

TOWN AND COUNTRY PLANNING ACT 1990

**Appeal by Bristol Airport Limited concerning land at North Side Road, Felton,
Bristol, BS48 3DY**

**DEVELOPMENT OF BRISTOL AIRPORT TO ACCOMMODATE 12 MILLION
PASSENGERS PER ANNUM**

Appeal Reference APP/D0121/W/20/3259234

PROOF OF EVIDENCE

of

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1. Qualifications and experience

- 1.1 I am a solicitor of the Senior Courts of England and Wales, practising as an in-house lawyer at ClientEarth, a not-for-profit charitable organisation of environmental lawyers that works to protect the environment, with the job title of Senior Lawyer.
- 1.2 Since joining ClientEarth in 2017, my work has focused on the law and policy relating to climate change, including in the area of planning policy and decision-making. This has involved scrutinising the consistency of a number of proposed projects and policies with the UK's climate change objectives and relevant legal obligations, in the context of both local and nationally significant infrastructure planning. I have also made submissions on these issues in consultations and examinations where ClientEarth has been an interested party.
- 1.3 Before joining ClientEarth, I worked as a lawyer in the dispute resolution department of international law firm Freshfields Bruckhaus Deringer LLP, having previously completed my training with the firm.
- 1.4 I hold a master of laws (LLM) in Environmental Law and Policy from University College London, where I was awarded the Maxi Alexander prize for research.

2. Introduction

- 2.1 This appeal concerns Bristol Airport Limited's application for planning permission to expand the capacity of Bristol Airport to allow for an additional 2 million passengers a year (to 12 million a year), resulting in a corresponding increase in greenhouse gas emissions.¹ The proposed development will include extensions to the existing terminal building and other associated infrastructure, such as a multi-storey car park.
- 2.2 In this proof of evidence, I address the implications of the proposed development for the achievement of the UK's domestic climate change objectives, principally its emission reduction obligations under the Climate Change Act 2008.
- 2.3 These matters are relevant to the determination of this appeal and in particular to the consideration of the proposed development's climate impact as an adverse effect for the purposes of the applicable development plan policies, such as policies CS1 and CS23 of the North Somerset Core Strategy 2017,² and national planning policy,³ as well as being capable of amounting to a standalone material consideration and being relevant to weight.
- 2.4 In my evidence I outline:
- (i) the UK's emission reduction obligations under the Climate Change Act 2008 and current progress towards meeting those obligations,
 - (ii) relevant UK climate and aviation policy, and
 - (iii) relevant Climate Change Committee (CCC) advice.
- I then set out my conclusions in light of this legal and policy context.

¹ See the differences in annual emissions between the 'With Development' and 'Without Development' scenarios in section 10.7 of the Appellant's Addendum to its Environmental Statement [CD 2.20.1]. See also the proof of evidence of Prof Kevin Anderson, which suggests these figures to be an underestimate. The Appellant's references to a static baseline as of 2017 result in potentially misleading conclusions regarding the effect of the proposed development by disregarding expected changes in the 'Without Development' scenario over the time period (see, e.g., paras 10.7.9-13 and 10.7.17-19 of the Addendum); however, differences in annual emissions between the 'With' and 'Without' scenarios over time (in 2024, 2030, 2040 and 2050) are presented in Tables 10.5 and 10.6.

² [CD 5.6], pp 22-23 and 95.

³ Being the National Planning Policy Framework (NPPF) [CD 5.8], including Chapter 14 (e.g. paras 148 and 150), and the concept of sustainable development outlined in Chapter 2 (para 7: "*The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs.*").

- 2.5 I understand that my duty as an independent witness is owed to the inquiry. I also confirm that my employer ClientEarth has authorised me to act as an independent witness in this appeal.
- 2.6 Except where I indicate to the contrary, the facts and matters contained in this proof of evidence are within my own knowledge. Where facts and matters are not within my own knowledge, I have identified my sources of information or belief.

3. The UK's obligations under the Climate Change Act and current progress

- 3.1 Under section 1 of the Climate Change Act 2008, the UK government is required to ensure that the “*net UK carbon account*”⁴ for 2050 is “*at least 100%*” lower than the 1990 baseline. This 2050 ‘net zero’ target was introduced in June 2019 and replaced the previous target of a reduction of “*at least 80%*”, following the UK’s ratification of the Paris Agreement and the advice of the CCC.
- 3.2 The Act also requires, under section 4, the setting of five-yearly interim carbon budgets, twelve years in advance of the budget period in question.
- 3.3 The budgets and 2050 target under the Act cover the full range of major greenhouse gases, including carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.⁵ Carbon dioxide and nitrous oxide make up the majority of greenhouse gas emissions produced by aviation; however, the increased warming effects of certain non-CO₂ emissions from aviation being released at altitude are not currently reflected in the emissions accounting under the Act.⁶
- 3.4 The CCC is an independent statutory body established under the Climate Change Act 2008 to monitor and advise on progress towards the 2050 climate target and the setting of carbon budgets.⁷ As well as being the leading specialist body in the UK on climate change, the importance of the CCC’s advice in the context of planning is confirmed by national planning practice guidance, which expressly refers practitioners to the CCC’s advice.⁸
- 3.5 In line with the CCC’s advice, the government has set the sixth carbon budget for the period 2033-2037 at a maximum of 965 MtCO_{2e}, meaning at least a 78% reduction below 1990 levels by 2035, and has laid regulations to introduce this budget into law.⁹

⁴ The methodology for calculating the net UK carbon account is set out in regulations and currently comprises the sum of (i) emissions allowances allocated to the UK under the EU Emissions Trading System (ETS), (ii) UK emissions falling outside of the EU ETS, and (iii) any credits or debits under other international credit systems. This calculation will be updated to reflect the new arrangements for the UK ETS.

⁵ See section 24 of the Act [CD 9.2].

⁶ See e.g. para 10.6.20 of the Appellant’s Addendum to its Environmental Statement [CD 2.20.1]. See also the proof of Prof Kevin Anderson regarding the issue of non-CO₂ effects.

