



AEF Deadline 1 representation on issues relating to planning, climate change and greenhouse gas emissions associated with the Gatwick Airport Northern Runway Project

1. Summary

- The Examining Authority (ExA) has an important role in considering the climate change impacts of the application.
 - No part of Government policy states that climate considerations relating to aircraft emissions should be excluded from the planning process for, or that they should be given no weight;
 - the airport capacity assumptions included in the Government's Jet Zero model do not – it is made clear - pre-judge the outcome of any future planning applications;
 - There is a high risk that the Jet Zero approach will not meet the net zero 2050 goal for the sector, making further airport expansion incompatible with UK climate targets
- The DCO application should be rejected on the basis of the additional CO₂ it would generate
 - The Applicant is wrong to rely on the efficacy of current policy measures to reduce emissions to net zero by 2050;
 - Carbon pricing relied upon to deliver future emissions reductions is likely to underperform;
 - Progress on scaling the use of 'Sustainable Aviation Fuels' and removals remains slow.
- The Applicant should have modelled the non-CO₂ impacts of the proposal.
- The Applicant should have made a commitment to cap aviation emissions as part of its Climate Action Plan. We suggest this issue should be explored further in the context of appropriate planning conditions (without prejudice to our view that the application for a Development Consent Order should be refused).
- The proposal cannot be defined as 'making best use' of existing capacity and should be categorised as an application for a new second runway.

2. Introduction

2.1 AEF is a longstanding not-for-profit organisation representing community groups and individuals affected by or concerned about the environmental aspects of airport operations. We sit on the Government's Jet Zero Council and on the advisory board to the industry coalition Sustainable Aviation and we represent a global coalition of environmental NGOs at the UN aviation body ICAO (the International Civil Aviation Organisation).

2.2 We have eight member groups local to Gatwick Airport and all are opposed to its expansion. While we work on noise and air pollution as well as climate change issues, our comments on the DCO are restricted to the climate change impacts of the additional aviation activity associated with the proposal.

3. The ExA has an important role in considering the climate change impacts of the application

3.1 While our focus as an organisation is on policy, we recognise that it is not the role of the Planning Inspectorate to change or to challenge Government policy. Our comments here therefore focus on those areas in which the Examining Authority (ExA) does have an important role. We very much welcome the decision to hold an Issue Specific Hearing on Climate Change.

3.2 The Panel has both the right and – we would argue – the duty, to make its own assessment of the likely compatibility of this proposal with the UK's legal commitments on climate change. The Applicant's assumption is that the Government has ultimate responsibility to address the greenhouse gas emissions from aircraft as set out in its approach to Jet Zero. No part of Government policy states that climate considerations should be excluded from the planning process for airport expansion, or that they should be given no weight, and the airport capacity assumptions included in the Government's Jet Zero model do not – it is made clear - pre-judge the outcome of any future planning applications.

3.3 All statements of Government support for airport expansion are qualified with wording about justification and sustainability to be judged by the relevant planning authority. We therefore highlight here what we consider to be relevant evidence on the climate impact of this proposal to be taken into account in the planning decision-making process. We further argue that if the scheme is given approval, it must come with enforceable conditions that greenhouse gas emissions will be capped, at least in line with the emissions forecast presented by the Applicant.

3.4 This proposal would generate a larger increase in both passengers and emissions than any airport expansion proposal since the passing of net zero legislation in the UK, so the issue requires some close attention.

4. There is a high risk that the Jet Zero approach will not meet the net zero 2050 goal for the sector, making further airport expansion incompatible with UK climate targets

4.1 The Applicant relies on the Government’s “Jet Zero” approach - which comprises policy goals and a trajectory, illustrative modelling and possible areas for future policy - in its projections for the greenhouse gas emissions associated with the project. However, the risks associated with the Government’s approach also pose a financial and environmental risk to the proposals for Gatwick expansion.

4.2 The Climate Change Committee’s 2023 Progress Report to Parliament¹ characterised the Jet Zero Strategy as “high risk due to its reliance on nascent technology” (echoing a similar conclusion from Element Energy, in a report commissioned by AEF²). The CCC report argued that the expansion of airports permitted by the Government in recent years is “incompatible with the UK’s Net Zero target unless aviation’s carbon-intensity is outperforming the Government’s pathway and can accommodate this additional demand” and that “No airport expansions should proceed until a UK-wide capacity management framework is in place to annually assess and, if required, control sector CO2 emissions and non-CO2 effects.”

