

The logo for BAAN (Bristol Airport Action Network) consists of the word "BAAN" in a bold, black, sans-serif font, centered within a light blue rectangular box with a subtle drop shadow.

**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**

**Planning Inspectorate Reference: APP/D0121/W/20/3259234**

**Local Planning Authority Reference: 18/P/5118/OUT**

**Date of Inquiry: July-October 2021**

**CLOSING SUBMISSIONS  
of  
BRISTOL AIRPORT ACTION NETWORK  
(BAAN)**

7 October 2021

## Introduction

1. For every tonne of carbon dioxide emitted into the atmosphere by the expansion of Bristol Airport, a tonne of carbon dioxide cannot be emitted elsewhere. That is the simple reality of the obligation on the Secretary of State to achieve the outcomes in the Sixth Carbon Budget, of the obligation to achieve Net Zero by 2050 and ultimately, to avoid contributing further to irreversible climate breakdown. The appellant seeks to downplay this reality by emphasising that the development proposal represents only a small fraction of greenhouse gas emissions in the aviation sector, a smaller fraction nationally, or an even smaller fraction globally. But if every emitter were allowed to rely on this argument, the cumulative impact of those emissions on the UK's ability to meet its climate change obligations would be wholly erased from planning decision-making. This is plainly contrary to the approach required by the Development Plan and by national policy. Every tonne of carbon emitted into the atmosphere matters; a percentage of the carbon stays active for hundreds of years and accumulates with previous emissions.
2. The opposition to the grant of permission by BAAN is not about depriving hardworking families their well-earned summer holiday, as has been suggested in some of the Appellant's questioning. Uncontroverted evidence before the inquiry demonstrates that the vast majority of flights are taken by a small minority: more than half the UK population does not fly each year; pre-pandemic estimates consistently showed that around 70% of all flights are taken by only 15% of the UK population.<sup>1</sup> The poorest do not fly and are least able to mitigate or move. Focusing on Bristol Airport, pre-pandemic statistics show that the majority of passengers using the airport earn more than £28,000pa, and the large majority of flights are taken by individuals travelling alone or with only one other.
3. Rather, the Inquiry has to confront the fact that airport expansion to benefit this small minority will result in a disproportionate impact upon the ability of the UK as a whole to meet our climate change obligations. The national and international consequences of jeopardising these climate change targets is uncontroversial and

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<sup>1</sup> **CD 9.057** House of Commons Library Briefing Paper No. 8826 *Aviation, decarbonisation and Climate*, 12 February 2021, p. 7; See also Finlay Asher's Proof of Evidence BAAN/W2/1 paragraphs 3.7-3.9.

will often fall most severely on those who have never flown at all. Exacerbating the climate crisis has profound economic, social and environmental costs to us and to future generations.

4. It can be difficult to conceptualise, in planning terms, how to address long-term impacts like climate change, but the NPPF (July 2021) helps in this regard, with paragraph 7 reminding us that the *“purpose of the planning system is to contribute to the achievement of sustainable development”*, and that this objective *“can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs”*.<sup>2</sup>
5. The latest Intergovernmental Panel on Climate Change 2021 Report is unequivocal: as attested by the climate scientists and as described by every major newspaper in this country, it is a ‘Code Red for Humanity’. Global warming of 1.5°C and 2°C will be exceeded during the 21<sup>st</sup> century unless deep reductions in CO<sub>2</sub> and other greenhouse gas emissions occur in the coming decades.<sup>3</sup> Irreversible climate change, and its impact on the frequency of extreme weather events, the loss of coastline, flooding and food security, is the paradigm example of an outcome which compromises the ability of future generations to meet their needs.
6. The contribution of the development proposal to climate change through the additional CO<sub>2</sub>e emissions released into the atmosphere is an obvious material consideration in this appeal: there is a direct and unchallenged causal relationship between the additional emissions produced by the appeal proposal and the worsening of climate change. This proposal would shift the burden and need for mitigation caused from this generation to future generations.
7. It is not contested by any party in this Inquiry that climate change is worsened by increased emissions of greenhouse gases, nor that the appeal proposal will increase greenhouse gas emissions from the amount that there would have been if the development did not proceed. The fact that both of these statements are uncontroversial does not and should not diminish their significance in planning

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<sup>2</sup> CD 5.08.1, p. 5, paragraph 7.

<sup>3</sup> INQ 032, IPCC Summary for Policymakers, p. 18.

decision-making. On the contrary, it should serve to emphasise how central the climate impact of the proposed development is to the decision in this appeal.

**Compliance with the Development Plan: Bristol Airport Ltd cannot demonstrate satisfactory resolution of the environmental issues associated with the appeal proposal because of its impact on the UK's ability to meet its climate change obligations**

8. Policy CS23 of the Development Plan<sup>4</sup> stipulates that: *"Proposals for the development of Bristol Airport will be required to demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure"*.
9. The Aviation 2050 Strategy provides at paragraph 3.96<sup>5</sup> that the Government 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 climate reduction targets"*.
10. The onus is placed squarely on the appellant by Policy CS23 accurately to identify the extent of the environmental impact of the appeal, including on climate change, and satisfactorily to address that impact.
11. This is a burden that Bristol Airport Ltd ("**BAL**") simply cannot meet. There are several reasons for this:
  - 1) BAL cannot demonstrate that their proposal will not have a material impact on the government's ability to meet its climate change reduction targets:
    - a) The magnitude of CO<sub>2</sub> emissions caused by the appeal proposal is significant at both a national and local level;
    - b) The government's ability to meet its climate reduction targets is already impaired by reference to the fourth and fifth climate budgets; and

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<sup>4</sup> CD 5.20, p. 97.

