



# A Survey of Climate Change Law in the United Kingdom

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## Abstract

A detailed summative statement of the law of climate change in the United Kingdom has yet to be brought together in the legal literature. This article fills the gap by drawing UK climate change law together into an article-length outline. The law is current to 4 July 2024, when the British Conservative Party, which had been in government for fourteen consecutive years, lost to Labour in a general election.

## Keywords

United Kingdom – climate law – climate change legislation – climate litigation

## 1 Introduction

This article provides a first detailed summative statement of the law of climate change in the United Kingdom. The absence of such a statement amounts to a significant gap in the legal literature. The outline endeavours to delineate the law in the area in a comprehensive way, while also recognizing that the parameters and content of climate law can be difficult to establish. This statement of the law will be useful to lawyers, researchers, students, and others who are working in this area. It will also be useful for scholars and others who wish to understand the UK system in detail, including for the purposes of comparative analysis with other jurisdictions.

This summary draws the law together up to the point in time immediately prior to the Conservative Party's loss to Labour in the general election of 4 July 2024. As such, it allows the legal regime developed by the Conservatives to be viewed clearly in its own right. In going forward, it also permits analysts to interpret and assess areas of climate law that the Labour government will seek to retain and alter against the backdrop of the climate regime that it inherited.

## 2 The Scope of UK Climate Change Law

In outlining UK climate change law, it is reasonable to begin by clarifying what climate change law actually is or what it covers. This is not a small point – and not only because of the global pervasiveness of climate change itself. All sectors of the UK socio-economy produce greenhouse gas emissions and have at least some degree of relevance to climate change. Thus, given the physical and socio-economic pervasiveness of the issue, and even though one's sense of what climate change law is or covers might seem obvious, on closer inspection the matter is not so clear-cut.

Legal research, scholarship, and practice have not yet arrived at a clear, coherent, or shared definition or understanding of what constitutes climate law. Nonetheless, it is clear that the field has come to be identified increasingly as a free-standing branch of law over the last two decades.<sup>1</sup> Fisher and colleagues have suggested that climate change can be described as 'legally disruptive', because the novel, complex, and long-term nature of the phenomenon gives rise to disputes and problems that are not easily addressed by traditional legal doctrines and frameworks.<sup>2</sup> According to Mayer and Zahar, the earliest books on climate law began to appear in 2005 at a rate of one or two per year.<sup>3</sup> Mayer and Zahar also state that the first climate law courses were 'not offered much earlier than 2008'.<sup>4</sup>

What does climate law cover in terms of doctrinal law? If climate law is understood to pertain to, or encompass, any law engaging anthropogenic

1 In 2008, Peel observed that in the years leading up to 2008 it was becoming possible to identify a trend toward the consolidation of certain legal rules and principles around the problem of climate change, and her work assisted in investigating their scope: Jacqueline Peel, 'Climate Change Law: The Emergence of a New Legal Discipline', 32 *Melbourne University Law Review* 922 (2008).

2 Elizabeth Fisher, Eloise Scotford, and Emily Barritt, 'The Legally Disruptive Nature of Climate Change', 80(2) *The Modern Law Review* 173 (2017).

3 Benoit Mayer and Alexander Zahar (eds.), *Debating Climate Law* (Cambridge University Press, 2021), 1 (noting one earlier exception).

4 *Ibid.*, 2.

climate change in some significant way, an enormous array of extant law can be said to amount to climate law, strictly speaking. Given that economy-wide decarbonization is at issue, a wide body of law pertaining to every sector of the economy suggests itself. This could range from the UK's Climate Change Levy carbon tax in the Finance Act 2005<sup>5</sup> to regulations with little to no explicit connection to climate change, such as the price-cap adjustment applied to regulated train fares by the UK government in order to prevent inflation from pricing people out of train usage.<sup>6</sup> It is quite plausible to construe law that enables a price cap on public transport as amounting to climate law. However, a limiting framework is necessary to analyse the law in a way that allows coherence to emerge and insights to be drawn.<sup>7</sup> There is no right answer, of course, as to where to draw the line. To a significant extent it is a matter of choice.<sup>8</sup> But the choice should be constrained by 'reasonable limits',<sup>9</sup> such as limiting the meaning of climate law to climate-relevant law created in the period in which we became aware of the phenomenon of anthropogenic climate change.<sup>10</sup> To this end, three categories of doctrinal law can be distinguished.<sup>11</sup>

Category 1 laws are those that are directly within the literal meaning of climate law, such as the UK's Climate Change Act.<sup>12</sup> Category 2 laws are indirectly within scope, such as the UK's Renewable Transport Fuel Obligations Order 2007.<sup>13</sup> It at no point references 'climate change', but obligates UK suppliers of liquid fossil fuels to include a fixed amount of sustainable biofuel in their supply quotas as part of the UK government's drive to contribute to the decarbonization of the transport sector.<sup>14</sup> Category 3 laws are all those laws focused on matters unrelated to climate law, and are thus excluded from its scope. Because UK courts can play a significant role in developing the law, Categories 1 and 2 include court rulings in addition to statutes.

5 Finance Act 2000, Schedule 6.

6 Georgie Frost, 'Rail Fare Increase 2024: Which Services will cost More? Plus How to still get Cheap Train Tickets', *The Times*, 1 March 2024.

7 Chris Hilson, 'Climate Change Litigation: A Social Movement Perspective' (April 2010), 2, <<https://ssrn.com/abstract=1680362>>.

8 See further Chapter 1, in Thomas L. Muinzer, *Major Cases in Climate Law: A Critical Introduction* (United Kingdom: Hart, forthcoming).

9 Ibid.

10 On the history and development of this strand of science, see, e.g., Jill Jäger and Tim O'Riordan, 'The History of Climate Change Science and Politics', in Tim O'Riordan and Jill Jäger (eds.), *The Politics of Climate Change* (Routledge, 1996).

11 See further Muinzer, *supra* n. 8.

12 The UK's Climate Change Act 2008 is outlined below.

13 Renewable Transport Fuel Obligations Order 2007 (SI 2007/3072).

14 The UK Renewable Transport Fuel Obligation is outlined below.

The present summary of UK climate law provides an outline of Category 1 and 2 laws in the UK. The Climate Change Act 2008 is the main centre of gravity in this area, so the next section outlines this framework and its associated elements in detail. The section after that outlines other important elements of UK climate law.

Lawyers practising in this area should beware that climate laws across the UK can diverge significantly in certain cases due to the operation of devolution in Northern Ireland, Scotland, and Wales, and should carefully check the jurisdictional reach of the laws they are working with. Unless otherwise stated, this summary covers UK-wide law as well as laws applicable to England (and normally Wales) that may also be applicable to Scotland or/and Northern Ireland, or that typically exist in a roughly equivalent form within the Scottish or/and Northern Irish (or/and Welsh) devolved legal systems.

### 3 The Climate Change Act 2008

The Climate Change Act 2008 (CCA 2008) was described above as the UK's legislative centre of gravity in the area. It was 'the first instance in the world where a country placed blanket legally binding long-term emissions reduction targets upon itself in order to combat climate change'.<sup>15</sup> It was the world's first national framework climate legislation.<sup>16</sup> This type of act is defined as 'a broad national legislative framework that has been set in place by a state legislature as an Act of Parliament (or equivalent) for the purpose of redressing specific problems posed by climate change in an overarching or otherwise broadly strategic manner within that particular country'.<sup>17</sup>

As a pioneering major framework engaging a complex matter, CCA 2008 is of importance to UK climate law, however it also has wider importance, having had an international influence and impact that is uncommon for a domestic statute. As other countries began to craft such acts in the face of climate change, 'a number of countries now employ climate regimes containing foundational elements that have been influenced directly' by the UK's legislation.<sup>18</sup> Indeed,

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15 Thomas L. Muinzer, *Climate and Energy Governance for the UK Low Carbon Transition: The Climate Change Act 2008* (United Kingdom: Palgrave, 2019), vii.

16 See further Thomas L. Muinzer, 'What are National "Climate Change Acts"?', 39(4) *Journal of Energy and Natural Resources Law* 419 (2021), 432–3.

17 *Ibid.*, 432.

18 Muinzer, *supra* n. 15, 97.

CCA 2008 has become a model for a number of other climate change acts around the world.<sup>19</sup>

### 3.1 *Analytical Framing and CCA 2008*

The CCA 2008 framework is complex, and academic lawyers have summarized a basic conceptual scheme that assists lawyers and others in framing its analysis:<sup>20</sup>

- Two major thematic elements can be seen to underlie the framework: mitigation of greenhouse gas emissions and adaptation to climate change.<sup>21</sup>
- Two major categories of duty can be seen to operate in the framework: substantive and procedural duties. The former typically involve goals and outcomes that are to be achieved. The latter involve processes and procedures laid down in the act.<sup>22</sup>
- Evaluation of the framework's characteristics can be assisted by the concepts of *strengthening* and *deepening*. Strengthening is the ratcheting up of decarbonization objectives. Deepening is the increase in reach of the act's decarbonization processes. To achieve fulsome depth, the framework's decarbonization goals and practices must be implemented robustly on an economy-wide scale and not limited primarily to electricity and heat generation. Deepening recognizes the socio-economic reach and pervasiveness of the act's goals and drivers.<sup>23</sup>

These concepts will be drawn on at various points below to clarify aspects of the act's form, content, and reach.