⁷ See Schedule 1 to the Act [CD 9.2].

⁸ Paragraph: 011 Reference ID: 6-011-20140306 [CD 5.9].

⁹ See the Carbon Budget Order 2021 [CD 9.38].

- 3.6 The sixth carbon budget will be the first budget to include the UK's share of emissions from international aviation. These emissions were formally excluded from previous carbon budgets (emissions from domestic aviation were included). However, those budgets were set at a level that took international aviation emissions into account, including sufficient 'headroom' for them,¹⁰ given that the government has consistently planned for them to be covered by the 2050 target.¹¹ While emissions from international aviation have therefore always been relevant to carbon budgets and the 2050 target, their formal inclusion in future carbon budgets means that they will now have a direct impact on those budgets and the 2050 target being met.
- 3.7 The Explanatory Memorandum to the Carbon Budget Order 2021 confirms that the government will lay regulations to formally include international aviation emissions in the sixth carbon budget.¹²
- 3.8 In this context I note that at para 7.2 of the Statement of Case, the Appellant states that the net zero target "*does not apply to international aviation*" and that "[s]ince the Kyoto Protocol in 2005, the international community has made clear that the climate change effects of international aviation are to be dealt with on an international basis though [ICAO], which manages [CORSIA]". However, as just explained, the government has confirmed that international aviation will be included in future carbon budgets under the Climate Change Act 2008, in line with the CCC's advice.
- 3.9 The government has based its approach to including the UK's share of international aviation emissions in the sixth carbon budget on the so-called 'bunker fuel' method, also used by the CCC.¹³ Under this method, emissions are estimated by reference to the levels of refuelling from fuel storage tanks ('bunkers') at UK airports, whether by UK or non-UK operators. As the CCC explain, bunker fuel sales are assumed to accurately reflect fuel used in respect of departing flights "*as airlines do not tend to carry more fuel than needed for a given flight*."¹⁴
- 3.10 The latest government projections show that under existing policies the UK is currently significantly off track to meet the fourth carbon budget (2023-2027) and fifth

¹⁰ See, e.g., CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', p. 14, Fig. 1 [CD 9.34].

¹¹ See, e.g., CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', p. 418 [CD 9.34].

¹² Carbon Budget Order 2021 Explanatory Memorandum, para 7.4 [CD 9.101].

¹³ Department for Business, Energy and Industrial Strategy, 'Impact Assessment for the sixth carbon budget', 16 April 2021, para 66 [CD 9.84]. See also CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', Box 10.1, p. 420 [CD 9.34].

¹⁴ CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', Box 10.1, p. 420 [CD 9.34].

carbon budget (2028-2032). If the existing policies included in the projections achieve their aim, the UK's expected reductions are 46% and 50% against 1990 levels for each budget period, rather than the required reductions of 51% and 57% respectively, as illustrated by the below table from the projections.¹⁵

		Carbon budget				
		CB1	CB2	CB3	CB4	CB5
		(2008-12) actual	(2013-17) actual	(2018-22) projected	(2023-27) projected	(2028-32) projected
Carbon Budget level [1]	emissions, MtCO ₂ e	3,018	2,782	2,544	1,950	1,725
Average annual required reduction vs. base emissions	%	-24%	-30%	-36%	-51%	-57%
EEP 2018						
Reference scenario	projected emissions, MtCO ₂ e	2,982	2,398	2,456	2,089	1,970
EEP 2019						
Reference scenario	projected emissions, MtCO ₂ e	2,982	2,398	2,518	2,138	1,978
Result vs. Budget with reference case	emissions, MtCO ₂ e	-36	-384	-26	188	253
Result vs. Budget with inclusion of CGS policy proposals [2]	emissions, MtCO ₂ e	-36	-384	-26	158	173
Projected average annual reduction vs. base emissions [3]	%	-25%	-40%	-37%	-46%	-50%
Cumulative Result vs Budget	emissions, MtCO ₂ e			-26	162	415

3.11 However, these budgets were set under the previous 80% target, and the CCC has advised that the fifth carbon budget will need to be significantly outperformed to stay on track to meet the sixth carbon budget and net zero target.¹⁶ The CCC has also emphasised that “[t]he 2020s are the crucial decade: with effective action starting now, by 2030 the UK will be firmly on track to Net Zero.”¹⁷