<sup>5</sup> CD 6.05, p. 76.

- c) The cumulative impact of the expansion of Bristol Airport, in light of other airport expansions, has not been adequately considered.
- 2) BAL cannot demonstrate that the development of sustainable aviation fuels and efficiency gains will mitigate the impact of the carbon emissions of the proposals;
  - 3) BAL cannot demonstrate that offsetting schemes, either UK ETS or CORSIA, will sufficiently mitigate the impact of the carbon emissions of the proposals; and
  - 4) BAL has not adequately addressed either the environmental impact of the non-CO<sub>2</sub> emissions of the appeal proposal, nor of the additional impact of releasing greenhouse gas emissions at altitudes.

12. I will address each of these in turn.

*National and local significance of the magnitude of CO<sub>2</sub> emissions*

- 13. The Institute of Environmental Management and Assessment (“**IEMA**”), in guidance for assessing greenhouse gas emissions in Environmental Impact Assessments,<sup>6</sup> provides that science-based targets informed by a maximum increase in global temperature in 2°C from pre-industrial levels provides “*a good indicator of significance and could be used in an EIA to calculate a project’s carbon budget. This budget can then be compared against an existing carbon budget (global, national, sectoral, regional or local – as available), to identify the percentage impact the project will contribute to climate change.*”
- 14. This approach is reflected by the Tyndall Centre budget report used by Professor Anderson to conclude that the share of Bristol Airport’s aviation emissions attributable to North Somerset Council would consume the entire carbon budget for the local authority in the five years between the start of 2028 and the end of

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<sup>6</sup> **CD 9.047**, p. 18, Box 4.

2032.<sup>7</sup> Further, the additional emissions caused by the proposed expansion alone consume 82% of the five year carbon budget period (2038 – 2042) for North Somerset Council by 2040.<sup>8</sup>

15. In cross-examination, Dr Ösund-Ireland took no issue with the methodology adopted by Professor Anderson and accepted that, based on the IEMA guidance, it was one relevant approach which could be applied. No recourse to local budgets in order to determine the relative significance of the development proposal was taken in the Environmental Impact Assessment. The reason for this is plainly because, on any local carbon budget measure, the environmental impact of the proposed development is profound: it overwhelms the local carbon budget.
16. The significance of the CO<sub>2</sub> emissions associated with the appeal proposal is further demonstrated by reference to the CCC's balanced Net Zero pathway targets for aviation emissions. While it is of course the case that the CCC's Balanced Net Zero pathway is not Government policy, the IEMA guidance specifically refers to the CCC as a source of information for establishing future baseline emissions.<sup>9</sup> Dr Ösund-Ireland confirmed in cross-examination that he considered that a 'robust' approach to assessing the environmental impact of the appeal proposal would be to assess carbon emissions in light of the CCC's pathways.
17. When considered in relation to the CCC's Balanced Net Zero pathway, BAL's 'with expansion' case would lead to Bristol Airport underachieving against the reductions required by the CCC's pathway for aviation by a factor of six.<sup>10</sup> Even without expansion, there is an underachievement of the CCC's target by almost a factor of two by Bristol Airport,<sup>11</sup> however, the substantial worsening of the position caused by the expansion demonstrates the significance of the CO<sub>2</sub> emissions associated with the proposed development. As Professor Anderson said in his evidence, it is akin to pouring yet more fuel on an already out-of-control fire.<sup>12</sup>

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<sup>7</sup> Proof of Evidence of Professor Kevin Anderson, BAAN/W1/1, p. 38 paragraph 6.7.6.

<sup>8</sup> Proof of Evidence of Professor Kevin Anderson, BAAN/W1/1, p. 38 paragraph 6.7.7.

<sup>9</sup> **CD 9.047**, p. 11, Box 3.

<sup>10</sup> Proof of Evidence of Professor Anderson, BAAN/W1/1, p. 31-32, paragraph. 6.4.3.

<sup>11</sup> Proof of Evidence of Professor Anderson, BAAN/W1/1, p. 33, paragraph 6.4.7.

<sup>12</sup> Proof of Evidence of Professor Anderson, BAAN/W1/1, p.7, paragraph 2.7.

18. Dr Ösund-Ireland noted in cross-examination that while reference had been made to the CCC pathways, a comparison between the level of emissions expected by the CCC in future years, and the level emitted by the development proposal, had not been carried out by BAL.<sup>13</sup>
19. Accordingly, by reference to multiple different methodologies endorsed by the IEMA guidance, the magnitude of the CO<sub>2</sub> emissions associated with the development proposal is significant.
20. BAL has placed great emphasis on the fact that the airport expansion represents a tiny percentage of the headroom planning assumption for UK aviation as a whole, or similarly, that the 2 mppa is only a small fraction of the 25% increase in passengers between 2018 and 2050 assumed by the CCC's Balanced Net Zero pathway. However, any single development is always going to represent only a small fraction of national sectoral emissions; if every emitter were permitted to rely on this argument, the significance of the cumulative effect of carbon emissions would be entirely erased from planning decision-making.
21. Furthermore, no planning decision-maker would seek to minimise the significance of an economic benefit of a development on the basis that it represented a tiny fraction of UK GDP, or that the number of jobs created is a tiny fraction of the total UK job numbers; it is similarly nonsensical to insist on this approach to carbon budgets. Such an approach was characterised by Prof Anderson as 'mathematically illiterate'.
22. Further, the 25% increase in passenger growth by 2050 compared to 2018 levels modelled by the CCC in the Balanced Net Zero pathway assumes that, unlike in the baseline scenario, this growth occurs "*without any net increase in UK airport capacity, so that any expansion is balanced by reductions in capacity elsewhere in the UK*".<sup>14</sup> BAL has not identified any other airport elsewhere in the UK at which it is expected capacity will be correspondingly reduced in light of the expansion of

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<sup>13</sup> Proof of Evidence of Dr Ösund-Ireland, BAL/W6/2, p. 42, Table 4.1 only compares the difference between assumptions made by the CCC across different pathways, and those made by the ES.