<sup>19</sup> See further *ibid.*, 97–8.

<sup>20</sup> The following summary points are adapted from p. 744 of Thomas L. Muinzer and John B. Paterson, 'The Law of Climate Change and Energy in the United Kingdom'/'La Ley de Cambio Climático y Energía en Reino Unido', in José Francisco Alenza García and Lorenzo Mellado Ruiz (eds.), *Studies on Climate Change and Energy Transition/Estudios Sobre Cambio Climático y Transición Energética* (Spain: Marcial Pons, 2022), 743–60 (in Spanish).

<sup>21</sup> See also Richard Macrory and Thomas L. Muinzer, 'The United Kingdom's Climate Change Act', Chapter 3, in Thomas L. Muinzer (ed.) *National Climate Change Acts: The Emergence, Form and Nature of National Framework Climate Legislation* (Bloomsbury, 2020), 70.

<sup>22</sup> See also *ibid.* There may be a subtle distinction between substantive outcome duties that *must* be achieved and those that one must *endeavour* to achieve: see *Friends of the Earth & Ors, R (on the application of) v. Secretary of State for Energy & Climate Change* [2009] EWCA Civ 810 (30 July 2009).

<sup>23</sup> See also Macrory and Muinzer, *supra* n. 21, 70–1.

### 3.2 *Content and Features of CCA 2008*

CCA 2008 is a large statute, divided into 6 Parts. It contains 101 sections, followed by 8 Schedules, structured as follows:<sup>24</sup>

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<i>Parts and schedules</i>	<i>Titles</i>
Part 1	Carbon Target and Budgeting
Part 2	The Committee on Climate Change
Part 3	Trading Schemes
Part 4	Impact of and Adaptation to Climate Change
Part 5	Other Provisions
Part 6	General Supplementary Provisions
Schedule 1	The Committee on Climate Change
Schedule 2	Trading Schemes
Schedule 3	Trading Schemes Regulations: Further Provisions
Schedule 4	Trading Schemes: Powers to Require Information
Schedule 5	Waste Reduction Schemes
Schedule 6	Charges for Carrier Bags
Schedule 7	Renewable Transport Fuel Obligations
Schedule 8	Carbon Emissions Reduction Targets

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In relation to the thematic element of mitigation, the act governs specified ‘targeted greenhouse gases’,<sup>25</sup> which are to be progressively reduced under the terms of an economy-wide decarbonization transition. The same seven categories of greenhouse gases are regulated as under the Kyoto Protocol and the Paris Agreement.<sup>26</sup>

‘Emissions’ of a targeted gas refer to ‘emissions of that gas into the atmosphere that are attributable to human activity’.<sup>27</sup> These are ‘measured or calculated in tonnes of carbon dioxide equivalent’.<sup>28</sup> The Secretary of State may amend the list of targeted gases, by ‘add[ing] to the gases listed in that definition’ if a relevant agreement or arrangement at the ‘European’ or ‘international’ level recognizes that an additional gas contributes to climate

<sup>24</sup> Ibid., 74.

<sup>25</sup> CCA 2008, s. 24(1).

<sup>26</sup> Ibid., s. 92(1)(a)-(g).

<sup>27</sup> Ibid., s. 97.

<sup>28</sup> Ibid., s. 93(1).

change.<sup>29</sup> This power has been exercised once, in 2023.<sup>30</sup> The absence of nitrogen trifluoride ( $\text{NF}_3$ ) from the list was deemed legally and scientifically problematic<sup>31</sup> and the Scottish Climate Emergency Legal Network threatened legal action.<sup>32</sup> The Secretary of State amended the list to include the gas. Thus, a degree of statutory *deepening* occurred in the UK regulatory regime.

The Act's most important substantive duties take the form of long-term legally binding economy-wide emission-reduction targets that the UK government is obligated to achieve. A 100 per cent emission-reduction target (1990 baseline) is applied for 2050,<sup>33</sup> with a 34 per cent target for 2020.<sup>34</sup> The 2020 target was achieved in advance of the date.<sup>35</sup> Due to their importance, the 2020 and 2050 targets have been characterized as 'milestone' targets.<sup>36</sup> For a brief time the 2020 target sat at the lower figure of 26 per cent, and for a longer time the 2050 target sat at 80 per cent. The former was revised upward to 34 per cent in 2009, fairly swiftly after the passage of the Act in 2008.<sup>37</sup> A decade later the 2050 target was revised upward to 100 per cent/'Net Zero', following an application for judicial review against the government to compel an increase.<sup>38</sup> The litigation itself was unsuccessful, however it drew public and political attention to the 2050 target level and contributed pressure for an upward adjustment in light of the Paris Agreement and associated

29 Ibid., s. 92.

30 Climate Change (Targeted Greenhouse Gases) Order 2023 (SI 2023/118).

31 Sally McDonald, 'Scientists Warn of Heat-Trapping Chemical Thousands of times Worse than  $\text{CO}_2$ ', *The Sunday Post*, 30 July 2023.

32 Legal Services Agency, *Success for the Scottish Climate Emergency Legal Network's Seventh Gas Campaign*, Press Release, 21 March 2023, <<https://lsa.org.uk/success-for-scottish-climate-emergency-legal-networks-seventh-gas-campaign/>>. See, further, Solicitor's Letter to the Secretary of State on behalf of the Scottish Climate Emergency Legal Network, 27 October 2020; Javier Martin-Torres, *What is Nitrogen Trifluoride (NF<sub>3</sub>)?* (scientific brief, University of Aberdeen, 2023); Thomas L. Muinzer, Tom Mullen, Ben Christman, and Paul D. Brown, *The Climate Change Act 2008 and Nitrogen Trifluoride* (legal brief, Scottish Climate Emergency Legal Network, 2020); European Commission Complaint of 21 December 2020, reference CHAP(2020)00761.

33 CCA 2008, s. 1(1).

34 Ibid., s. 5(1)(a). On the 1990 baseline level, see further *ibid.*, s. 25(1).

35 Between 1990 and 2020, UK territorial  $\text{CO}_2$  emissions decreased by 49.7%; see *2020 UK Greenhouse Gas Emissions, Final Figures* (UK Government, 2021), 1.

36 Thomas L. Muinzer and Gavin McLeod Little, 'A Stocktake of Legal Research on the United Kingdom's Climate Change Act: Present Understandings, Future Opportunities', XIII *European Energy Law Report* 428 (2020), 434.

37 Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009 (SI 2009/1258).

38 *Plan B Earth & Ors, R (on the application of) v. Secretary of State for Business, Energy and Industrial Strategy* [2018] EWHC 1892 (Admin) (20 July 2018).

international developments since the Act was passed. The change to 100 per cent was made in 2019.<sup>39</sup> Thus, both of the framework's milestone targets experienced significant *strengthening* since the Act's commencement.

Although the milestone targets are designed to suppress domestic UK greenhouse gas emissions, internationally issued emission credits can also be used toward the targets.<sup>40</sup> Furthermore, international emissions from aviation and shipping have been taken into account under the framework, but these emissions have not been counted toward the legally binding emission targets and budget levels, including the net-zero target (emission budgeting is outlined below).<sup>41</sup> The Secretary of State, however, who has the power to include international aviation and shipping emissions,<sup>42</sup> received advice from the Committee on Climate Change, the independent advisory body, that these sources should be included in the Act's emission-budget scheme (which I will below refer to as a 'carbon' scheme, following the standard, albeit slightly inaccurate, UK terminology), and the Carbon Budget Order 2021 has followed these recommendations for the Act's sixth carbon budget, which spans 2033–37.<sup>43</sup>

The Secretary of State bears the legal duty to achieve the mitigation targets.<sup>44</sup> When this substantive duty was created it was highly unusual in the context of UK law, as it was uncommon to find such target duties expressed in absolute terms with no qualifications in acts of parliament.<sup>45</sup> Such target duties have since become a bedrock of climate change law in the UK,<sup>46</sup> however they remain novel in UK law. While the Secretary of State can amend the targets via secondary legislation, constraints are placed upon this power, with the legislation specifying that significant developments in scientific knowledge on climate change or international or European law or policy are required as a basis for doing so.<sup>47</sup>

39 Climate Change Act 2008 (2050 Target Amendment) Order 2019 (SI 2009/1056).

40 See further Sam Fankhauser, Alina Averchenkova, and Jared Finnegan, *10 Years of the Climate Change Act* (UK: Grantham Research Institute, 2018), 15.