4.3 We recognise that the Government has the right to reject the CCC’s advice and has recently published its response. As noted by the Applicant, however, the Secretary of State ultimately has responsibility for ensuring that climate change legislation is adhered to. The Applicant states in APP-041:

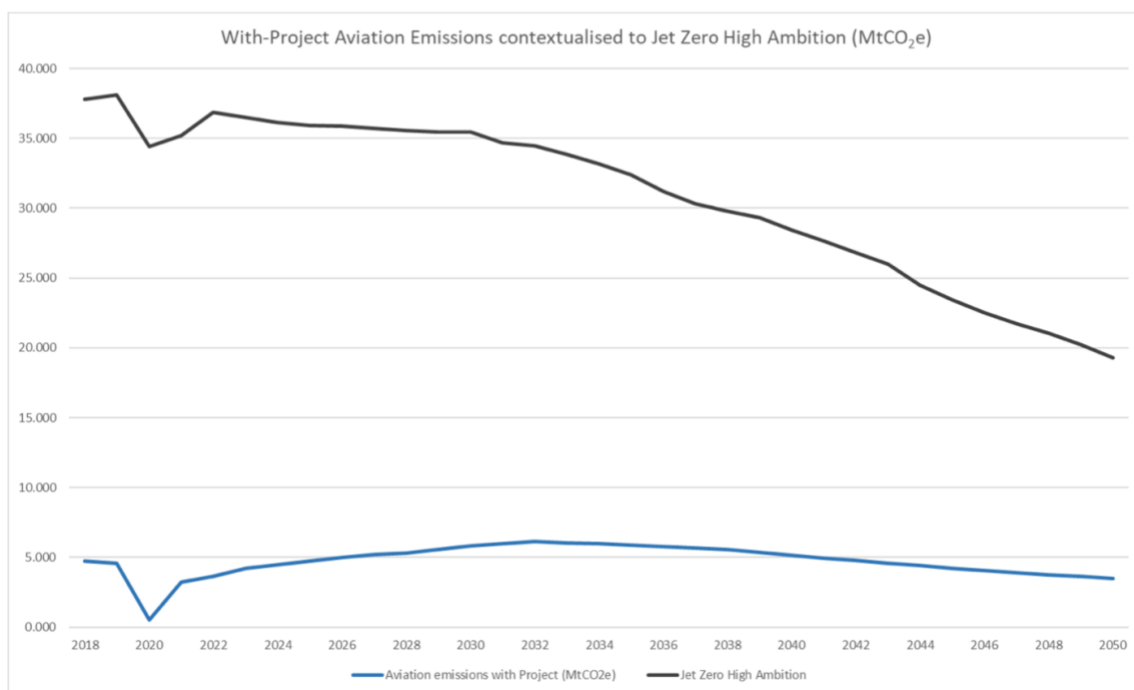
“An important element of Jet Zero is that the emissions trajectory for the aviation sector will be monitored on an annual basis whilst the Strategy itself will be reviewed every five years. This acknowledges that decarbonisation will rely on new technologies which require time to develop and test. However, the Strategy explains (for example, on page 10) that the Government will intervene with new measures if the sector is not meeting its emissions trajectory.”

4.4 It would seem to us that if the CCC is correct about the Government’s strategy being unrealistic in its reliance on new fuels and technologies coming rapidly to the market, and if its modelling for airport expansion is therefore inappropriate, then the Government will in the near future need to act to rein in emissions by way of demand reduction. This should – at least – be recognised as a risk to the financial case being made for expansion at Gatwick (and at other airports). The downward revision of the level of demand forecasted by the Government from 70% to 50% within the space of a year (between the publication of the Jet Zero Strategy in July 2022 and of Jet Zero: One Year On in July 2023) illustrates how vulnerable these estimates are to change.

1 [REDACTED]
[REDACTED]
[REDACTED]

4.5 The Government’s climate change obligations are not confined to 2050: the Sixth Carbon Budget (2033-37) and the Government’s interim target of a 78% reduction in emissions below 1990 levels by 2035 are also notable milestones. The emissions associated with this project during the 2030s should be examined closely given that GAL forecasts a higher trajectory for emissions in this decade (and for its cumulative emissions generally out to 2050) compared to the Government’s Jet Zero strategy (see Diagram 16.9.3 in APP_041). In Jet Zero, emissions peak in 2019, and follow a reducing pathway to 2050. In contrast, the Applicant’s emissions do not peak until 2032, and follow a less steep trajectory to 2050. As a result, Gatwick’s emissions with the project represent a significantly bigger share of total UK aviation emissions in 2050 than they do in both 2030 and 2040.