<sup>14</sup> **CD 9.105**, p. 21.

Bristol Airport. On the contrary, there are plans in place for the expansion of Heathrow and Gatwick, as well as regional airports Luton, Stansted, Leeds/Bradford and Southampton.

23. Further, the assessment of significance must require consideration of absolute levels of greenhouse gas emissions caused by the appeal proposal, in addition to any relative assessment. As Professor Anderson said ‘every tonne of carbon emitted into the atmosphere matters’.
24. Paragraph 152 of the NPPF (July 2021)<sup>15</sup> makes reference to absolute reductions, requiring that “*The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions*”. The ES and ESA produced demonstrate that the proposed development would cause a net addition to the UK carbon emissions,<sup>16</sup> rather than any reduction.

*The expansion of Bristol Airport will have a material impact on the Government’s ability to meet Net Zero in 2050 and the Sixth Carbon Budget*

25. BAL’s argument that the impact of the carbon emissions from the appeal proposal are not material, because of the legal obligation on the Secretary of State to achieve Net Zero by 2050 and the availability of future policy mechanisms,<sup>17</sup> is circuitous. If BAL were correct, it must follow logically that *any level* of carbon dioxide emissions, no matter how great, could never affect the Government’s ability to meet its climate change obligations, because ultimately, it is the Secretary of State’s responsibility to find a way to attain Net Zero by 2050 and he or she can take advantage of policy mechanisms in the future to make carbon emissions savings elsewhere.
26. Such an approach transparently disregards the reality that the likelihood of attaining Net Zero by 2050 is directly influenced by local planning decision-

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<sup>15</sup> CD 5.08.1, p. 45.

<sup>16</sup> Proof of Evidence of Dr Hinnells, NSC/W6/, p. 39, paragraph 135.

<sup>17</sup> Proof of Evidence of Dr Ösund-Ireland, BAL/W6/2, p. 69 paragraph 6.21.



making such as the decision made by the North Somerset Planning Committee to reject this application and the decision now before the Inspectors: the greater the emissions which are permitted, the fewer options remain open to the Secretary of State if the outcome mandated by Section 1 of the Climate Change Act 2008 is to be achieved. The greater the gross emissions of a development proposal, the more extreme the measures to be taken elsewhere: reducing emissions at other airports, or across the economy.

27. BAL has further emphasised that the Balanced Net Zero Pathway produced by the CCC does not constitute Government policy and merely represents just one of many potential pathways to achieve the outcome of Net Zero in 2050. However, as Mr Melling accepted, the legislated Sixth Carbon Budget was set, and the quantum of CO<sub>2</sub> emissions reductions required was determined by reference to, the CCC's Balanced Net Zero Pathway: the CCC observes in the Sixth Carbon Budget Report to Parliament (June 2021) that "*the Balanced Net Zero Pathway provides the basis for our recommended level for the carbon budget*".<sup>18</sup> Accordingly, it is entirely appropriate for Inspectors to have regard to the Balanced Net Zero Pathway when deciding whether the appeal proposal will have a material impact on the Government's ability to meet the Sixth Carbon Budget.
28. BAAN's case is that it does have such an impact. We are already operating in a context where the viable options remaining open to the Secretary of State to achieve the Sixth Carbon Budget and Net Zero by 2050 are rapidly diminishing given that the UK is, as Mr Melling agreed, not on track to meet the fourth and fifth carbon budgets. Professor Anderson has confirmed that the UK is currently well off track to meet both the Fourth Carbon Budget (requiring a 51% reduction below 1990 levels by 2025, with just over three years remaining to achieve the budget) and the Fifth Carbon Budget (requiring a 57% reduction below 1990 levels by 2030).<sup>19</sup> Further, the CCC, relying on 2018 and 2019 projections from the Department of Business, Energy and Industrial Strategy, highlighted shortfalls in respect of the fourth and fifth carbon budgets in its 2020 Progress Report to

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<sup>18</sup> CD 9.034, p. 51.

<sup>19</sup> Proof of Evidence of Professor Anderson, BAAN/W1/1, p. 15 paragraph 4.8.

Parliament.<sup>20</sup> Given the obvious causal connection between the meeting of the Fourth and Fifth Carbon Budgets to the future achievement of the legislated Sixth Carbon Budget, it is clear that the Secretary of State has far from a theoretically infinite suite of policy options at his disposal to achieve climate change targets.

*Absence of consideration of the cumulative impact of airport expansion and subsequent impact on the UK's ability to meet its climate change obligations*

29. In their June 2021 Progress Report to Parliament, the CCC confirmed that their advice from the Sixth Carbon Budget report “*remains unchanged – there should be no net expansion of UK airport capacity unless the sector is on track to outperform its net emissions trajectory*”.<sup>21</sup> There is no evidence before this Inquiry that the UK aviation sector is on track positively to outperform its net emissions trajectory. While the CCC’s advice does not comprise government policy, that does not diminish its obvious materiality as a planning consideration, a fact reinforced by the PPG on Climate Change. The CCC is an independent, specialist statutory body and, as Mr Hunter Jones said in uncontroverted evidence, its observations represent the most authoritative and robust evidence of the climate change impact of airport capacity expansion on the UK’s ability to meet its climate change targets.
30. The impact of the development proposal by reference to airport capacity across the UK will determine if a development proposal represented ‘net’ expansion of UK airport capacity. Dr Ösund-Ireland accepted in cross-examination that, in order to determine whether the appeal proposal will have a material impact on the Government’s ability to meet the carbon reduction targets, it will be necessary to have regard to the cumulative context of UK emissions as a whole through to 2050. There is no such assessment before the inquiry. That, of itself, is a flaw capable of legal challenge.
31. Dr Ösund-Ireland further accepted that, in the absence of any such assessment, it cannot be demonstrated that the development proposal will not have a material impact on the UK’s ability to meet its climate change obligations. Accordingly,

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<sup>20</sup> CD 9.017, p. 53, Figure 1.1: *Emissions Pathways to carbon budgets and the Net Zero target.*

<sup>21</sup> CD 9.130, p. 184.