41 CCA 2008, s. 30(1).

42 *Ibid.*

43 Carbon Budget Order 2021 (SI 2021/750).

44 CCA 2008, ss. 1(1), 4(1).

45 Colin T. Reid, 'A New Sort of Duty? The Significance of "Outcome" Duties in the Climate Change and Child Poverty Acts', 4 *Public Law* 749 (2012).

46 This is in part because the Act's targets have bedded in and become a normalized part of UK law, with the UK's net-zero target at s. 1(1) of the Act being frequently discussed in the UK media and general political/legal discourse. Doctrinally, it is also because the CCA 2008 target-duty approach has been replicated in subsequent statutes: for Northern Ireland, see Climate Change Act (Northern Ireland) 2022, ss. 1–4; for Scotland, see Climate Change (Scotland) Act 2009, ss. A1, 2.

47 CCA 2008, ss. 2, 6.



CCA 2008 instituted a carbon-accounting scheme to track the reductions mandated by the 2020 and 2050 milestone targets. It is likely that this scheme will seem complex at first encounter, as it is quite involved, and the specialized law that structures it is necessarily technical.<sup>48</sup> A 'net UK emissions' level is established by the Act, which represents the total quantity of targeted greenhouse gases released by the UK after greenhouse gas 'removals' have been deducted,<sup>49</sup> these removals being from the UK's LULUCF sector.<sup>50</sup> The Energy Act 2023 has recently amended this definition, expanding it to include engineered removals.<sup>51</sup> CCA 2008 creates a national 'carbon budgeting' scheme and provides the UK with a 'net UK carbon account'.<sup>52</sup> The system uses 'carbon units', with a unit representing a fixed quantity of greenhouse gas.<sup>53</sup>

The carbon budget runs over fixed sequential 5-year periods. Each period enabled by the Act is capped at a set emission level, and a corresponding quantity of carbon units is credited to the UK's carbon account.<sup>54</sup> A facility exists to carry carbon credits from one budget period to a subsequent one, or back to a preceding one, but the circumstances in which this power can be exercised and the quantities that can be carried over are limited.<sup>55</sup> For example, an amount carried backward must not exceed 1 per cent of the carbon budget for the later period.<sup>56</sup> If a carbon budget is exceeded, the Secretary of State must set out proposals to compensate for the breach over subsequent periods.<sup>57</sup> The overall pressure and momentum is on keeping the UK within its budget, and this has been successfully done to date.<sup>58</sup>

Thus the ongoing procedural duty embodied by the rolling carbon-budget cycle allows for a continuous reduction in emission levels to be sketched out into the future, aligned with the UK's 2020 and 2050 milestone targets.<sup>59</sup> The designers of the Act have integrated into it a complex system of environmental

48 In addition to the provisions in the parent Act (CCA 2008), the carbon-accounting system is further elaborated in the Carbon Accounting Regulations 2009 (SI 2009/1257).

49 CCA 2008, s. 29(1)(a)-(c).

50 *Ibid.*, s. 29(1)(b).

51 Energy Act 2023, s. 160.

52 CCA 2008, ss. 4-10, 26-28, 1(1), 4(1)(a).

53 *Ibid.*, s. 26(1).

54 *Ibid.*, ss. 4-5, 8.

55 *Ibid.*, s. 17.

56 *Ibid.*, s. 17(2).

57 *Ibid.*, s. 19.

58 The CCC reports that 'the UK's Third Carbon Budget, covering the period 2018 to 2022, was successfully met with emissions 391 MtCO<sub>2</sub>e and 15% below the level of the budget (2,544 MtCO<sub>2</sub>e)': Letter of Piers Forster (Interim Chair of the CCC) to Minister of State for Energy Security and Net Zero, 28 February 2024, Ref. PO-02-2024-CCC.

59 CCA 2008, s. 5(1)(a)-(b).

economics. Its format is analogous to, or replicates, legislative approaches that have become increasingly familiar to lawyers specialized in climate law. In the European Union, for example, the European Climate Law,<sup>60</sup> the Emissions Trading Scheme Directive,<sup>61</sup> and associated legislation,<sup>62</sup> involve a similar logic. CCA 2008 gives the Secretary of State the power to create, via secondary legislation, emission-trading schemes in the UK,<sup>63</sup> and the UK's devolved Northern Irish, Scottish, and Welsh governments are accorded certain powers to do so within their jurisdictions as well.<sup>64</sup>

When the UK separated from the EU under the terms of Brexit (completed on 31 January 2020), it detached itself from participation in the EU's Emissions Trading Scheme, replacing it with the UK Emissions Trading Scheme, which is linked to the UK Net Zero 2050 goal and operates within the parameters of Part 3 of CCA 2008.<sup>65</sup> The UK government has also used its trading scheme powers under CCA 2008, Part 3, to introduce the CRC Energy Efficiency Scheme.<sup>66</sup> This mandatory emission-trading scheme for large businesses and public-sector organizations in the UK came into force in April 2010 and was abolished in 2019.

In *R (Elliott-Smith) v. Secretary of State and others* (2021),<sup>67</sup> the High Court dismissed an application for judicial review of the UK ETS. The claimant argued that the UK ETS was unlawful because the UK government had not taken the short-to-medium-term urgency of the Paris Agreement appropriately into account as a material consideration and because the scheme did not fulfil the

60 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). Commission Regulation 2021/1119 OJ2021 L243 1.

61 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (as amended). Council Directive 2003/87 OJ 2003 L275/32.

62 Including, but not limited to, the EU's 'Carbon Border Adjustment Mechanism'. Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism (Text with EEA relevance). Commission Regulation 2023/956 OJ 2023 L130/52.

63 CCA 2008, Part 3; see also Schedules 2–4.

64 *Ibid.*, s. 47.

65 *Ibid.*, Part 3, ss. 44–55 ('Trading schemes'), and Schedules 2–4. The CCA 2008 carbon budgets cover the 'traded sector', involving the UK ETS (covering energy generation and heavy industry), and the 'non-traded' sector, involving the UK's other sectors (e.g., transport, agriculture).

66 CRC Energy Efficiency Scheme Order 2013 (SI 2013/1119); CRC Energy Efficiency Scheme Order 2010 (SI 2010/786).

67 [2021] EWHC 1633 (15 June 2021).

statutory purpose for establishing trading schemes under CCA 2008, s. 44.<sup>68</sup> The court was unpersuaded by the Paris Agreement argument, and opined in relation to s. 44 that:

a trading scheme within the definition provided by section 44 (2)(a) does not necessarily have to achieve a reduction in the activities consisting of greenhouse gas emissions or causing or contributing such emissions: it is sufficient that the design of the scheme limits or encourages the limitation of those activities.<sup>69</sup>

Thus, the court found that the UK government had designed the UK ETS appropriately within the parameters of the Act.

The Secretary of State is required to set the carbon budget<sup>70</sup> for a given 5-year period some 12 years or more prior to its commencement.<sup>71</sup> One of the mandatory matters that the Secretary of State must take into account when setting a carbon budget is ‘energy policy, and in particular the likely impact of the decision on energy supplies and the carbon and energy intensity of the economy’.<sup>72</sup>

The Energy Act 2023 imposes a duty for components of UK gas and electricity regulation to be conducted in a way calculated to best support the Net Zero objective under CCA 2008,<sup>73</sup> including both the 2050 Net Zero target and the carbon-budget requirements that are pegged to it.<sup>74</sup> This includes the imposition of duties on the Gas and Electricity Markets Authority (the governing body of electricity and gas regulator Ofgem).<sup>75</sup> CCA 2008 has also informed Part 1 of the Energy Act 2013, which gives the Secretary of State in the UK government the power to set and amend a 2030 decarbonization target range for the electricity sector.<sup>76</sup> The target range establishes a level of

68 See, further, CCA 2008, s. 44, ‘Trading Schemes’. Trading schemes are defined at CCA 2008, s. 44(2)(a)-(b).

69 *Elliott-Smith*, supra n. 67, para. 66.

70 Note that the carbon budget that the Secretary of State must put forward requires approval by affirmative resolution procedure in the UK parliament, meaning that both houses of the UK’s legislature must approve it before it comes into force: CCA 2008, s. 8(3).

71 CCA 2008, s. 4(2)(a)-(b). The legislation stipulates that a carbon budget for a budgetary period must be set ‘for any later period, not later than 30th June in the 12th year before the beginning of the period in question’ (s. 4(2)(b)), so, in practice, this is 11.5 years prior to the budget commencement.

72 CCA 2008, s. 10(2)(f).

73 Energy Act 2023, s. 163(1)(a).

74 *Ibid.*, s. 163(2)(a)-(b).

