aviation and shipping, which are omitted from the current target of an 80% reduction by 2050. The CCC concluded that:

- (i) the revised target amounted to the UK’s “highest possible ambition,” as required by Article 4 of the Paris Agreement;
- (ii) if it was replicated across the world and coupled with ambitious near-term reductions in emissions, it would deliver a greater than 50% chance of limiting temperature increases to 1.5°C (and conform with the “well below 2°C” goal); and
- (iii) it is presently not credible to reach net-zero emissions earlier than 2050.

The CCC acknowledged that the net-zero target would require greater per capita emissions reductions in the UK than would be required globally to meet the goals of the Paris Agreement.¹³ The CCC justified the UK’s additional contribution based on the UK’s large cumulative historical GHG emissions,¹⁴ significant carbon footprint attached to imported products (the emissions for

¹⁰ The IPCC is the primary UN body for assessing the science related to climate change. See <https://www.ipcc.ch>.

¹¹ Letter from Department of Business, Energy and Industrial Strategy to Committee on Climate Change, dated 15 October 2018 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748489/CC_C_commission_for_Paris_Advice_-_Scot__UK.pdf).

¹² CCC Report, at p. 11. The CCC recognized that by targeting net-zero rather than the elimination of all sources of GHG emissions, certain industries (such as aviation and farming) will continue to emit GHGs; aiming for net-zero therefore anticipates that existing sources of emissions will be offset by activities that remove GHGs from the atmosphere. The CCC recommends that the UK try to achieve this target without making use of international carbon offsets. The CCC further recommends that, owing to national circumstances, Scotland reach net-zero emissions by 2045 and Wales a 95% emissions reduction from 1990 levels by 2050.

¹³ CCC Report, at p. 19.

¹⁴ According to the CCC, the UK has approximately 1% of global population, but is responsible for 2-3% of all human-induced global warming to date. CCC Report, at p. 19.

which are counted in other countries), capacity to act as a high-income economy with a population broadly supportive of climate mitigation action, and global leadership role in fighting climate change.

The CCC urged the Government to bring before Parliament draft legislation as soon as possible to give effect to the net-zero target. While the UK Government is obliged to take the CCC's advice into account, it is not obliged to implement it.¹⁵ However, the Government historically has accepted the CCC's recommendations. If Parliament were to pass such legislation, the UK would be the first major economy to enact such a stringent target.¹⁶

The Secretary of State for Business, Energy and Industrial Strategy, Greg Clark, commented that the Government was "not immediately accepting the recommendations," but would respond "in due course to ensure the UK continues to be a world leader in tackling climate change."¹⁷

The CCC's Advice on the Implications of a Net-Zero Target

The CCC's report indicates that if the 2050 net-zero target is to be enshrined in law, it would have implications for Government policy, businesses and consumers in the UK. According to the CCC, areas that would be significantly affected include electricity generation, heating buildings, transportation, agriculture, land use and waste.

The UK has a strong history of reducing its GHG emissions. In 2017, UK emissions were 39% below their level in 1990.¹⁸ The CCC reports that much of the success in reducing GHG emissions has come solely from improvements in electricity generation, with coal-fired power stations being replaced by renewables (such as offshore wind and solar power).¹⁹ The scope for further reductions in this area is now limited.²⁰ The CCC therefore concluded that emissions reductions would be required across all sectors of the economy and society to reach net-zero.²¹

The CCC indicated that to achieve the net-zero target, its attainment must be given central importance across the whole of UK central Government and at every level of Government.²² The CCC also stressed that although many of the policy foundations are in place, a major ramp-up in

¹⁵ CCA, section 3(1)(a). The Government may propose to Parliament a different percentage reduction or a different target year providing it publishes a statement setting out the reasons for that decision.

¹⁶ Although other countries, such as Denmark, Sweden and Norway, have enacted net-zero targets for the same date or earlier, these contain flexibilities (such as the exclusion of international aviation and shipping, or the use of international carbon offsets) that the CCC's recommendation does not.

¹⁷ See Secretary of State for Business, Energy and Industrial Strategy welcomes the Committee on Climate Change 'Net Zero' report, 2 May 2019 (<https://www.gov.uk/government/news/secretary-of-state-for-business-energy-and-industrial-strategy-welcomes-the-committee-on-climate-change-net-zero-report>).

¹⁸ CCC Report, at p. 138.

¹⁹ CCC Report, at p. 140.

²⁰ Coal was responsible for just 5% of electricity generation in 2018. See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/789362/Electricity_March_2019.pdf, at p. 36.