BAL's own climate change witness admitted that BAL could not meet the policy test set out in the Aviation 2050 Strategy.

32. Mr Melling in his Proof of Evidence concludes that the emissions from the appeal proposal would not be significant in part because *"Bristol Airport's increase in emissions is well below that approved at Stansted"*.<sup>22</sup> This is not in fact a point in BAL's favour. The fact that airport expansion has been approved at Stansted places an even greater strain on the limited space remaining in the carbon budget for aviation emissions. Properly analysed, the grant of planning permission for expansion of Stansted Airport, and the concomitant, inevitable additional emissions, *increases* rather than *decreases* the significance of additional emissions from expansion of Bristol Airport.

*Failure to demonstrate that environmental harms caused by increased greenhouse gas emissions can be mitigated by efficiency savings or through the use of sustainable aviation fuels*

33. It is clear from its draft CCCAP that in relation to reducing what BAL terms "Scope 3" emissions – which include the CO<sub>2</sub> emissions caused by aircraft movements, comprising the vast majority of the emissions associated with Bristol Airport – a core part of its strategy rests on the proliferation of sustainable aviation fuels ("SAFs") and other technological innovations.<sup>23</sup> Further, the Environmental Statement assumes that *"achieving net zero requires increased sustainable fuel use"*.<sup>24</sup>
34. This is an unsound assumption. BAL cannot rely on the future widespread proliferation of alternative jet fuels, such as biofuel and synfuel, in order to mitigate the increased GHG emissions associated with the appeal proposal. Even on the most optimistic view proclaimed by the industry themselves, alternative fuels can be scaled up to cover only a fraction of existing aviation fuel consumption by 2035-2040.<sup>25</sup>

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<sup>22</sup> Proof of Evidence of Alexander Melling BAL/W7/2, p. 80 paragraph 4.5.33.

<sup>23</sup> Proof of Evidence of Dr Ösund-Ireland BAL/W6/2, p. 61-62, paragraph 5.3.11 – 5.3.12.

<sup>24</sup> **CD 2.201**, Environmental Statement Addendum, p. 151, paragraph 10.2.16.

<sup>25</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 28 paragraph 7.3.8.

35. The largely unchallenged evidence of Mr Asher puts the matter beyond dispute. In particular Dr Ösund-Ireland, the progenitor of the CCCAP, accepted that he was not able to take issue with the problems concerning biofuels and synfuels identified by Mr Asher, as he was “not sufficiently aware of them” and that he had not taken them into account. These unaccounted for matters include:
- 1) The widespread use of aviation biofuels would have a negative effect on the climate given the change in land use required for their scaled-up production,<sup>26</sup> and their relatively high cost compared with petroleum-based jet fuel means that the aviation industry has consistently failed to reach its ambitions for their adoption.<sup>27</sup>
  - 2) Synthetic fuel technology remains in its infancy<sup>28</sup> and require large quantities of renewable energy for its synthesis.<sup>29</sup>
  - 3) Hydrogen flight is unproven and uncertain, with many technical and safety aspects not yet understood, making its commercialisation and the development of the completely novel fuel infrastructure at UK airports before 2050 extremely unlikely.<sup>30</sup>
  - 4) Despite historical efficiency improving the level of CO<sub>2</sub> emissions per passenger mile, the total emissions produced by aviation have been rapidly increasing because of the additional flights being taken over time.<sup>31</sup> The rate of aircraft efficiency improvements is slowing over time, with only marginal gains now being achieved; step-changes in efficiency will not be possible unless significant new aircraft and engine architectures are developed, which will take many years to develop and decades to become significant parts of the flight mix.<sup>32</sup>

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<sup>26</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 24 – 26, paragraphs 7.3.1 – 7.3.5.

<sup>27</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 27, paragraph 7.3.7.

<sup>28</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 29 – 30, paragraphs 7.4.2 – 7.4.3.

<sup>29</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 31 paragraph 7.4.4.

<sup>30</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 21-23, paragraphs 6.11 – 6.16.

<sup>31</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 12, paragraph 4.5.

<sup>32</sup> Proof of Evidence of Mr Asher, BAAN/W2/1, p. 14 paragraph 4.7 and Figure 6.