75 Electricity Act 2023, s. 202.

76 Energy Act 2013, s. 1(1)-(5).

carbon intensity of electricity generation.<sup>77</sup> Carbon intensity refers to ‘grams of carbon dioxide equivalent emissions, measured per kilowatt hour of electricity generated in the United Kingdom’.<sup>78</sup> The Energy Acts of 2013 and 2023 are both in force concurrently (unlike other jurisdictions around the world, it is not unusual for UK Acts to run concurrently).

The UK carbon-budget levels at the time of writing are shown in the following table. They are inclusive of emissions/removals from the LULUCF sector.<sup>79</sup>

UK Carbon Budget	Years	Budget (MtCO <sub>2e</sub> )	Reduction on 1990 Level (%)
1	2008–2012	3,018	25
2	2013–2017	2,782	31
3	2018–2022	2,544	37
4	2023–2027	1,950	51
5	2028–2032	1,725	57 <sup>80</sup>
6	2033–2037	965	78

Pursuant to its duty under the Act to report on proposals and policies for meeting the carbon budgets,<sup>81</sup> the UK government published a *Net Zero Strategy* in October 2021.<sup>82</sup> The adequacy of the strategy was challenged before the High Court by ClientEarth, Friends of the Earth, and the Good Law

<sup>77</sup> Ibid., s. 1(3).

<sup>78</sup> Ibid., s. 4(1).

<sup>79</sup> Adapted from Muinzer and Paterson, *supra* n. 20, 748–9.

<sup>80</sup> In December 2020, the UK government submitted its NDC committed to ‘reducing economy-wide greenhouse gas emissions by at least 68% by 2030, compared to 1990 levels’: UK Government, *United Kingdom of Great Britain and Northern Ireland’s Nationally Determined Contribution* CP 744 (Updated: September 2022), 1. This should have resulted in an amendment to the fifth carbon budget in order to align the CCA 2008 framework with the significant increase in ambition for 2030, but no amendment has been made (the fifth carbon budget is set by Carbon Budget Order 2016 (SI 2016/785)). This presently misaligns the UK’s primary decarbonization regime (the CCA 2008) with a significant policy regime (the NDC) for the 2028–2032 period.

<sup>81</sup> CCA 2008, s. 14.

<sup>82</sup> *Net Zero Strategy: Build Back Greener* (UK Government, 2021). The UK government also published the *Heat and Buildings Strategy* (UK Government, 2021) at this time, another important Net Zero-aligned policy statement.

Project.<sup>83</sup> The court ruled in favour of these claimants in July 2022, holding that the strategy had breached CCA 2008 ss 13–14 requirements, in part because the Secretary of State had been briefed inadequately on information germane to the construction of the strategy<sup>84</sup> and in part because the strategy did not adequately explain how its policies would achieve the CCA 2008 targets which the Secretary of State was required to report on – and which the court interpreted as a violation of s. 14 of CCA 2008.<sup>85</sup> The court accordingly ordered the UK government to produce a new strategy. The government did not appeal. It published a new carbon-budget delivery plan in March 2023.<sup>86</sup> It also published a Net Zero growth plan in the same month, entitled *Powering up Britain*.<sup>87</sup>

The first two of the UK's carbon-budget levels were met successfully. Reporting of national emissions is typically subject to a two-year time lag, so the figures for the third carbon budget, which closed in 2022, were not reported by the UK government to parliament until March 2024. Here, in the annual report provided to parliament pursuant to CCA 2008 s. 16, it was confirmed that the third carbon budget had been successfully met, by a significant margin:

UK emissions for the third carbon budget period were 2,152.8 MtCO<sub>2e</sub>, 391.2 MtCO<sub>2e</sub> below the cap of 2,544 MtCO<sub>2e</sub> confirming that the UK has met its third carbon budget. This makes the UK the first major economy to halve its emissions – having cut them by 50% between 1990 and 2022.<sup>88</sup>

This puts the UK in a very strong position to achieve its fourth carbon budget, however the fifth and sixth budgets will likely prove more challenging.<sup>89</sup>

83 *R (Friends of the Earth and others) v. Secretary of State for Business, Energy and Industrial Strategy* [2022] EWHC 1841 (Admin).

84 *Ibid.*, paras 16, 196–7, 204, 206–17.

85 *Ibid.*, paras 16, 223, 231–42, 248–60.

86 *Carbon Budget Delivery Plan* (UK Government, 2023). The claimants involved in the 2022 High Court ruling are endeavouring to bring a judicial review of this latest plan at the time of writing.

87 *Powering up Britain – Energy Security Plan* (UK Government, 2023).

88 *Annual Statement of Emissions for 2022* (UK Government, 2024), 6.

89 Committee on Climate Change, *Progress in Reducing Emissions: 2023 Report to Parliament* (CCC, 2023): 'Our confidence in the achievement of the UK's ... Fifth and Sixth Carbon Budgets has markedly declined' (*ibid.*, 8). Reasons for this position include a greater need for governmental urgency in the implementation of climate measures, a potential over-reliance on specific technological solutions, and a perceived need to improve the planning system whilst moving away more rapidly from high-carbon developments (*ibid.*).

Part 2 of CCA 2008 establishes the Committee on Climate Change (CCC).<sup>90</sup> This is an expert reporting and advisory body, independent of the UK government. It is subject to a range of important procedural duties, chiefly concerning obligations to report on UK climate progress and to advise the UK parliament, the Secretary of State, and the UK's devolved institutions on mitigation and adaptation.<sup>91</sup> This includes the provision of a major annual report to the UK parliament outlining the UK's mitigation progress under the terms of the Act<sup>92</sup> and the provision of mandatory expert advice to the Secretary of State on the level that each carbon budget should be set at.<sup>93</sup> The Secretary of State sets budget levels, and is free to depart from the CCC's advice,<sup>94</sup> but, if so, the decision must be supported by a statement setting out the reasons for the departure.<sup>95</sup>

It is notable that the CCC has been accorded a role in the Infrastructure Act 2015, under whose terms the Secretary of State is subject to a principal objective of 'maximising the economic recovery' of UK offshore petroleum,<sup>96</sup> a duty that contrasts with the strong decarbonization objective embodied by the 2050 Net Zero target under CCA 2008.<sup>97</sup> The Infrastructure Act affords the CCC a capacity for advisory input into the extent to which petroleum developments might impact the UK's carbon-budget scheme under CCA 2008;<sup>98</sup> however, the relevant section constrains matters to onshore petroleum activity,<sup>99</sup> rendering the CCC's role under the Infrastructure Act of no direct relevance to the maximum economic recovery principle, which applies to offshore activity.<sup>100</sup> The principle of maximizing the economic recovery of UK petroleum is also given in the Petroleum Act 1998<sup>101</sup> and in the OGA Strategy,<sup>102</sup> a government

90 CCA 2008, Part 2, ss. 32–43 ('The Committee on Climate Change'), and Schedule 1.

91 See *ibid.*

92 *Ibid.*, s. 36.

93 *Ibid.*, ss. 7, 9.

94 See also *supra* n. 70.

95 CCA 2008, s. 7(6).

96 Infrastructure Act 2015, s. 41; see also Petroleum Act 1998, s. 9A.

97 CCA 2008, s. 1(1).

98 Infrastructure Act 2015, s. 49. In relation to onshore activities, it is notable that the UK government has applied a moratorium on fracking/shale gas development: *Government Ends Support for Fracking*, Department for Business, Energy and Industrial Strategy (Press Release, 2 November 2019), <[www.gov.uk/government/news/government-ends-support-for-fracking](http://www.gov.uk/government/news/government-ends-support-for-fracking)>.

99 Infrastructure Act 2015, s. 49.

100 *Ibid.*, s. 41; Petroleum Act 1998, s. 9A.

101 Petroleum Act 1998, s. 9A(1).

102 *The OGA Strategy* (OGA: UK, 2021).

energy strategy which came into effect in February 2021 and is based on this principle.

In the case *Cox and Others v. Oil and Gas Authority and Others* (2022),<sup>103</sup> three climate activists brought a legal challenge against the UK's Oil and Gas Authority (this body has since been rebranded as the North Sea Transition Authority) and the Secretary of State, challenging the adoption of the OGA Strategy.<sup>104</sup> The claimants' grounds included that it was irrational for the Oil and Gas Authority to set out plans to support ongoing exploitation of North Sea oil and gas reserves, predicated on the Petroleum Act 1998's maximization of the economic recovery principle, given that the UK government is subject to the CCA 2008's Net Zero obligation.<sup>105</sup> This was rejected by High Court. The court noted that the Oil and Gas Authority's mandate included 'tak[ing] appropriate steps to assist the Secretary of State in meeting the net zero target',<sup>106</sup> that the Authority 'manifestly had considerable regard to UK domestic action on climate change' in consulting on the OGA Strategy and adopting it,<sup>107</sup> and that it is up to the regulator (namely the Oil and Gas Authority) to balance the relevant objectives, rather than the courts.<sup>108</sup> Later in 2022, the UK government published a 'Climate Compatibility Checkpoint' for offshore petroleum licensing rounds, 'to ensure that the compatibility of future licensing with the UK's climate objectives is always evaluated before a licensing round is offered'.<sup>109</sup>

### 3.3 *Additional Elements of CCA 2008, and Consideration of Its 'Framework' Design*

The preceding section's outline of CCA 2008 has emphasized its mitigation aspects; however, the framework also contains an extensive climate-adaptation regime.<sup>110</sup> It is predominantly procedural in design,<sup>111</sup> based chiefly on a process of national adaptation reporting and the production of adaptation policy programmes.