Diagram 16.9.3: Comparison of Project Aviation Emissions with Jet Zero Residual Emissions Trajectory



5. The DCO application should be rejected on the basis of the additional CO2 it would generate

5.1 AEF opposes this application for a Development Consent Order (DCO) on the basis that it is likely to generate a significant increase in greenhouse gas emissions, and other climate impacts, that runs counter to the UK’s net zero obligations. There is a high risk that the carbon dioxide (CO₂) emissions reductions from aircraft, relied upon by Gatwick Airport Limited (GAL) in its forecasts, will not be achieved, particularly given the weaknesses in the Government’s approach to climate mitigation.

5.2 Current trends and available evidence suggest that emissions reductions in aviation will be difficult to deliver on time and at scale.

5.3 AEF's view is that the Applicant is wrong to rely on current policy measures alone to reduce emissions to net zero by 2050. The Jet Zero Strategy published in 2022 introduced few meaningful policy innovations yet its modelling assumptions have allowed the Applicant to halve its projection of additional CO₂ emissions from this proposal compared to initial estimates. Many of the measures that would be required to achieve the Government's ambition for aviation are in fact uncertain (the future effectiveness of carbon pricing, the uptake of alternative aviation fuels and the rapid deployment of greenhouse gas removal technologies for example); others, such as the rate of commercialisation of more efficient aircraft, are beyond the Government's control. More detail on these issues is set out below.

6. The Applicant is wrong to rely on the efficacy of current policy measures to reduce emissions to net zero by 2050.

6.1 The emissions forecast from the Applicant has been based on the Government's 'High Ambition' trajectory for aviation in the Jet Zero Strategy. This includes modelling assumptions – on alternative fuels and more efficient aircraft – that are significantly more optimistic than earlier forecasts. Modelled emissions associated with the proposed Gatwick project are now, therefore, much lower than in previous modelling by the Applicant. Using the Government's pre-Jet Zero assumptions, the increase in emissions associated with this project would have been in the region of 1MtCO₂ in 2050; the adoption of the Jet Zero assumptions sees this number fall to 0.513MtCO₂ in 2050. This highlights the sensitivity of the forecasts to the assumptions regarding proposed mitigation. The Department for Transport believes that there is still sufficient economic and market uncertainty to prevent them from making any meaningful long-term demand forecasts of air passenger growth. The last official forecast was produced in 2017.

6.2 While the Jet Zero modelling did include an assessment of the emissions associated with UK airport planning applications, either underway or anticipated, it is not clear if the forecast emissions for the project as set out by the Applicant are higher or lower than the DfT's Jet Zero estimate. Preliminary analysis by AEF (based on modelled air traffic movement numbers) of likely Jet Zero figures suggests that the Government's assumptions for Gatwick emissions may be lower in 2050 than the Applicant's figures in which case it would be hard to argue even that the project was consistent with Jet Zero modelling. We have written to the DfT to ask for any Gatwick-specific information associated with the Jet Zero modelling and will provide this to the examination in due course (if information is disclosed).

6.3 The Applicant claims (16.9.77 of APP-041) that "*Jet Zero commits the UK Government to implementing measures to fulfil its legal duty on net zero, and to management of emissions from aviation within this.*" In fact, however, while the Jet Zero Strategy set out the Government's targets and aspirations for emissions reduction, many of the measures that would be required to achieve this are uncertain and some are beyond the Government's control.

6.4 The rate of commercialisation of more efficient aircraft, for example, is not typically a matter for national governments and the Jet Zero Strategy makes no policy proposals on

this topic. Similarly, the strategy makes optimistic assumptions about global carbon markets but beyond advocating for global policy change, the UK has no power to ensure that a replacement for the CORSIA scheme does in fact become more rigorous after CORSIA ends in 2035, and the strategy does not propose any backstop policies if the plan to rely on the international carbon market is not successful. While the UK ETS, applicable to domestic and international departures to EEA destinations, offers a more robust scheme that the Government intends to align with net zero, its international route coverage is also subject to CORSIA rules and the Government is still carefully considering the approach to this interaction.