36. In light of this, the prospect of mitigating the carbon emissions of the development proposals through the use of SAF, alternative flight routing or efficiency gains should not be given any weight.
37. The profound uncertainty still surrounding the deployment of technologies such as SAF and additional efficiency gains should further affect the weight attributed to the scenarios set out in the Jet Zero Consultation. The Jet Zero: Evidence and Analysis (July 2021) document makes clear that:

*“The scenarios presented here are not prescriptive. The uncertainty surrounding the future costs of the measures mean that it is not possible to assess the relative cost effectiveness of the scenarios. The optimal mix of measures will become clearer over the coming decade as the relevant technologies mature and evidence of their relative costs improves.”<sup>33</sup>*

38. The scenarios outlined in the Jet Zero consultation which presume a step-up in ambition on SAF, annual efficiency improvements or any introduction of zero-emission aircraft (Scenario 2: High ambition, Scenario 3: High ambition with a breakthrough on SAF and Scenario 4: High ambition with a breakthrough on zero emission aircraft) are all necessarily aspirational rather than indicative. Even on the least ambitious of these scenarios (Scenario 2), the use of biomass would need to be prioritised in aviation over other sectors, the rate of fuel efficiency assumed would not be met if airlines fail to modernise their fleets at sufficient speeds or invest in the necessary aircraft advancements (a failure made more likely by the financial impact of Covid-19 on the aviation industry), and technological advances in battery and hydrogen technology by 2027-2030.<sup>34</sup>
39. The Jet Zero scenarios cannot be understood as an expression of the likelihood that SAF uptake and efficiency improvements will materialise quickly enough to ensure the decarbonisation of the aviation sector before 2050; certainly not one on which any reliance can be placed for the purposes of planning decision-making.

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<sup>33</sup> CD 9.136, p. 10, paragraph 3.2.

<sup>34</sup> CD 9.136, p. 13, paragraph 3.11.

40. Of course, the Jet Zero consultation does not yet represent Government policy and is highly likely to change following the receipt of consultation responses from stakeholders. In light of all of this, no weight can safely be given to Jet Zero.

*Failure to demonstrate that environmental harms caused by increased greenhouse gas emissions can be mitigated by emissions offsetting schemes, either through the UK ETS or CORSIA*

41. The caps on emissions imposed by UK Emissions Trading Scheme (“UK ETS”), as it currently legislated, will cease in 2030.<sup>35</sup> Accordingly, as was accepted by Dr Ösund-Ireland in cross-examination, the UK ETS as it stands will not run to the Sixth Carbon Budget period, nor the full period up to the attainment of Net Zero by 2050. Similarly, the CORSIA scheme is due to end in 2035.
42. Further, as the law currently stands, the UK ETS applies only to flights going to and from the UK, the EEA and Gibraltar (Schedule 1(1), Article 4(1), Greenhouse Gas Emissions Trading Scheme Order 2020).<sup>36</sup> Accordingly, the scheme would not apply to all of the flights arriving at and departing from Bristol Airport.
43. The inadequacy of CORSIA against the UK Net Zero target is reiterated by the CCC’s Sixth Carbon Budget Report which states that *“The CORSIA scheme is not currently compatible with the Paris Agreement or the UK’s path. The current level of ambition under CORSIA is an insufficient contribution to the goals of the Paris Agreement... 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.”*<sup>37</sup>
44. BAL cannot rely on the impact of either the UK ETS or CORSIA as adequate mitigation mechanisms of the significant environmental impact of the proposed development.
45. Nor can BAL properly ask that the Inspectors optimistically speculate about the future development of the UK ETS and CORSIA schemes. It has been oft-repeated throughout this Inquiry that the Inspectors are required to apply the law and

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<sup>35</sup> CD 9.036, p. 14-15.

<sup>36</sup> CD 9.036, p. 37.

<sup>37</sup> CD 9.034, p. 425.

policies as they are at the time of their decision, and not as one party hopes they might become. As the law currently stands, there is nothing upon which the Inspectors can rely to suggest that either or both offsetting schemes will adequately reduce aviation emissions. Accordingly, little weight can be given to the UK ETS and none to CORSIA in determining the extent to which it is possible for BAL to demonstrate that it can mitigate the environmental impact of the proposed development.

46. It is plain that BAL rely on both the UK ETS and CORSIA when assessing the environmental impact of the development; the environmental assessment assumed that *“Achieving net zero requires increased sustainable fuel use, greenhouse gas removals/offsets and operational improvements, which will be driven by international sector-based mechanisms (such as the EU ETS and CORSIA)”* and that *“National and international-level responses to reducing aviation GHG emissions that have been put in place (e.g. Aviation Strategy, CORSIA) will be effective”*.<sup>38</sup> These assumptions are, on clear evidence before this inquiry, demonstrably unsound.
47. Finally, it is not lawfully open to BAL to suggest that the Inspectors must, pursuant to paragraph 188 of the NPPF, assume that the UK ETS or CORSIA will operate effectively. The reasons for this, based on a detailed analysis of the relevant case law, are set out in BAAN’s legal submissions and will not be repeated here.

*Failure to assess the harm caused by non-CO<sub>2</sub> emissions in the Environmental Impact Statement*

48. The CCC specifically recognises that *“Aviation produces a range of non-CO<sub>2</sub> pollutants that affect the climate in different ways”* and that *“Overall, the net aviation non-CO<sub>2</sub> effect is to warm the climate. Globally, non-CO<sub>2</sub> effects contribute around two-thirds of the total aviation effective radiative forcing – twice as much as historical CO<sub>2</sub> emissions from aviation”*.<sup>39</sup> While the extent of non-CO<sub>2</sub> effects remain uncertain and difficult to quantify precisely, there is no scientific doubt that they have a net warming effect on the climate. Accordingly, the CCC recommends:

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<sup>38</sup> Proof of Evidence of Dr Ösund-Ireland BAL/W6/2, p. 43, paragraph 4.2.6.

<sup>39</sup> **CD 9.034**, p. 374, Box 8.6.