103 [2022] EWHC 75 (Admin) (18 January 2022).

104 Supra n. 102.

105 CCA 2008, s. 1(1). See further the statement of Ground 2 at *Cox & Ors*, supra n. 103, para. 5, and the court's resolution of this Ground at paras 115–39.

106 *Cox & Ors*, supra n. 103, para. 43.

107 Ibid., para. 136.

108 Ibid.

109 *Climate Compatibility Checkpoint Design* (UK Government, 2022), 4.

110 CCA 2008, Part 4, ss. 56–70 ('Impact of and adaptation to climate change').

111 Ibid.

Under the reporting scheme, the UK government is required to produce a major assessment that reports on ‘the current and predicted impact of climate change.’<sup>112</sup> While the report is concerned with climate impacts in general, a primary emphasis is on calculating and outlining ‘risks’ that the UK is subject to.<sup>113</sup> The report is reissued at least once every five years<sup>114</sup> by the Secretary of State, who must lay it before parliament.<sup>115</sup> The report is to be followed ‘as soon as is reasonably practicable’ by an adaptation programme that outlines the UK government’s objectives, proposals, policies, and timescales for addressing the adaptation risks that have been identified under the reporting regime.<sup>116</sup> The first adaptation programme was published in 2013.<sup>117</sup>

The CCC’s remit covers adaptation as well as mitigation, and CCA 2008 mandated the creation of an Adaptation Sub-Committee within the CCC so that the matter could be subjected to targeted specialist focus.<sup>118</sup>

Here, then, the Act has created mechanisms that set in motion a constant flow of impact and risk assessment, followed by policy-program responsiveness.

A range of additional powers permits the UK government to undertake narrower targeted actions in climate governance. For example, the Secretary of State is given the power to place targets and obligations on certain parties, including electricity generators, distributors, and suppliers, creating a facility to compel or encourage them to contribute to emission reductions in line with the Act’s broader objectives.<sup>119</sup> The Secretary of State can also introduce mandatory reporting of emissions by companies<sup>120</sup> by making regulations under the Companies Act 2006<sup>121</sup> requiring directors’ reports to contain specified information about greenhouse gas emissions.<sup>122</sup> The Companies Act 2006 (Strategic Report and Directors’ Report) Regulations 2013 were duly created for this purpose.<sup>123</sup> Taken overall, these CCA 2008 components place an emphasis on enabling capacity for action, rather than mandating it. Some of its elements, however, are more directive in character, as where annual

112 Ibid., s. 56(1).

113 Ibid.

114 Ibid., s. 56(3).

115 Ibid., s. 56(1).

116 Ibid., ss. 58(1)(a)-(c), 58(3).

117 *The National Adaptation Programme* (UK Government, 2013), covering the years 2013–2018.

118 CCA 2008, Schedule 1, para 16, ‘The Adaptation Sub-Committee’ (established in 2009).

119 CCA 2008, s. 79, Schedule 8.

120 Ibid., s. 85(1).

121 Companies Act 2006, s. 416(4); CCA 2008, s. 85(1).

122 CCA 2008, s. 85(1)(a).

123 SI 2013/1970.



reporting obligations on energy efficiency and sustainability standards are applied to UK government buildings with a view toward reducing emissions.<sup>124</sup> Further detail on granular or relatively minor changes created by CCA 2008 has been presented elsewhere.<sup>125</sup>

CCA 2008 has been characterized as resembling a ‘skeleton’, for it is a framework Act with much of the ‘flesh’ being added to its bones through secondary legislation, policy measures, and similar capacities for action that are enabled under the framework regime.<sup>126</sup> It has also been said that

the spine or backbone of the legislation is embodied by milestone emissions reduction targets imposed by the Act for 2020 and 2050, and by an associated carbon budgeting scheme created in order to drive down emissions with reference to those targets, strung out in successive five-year carbon accounting blocks.<sup>127</sup>

Thus, when a carbon budget has been set to follow the broad trajectory indicated by the substantive 2020/2050 milestone targets, the Secretary of State is subject to a procedural duty to prepare proposals and policies designed to meet the budget in practice,<sup>128</sup> which includes laying a report before Parliament for that purpose.<sup>129</sup> This means that significant elements of the framework’s impact on energy governance, including in the sphere of oil and gas, are developed, and will continue to be developed, in the dynamic and changeable sphere of policy agreement.

The skeletal character is also demonstrated in litigation. In *R (ClientEarth) v. Secretary of State* (2020),<sup>130</sup> the Planning Inspectorate had recommended that an application for the installation of four new gas turbines at Drax power plant in North Yorkshire should be rejected due to its climate change implications, but the application was ultimately approved by the UK government. ClientEarth challenged this decision in the High Court, arguing inter alia that

124 CCA 2008, s. 86.

125 Muinzer, supra n. 15, 43–8, 76–80.

126 Ibid., 3–4, 115.

127 Muinzer, supra n. 21, 4.

128 In *R (Global Feedback Ltd) v. Secretary of State for Environment, Food and Rural Affairs* [2023] EWCA Civ 1549, the Court of Appeal clarified that the Secretary of State’s duty to ‘prepare such proposals and policies as the Secretary of State considers will enable the carbon budgets that have been set under this Act to be met’ (CCA 2008, s. 13(1)) applies to the Secretary of State for Energy, Security and Net Zero, and does not extend to the Secretary of State for Environment, Food and Rural Affairs.

129 CCA 2008, ss. 13–15.

130 [2020] EWHC 1303 (Admin).

it was not compatible with the CCA 2008's Net Zero 2050 obligation.<sup>131</sup> This was unsuccessful,<sup>132</sup> and provides an indication of the broad latitude that the UK government retains to pursue diverse energy-policy approaches within the parameters of the Act's framework.

### 3.4 *Assessment of CCA 2008*

A 2020 survey of legal research on CCA 2008<sup>133</sup> found that the Act's interaction with the UK's system of 'multilevel governance' can be a significant and complicating factor in the delivery of the framework's primary objectives.<sup>134</sup> This multilevel governance environment emphasizes the role of a sub-state level of governance that includes jurisdictions with substantial devolved governance institutions (Northern Ireland, Scotland, Wales).<sup>135</sup> An influential supra-national (EU) level of governance was also directly connected to this governance environment prior to Brexit.<sup>136</sup> Further, CCA 2008 interacts with climate regimes at an international level of governance.<sup>137</sup>

The 2020 survey noted that 'that the UK's devolved nations and regions have a major role to play in determining whether the UK as a whole will continue to achieve the substantive targets and procedural obligations it has at state level',<sup>138</sup> due in part to the fact that an array of significant climate powers are scaled to the sub-state level of governance rather than the national level under the terms of UK devolution.

The survey also identified as a significant issue the fact that CCA 2008 establishes a range of major duties without stipulating sanctions for their breach, thus raising questions about compliance, enforceability and accountability.<sup>139</sup>

131 CCA 2008, s. 1(1).

132 See further *ClientEarth*, supra n. 130, paras 222–60.

133 Muinzer and McLeod Little, supra n. 36.

134 'The CCA's Interaction with the UK's Multilevel Governance System': *ibid.*, 432–4.

135 Sharon Turner, 'Northern Ireland's Consent to the Climate Change Act 2008: Symbol or Illusion?', 25(1) *Journal of Environmental Law* 63 (2013); Sharon Turner, 'Committing to Effective Climate Governance in Northern Ireland: A Defining Test of Devolution', 25(2) *Journal of Environmental Law* 203 (2013); Colin T. Reid, 'Scotland: Constraints and Opportunities in a Devolved System', in Marjan Peeters, Mark Stallworthy, and Javier de Cendra de Larragan (eds.), *Climate Law in EU Member States: Towards National Legislation for Climate Protection* (UK: Edward Elgar, 2012).

136 'Setting the Scene: EU-Level Legislative and Policy Drivers', 87–88, in Thomas L. Muinzer, 'Does the Climate Change Act 2008 Adequately Account for the UK's Devolved Jurisdictions?', 25(3) *European Energy and Environmental Law Review* 87 (2016).

137 'Multilevel Drivers: The International Level and the Devolved Level (Northern Ireland, Scotland and Wales)', 83–121 (Ch. 3), in Muinzer, supra n. 21.