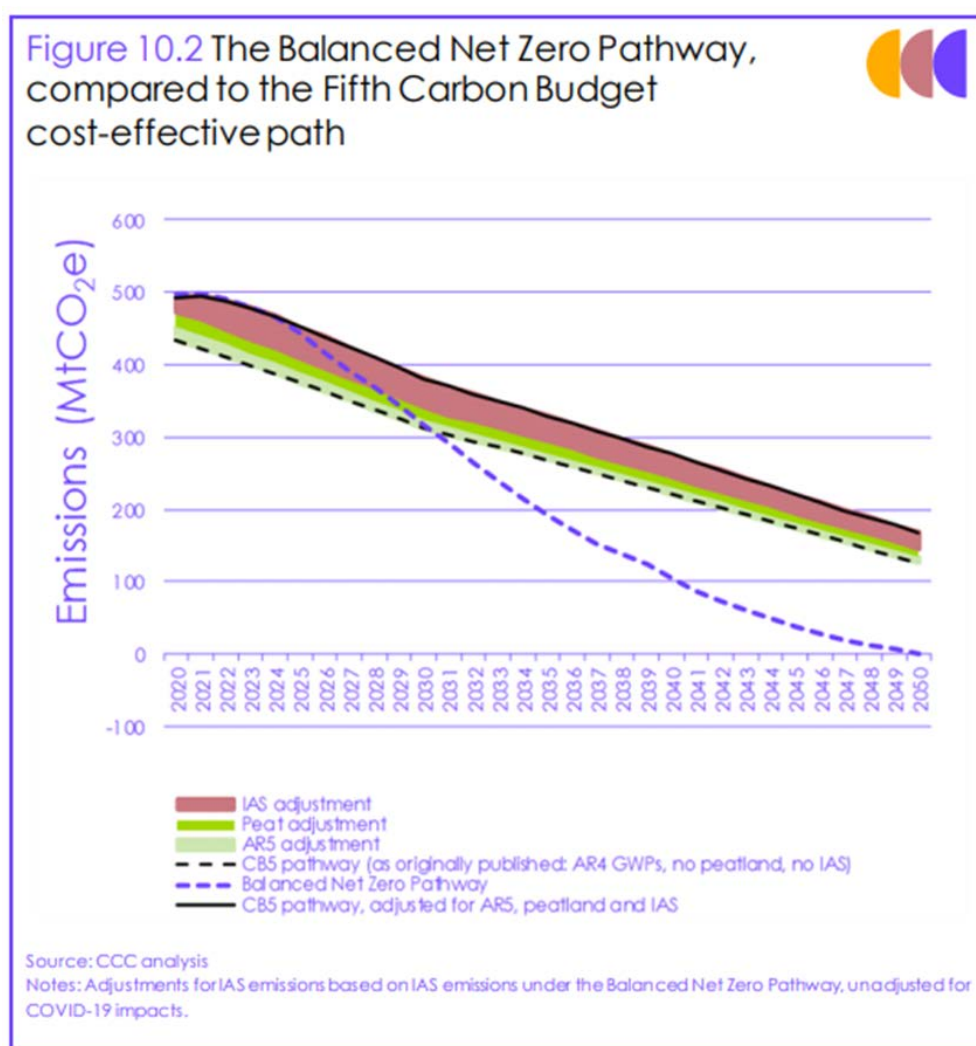
3.12 The CCC calculates a gap of 68 MtCO₂e a year between the emissions pathway used to set the fifth carbon budget and the pathway necessary to meet the net zero target

¹⁵ See Department for Business, Energy and Industrial Strategy, ‘Updated energy and emissions projections 2019’, October 2020, pp 14-15 [CD 9.78].

¹⁶ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, pp 24 and 430-433 [CD 9.34].

¹⁷ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 24 [CD 9.34].

in a “balanced” way (i.e. making moderate assumptions about behavioural change and innovation, see further paras 5.1 – 5.3 below),¹⁸ which is the aim of the sixth carbon budget. This also reflects changes to the reporting of land use emissions, which are expected to increase UK emissions, the combined effect of which is illustrated by the CCC’s figure below.¹⁹



3.13 The CCC advises that the effect of this more stringent trajectory is that the fifth carbon budget should be treated as reduced to 1,585 MtCO_{2e}, irrespective of whether a formal change to the budget is made.²⁰ This would increase the projected cumulative policy gap (in the table reproduced above) to 555 MtCO_{2e}, up to the end of the fifth carbon budget period. For comparison, the total average annual UK emissions under

¹⁸ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 432 [CD 9.34].

¹⁹ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, pp 430-432 [CD 9.34].

²⁰ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 433 [CD 9.34].

the CCC's Balanced Pathway for the fifth carbon budget period is 317 MtCO_{2e}.²¹ In other words, the current projected policy gap at the end of the fifth carbon budget in 2032 far exceeds the UK's total emissions for an entire year in that period as recommended by the CCC. This is one of the reasons that the CCC's recommendations for the sixth carbon budget period of 2033-2037 are also relevant to the decade leading up to 2033.

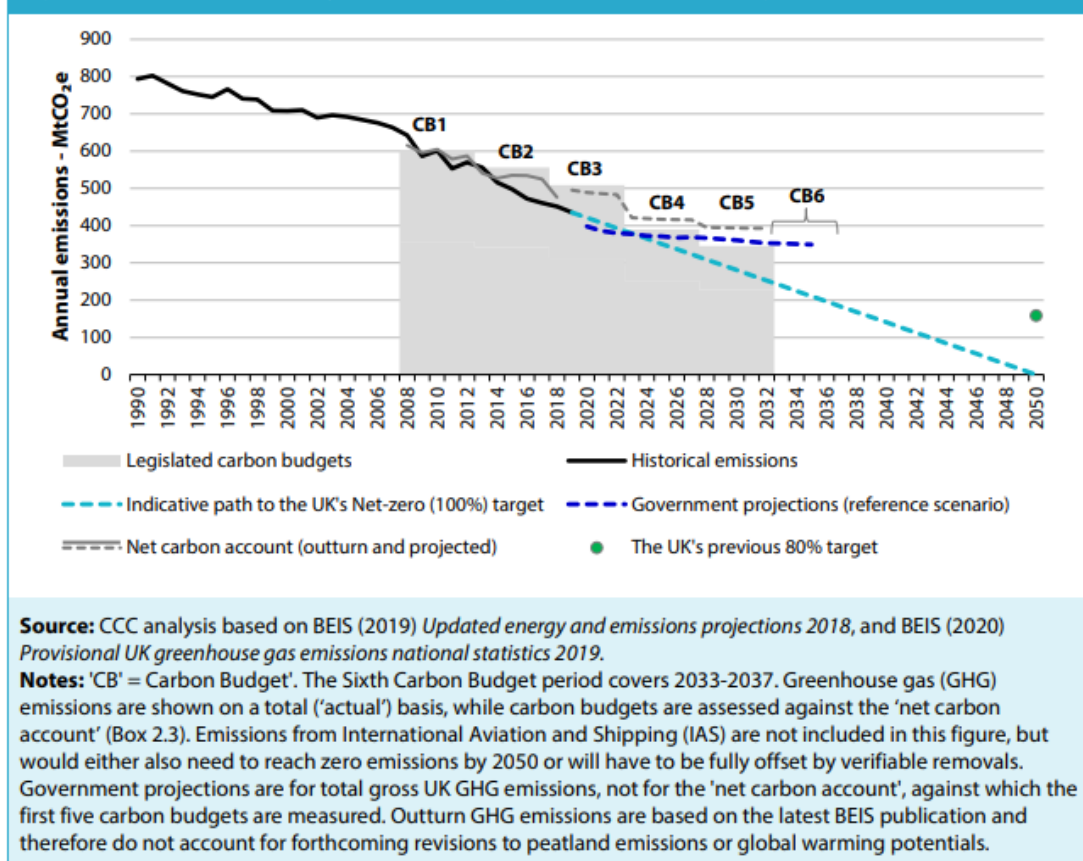
- 3.14 The other reason is that this more stringent emission pathway is also required to meet the UK's Nationally Determined Contribution (NDC) under the Paris Agreement, which commits the UK to a 68% reduction by 2030.²²
- 3.15 As illustrated by the CCC's figure below from its 2020 Progress Report to Parliament (based on the government's then-current projections), the gap between the trajectory implied by existing policies and the rate of reductions required to meet the 2050 target only widens in the period following the fifth carbon budget as net emissions continue to fall towards zero in the net zero pathway.²³