*“When considering how to limit emissions from aviation, it is therefore important to recognise these non-CO<sub>2</sub> effects are significant, and that constraining the total distance flown each year has a greater relative benefit to the climate than measures which reduce the carbon-intensity of flying.*

*While there remains uncertainty on the non-CO<sub>2</sub> effects of aviation, and further research is necessary, current best estimates show that aviation has a significant warming effect on top of that from its CO<sub>2</sub> emissions. Action to limit these non-CO<sub>2</sub> climate effects will be necessary, although not at the expense of reducing CO<sub>2</sub> emissions, which have a longer-lasting impact on the climate.”<sup>40</sup>*

49. The Department for Business, Energy and Industrial Strategy (“BEIS”) in their 2019 methodology paper for Government greenhouse gas conversion factors for company reporting, after acknowledging the current uncertainty in this area, notes that *“The application of a ‘multiplier’ to take account of non-CO<sub>2</sub> effect is a possible way of illustratively taking account of the full climate impact of aviation”*, and recommends a multiplier of 1.9 as a central estimate.<sup>41</sup>
50. No assessment of the extent of non-CO<sub>2</sub> emissions associated with the development proposal have been undertaken as part of the Environmental Impact Assessment of the appeal proposal. Dr Ösund-Ireland acknowledged in cross-examination that although the BEIS estimated multiplier for non-CO<sub>2</sub> emissions was available and could have been referred to at the time of preparing the Environmental Impact Assessment for the appeal proposal, the multiplier had not been used.
51. BAL’s ES thus fails to apply the Precautionary Principle, which provides that likely impacts should which would cause harm if they materialised should not be ignored simply because there is soe dispute about how they should be measured. A properly precautionary approach would have provided the best approximation of total climate impact, for example by applying DBEIS’s multiplier – rather than neglecting their impact completely.

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<sup>40</sup> CD 9.034, p. 422.

<sup>41</sup> Appendices to Proof of Evidence of Professor Kevin Anderson BAAN/W1/2, Appendix 6, p. 86.



52. Dr Ösund-Ireland acknowledges in his Proof of Evidence that “*non-CO<sub>2</sub> emissions cannot be ignored*”, but in fact this is what has largely happened in the BAL evidence. Dr Ösund-Ireland simply states that “*BAL acknowledges this in its CCCAP and I consider this the most appropriate approach to address the issue*”.<sup>42</sup>
53. The CCCAP itself gives only cursory attention to the non-CO<sub>2</sub> effects of aviation, suggesting that “*We will continue to monitor government policy in this respect and reflect best practice in updates to the CCCAP as part of the five-year review cycle. Where possible, BAL will take an active role in influencing airlines to consider the non-CO<sub>2</sub> impacts of their operation*”.<sup>43</sup>
54. Further, non-CO<sub>2</sub> emissions were not taken to account by Mr Melling as a specific material consideration affecting his conclusions on climate change in the overall planning balance; he simply reiterates that the non-CO<sub>2</sub> impacts of aviation are most appropriately addressed at a national level and would need to be kept under review.<sup>44</sup>
55. Merely monitoring development in government policy concerning non-CO<sub>2</sub> emissions and only “*where possible*” influencing airlines to consider non-CO<sub>2</sub> emissions falls far short of the requirement to estimate and mitigate the impact of non-CO<sub>2</sub> emissions for the purpose of preparing an ES. The uncertainty associated with precisely quantifying non-CO<sub>2</sub> impacts is no reason not to estimate their extent at all in light of both the existence of the BEIS multiplier of 1.9, approved by Government, and the precautionary principle.
56. The warming effect of non-CO<sub>2</sub> emissions has the potential to engage the UK’s climate change obligations which, as BAAN has evidenced, are inextricably linked to temperature under the Paris Agreement. Accordingly, the environmental impact of the non-CO<sub>2</sub> emissions associated with the appeal proposal is also relevant to the extent to which the appeal proposal materially affects the UK’s ability to meet its climate change obligations.

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<sup>42</sup> Proof of Evidence of Dr Ösund-Ireland BAL/W6/2, p. 73, para 6.2.44.

<sup>43</sup> **CD 9.048**, p. 37, para 8.6.

<sup>44</sup> Alex Melling Proof of Evidence and Appendices BAL/7/2, p. 28 paragraph 4.5.21.

**The *Beyond the Horizon: The Future of UK Aviation - Making Best Use* and the Aviation Policy Framework do not contain a policy mandate for unconditional airport capacity expansion**

57. BAAN's case on the MBU and APF is that, together, they remain the most up-to-date policy concerning the Government's approach to airport capacity expansion. However, the correct interpretation of the policies (prior to the consideration of their weight in the overall planning balance) is that they contain no unconditional mandate for airport expansion: rather, generalised Government support for making best or better use of runways is expressly subject to "*all relevant considerations, particularly economic and environmental impacts and proposed mitigations*".<sup>45</sup>
58. Therefore, in order to determine whether the application of MBU and APF policies supports or counts against a proposed development (i.e. the side of the planning balance to which MBU and APF lends weight), it is necessary to consider the prior question of whether the general support for making best use of runways is reduced or removed because of environmental impacts of the specific application. If so, the MBU and APF will weigh in the planning balance against the grant of planning permission. If, however, the environmental impacts of making best use of an airport runway are acceptable, the MBU and APF will lend support to the grant of permission in the overall planning balance.
59. The evidence before the inquiry as to the significant GHG impacts of the proposal and its contribution to climate change, and in light of the UK's projected failure to meet the Fourth, Fifth and Sixth Carbon Budgets, is a countervailing environmental impact sufficient to overcome the generalised high-level Government support for making best use of runways. Accordingly, the MBU and APF, correctly applied in this inquiry, weigh against the grant of planning permission.
60. It is no part of BAAN's case that the MBU and APF are no longer government policy in light of subsequent developments in the Secretary of State's climate change obligations (such as the net zero obligation and the Sixth Carbon Budget). Quite

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<sup>45</sup> CD 6.04, p. 10, paragraph 1.29.