7. Carbon pricing relied upon to deliver future emissions reductions is likely to underperform

7.1 In the Jet Zero ‘High Ambition’ scenario carbon pricing accounts for 27% of the emissions reduction in 2050 through higher air fares and the consequential impact this has on demand for air travel. In Jet Zero the assumed carbon price is taken as a proxy for decarbonisation costs. However, the UK ETS allowance price was significantly below its EU counterpart in the summer of 2023 following a Government decision to allow entities to retain unused allowances issued during the pandemic, and the price has continued to fall. In December 2023, allowances are trading at £32.66, significantly below the low price scenario used in the modelling. According to the Jet Zero modelling, UK ETS allowance prices in 2023 were assumed to be £71tCO₂ in the central scenario, £95tCO₂ in the high scenario and £53tCO₂ in the low scenario. Prices are likely to remain lower than forecast until at least 2027. It is evident, therefore, that if the actual ETS price is lower or higher than the assumed ETS price, there will be a consequence for both emissions and demand,, suggesting that emissions (and demand) are likely to be higher than predicted.

7.2 The CCC has also advised Government that CORSIA offsets should not, without reform, be taken into account for the purposes of compliance with the UK Carbon Budgets.

8. Progress on scaling the use of ‘Sustainable Aviation Fuels’ and removals remains slow

8.1 On uptake of Sustainable Aviation Fuel (SAF), while the Government has begun to develop proposals for a SAF mandate, big questions remain to be addressed about issues such as feedstock sourcing, and proposals to develop a UK SAF industry, beginning with the construction of five SAF plants by 2025, already look off track.

8.2 The Virgin Atlantic test flight took place as planned last November between London Heathrow and New York. The flight used 100% SAF (as opposed to the maximum 50% blend that it currently permitted on flights, requiring permission from the UK CAA, US and Canadian authorities). However, it doesn’t change any of the issues about the supply or regulation of SAF. Tensions remain between industry and the Government in the UK

regarding who should pay for SAF, particularly for a revenue stability mechanism. The SAF mandate is still not in place and questions about feedstocks that were raised in the last consultation remain to be resolved. The UN International Civil Aviation Organisation' (ICAO's) third conference on aviation alternative fuels (CAAF3) took place in November 2023 and agreed an aspirational target of only a 5% emission reduction from alternative fuels by 2030. Assuming a 70% average net emissions saving, this equates to around 7% by volume, significantly lower than the 10% by 2030 (by volume) ambition expressed in Jet Zero. Although ICAO's aspirational target is not attributable to individual states and doesn't prevent more ambition, if supply is constrained at this global level the UK may struggle to deliver its own SAF ambitions without a significant increase in UK SAF production. This is not evident and most of the five SAF plants that are due to be under construction in the UK by 2025 are not anticipated to start production until 2027 or 2028 at the earliest. The Government has announced that UK SAF use in the last twelve months increased to around 2.5% by volume, but as traffic continues to rebound from the pandemic, and UK production remains low; there may not be further increases to report in 2024.

8.3 The Government, working through the Jet Zero Council, has only just begun a discussion on carbon removals (which are anticipated to deliver 18.7MtCO₂ of emissions reductions by 2050).

9. The Applicant should have modelled the non-CO₂ impacts of the proposal.

9.1 There is a longstanding policy gap related to the non-CO₂ climate warming impact of flying. The CCC states in its sixth carbon budget advice (box 8.6) "non-CO₂ effects contribute around two-thirds of the total aviation effective radiative forcing – twice as much as historical CO₂ emissions from aviation." (16.4.14 of APP-041) The Applicant argues, however, that:

"[Given] that there remains no well-established methodology for quantifying non-CO₂ emissions impacts, and there is uncertainty on how to identify the magnitude of their impact, this assessment does not attempt to quantify non-GHG and RF effects of emissions at altitude. Providing a comparative set of figures alongside the CO₂ emissions would be incompatible with an assessment against national CO₂ targets, and as noted above, the generalised approach to providing CO₂ equivalent estimates to reflect the combined impact of different GHGs is not transferrable to non-CO₂ emissions."