²¹ CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', p. 431 [CD 9.34].

²² [CD 9.35]. The UK's NDC includes domestic but not international aviation emissions, in line with the usual UN accounting framework. The UK's NDC has therefore been set at a level providing sufficient 'headroom' for these emissions.

²³ See, e.g., CCC, 'Reducing UK emissions: 2020 Progress Report to Parliament', June 2020, Fig. 1.1 p. 53 [CD 9.17].

Figure 1.1. Emissions pathways to carbon budgets and the Net Zero target



- 3.16 The new ETS for the UK following the UK's exit from the European Union commenced on 1 January 2021. In respect of aviation, the UK ETS currently covers the following categories of flights: domestic flights within the UK, flights between the UK and Gibraltar, and flights departing the UK to European Economic Area states.²⁴ However, as is evident from the nature of its advice in respect of aviation policy (described below), the CCC does not view the ETS and other market mechanisms as being sufficient on their own in achieving necessary emissions reductions for the sectors and activities that they cover. Indeed, the CCC advises against placing sole reliance on carbon pricing given the need *"to address barriers and overcome preferences driven by factors other than price, as well as to deal with myopia and price uncertainty."*²⁵

²⁴ See Schedule 1 to The Greenhouse Gas Emissions Trading Scheme Order 2020 [CD 9.45]. See also Appendix 1: DBEIS 'Participating in the UK ETS' (Updated 10 June 2021).

²⁵ Appendix 2: CCC Letter to the Government 'The future of carbon pricing' (7 August 2019). See also CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', p. 438 (*"As set out in our previous advice on the UK ETS, carbon trading and the resulting carbon price should be used as one policy lever within a wider policy package to drive emissions down."*) [CD 9.34].

4. UK climate and aviation policy

4.1 The government has announced that it will publish an economy-wide Net Zero Strategy later this year, setting out its proposed portfolio of policies for achieving the net zero target and interim carbon budgets.²⁶ It has also said that it will publish a Transport Decarbonisation Plan, an Aviation Strategy and a net zero aviation consultation.²⁷

4.2 Existing government policy on aviation has emphasised the importance of local planning authorities deciding applications for airport development based on their own consideration of the merits of each proposal. In particular, the government's June 2018 policy statement 'Beyond the Horizon: The Future of UK Aviation – Next Steps towards an Aviation Strategy' [CD 6.4] provides at para 1.29:

"... [T]he government is supportive of airports beyond Heathrow making best use of their existing runways. However, we recognise that the development of airports can have negative as well as positive local impacts, including on noise levels. We therefore consider that any proposals should be judged by the relevant planning authority, taking careful account of all relevant considerations, particularly economic and environmental impacts and proposed mitigations. This policy statement does not prejudge the decision of those authorities who will be required to give proper consideration to such applications. It instead leaves it up to local, rather than national government, to consider each case on its merits."

4.3 At para 1.21 of the policy statement, the government makes the tentative suggestion that "[o]n balance ... it is likely that these or other measures would be available to meet the [CCC's] planning assumption" in respect of UK aviation emissions in 2050. Moreover, in view of para 1.29 (above), this tentative suggestion is also expressly subject to local decision-making and to future national policy developments.

4.4 In any event, the suggestion at para 1.21 of the policy is now based on outdated assumptions, pre-dating both the introduction of the net zero target, the CCC's sixth carbon budget advice and the government's acceptance of that recommended

²⁶ [CD 9.37].

²⁷ See, e.g., Department for Transport, 'Decarbonising Transport – Setting the Challenge', March 2020, p. 5 [CB 9.16].

budget and the formal inclusion of international aviation emissions. As explained below, the CCC's 2050 planning assumption of 37.5 MTCO_{2e} relied on in the 'making best use' policy (see para 1.16 of the policy) has since been substantially reduced to an allocation of 23 MTCO_{2e} in the CCC's sixth carbon budget advice.²⁸

- 4.5 Moreover, I understand that the total UK airport capacity under current planned expansions exceeds the highest total annual passenger number projections for 2050 used in the 'making best use' policy (444 million²⁹) by around 10 million passengers per year.³⁰
- 4.6 These aspects of the 'making best use' policy do not appear to have been appreciated by the panel that recently determined the appeal made by Stansted Airport against the council's refusal of permission.³¹
- 4.7 The decision describes the 'making best use' policy as demonstrating government support for airports beyond Heathrow making best use of their existing runways taking into account the emissions impacts and the UK's climate change obligations including under the Climate Change Act 2008.³² However, the decision does not mention the fundamental part of the policy (cited above) that "*any*" proposals should be "*judged by the relevant planning authority*", taking "*careful account*" of "*all relevant considerations*" (emphasis added). Nor does the decision refer to the policy statement expressly confirming (again as cited above) that it "*does not prejudge the decision of those authorities who will be required to give proper consideration to such applications*", and that it "*leaves it up to local, rather than national government, to consider each case on its merits*".
- 4.8 The decision also refers to the 'making best use' policy as having "*thoroughly test[ed] the potential implications of the policy in climate change terms, specifically carbon emissions*",³³ and states that:

²⁸ CCC, 'Sixth Carbon Budget – Aviation Sector Summary', December 2020, p. 12 [CD 9.66].