the opposite. Developments such as those that have taken place on climate are anticipated by MBU, which was, as Mr Hunter Jones said in evidence, “*obviously cognisant of the fact that circumstances change over the life of the policy*”. It is indeed apparent from the face of the MBU that it is forward-looking regarding the possibility of environmental developments which post-date its inception: “*there remains uncertainty over future climate change policy and international arrangements to reduce CO<sub>2</sub> and other greenhouse gases*”.<sup>46</sup>

61. As Mr Hunter Jones emphasised, the key policy paragraph of MBU, §1.29, explicitly does not prejudice local decision-making and instead requires that careful account to be taken of “*all relevant considerations*”, including “*environmental impacts*”. This must include the UK’s climate change obligations, including those which post-date the original implementation of the policy, such as the introduction of the Net Zero target and the inclusion of international aviation in the Sixth Carbon Budget.<sup>47</sup> This is reinforced by the reference in footnote 39 of the Jet Zero Consultation to MBU and the requirement for airport expansion to meet the government’s climate change obligations in order to be able to proceed.
62. BAL position on MBU is, frankly, confused. BAL’s written case and evidence suggest that MBU and APF are to be interpreted as invariably lending ‘in principle’ support to the grant of planning permission for airport expansion and that section on the implications for the UK’s carbon commitments in MBU means the issue is, essentially, answered.
63. In answer to the contention that the carbon emissions of the proposal need to be considered in decisions on airport expansion proposals, both Mr Melling and Dr Ösund-Ireland’s evidence repeatedly state, citing §1.11 of MBU, that the carbon impact of the development are matters which “*should be considered at national level*”.<sup>48</sup>

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<sup>46</sup> **CD 6.04**, Paragraph 1.14 of MBU.

<sup>47</sup> Proof of Evidence of Sam Hunter Jones, BAAN/W3/1, p. 12 – 14, paragraphs 4.5 – 4.11.

<sup>48</sup> For example, Proof of Evidence of Mr Melling, BAL/7/1, Section 3.3; paragraph 4.5.24; paragraph 6.2.13 and paragraph 8.2.11; Melling Rebuttal BAL/7/3 paragraph 3.5.4; Proof of Evidence of Dr Ösund-Ireland BAL/6/2 paragraphs 2.2.2 and 3.2.1(v).

64. However, when Mr Hunter Jones said he understood BAL's case on MBU was that the carbon emissions should be disregarded by the Inspectors or that it takes them off table or treats them as not significant, in response Mr Humphries said that he was not aware that BAL had ever said that or relied on MBU to suggest that carbon should be disregarded. I asked Mr Melling about this and he confirmed that BAL's case is that nothing in MBU means that the carbon emissions impact should be disregarded.
65. Mr Melling further clarified that the reference in his rebuttal at paragraph 3.5.4 where it appeared that consideration of some environmental impacts at national level was an answer to other parties' evidence on taking carbon emissions into account in this decision, should not be understood in that way.
66. That must, of course, be the correct way to understand MBU. As Mr Hunter Jones explained in his examination in chief, the structure of MBU makes this obvious. The "Policy Statement" begins at §1.25, under the heading "Policy Statement", and the key policy is the emboldened §1.29, which is addressed above. The discussion of national and local policy in the earlier sections of MBU is the context for MBU's conclusion that decisions on regional airport expansion can be delegated to local planning authorities.
67. Accordingly, it is not actually disputed in this inquiry that the GHG impact of the proposal is a matter for the Inspectors to consider or that MBU does not provide "the answer" to that question or required the Inspectors to leave the matter to national government.
68. MBU is explicit that environmental impacts and their proposed mitigations, including climate change and the UK's binding obligations to reduce emissions, are part of what local decision-makers must take into account when interpreting the policy. Accordingly, it is entirely congruent with national aviation policy for the Inspectors to understand the implementation of the Sixth Carbon Budget and the UK's commitment to Net Zero by 2050, and the fact that the UK is not on track to reach the Fourth and Fifth Carbon Budgets,<sup>49</sup> as compelling and important

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<sup>49</sup> INQ 92.

considerations that mean the Government's support for making best use of airport runways does not assist this proposal, given its environmental impacts. The MBU does not advocate making maximum best use of airport runways outside Heathrow at all costs: rather, planning decision-makers must take "*careful account*" of the environmental impacts and viability of the proposed mitigation.

69. BAL's shift in approach, while welcome in clarifying the correct position, does not change the fact that Mr Melling's written evidence was that "*MBU remains extant and the introduction of the net zero target in 2019 has not changed this position, nor will the inclusion of emissions from international aviation and shipping within the Sixth Carbon Budget. How these emissions are managed is a matter for Government to determine through its national aviation policy and there are a range of legal and policy mechanisms available to ensure that its targets and budgets are achieved*".<sup>50</sup> This incorrect interpretation of the effect of MBU formed the basis of Mr Melling's assessment of the climate change impact in the overall planning balance of the development proposal, meaning that analysis is fundamentally flawed.
70. Finally, BAL's position in relation to the Stansted appeal decision is also contradictory. The decision is relied on extensively in both Dr Ösund-Ireland and Mr Melling's proofs.<sup>51</sup> However, the Stansted appeal decision takes the approach now disavowed by BAL: it states that MBU has "*thoroughly test[ed] the potential implications of the policy [of making best use] in climate terms*" (§18) and relies on MBU as determining that the climate impacts of the expansion will be acceptable. On BAL's case as now put forward, the approach of the Inspectors in the Stansted decision should not be followed.