9.2 We don't agree with the decision not to provide an appraisal of the non-CO₂ impacts of the proposal. While it is true that uncertainties remain about the correct methodology for quantification of these effects for the purposes of policy, failure to provide any estimate is not an adequate response. While we await policy proposals for tackling aviation's non-CO₂ impacts (the Government, working with the Jet Zero Council, has launched a work programme on this issue), it would improve the transparency of the proposal for an estimate of non-CO₂ impacts to be provided, for example using the approach recommended by the Government for company reporting of travel emissions (which is to apply a multiplication factor of 0.7 to the CO₂ impact to account for non-CO₂) in order for the

inspectors to weigh this additional harm in the balance. It should also be noted that the European Commission is consulting on the objectives, scope and first steps for establishing a monitoring, reporting and verification system for non-CO2 effects in aviation as part of the EU Emissions Trading Scheme (ETS), while the UK Government recently consulted on how non-CO2 impacts could potentially be included in the UK ETS in the future.

10. The Applicant should have made a commitment to cap aviation emissions as part of its Climate Action Plan

10.1 With aviation one of the hardest to decarbonise sectors, and solutions still decades away, an expansion on this scale should, in our view, be refused in the absence of much greater certainty about the effectiveness of proposed mitigations for aviation emissions. If, however, the airport has confidence in the Government's plan – as indicated in its Environmental Statement and as reflected in its use of the Jet Zero modelling assumptions – then the Applicant should agree to the imposition by the planning authority of an enforceable annual cap on aviation emissions associated with the airport.

10.2 The Applicant states In relation to its Carbon Action Plan or CAP (1.2.2 of APP-091):

“Our commitment to play our part in the UK's Jet Zero trajectory is not contingent on the Project being consented, but the CAP uses the legally binding nature of the DCO application to provide an additional level of assurance to stakeholders.”

10.3 However, aircraft emissions are essentially excluded from the Plan. At the Issue Specific Hearing on conditions, representative of the Applicant argued that these emissions are beyond its direct control. The same could surely be said of aircraft noise, which is nevertheless frequently subject to planning conditions and limits on capacity, suggesting that there is no necessary 'direct control' requirement for the imposition of planning conditions.

10.4 We note that despite adopting the Jet Zero modelling assumptions, Gatwick anticipates its own emissions trajectory being very different from the national trajectory – increasing from current emissions levels and then flattening out but not falling nearly as steeply as the average across all airports (Diagram 16.9.3 in APP-041, reproduced above). We would suggest that – as a minimum – it should be required by way of conditions that the Applicant's forecast level of emissions must not be exceeded in any year.

10.5 A more stringent set of annual caps could also be considered. The Jet Zero Strategy still allows for a high level (nearly 20 Mt) of emissions to be generated by the sector even by 2050, with 'out of sector' carbon removals assumed to be in place to balance these emissions. Arguably the curve towards zero should be much steeper.

10.6 The setting of an emissions condition would help to provide accountability for the claims and assumptions being made. While this approach would be new, and would require some additional work to be done in terms of developing the appropriate wording for a planning condition, we see a strong case for introducing one if the scheme should go ahead

given the importance of the climate change issue and the current lack of enforceability of hoped-for emissions reductions.

11. The proposal cannot be defined as ‘making best use’ of existing capacity

11.1 During Issue Specific Hearing 1, addressing the need for the proposal, the Applicant stated that using its emergency runway as a second runway was consistent with the Government’s Making Best Use of Existing Runways policy or ‘MBU’ (June 2018). We can find no evidence to support this assertion.

11.2 MBU makes an assessment of how much extra capacity could be realised nationally if all airports were to go beyond the ‘base case’ and instead make best use of their capacity. MBU states that the base case capacity for UK airports is 409.5 million passengers per annum (mppa) in 2050, consistent with its UK Aviation Forecasts 2017, based on retaining (then) planning Air Transport Movements (ATMs) and terminal caps (paras 5.40-5.49 of MBU). The baseline figures for Gatwick are based on the airport operating with one runway (52 mppa and 297,000 ATMs). Table 1 of MBU goes on to say that if all UK airports are allowed to make best use of their runways, the UK total capacity could increase from 409.5mppa in 2050 to 421.3mppa (an additional 11.8mppa).

11.3 As the DCO application for use of the emergency runway would clearly result in a much larger increase in passenger numbers than the 11.8 mppa that is assumed to be possible nationally under the MBU assessment, it is unlikely that Government envisaged regular use of Gatwick’s emergency runway as falling within the definition of ‘making best use’ of capacity.

AEF

12 March 2023