²⁹ [CD 6.4], Table 1, p. 5.

³⁰ See New Economics Foundation, 'Turbulence Expected: The Climate Cost of Airport Expansion', May 2021, Table 1, p. 4 [CD 9.32]. This includes planned expansions at Bristol, Leeds-Bradford, Heathrow, Luton, Southampton, Gatwick and Stansted, using the current UK airport capacity of "*at least 370 million passengers*" cited by the CCC (at p. 11 of the 'Sixth Carbon Budget – Aviation Sector Summary' [CD 9.66]).

³¹ Appeal Decision APP/C1570/W/20/3256619, 26 May 2021 [CD 6.13].

³² Appeal Decision APP/C1570/W/20/3256619, paras 17-18 [CD 6.13].

³³ Appeal Decision APP/C1570/W/20/3256619, para 18 [CD 6.13].

“[The ‘making best use’ policy] sets out a range of scenarios for ensuring the existing planning assumption can be met, again primarily through international agreement and cooperation, considering carbon traded or carbon capped scenarios. It concludes that the [‘making best use’] policy, even in the maximum uptake scenario tested, would not compromise the planning assumption.”³⁴

- 4.9 However, no reference is made in the decision to the substantially reduced annual emissions allocation given to aviation in the CCC’s most recent advice in the context of setting the sixth carbon budget (described below), when compared to the CCC’s historic planning assumption that was cited by the government in the ‘making best use’ policy.
- 4.10 Having set out the increased emissions reduction commitments that the UK has made since the policy was published, such as the introduction of the net zero target, the decision states “[n]otwithstanding these changes, [‘making best use’] has remained Government policy.”³⁵ The implication would appear to be that the ‘making best use’ policy does not itself allow such developments to be taken into account in assessing, and giving weight to, a proposal’s climate impact. As explained above, this is incorrect, with the policy in fact requiring that such relevant circumstances and considerations be taken into account by the decision maker.
- 4.11 In summary, the decision would appear to have wrongly assumed: (i) that the ‘making best use’ policy has settled the issue of whether expansion of capacity within existing runway constraints at UK airports is consistent with the UK’s climate obligations (whereas it expressly leaves this question to be assessed in each case), and (ii) that the increased stringency of UK climate targets since the development of the policy can be expected to have no impact on the extent to which UK aviation needs to be decarbonised (whereas the CCC’s advice is clear that such impact is substantial).
- 4.12 The government’s December 2018 consultation on its emerging Aviation Strategy (‘Aviation 2050’) also pre-dated the significantly more stringent commitments referred to above. However, it nonetheless highlighted the importance of ensuring that airport development proposals support the achievement of the UK’s decarbonisation targets:

³⁴ Appeal Decision APP/C1570/W/20/3256619, para 21 [CD 6.13].

³⁵ Appeal Decision APP/C1570/W/20/3256619, para 24 [CD 6.13].

“... the government also proposes to ... require planning applications for capacity growth to provide a full assessment of emissions, drawing on all feasible, cost-effective measures to limit their climate impact, and demonstrating that their project will not have a material impact on the government’s ability to meet its carbon reduction targets”.³⁶

4.13 At para 7.4 of the Statement of Case, the Appellant states that the aviation emissions from the proposed development would not amount to a significant effect, *“in line with the approach in Aviation 2050”*. However, as shown by the extract above, Aviation 2050 does not take a position on the significance of aviation emissions related to this development or more generally, deferring the assessment of environmental impacts to the relevant planning decision-maker.

4.14 Existing and emerging national aviation policy therefore explicitly avoids prejudging the assessment of a proposal’s merits and the question of whether it can be expected to support or hinder the achievement of the government’s decarbonisation targets. This is further confirmed by the following clarification in the government’s March 2020 publication ‘Decarbonising Transport – Setting the Challenge’:

“... a precautionary approach to airport capacity assumptions was adopted such that these represent an upper bound for carbon emissions, but the approach does not pre-judge any future planning applications or the development of policy (including following the outcome of proceedings e.g. on Heathrow expansion).”³⁷ (emphasis added)

4.15 I note that the Appellant frequently emphasises in its Statement of Case the government’s policy objectives to make the UK one of the best-connected countries in the world, for the aviation sector to make a significant contribution to the economic growth of the UK and for levelling-up regional growth (see, e.g., paras 1.4 and section 4 of the Statement).³⁸ However, as just explained, these objectives in

³⁶ Department for Transport, ‘Aviation 2050 – The future of UK aviation – A consultation’, December 2018, para 3.96 [CD 9.29].

³⁷ Department for Transport, ‘Decarbonising Transport – Setting the Challenge’, March 2020, p. 32, footnote f [CD 9.16].

³⁸ At para 4.8 of the Statement of Case, the Appellant cites the Secretary of State’s decision (under the nationally significant infrastructure planning regime) in respect of Manston Airport as support for the proposition that substantial weight should be given to a project’s contributing to the growth of regional airports. However, the circumstances relating to the proposed development in this appeal and Manston Airport DCO proposal would appear to differ in a number of key respects. For example, in contrast to the proposed development in this appeal, the Manston Airport development concerns

government policy are expressly stated as being subject to airport developments being deemed environmentally acceptable by the relevant planning decision-maker and to proposals supporting the UK's obligations under the Climate Change Act 2008. Indeed, again in 'Decarbonising Transport – Setting the Challenge' (which predated the CCC's sixth carbon budget advice), the government explained (at 2.49) that:

“Airport expansion is a core part of boosting our global connectivity and levelling up across the UK. The Government takes seriously its commitments on the environment and the expansion of any airport must always be within the UK's environmental obligations.” (emphasis added) [CD 9.16]