138 Muinzer and McLeod Little, supra n. 36, 433.

139 'Compliance Regime, Enforceability and Judicial Review', *ibid.*, 434–6.

A number of legal experts have flagged and explored complexities concerning CCA 2008 duties, including Stallworthy<sup>140</sup> and Townsend.<sup>141</sup> In principle, the Act's milestone 2020 and 2050 reduction targets of 34 per cent and Net Zero are legally binding duties that require the Secretary of State to achieve the specified reduction outcomes.<sup>142</sup> However, the outcome-focused orientation of this type of duty goes beyond asserting in law that something must be done in narrow terms by the duty-bearing party (the Secretary of State), to assert instead that an outcome must be achieved even though a broad range of other actors that are not directly subject to the duty will have to do substantial things if it is to be met. In legal terms, this type of duty places a demand on public authorities that differs from the more conventional kinds of duty that typically predominate in UK law outside the sphere of climate law.<sup>143</sup>

Nevertheless, and despite a lack of sanctions in the legislation, it has been highlighted that an inappropriate exercise of public authority under the terms of CCA 2008, including breach of the 2020 and 2050 reduction targets, can be judicially reviewed in the courts.<sup>144</sup> This provides the UK courts with some facility to ensure that duties imposed on public actors are abided by. Thus, the 2020 survey concluded that:

[A] prima facie assumption that sanctions and remedies are unavailable where a breach of a CCA duty has occurred merely because they are not incorporated formally into the legislation is ... incorrect, insofar as the mechanism of judicial review creates a channel for this in the courts.<sup>145</sup>

It is also notable that the 2020 and 2050 targets are complex aspirational goals that the UK government is obligated to achieve, whereas challenges engaging breaches of procedural duties will likely be much more straightforward; if, e.g., a reporting duty has been overlooked or breached, it is likely that a court will order that the reporting obligation is to be undertaken.<sup>146</sup> Where, by contrast, the UK government has endeavoured to meet its Net Zero requirement for 2050, but has missed it by a margin that is not insignificant, the UK courts cannot meaningfully order that the nation is to be brought immediately to Net

140 Mark Stallworthy, 'Legislating Against Climate Change: A UK Perspective on a Sisyphean Challenge', 72(3) *Modern Law Review* 412 (2009).

141 Harriet Townsend, 'The Climate Change Act 2008: Something to be Proud of After All?', 7(8) *Journal of Planning and Environmental Law* 842 (2009).

142 As noted earlier, the 34% reduction duty for 2020 was met successfully.

143 Reid, *supra* n. 45.

144 See Muinzer, *supra* n. 15, 21–6.

145 Muinzer and McLeod Little, *supra* n. 36, 435.

146 *Ibid.*, 436.

Zero emissions, as it will be extremely unlikely that the government will be able to achieve this.

A related issue pertains to accountability.<sup>147</sup> The Secretary of State is given primary responsibility under CCA 2008 to ensure that target reductions and other important duties are met, but where a failure to meet a duty is caused in significant part by decisions of other governmental actors that are beyond the immediate control of the Secretary of State, the UK courts will tend to make some allowance for this. It also seems to be the case that if a public authority is doing all it reasonably can to put a failure right, including where it has not met a target duty and is therefore in breach of it, the courts will be unlikely to interfere.<sup>148</sup>

Reporting and advisory duties are narrower and do not depend on discretionary decision-making by a broad array of actors. Therefore, UK courts are less likely to accord latitude where breaches occur. The UK Treasury has primary control of public spending and economic policy, and the act of placing a Net Zero 2050 duty on the Secretary of State under the terms of CCA 2008 does not displace the Treasury's powers. The 2020 survey observed: 'although the Secretary of State is accountable for a breach of the primary substantive duties under the terms of the legislation, the legal duty placed on the Secretary of State is not equivalent to the power required to secure that duty in practice,' and the UK courts will make allowance for this.<sup>149</sup> Thus, the structure of the legislation, interpreted in concert with UK court doctrine and practice, results in an *accountability deficit*.<sup>150</sup>

In 2018, a ten-year assessment of CCA 2008 by the Grantham Research Institute provides a detailed understanding of progress being made under the framework at that time.<sup>151</sup> Moreover, in January 2023, the UK government published the results of an independent review of its progress toward delivering on Net Zero 2050.<sup>152</sup> The review, which set out a range of recommendations, identified Net Zero as a historic economic opportunity for the UK to capitalize on.<sup>153</sup> The government's response 'agree[d] with the Review's conclusion that net zero is the growth opportunity of the 21st century'.<sup>154</sup>

147 Ibid., 'Accountability', 436–7.

148 Catherine Callaghan, 'What is a "Target Duty"?', 5(3) *Judicial Review* 184 (2002), 185–6.

149 Muinzer and McLeod Little, *supra* n. 36, 437.

150 Ibid., 437.

151 Fankhauser et al., *supra* n. 40.

152 The review had been announced in September 2022 by then Prime Minister Liz Truss, who tasked former Energy Minister Chris Skidmore MP with leading it.

153 Chris Skidmore, *Mission Zero – Independent Review of Net Zero* (UK Government, 2023).

154 *Responding to the Independent Review of Net Zero's Recommendations* (UK Government, 2023), 3.

#### 4 Wider UK Climate Law

The UK Environment Act 2021 established an Office for Environmental Protection, which functions as an environmental watchdog scanning for possible breaches of environmental law by public authorities.<sup>155</sup> Its monitoring remit covers environmental law broadly, including climate change and the UK government's commitment to meeting Net Zero.<sup>156</sup> The legislation requires the OEP to outline how it intends to collaborate and avoid overlapping with the functions of the CCC:

s. 26 Memorandum of Understanding

- (1) The OEP and the Committee on Climate Change must prepare a memorandum of understanding.
- (2) The memorandum must set out how the OEP and the Committee intend to co-operate with one another and avoid overlap between the exercise by the OEP of its functions and the exercise by the Committee of its functions.

While the functions of these institutions share some similarities, overlap should not amount to a major issue given the CCC's emphasis on advisory and reporting functions and the OEP's emphasis on monitoring and enforcement functions.<sup>157</sup>

In the UK, the term 'non-domestic energy consumers' is used to refer to energy consumption by businesses operating out of non-domestic premises (while the term 'domestic energy consumers' refers to consumption in private homes and residences). The UK applies a carbon tax called the Climate Change Levy (CCL), which is levied on non-domestic consumers of certain specified energy supplies. The legislation describes these energy supplies as 'taxable commodities', and lists them as follows:

- (a) electricity;
- (b) any gas in a gaseous state that is of a kind supplied by a gas utility;
- (c) any petroleum gas, or other gaseous hydrocarbon, in a liquid state;
- (d) coal and lignite;
- (e) coke, and semi-coke, of coal or lignite;
- (f) petroleum coke.<sup>158</sup>

<sup>155</sup> Environment Act 2021, Part 1, Chapter 2.

<sup>156</sup> *Ibid.*, s. 29(1).

<sup>157</sup> *Ibid.*, ss. 31–41 ('The OEP's enforcement functions').

<sup>158</sup> Finance Act 2000, Schedule 6, para. 3.

A Climate Change Agreement can be entered into voluntarily by energy-intensive business users in order to obtain a discount from the regular levy rate.<sup>159</sup> Under these agreements, energy-intensive installations and facilities are subject to targets for the improvement of energy efficiency or emission reduction.<sup>160</sup> The levy is added to the energy bills of businesses and organizations, and the energy suppliers pass the financial gain to the UK government. The levy was introduced by the Finance Act 2000<sup>161</sup> and is governed by a number of regulations.<sup>162</sup>

In summary, CCL is a climate tax applied to the commercial use of energy in the UK, which incentivizes businesses to increase their energy-efficiency levels.<sup>163</sup> The UK government has made it a priority to increase energy efficiency across the country as a means of tackling climate change. Energy usage occurs in all sectors, and therefore all sectors have a potential to contribute significantly to the efficiency drive.

Primary areas that the UK government targets include domestic and non-domestic buildings and energy-intensive sectors. The UK operates an Energy Savings Opportunity Scheme (ESOS), whereby larger companies and non-public-sector organizations are required to undertake mandatory energy-saving assessments. This involves organizations calculating their total energy consumption, undertaking energy audits, and identifying where energy savings could be made. The scheme has been in force since July 2014. It is implemented by 2014 Regulations that have been retained in UK law for the post-Brexit period.<sup>164</sup> Amendments were applied in 2015,<sup>165</sup> as well as in 2018 to ensure their continuation after Brexit.<sup>166</sup> The Energy Act 2023 has provided

159 *Ibid.*, paras 44–52F(1).

160 The framework at *ibid.* is supported by a number of regulations, including the Climate Change Agreements (Eligible Facilities) Regulations 2012 (SI 2012/2999). At the time of writing, the UK's legislation database ([legislation.gov.uk](http://legislation.gov.uk)) only displays these regulations as originally enacted, which is potentially misleading, as they have been amended a number of times – see, e.g., The Climate Change Agreements (Administration and Eligible Facilities) (Amendment) Regulations 2023 (SI 2023/1226).