²¹ CCC Report, at pp. 137-138.

²² CCC Report, at p. 12.

policy effort would be required to achieve the 2050 net-zero target,²³ including in the following areas:²⁴

- **Low carbon power:** Quadrupling the supply and use of low carbon power to increase the proportion of renewable energy in the electricity-generation mix and to increase electricity use in underutilised areas such as transportation and heating.
- **Heating buildings:** Improving energy efficiency, insulation and low-carbon heating in new and existing buildings including through heat pumps and/or electric heating.
- **Carbon capture and storage:** Developing and implementing large-scale infrastructure and use of carbon capture and storage by 2030.
- **Electric vehicles:** Requiring that all new cars and vehicles are electric by 2035 at the latest, with an earlier switchover by 2030 desirable.
- **Agriculture:** Changing farm and land use, including through improved carbon sequestration activities and low-carbon farming practices.
- **Waste:** Ensuring that biodegradable waste does not enter landfill after 2025 and increasing recycling rates.

In addition to these specific policies, the CCC highlighted other necessary changes. These included research into the development and application of hydrogen as a fuel source, encouraging lifestyle choices that include lower consumption of meat and dairy, and planting 20,000 hectares of forest a year to sequester carbon (with the effect of increasing the forest cover of the UK from 13% to 17% by 2050, or by 1.5 billion trees).²⁵

The CCC's key message is that substantial changes would need to be made in many areas of UK society if the net-zero target is to be achieved. The CCC emphasised that such changes would not come at significant additional cost, and could ultimately result in a positive contribution to GDP.²⁶ At the time of the CCA's enactment in 2008, the CCC indicated, and Parliament accepted, that the total cost of implementing an 80% reduction in emissions by 2050 would be approximately 1-2% of GDP. According to the CCC's analysis, the net-zero goal can now be met at the same cost, due to rapid cost reductions resulting from mass deployment of key technologies (such as offshore wind and batteries for electric vehicles).²⁷ The CCC also stated that the potential costs would be lower if

²³ CCC Report, at pp. 11-12.

²⁴ CCC Report, at pp. 34-35.

²⁵ CCC Report, at p. 35.

²⁶ CCC Report, at pp. 27-28.

²⁷ CCC Report, at p. 27.

the UK were to implement the recommended measures more quickly,²⁸ and that substantial co-benefits would accrue from adopting and working towards a net-zero goal.²⁹

Conclusion

Attention will now turn to Parliament, and whether the Government will introduce legislation to enshrine the 2050 net-zero emissions target in law (via an amendment to section 1(1) of the CCA). The Government has already committed to net-zero emissions in principle;³⁰ the question is whether it will agree to the 2050 timeline.

In recent weeks, public events have highlighted the issue of climate change, including protests in London, the speech to Parliament by Swedish student Greta Thunberg, and Parliament's motion declaring an environment and climate emergency. In light of those events, the Government will likely experience significant pressure to bring forward legislation to enact the net-zero target. Should Parliament pass such an amendment, it will be for the Government to act on the CCC's call to "ramp up" stable and long-term policies to provide businesses, investors and consumers with certainty.

Businesses in all sectors of the economy, particularly those making investment decisions with longer time horizons, would be well-advised to consider carefully the implications that the CCC's recommendations, including a net-zero target, may have for them.

WilmerHale's Energy, Environmental and Natural Resources practice and its International Arbitration practice will continue to monitor and can advise on developments related to the Climate Change Act and the associated implications for businesses.

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²⁸ The CCC did note that any such costs would not necessarily fall equally across society and urged the Treasury to implement measures to ensure that these costs were shared as equally as possible and did not undermine UK competitiveness. See CCC Report, at pp. 28-30.

²⁹ According to the CCC, these potential co-benefits included (i) potential economic benefits from early adoption in key sectors (for example, engineering of low-carbon technologies or carbon capture and storage); (ii) non-economic benefits, such as improved quality of life (due to better air quality, less noise, "smart" homes, enhanced biodiversity and recreational benefits from changes to land use); and (iii) lower risks from the consequences of climate change (including, for example, reduced flooding in the UK and associated rebuild costs, reduced exposure to rising food prices and reduced climate-induced migration). See CCC Report, at p. 30.

³⁰ See Letter from Department of Business, Energy and Industrial Strategy to Committee on Climate Change, dated 15 October 2018 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748489/CC_C_commission_for_Paris_Advice_-_Scot__UK.pdf).

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