- 4.16 Accordingly, pending the development and publication of a definitive policy on airport capacity and greenhouse gas emissions, current and emerging aviation planning policy provides that it is for the relevant planning decision maker to determine the significance of a proposal's climate impact, in view of the specific circumstances of that case and the latest evidence, while applying relevant local and national planning policies, and taking into account national planning practice guidance.
- 4.17 In this context, national planning practice guidance on climate change states that *“[a]ddressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-taking”*,³⁹ and as already noted, the guidance expressly refers practitioners to the advice of the CCC.⁴⁰
- 4.18 As set out above, the Transport Decarbonisation Plan, as well as an Aviation Strategy and a net zero aviation consultation are due to be published this year. Should that take place before the end of the inquiry (which appears likely), this proof will be supplemented to address those policies as required.

the provision of air freight capacity rather than passenger capacity. Moreover, the Secretary of State's decision was issued in July 2020, i.e. before the CCC's Sixth Carbon Budget advice. In any event, the decision has since been quashed by the High Court in February 2021 and is therefore to be re-determined by the Secretary of State. See Appendix 3 (National Infrastructure Planning Page timeline as at 11 June 2021); and Appendix 4 “Manston Airport DCO Quashed” (22 February 2021).

³⁹ Paragraph: 001 Reference ID: 6-001-20140306 [CD 5.9].

⁴⁰ Paragraph: 011 Reference ID: 6-011-20140306 [CD 5.9].

5. Climate Change Committee advice

- 5.1 The CCC's sixth carbon budget advice includes detailed analysis of the possible emissions pathways to meet the net zero target and identifies a central 'Balanced Pathway' that is based on policies that are "*feasible, not just technically and economically but also practically*".⁴¹
- 5.2 The CCC explains that "*while [the Balanced Pathway] is not a prescriptive path that must be followed exactly, it provides a good indication of what should be done over the coming years*".⁴²
- 5.3 The Balanced Pathway is based on four "*exploratory scenarios*" – 'Headwinds', 'Widespread Engagement', 'Widespread Innovation' and 'Tailwinds'. These scenarios are each designed to meet net zero emissions by 2050 but involve differing levels of public engagement and innovation. The CCC describes the Balanced Pathway as being "*designed to drive progress through the 2020s, while creating options in a way that seeks to keep the exploratory scenarios open*".⁴³
- 5.4 In the specific context of the Balanced Pathway for the aviation sector, the CCC recommends that:

*"There should be no net expansion of UK airport capacity unless the sector is on track to sufficiently outperform its net emissions trajectory and can accommodate the additional demand."*⁴⁴

- 5.5 The CCC's approach to allowing for growth in aviation passenger by 2050 (albeit within existing airport capacity) assumes certain efficiency and fuel emissions improvements. If these improvements are not met, more stringent demand reduction measures, such as restrictions on existing airport capacity, would be required: "*If efficiency or SAF do not develop as expected, further demand management will be required*".⁴⁵

⁴¹ CCC, 'Policies for the Sixth Carbon Budget and Net Zero', p. 7 [CD 9.65].

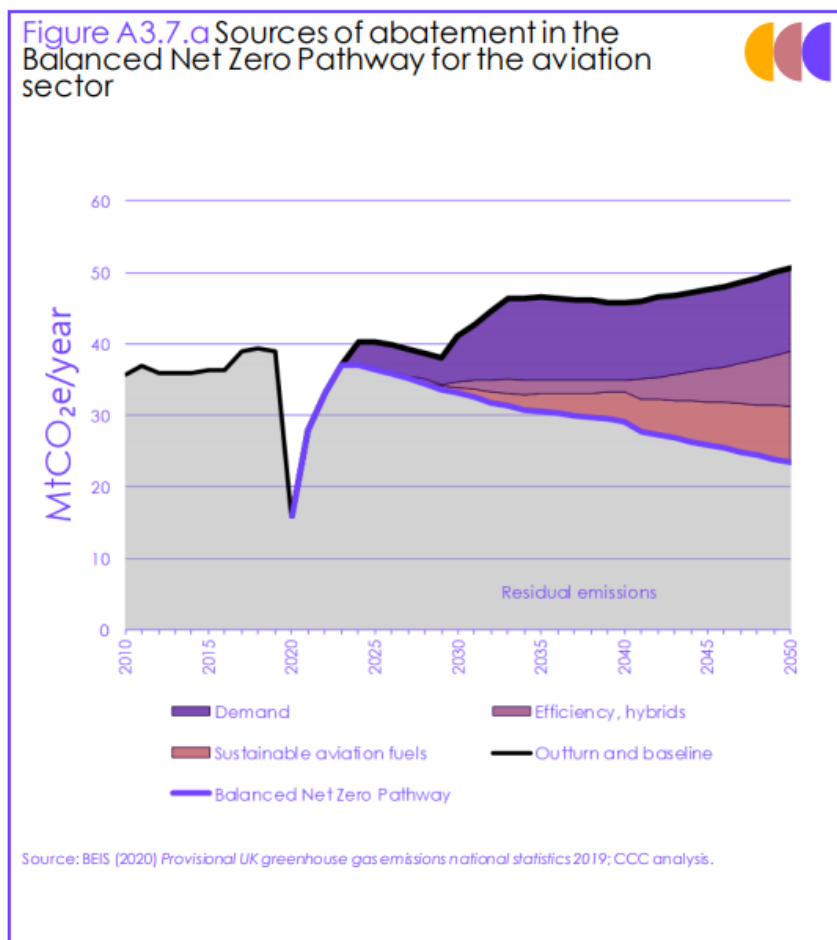
⁴² CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', p. 24 [CD 9.34].

⁴³ CCC, 'The Sixth Carbon Budget – The UK's path to Net Zero', pp 45-46 [CD 9.34].

⁴⁴ CCC, 'Sixth Carbon Budget – Aviation Sector Summary', December 2020, p. 29. See also p. 35: "*Going forwards, there should be no net expansion of UK airport capacity unless the sector is assessed as being on track to sufficiently outperform a net emissions trajectory that is compatible with achieving Net Zero alongside the rest of the economy, and is able to accommodate the additional demand and still stay on track*." [CD 9.66].