161 Finance Act 2000, s. 30, Schedules 6 and 7 (the schedules have been amended a number of times).

162 Most importantly, the Climate Change Levy (General) Regulations 2001 (SI 2001/838).

163 A Carbon Price Floor was introduced in April 2013, and the difference between the floor price and the future market price is used to calculate Carbon Price Support rates that are used to determine the rate of the CCL. The UK government has also used this approach to calculate fuel duty that it has applied to oils and bioblends. The Carbon Price Floor is enabled by Finance Act 2000, Schedule 6.

164 Energy Savings Opportunity Scheme Regulations 2014 (SI 2014/1643).

165 Energy Savings Opportunity Scheme (Amendment) Regulations 2015 (SI 2015/1731).

166 Energy Savings Opportunity Scheme (Amendment) (EU Exit) Regulations 2018 (SI 2018/1342).

the Secretary of State with further powers to adjust the ESOS via amending regulations,<sup>167</sup> and certain adjustments have been made through this channel under the Energy Savings Opportunity Scheme (Amendment) Regulations 2023.<sup>168</sup>

Other energy-efficiency policies and schemes also apply to homes and buildings, notably the Energy Performance Certificates (EPC) regime. An EPC is a certificate issued by an assessor that shows information about the energy efficiency of a given property.<sup>169</sup> Moreover, an Energy Company Obligation was instituted by the UK government in 2012 under powers enabled by the Energy Act 2011,<sup>170</sup> which requires certain electricity and gas suppliers to apply a target that will lead to carbon savings or customer fuel bill savings. The scheme is primarily targeted at low-income households, and, in addition to contributing to tackling climate change, it is intended to mitigate UK fuel poverty levels. It began in January 2013 and is in its fourth phase at the time of writing, covering the period July 2022 to March 2026. Administration of the fourth phase is provided for in the Electricity and Gas (Energy Company Obligation) Order 2022.<sup>171</sup> Further, the UK ETS, discussed earlier, is intended to improve energy efficiency in energy-intensive sectors. Other examples of primary targets of UK energy-efficiency policy include products, appliances, and energy labelling.<sup>172</sup>

Renewable energy also plays a significant role, as UK climate governance continues to drive a transition away from traditional fossil-based energy toward cleaner forms.<sup>173</sup> Further, and as with all major socio-economic sectors, the transport sector, which is an abundant source of UK greenhouse gas emissions, is also being targeted under UK climate law.<sup>174</sup> The Renewable Transport Fuel Obligation (RTFO) provides a headline example of this.<sup>175</sup> This scheme requires

167 Energy Act 2023, ss. 254–5.

168 Energy Savings Opportunity Scheme (Amendment) Regulations 2023 (SI 2023/1182).

169 For England and Wales, see the Energy Performance of Buildings (England and Wales) Regulations 2012 (SI 2012/3118). Note that the Energy Act 2023, ss. 250–3, has also given the Secretary of State powers to issue energy-performance regulations.

170 Energy Act 2011, Part 1, Chapter 4 ('Reducing carbon emissions and home-heating costs').

171 Electricity and Gas (Energy Company Obligation) Order 2022 (SI 2022/875).

172 See, further, Energy Information Regulations 2011 (SI 2011/1524) (as amended). And in relation to the UK's eco-design regime, see the Ecodesign for Energy-Related Products Regulations 2010 (SI 2010/2617) (as amended).

173 *The Ten Point Plan for a Green Industrial Revolution* (UK Government, 2020); Energy White Paper, *Powering our Net Zero Future* (UK Government, 2020); *Net Zero Strategy: Build Back Greener* (UK Government, 2021); *Powering up Britain – Energy Security Plan* (UK Government, 2023).

174 *Decarbonising Transport – A Better, Greener Britain* (UK Government, 2021). And see *Fit for a Changing Climate? Adapting the UK's Transport System* (UK Government, 2024).

175 Renewable Transport Fuel Obligations Order 2007 (SI 2007/3072).

parties that supply liquid fossil fuel for use in UK road transport, aircraft, and non-road transport to supply an amount of sustainable biofuels. The applicable amount is calculated based on the overall volume of fuel supplied, and suppliers subject to the scheme either redeem Renewable Transport Fuel Certificates<sup>176</sup> or pay a ‘buy-out payment’ covering each litre of renewable fuel that should have been supplied under the applicable quota.<sup>177</sup> The RTFO is regulated by what the legislation describes as ‘the Administrator’,<sup>178</sup> which is the UK government’s Department for Transport. The scheme commenced in 2008 and is designed in part to assist the UK in meeting its greenhouse gas emission-reduction objectives. The current framework had its legal origins in EU law.<sup>179</sup> It has been assimilated into UK law for the post-Brexit period. The main legislative scheme is the Renewable Transport Fuel Obligations Order 2007,<sup>180</sup> which was made by the UK government under powers conferred by the Energy Act 2004.<sup>181</sup>

Another priority area in the UK which is pertinent to climate change concerns sustainable finance. This involves the process of taking environmental, social, and governance (ESG) considerations into account in investment decision-making, including the issue of climate change, with the intention of growing the investment in sustainable activities. Here, an increased governmental emphasis is falling on ‘green finance’,<sup>182</sup> which the UK government defines as follows:

Green finance is any structured financial activity – a product or service – that has been created to ensure a better environmental outcome. It includes an array of loans, debt mechanisms and investments that are used to encourage the development of green projects or manage the impact of climate change on investments.<sup>183</sup>

<sup>176</sup> Ibid., art. 17(1).

<sup>177</sup> Ibid., art. 21(6).

<sup>178</sup> Ibid., art. 6.

<sup>179</sup> Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC. (Council Directive 1998/70 OJ 1998 L350/58.)

<sup>180</sup> Renewable Transport Fuel Obligations Order 2007, supra n. 175.

<sup>181</sup> Energy Act 2004, s. 124.

<sup>182</sup> The UK’s Green Finance Taskforce published a report in March 2018 on how the UK can best approach and grow green investment to achieve its climate and other environmental objectives: *Accelerating Green Finance: A Report to Government by the Green Finance Taskforce* (Green Finance Taskforce, 2018).

<sup>183</sup> *Mobilising Green Investment: 2023 Green Finance Strategy* (UK Government, 2023), 18.



The UK government's current approach to growing sustainable finance is elaborated in *Mobilising Green Investment: 2023 Green Finance Strategy*.<sup>184</sup> The strategy includes the enhancement of support for 'UK financial services growth and competitiveness' in the context of a transitioning global economy, the expansion of investment in the green economy, and the improvement of 'financial sustainability' through an effective green-finance framework.<sup>185</sup> It also includes the positioning of 'nature and climate adaptation' more centrally in green-finance practice, and the better alignment of global financial flows with climate and nature objectives.<sup>186</sup>

The UK government is also implementing a 'green taxonomy', which it defines as 'a tool to provide investors with definitions of which economic activities should be labelled as green'.<sup>187</sup> The intention here is to create a shared understanding of the criteria that establish that economic activities are environmentally sustainable. This form of framing has a background in EU climate law, via Regulation (EU) 2020/852 – the 'Taxonomy Regulation'.<sup>188</sup> The UK government has noted that it 'helped design [the EU approach] as a former member state', and that the structure of the UK taxonomy draws on this.<sup>189</sup> Climate change has also become a significant consideration in relation to UK public-sector procurement.<sup>190</sup>

ESG factors are being increasingly used by investors to assess investment vehicles they are considering investing in, including in relation to corporate behaviour but also in relation to companies' future financial performance and investment risk. Further, Corporate Social Responsibility and sensitivity to sustainability (or sustainable development) have become increasingly prevalent measures of UK corporate and business behaviours – both externally and internally within organizations themselves. Climate change is a relevant

184 Ibid.

185 Ibid., 7–8.

186 Ibid., 8.

187 Ibid., 10.

188 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088. (Commission Regulation 2020/852 OJ 2020 L198/13.).

189 *Greening Finance: A Roadmap to Sustainable Investing* (UK Government, 2021), 22.

190 '[T]ackling climate change' is highlighted in the UK government's *Procurement Policy Note 05/21* as a 'national priority outcome' and 'social value outcome' that is to be taken into account in the context of public procurement: UK Government, *Procurement Policy Note – National Procurement Policy Statement*, Action Note PPN 05/21, June 2021, paras 6, 10. The UK government has also published a *National Procurement Policy Statement* (UK Government, 2021), which, at paras 10 and 13, echoes the prioritization of 'tackling climate change'.

factor in the context of environmental and social responsibility, and climate change reporting obligations for companies and board members are becoming an increasing part of company practice in the UK.