### **Lack of Compliance with the Development Plan and Material Considerations**

71. Bringing all the foregoing together, it is clear that the appeal proposal fails to accord with the Development Plan because BAL cannot demonstrate satisfactory resolution of the impact associated with the increased greenhouse gas emissions

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<sup>50</sup> BAL/7/2 Alex Melling Proof of Evidence and Appendices, paragraph 8.2.11 p. 141; see also near-identical wording at paragraph 4.1.15 on p. 222.

<sup>51</sup> For example, Proof of Evidence of Alex Melling, BAL/7/1, paragraph 4.5.28; paragraph 4.5.32; Proof of Evidence of Dr Ösund-Ireland BAL/6/2 paragraph 2.2.2; all throughout the long paragraph 3.2.1 and paragraph 3.7.8.

(both CO<sub>2</sub> and non-CO<sub>2</sub>) caused by the appeal proposal. The proposed expansion will have a material impact on the UK's ability to meet the Sixth Carbon Budget, the Net Zero target in 2050 and its obligations under the Paris Agreement. The magnitude of the greenhouse gas emissions associated with the appeal proposal is significant by reference to IEMA guidance to consider local carbon budgets and the CCC's recommendation that there be no net expansion of UK airport capacity. Proposed mitigation measures relied on by BAL such as the development of SAF, increased efficiency savings and the potential future impact of the UK ETS and CORSIA, are wholly insufficient. As Professor Kevin Anderson said "*physics doesn't respond to rhetoric only to action*".

72. Given the lack of compliance with the Development Plan, planning permission should be refused unless material considerations indicate otherwise. They do not.
73. National aviation policy as articulated in the MBU and the APF compel planning decision-makers to take careful account of all relevant considerations, including the environmental impact of airport expansion; rather than excluding consideration of the climate change impact of the appeal proposal, it is made clear that the general policy of making best use of runways is always expressly subject to environmental considerations. In light of the climate impacts, the proposal does not in fact gain support from MBU.
74. In light of the climate impacts, the proposal also does not shape places in ways that contribute to radical reductions in GHG emissions, contrary to paragraph 152 of the NPPF. And plainly the climate impact of the proposal is such that it is not sustainable development, and it does compromise the ability of future generations to meet their needs.
75. The Paris Agreement<sup>52</sup> is an obvious material planning consideration and is addressed in BAAN's legal submissions. It is understood that BAL will refer in that regard to the Supreme Court's decision in *R (Friends of the Earth and others) v*

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<sup>52</sup> CD 9.26.

*Heathrow* [2020] UKSC 52.<sup>53</sup> The Paris Agreement was relevant factual background, but the nature of the obligation on contracting parties was not directly in issue. The Court does refer in §§76–78 to an attempted judicial review by Plan B Earth and others, but again that does not directly address the question whether the Paris Agreement temperature goal imposes an obligation of outcome.

76. To the extent that BAL seek to rely on the Jet Zero Consultation, it is not planning policy nor a consideration of any materiality. Instead, it concerns the commercial and research and development priorities for supporting the development of technological innovation in the aviation sector.<sup>54</sup>
77. In relation to the Jet Zero Consultation, the Evidence and Analysis document makes clear that the use of a modelling scenario is not a prediction of what the Department for Transport expects to happen regarding future capacity expansion.<sup>55</sup> Dr Ösund-Ireland conceded in cross-examination that his suggestion *“that the Government’s clear intention is to see passenger demand grow between 58 and 60% from a 2017 baseline, whatever pathway is adopted”*<sup>56</sup> went *“beyond what [he] should have done”*. Accordingly, no clear policy intention as to airport capacity expansion can be derived from the use of modelling in the Jet Zero Consultation.
78. The Transport Decarbonisation Plan is also not a material consideration in support of the appeal, for the unchallenged reasons given by Mr Hunter Jones.<sup>57</sup>

## Conclusion

79. On the opening day of the inquiry, and throughout its long weeks, it has been evident the extent to which this proposed expansion is opposed by local people. It is also remarkable the extent to which it is opposed by their elected representatives at all levels.

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<sup>53</sup> **CD9.106.**

<sup>54</sup> Supplementary Proof of Evidence of Sam Hunter Jones, BAAN/W3/5, p. 5-7, paragraphs 2.1 – 2.7, 3.2.

<sup>55</sup> **CD 9.136**, p. 22, paragraph A.7.

<sup>56</sup> Proof of Evidence: Carbon and Climate Change Addendum 1, BAL/W6/4, p.12, paragraph 3.2.1.b.

<sup>57</sup> Supplementary proof of Evidence of Sam Hunter Jones BAAN/W3/3 section 2.

80. Weston-Super-Mare Town Council joined many others in passing a motion of objection as far back as November 2019. Bath and North East Somerset Council formally objected to the expansion plans in a motion in March 2019. Bristol City Council passed a motion against the planned expansion on 8 December 2020. North Somerset Council's approach is clear and BAAN supports the Council's submissions in its Closing yesterday.
81. At regional level, the West of England Combined Authority, rightly described to the inquiry as the widest and most important local political grouping in the region, now firmly opposes expansion. And at national level both the local MP, Dr Liam Fox, and the neighbouring MP for Bath, Wera Hobhouse, both oppose.
82. That tells an incredibly important story. In a time of economic hardship, with post-Covid recovery high on the political agenda and uppermost in people's minds, the overwhelming majority of local people and their political representatives are not asking the Inspectors to approve the expansion. They are asking the opposite. Local people and their representatives see that they can, and must, find ways to meet their needs that do not exacerbate dangerous climate change and do not compromise the ability of future generations to meet their needs. Refusal of planning permission, in line with the Development Plan, national policy and other material considerations, would properly recognise this.
83. The Inspectors are invited to dismiss the appeal.

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