⁴⁵ CCC, 'Sixth Carbon Budget – Aviation Sector Summary', December 2020, p. 34 [CD 9.66].

- 5.6 As illustrated by the below figure, the CCC's Balanced Pathway sees the majority of emissions reductions out to 2040 coming from demand management measures rather than fuel innovation and efficiency.⁴⁶



- 5.7 The CCC's caption to this figure explains that “[d]emand management plays a critical role in ensuring GHG emissions continue to decrease, particularly while efficiency benefits and SAF take time to scale up.”⁴⁷
- 5.8 In terms of future passenger numbers in the Balanced Pathway, the CCC finds that existing airport capacity is sufficient to meet this demand:

“Our demand growth by 2050 matches Headwinds at 25%, although the passenger growth profile is more gradual due to an assumption of no net

⁴⁶ CCC, ‘Sixth Carbon Budget – Aviation Sector Summary’, December 2020, p. 22 [CD 9.66].

⁴⁷ CCC, ‘Sixth Carbon Budget – Aviation Sector Summary’, December 2020, p. 22 [CD 9.66].

capacity expansion at UK airports in this scenario. This arises as a function of 2050 passenger numbers (365 million passengers) being within current UK airport capacities (at least 370 million passengers), and the need to ensure the UK achieves Net Zero by 2050 with aviation still one of the largest emitting sectors. We therefore do not assume a surge in emissions occurs in the early 2030s, as happens with the airport expansion modelled in the Headwinds and Widespread Innovation scenarios. Airport expansion could still occur under the Balanced Pathway, but would require capacity restrictions elsewhere in the UK (i.e. effectively a reallocation of airport capacity).⁴⁸

- 5.9 The CCC assesses that the residual 23 MtCO₂e/year of aviation emissions in 2050 under the Balanced Pathway would require 40% of the UK's total engineered greenhouse gas removals to offset these emissions as part of achieving the UK's economy-wide net zero target.⁴⁹ In this context, it emphasises:

“Setting an aviation sector net emissions target and trajectory is not obviated by [International Aviation and Shipping’s] inclusion with carbon budgets. This is more important in aviation than other emitting sectors, given that without policy action aviation emissions could rise significantly (as would non-CO₂ effects) and that, even with appropriate action, residual positive GHG emissions are very likely to remain by 2050 (and need compensating for with greenhouse gas removals).”⁵⁰

- 5.10 Consistent with its overall position in terms of carbon budgets and targets,⁵¹ the CCC does not see any role for the use of international credits as a substitute for reducing actual UK aviation emissions:

“For international aviation, the international Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) scheme already seeks to offset a portion of aviation emissions. Under the scheme, larger airlines flying on routes between countries covered by it are required to offset growth in emissions above 2019 levels by paying for emissions reduction or removal in other

⁴⁸ CCC, ‘Sixth Carbon Budget – Aviation Sector Summary’, December 2020, p. 11 [CD 9.66].

⁴⁹ CCC, ‘Sixth Carbon Budget – Aviation Sector Summary’, December 2020, p. 33 [CD 9.66].

⁵⁰ CCC, ‘Sixth Carbon Budget – Aviation Sector Summary’, December 2020, p. 33 [CD 9.66].

⁵¹ See CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, pp 424-425 [CD 9.34]. See also the CCC’s letter to the Government on the use of international emissions credits, 26 March 2021 [CD 9.63].

sectors. The scheme starts in 2021 and is mandatory from 2027. The policy currently stops in 2035. The current level of ambition under CORSIA is an insufficient contribution to the goals of the Paris Agreement. A more ambitious, long-term global goal for international aviation emissions consistent with the Paris Agreement would provide a strong and early signal to incentivise the investment in new, cleaner, technologies that will be required for the sector to play its role in meeting long-term targets. This is particularly important in aviation given the long lifetimes of assets.”⁵²

- 5.11 The CCC emphasises the need for action at both the international and domestic levels to achieve sufficient emissions reductions. However, the CCC points to the need for further progress and increased ambition under international frameworks such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) established by the International Civil Aviation Organisation (ICAO), assessing that “[t]he current level of ambition under CORSIA is an insufficient contribution to the goals of the Paris Agreement.”⁵³ It also explains that:

“In order for operation of CORSIA to be compatible with the UK’s Net Zero commitment, there would need to be appropriate governance for offset credits and sustainable fuels, as well as an appropriate cap. ... For now, the Committee’s recommendation on credits within CORSIA is the same as for other credits – they should not be used to meet UK carbon budgets.”⁵⁴

- 5.12 In the context of international frameworks such as CORSIA, the government has previously stated (in March 2020):

“As a responsible national government, we need a contingency measure in case international progress does not go far enough or fast enough. That is why in the Government’s response to the latest CCC Progress Report, we made it clear that we would be minded to include international aviation and shipping emissions in our carbon budgets if there is insufficient progress at an international level.”⁵⁵ (emphasis added)

⁵² CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 425 [CD 9.34].

⁵³ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 425 [CD 9.34]. See also CCC, ‘Sixth Carbon Budget – Aviation Sector Summary’, December 2020, pp 29-31 [CD 9.66].

⁵⁴ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 425 [CD 9.34].

⁵⁵ Department of Transport, ‘Decarbonising Transport – Setting the Challenge’, March 2020, para 2.58 [CD 9.16].

- 5.13 Accordingly, the government's decision to include international aviation emissions in future carbon budgets would suggest that the government also views CORSIA and any other international offsetting schemes as inadequate in that they have not made sufficient progress.
- 5.14 In the context of planning decision-making and climate change more generally, the CCC advised in their June 2020 progress report to Parliament that “[i]ncreasingly, all policy and infrastructure decisions will need to be checked against their consistency with the UK's Net Zero target ...”.⁵⁶ Indeed, in the same report, the CCC specifically welcomed the decision of North Somerset Council to refuse permission for the proposed development, as an example of increased engagement with the net zero target, “*accelerated action*” and climate emergency declarations being “*factor[ed] in to project decisions*”.⁵⁷
- 5.15 The CCC's June 2021 progress report is due to be published on 24 June 2021 and will therefore be addressed by the deadline for rebuttal proofs if necessary.