Thus, the Companies Act 2006 and associated regulations, the Listing Rules,<sup>191</sup> and the Disclosure Guidance and Transparency Rules<sup>192</sup> provide a framework in the UK requiring certain companies to report annually on climate-related and other environmental matters in directors' reports, strategic reports, and annual reports. The Listing Rules are published by the Financial Conduct Authority as part of the *FCA Handbook*<sup>193</sup> and set down requirements for commercial companies with a UK premium listing<sup>194</sup> and certain companies with a standard listing of shares<sup>195</sup> to make various mandatory disclosures. They include disclosures recommended by the Financial Stability Board's Task Force on Climate-related Financial Disclosures, concerning the disclosure of climate-related financial risks and opportunities in an organization's publicly available annual financial reports. Amendments to the Companies Act 2006 have placed climate-related financial disclosure obligations on certain large and high turnover companies.<sup>196</sup> Overall, climate-related disclosure requirements in the UK are complex, and obligations differ in relation to the size and type of business at issue.

As of May 2021, large occupational pension schemes are also required to make climate-related disclosures. Here, the UK government utilized the Pensions Schemes Act 2021<sup>197</sup> to introduce a range of provisions into the pensions governance framework contained in the Pensions Act 1995.<sup>198</sup> The Department for Work and Pensions is enabled to impose requirements on the trustees or managers of certain occupational pension schemes to ensure 'that there is effective governance of the scheme with respect to the effects of

191 The Financial Services and Markets Act 2000 (as amended) gives the Financial Conduct Authority powers to establish instruments and provisions in order to discharge its functions as the regulator of financial services firms and financial markets in the UK, and the *FCA Handbook* sets out the instruments and provisions made under these powers. The Listing Rules are part of the *FCA Handbook*.

192 Financial Conduct Authority, *Disclosure Guidance and Transparency Rules Sourcebook* (FCA, 2024). These rules form part of the *FCA Handbook* (FCA, 2024), DTR1-8, DTR TP 1, DTR Sch. 1-6.

193 *FCA Handbook*.

194 *Ibid.*, LR 9.8.6R(8).

195 *Ibid.*, LR 14.3.27R.

196 The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 (SI 2022/31).

197 Pensions Scheme Act 2021, s. 124, 'Climate change risk'.

198 Pensions Act 1995, ss. 41A-41C.

climate change'.<sup>199</sup> It can also issue regulations to require trustees of affected schemes to 'publish information of a prescribed description relating to the effects of climate change on the scheme',<sup>200</sup> and establish a compliance framework regarding these duties,<sup>201</sup> which has resulted in the Pensions Regulator being granted powers to issue penalty notices in relation to breaches of the obligations.

The UK government has established a Transition Plan Taskforce to examine potential requirements for certain companies to publish Net Zero Transition Plans. The publication of such plans is not yet mandatory, but it may become so in future, and at present some companies are producing such plans voluntarily, with the assistance of guidance published by the Transition Plan Taskforce in 2023.<sup>202</sup> According to that guidance, 'A climate-related transition plan is an aspect of an entity's overall strategy that lays out the entity's targets, actions or resources for its transition towards a lower-carbon economy, including actions such as reducing its greenhouse gas emissions.'<sup>203</sup>

## 5 Conclusion: Looking Ahead

It was noted at the outset that the outline of UK climate law provided here has been based on drawing together the law as it stood in the period immediately prior to the UK general election of 4 July 2024. It remains to be seen what changes the Labour government will make to UK climate law.

Based on currently discernible trends in UK legal practice and markets, green lease drafting and climate change drafting for contracts will likely become increasingly necessary and predominant in the legal sector. Green leases typically contain provisions that encourage or require the improvement of the environmental performance of premises in the context of a landlord-tenant relationship, and they may be linked to the Net Zero transition or related climate change matters.<sup>204</sup> Climate change drafting for contracts may involve clauses that lessen climate impacts in the context of a commercial supply contract, a construction contract, etc. To this end, lawyers may usefully

199 Ibid., s. 41A, 'Climate change risk'.

200 Ibid., s. 41B, 'Climate change risk: publication of information'.

201 Ibid., s. 41C, 'Sections 41A and 41B: compliance'.

202 *Transition Plan Taskforce Disclosure Framework* (TPT, 2023).

203 Ibid., 15 (drawing on the definitional approach of the International Sustainability Standards Board).

204 G. Jones, 'Green Leases: What are they, and How do you Draft them?' (Law Society, UK, 2023), <[www.lawsociety.org.uk/topics/property/green-leases-what-are-they-and-how-do-you-draft-them](http://www.lawsociety.org.uk/topics/property/green-leases-what-are-they-and-how-do-you-draft-them)>.

refer to the Chancery Lane Project, a registered charity whose team of legal professionals has produced a large number of freely available model climate clauses, glossary terms, and tools to assist lawyers in contract drafting (including model green lease clauses).<sup>205</sup> These resources can be accessed online.<sup>206</sup>

Greenwashing is another area that lawyers should keep a careful eye on. Greenwashing has yet to be made illegal in the UK, although consumer and business protection laws do not permit companies and business to falsely market their activities or products as green or environmentally friendly, which in effect provides coverage of the issue.<sup>207</sup> It is possible also that more comprehensive and targeted legislation will emerge in the area of product sustainability in the coming years. It is notable that the EU has been continuing to develop law and policy in this area in a targeted strategic way,<sup>208</sup> and this has had some influence in the UK, as illustrated by the Ecodesign Directive,<sup>209</sup> which was implemented in UK law pre-Brexit and now remains as assimilated UK law.<sup>210</sup>

Climate change issues are also increasingly arising in the field of international arbitration. Here, commercial arbitration may be employed to resolve a dispute involving climate change as a germane issue. In 2019, the International Chamber of Commerce published *Resolving Climate Change Related Disputes through Arbitration and ADR*.<sup>211</sup> The report covers the role of arbitration and alternative dispute resolution in the context of international disputes engaging climate change issues. A climate-related dispute is defined as ‘any dispute arising out of or in relation to the effect of climate change and climate change policy, the United Nations Framework Convention on Climate Change ... and the Paris Agreement’.<sup>212</sup> For examples of such disputes, see *Westmoreland Coal Company v. Government of Canada* (decided January 2022),<sup>213</sup> involving a mining

205 The Chancery Lane Project: <<https://chancerylaneproject.org/>>.

206 Ibid., Clauses, <<https://chancerylaneproject.org/clauses/>>; Glossary, <<https://chancerylaneproject.org/glossary/>>; Guidance Tools, <<https://chancerylaneproject.org/guides/>>.

207 Consumer Protection from Unfair Trading Regulations 2008 (SI 2008/1277); Business Protection from Misleading Marketing Regulations 2008 (SI 2008/1276).

208 See, e.g., Proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC (COM/2022/142 final).

209 Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (recast). (Council Directive 2009/125 OJ 2009 L 285/10.).

210 Ecodesign for Energy-Related Products Regulations 2010 (SI 2010/2617).

211 International Chamber of Commerce, *Resolving Climate Change Related Disputes through Arbitration and ADR* (ICC, 2019).

212 Ibid., 8.

213 ICSID Case No. UNCT/20/3.

company registered in the United States and engaging the Alberta provincial government's Climate Leadership Plan in Canada; many cases against Spain, which in 2010 introduced controversial energy reforms involving reductions in renewable-energy subsidy levels and increases in taxation on revenue from power generation;<sup>214</sup> and cases against Italy in relation to adjustments to its renewables incentives.<sup>215</sup> In going forward, where UK actors are involved in international commercial arbitration, there may be a likelihood that climate change will start to feature as a more common and prominent issue.

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214 *PV Investors v. Spain* (PCA Case No. 2012–14); *Isolux Netherlands, BV v. Kingdom of Spain* (SCC Case V2013/153); *NextEra Energy Global Holdings B.V. and another v. Kingdom of Spain* (ICSID Case No. ARB/14/11); *gREN Holding S.a.r.l v. Kingdom of Spain* (ICSID Case No. ARB/15/15); *Cube Infrastructure Fund SICAV and others v. Kingdom of Spain* (ICSID Case No. ARB/15/20); *SolEs Badajoz GmbH v. Kingdom of Spain* (ICSID Case No. ARB/15/38); *RWE Innogy GmbH and another v. Kingdom of Spain* (ICSID Case No. ARB/14/34); *Baywar. E Renewable Energy GmbH and another v. Kingdom of Spain* (ICSID Case No. ARB/15/16); *OperaFund Eco-Invest SICAV PLC and another v. Kingdom of Spain* (ICSID Case No. ARB/15/36); *Eurus Energy Holdings Corporation v. Kingdom of Spain* (ICSID Case No. ARB/16/4).

215 See, e.g., *Greentech Energy Systems A/S and others v. Italian Republic* (SCC Case No. 2015/095), where Italy was ordered to pay companies EUR11.9 million in damages.