⁵⁶ CCC, ‘Reducing UK emissions: 2020 Progress Report to Parliament’, June 2020, p. 164 [CD 9.17].

⁵⁷ CCC, ‘Reducing UK emissions: 2020 Progress Report to Parliament’, June 2020, p. 123 [CD 9.17].

6. Conclusions

- 6.1 Any increase in greenhouse gas emissions increases climate change impacts and necessarily makes the achievement of the UK's net zero target and interim carbon budgets more difficult, requiring further emissions reductions or removals elsewhere in the economy. This is particularly the case where the UK is currently off track to meet its fourth and fifth carbon budgets and the required emissions reduction trajectory to net zero. This principle is in line with the overall approach taken by the CCC in its sixth carbon budget advice, including in the specific context of aviation emissions.⁵⁸ It is also illustrated by the CCC's specific support for North Somerset Council's refusal of permission for the proposed development cited above, which pre-dated its sixth carbon budget advice and its 'no net expansion' recommendation in respect of UK airport capacity.
- 6.2 The proposed increase in emissions would therefore, in my opinion, constitute a significant adverse effect of the proposed development, whether for the purposes of assessing compliance with relevant development plan policies and national planning policy or as a standalone material consideration in determining this appeal.
- 6.3 This is in contrast to the conclusion in the Appellant's Addendum to its Environmental Statement (see section 10.8) [**CD 2.20.1**], which – in addition to pre-dating the CCC's sixth carbon budget advice and the government's response – does not appear to have taken into account (i) the wider context of the UK currently being off track to meet future carbon budgets, or (ii) the cumulative effect of the proposed development alongside other projects and sources of emissions both in the UK and globally. As the Appellant notes at para 10.10.2 of the Addendum to its Environmental Statement:
- "The only receptor for the GHG assessment is the global climate, which is a highly sensitivity receptor due to the importance of the issue of climate change. All increases in GHG emissions to the atmosphere are considered negative, direct and permanent effects."*⁵⁹
- 6.4 The proposed increase in emissions would constitute a significant adverse effect of the proposed development irrespective of the CCC's recommendation regarding 'no

⁵⁸ See, e.g., para 5.9 above.

⁵⁹ [**CD 2.20.1**], p. 181. See also the proof of Prof Kevin Anderson in this respect, including regarding the urgency of securing emissions reductions in all contexts.

net expansion' in the sixth carbon budget advice. However, such an adverse effect is all the more clear and significant in circumstances where the proposed development does not comply with the clear recommendations of an authoritative statutory body such as the CCC.

- 6.5 In this context, to my knowledge, no net reduction in capacity at other UK airports is currently proposed that would allow for an increase in capacity at Bristol Airport in line with the CCC's advised capacity restriction. Indeed, as noted above, I understand that current planned airport expansions, including the proposed development, would increase total UK passenger airport capacity to over 455 million passengers per year if approved.⁶⁰ This level of capacity would exceed by some 90 million passengers per year the 365 million passengers per year modelled by the CCC under the Balanced Pathway in 2050 (which allows for a growth of 25% above 2018 levels assuming technological change occurs at a sufficient rate).
- 6.6 I am also not aware of any material reduction in the aviation sector's emissions intensity having been achieved since the CCC's advice of December 2020 that would cause the CCC's recommended policy of no net expansion to be revised.
- 6.7 My view is not changed by the Appellant's Draft Carbon and Climate Change Action Plan (CCCAP) [**CD 9.48**], which:
- (i) does not contemplate the forms of aviation demand management and capacity restriction described by the CCC as having "*a critical role*" (as set out above at paras 5.4 – 5.8), and
 - (ii) instead relies on offsetting and carbon pricing systems such as CORSIA and the ETS that are viewed as insufficient by the CCC to achieve the required decarbonisation (as set out at paras 5.10 – 5.13 above).
- 6.8 In these circumstances, the proposed development would be inconsistent with the CCC's recommended pathway and policies for the aviation sector. It would therefore not support, and risks actively undermining, the achievement of the central UK climate change obligations outlined above: namely, the 2050 net zero target and interim carbon budgets under the Climate Change Act. This is particularly so given the need for urgent action and the CCC's advice that "*[t]he 2020s are the crucial*

⁶⁰ See New Economics Foundation, 'Turbulence Expected: The Climate Cost of Airport Expansion', May 2021, Table 1, p. 4 [**CD 9.32**].

decade” for action in order to be on track by 2033 to be able to comply with the sixth carbon budget.⁶¹

- 6.9 Equally, in the words of the government’s consultation on the draft Aviation Strategy, and contrary to para 7.7 of the Appellant’s Statement of Case, the proposed development would accordingly “*have a material impact on the government’s ability to meet its carbon reduction target*”.
- 6.10 It follows from these conclusions that I do not view the proposed development as complying with policy CS23 of the Development Plan, which requires that proposals for the development of Bristol Airport “*demonstrate satisfactory resolution of environmental issues*”.⁶² Equally, I do not view the proposal as being consistent with (i) the planning system’s overarching environmental objective and purpose of “*meeting the needs of the present without compromising the needs of future generations to meet their own needs*” as expressed in Chapter 2 of the NPPF, or (ii) Chapter 14 of the NPPF and para 148 in particular, which requires the planning system to “*shape places in ways that contribute to radical reductions in greenhouse gas emissions*”.

Declaration

The evidence which I have prepared and provide for this appeal reference APP/D0121/W/20/3259234 (in this proof of evidence) is true, and I confirm that the opinions expressed are my true opinions.

⁶¹ CCC, ‘The Sixth Carbon Budget – The UK’s path to Net Zero’, p. 24 [CD 9.34].

⁶² [CD 5.6], pp 22-23.