

Interested Party Reference number: 20045900

Gatwick Airport Northern Runway Project – Development Consent Order (DCO)

Written Representations for Deadline 15th May

Comments on any further information/ submissions received by Deadline 3.

Gatwick Area Conservation Campaign (GACC)

15th May 2024

Dear Examining Authority

Please find our further written submissions for the 15th May Deadline 4.

Yours faithfully,

Peter Barclay

Chair, Gatwick Area Conservation Campaign

GACC response at DCO Deadline 4 on May 15th 2024

Comments on GAL responses to GACC written representation (REP3-074)

Overall comment

GACC are extremely disappointed at the responses given to our substantive submission. Many of the comments we have made have been dismissed or received no comment whatsoever from GAL. Or they refer to the relevant representation responses that do little more than signpost the relevant sections of the Applicant's planning application that we have commented on. Referencing the locations in documents that we have previously commented on does not constitute a response. It feels that in many cases GAL has gone out of its way to avoid answering or providing any substantive comments on the questions raised. For this reason we urge the ExA to follow up in areas where GAL are completely silent and have not even flagged that we have raised issues and concerns at all, or where they have been dismissed with no meaningful consideration (referring instead to the largely patronising signposting exercise which forms the majority of GAL's response to the Relevant Representations).

Our comments on a selection of those items that we have raised and which have been included in GAL's response (REP3-04, Pages 123-136) are below.

General Future Baseline, Page 123

GACC are underwhelmed by the dismissive response from GAL that does not address the points raised, or make any reference to the IEMA guidance.

Transport – No car growth scenario, Page 123

GAL refers to REP1-058. In 6.1.5.3 GAL's justification for not considering this scenario appears to be that they see it as 'unrealistic'. However, this is the position of the Local Transport Strategy for Surrey, agreed by Surrey County Council in 2022. GAL have completely failed to explain why they so casually dismiss the transport strategy of Surrey County Council and why growth in aviation emissions from Gatwick should also be allowed to generate car movements that will make it harder to deliver against Local Transport Plans around the airport. This is at odds with the IEMA Guidance on assessing the significance of Greenhouse Gas Emissions (IEMA Guidance on Assessing Greenhouse Gas Emissions and Evaluating their Significance, 2022).¹

Night Flights (and Noise more generally), Page 124

GAL have not set out a coherent position on the question on the potential for ceasing night flights at Gatwick Airport. Instead of responding to the statement that the existing impacts of night flights are unacceptable, GAL has simply stated that it plans to increase these by 10% without the project. Why such an increase in night flights should be factored into the project baseline (without any agreement that this can take place) is unclear. The failure to answer the question is challenged.

GACC requests that the ExA considers the evidence presented in a recent academic paper as to the health impacts on noise, based on a rigorous longitudinal study conducted around four UK Airports, including Gatwick.² The study investigated associations of aircraft noise exposure in 2006 around four major UK airports (Heathrow, Gatwick, Manchester, and Birmingham) with cardio-metabolic biomarkers in the UK Biobank cohort during 2006-2022 through a cohort of 502,651 individuals (aged 40-69 years), of which 105,000 resided near the four airports with modelled annual average noise over 24 hours penalty weighted for evening and night noise. The study controlled for other conditions around the airports known to impact health. Results showed that for each 5dB increment there was a 12.4% reduction (i.e. adverse change) in pulse wave arterial stiffness and a 64% reduction in pulse wave

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(2023) Aircraft noise and cardiometabolic biomarkers: a cross-sectional and long-term analysis in the UK Biobank cohort, 2006-2022. ISEE 2023: 35th Annual Conference of the International Society of Environmental Epidemiology. ISEE Conference Abstracts Volume 2023, Issue 1.

reflection index, with the former having been previously linked to increased risk of cardiovascular events. There was a 20.3% and 9.4% increase in pulse rate and white blood cell count respectively, also a 7%, 4.8% and 28.3% increase in body mass index, triglycerides, and glycated haemoglobin respectively, with a 1.5% reduction in high-density lipoprotein (HDL). Similar findings were obtained for night time noise. In conclusion, this is the largest population-based study to date, finding associations between aircraft noise exposure around major UK airports and adverse cardio-metabolic biomarker profiles, with major public health implications.

GACC would like to highlight that noise exposure, including night time noise, affects both physical and mental health, and, as noted here and elsewhere, is particularly sensitive to night time noise.

For this reason GACC restate their position that the any approval of GAL's application should be subject to a condition banning night flights for a full eight hour period each night in line with the ANPS. GACC also request that an Issue Specific Hearing focused on noise envelope and night flights should be scheduled for the next round of hearings in June 2024.

Flooding and Foul Water, Page 124

GAL simply refers to the comments they made on the Relevant Representation submitted which had minimal comments on this area. GAL's response provides little more than signposting to the documents, which GACC has commented extensively on. This is considered an inadequate response that does little to address the comments that we have raised in this area.

Climate Change, Policy, Socio-Economic Aspects, Need and Forecasting, Pages 125-6

None of the comments raised regarding climate change or policy have been satisfactorily answered. The comments raised regarding need and forecasting and socio-economics aspects have just been signposted to the signposting exercise in the Relevant Representation response (REP1-048).

Terminal Capacity, Pages 126-7

None of our questions repeated here have been adequately answered by GAL. For example, in response to the related questions GACC asks – i.e. for a justification of how the North and South terminal extensions could accommodate the increase in passenger numbers (referenced at the bottom of page 126), which we have compared against the Airport Commission's analysis of Gatwick capacity in 2014 (see REP1-173, page 20), has not even been acknowledged. Instead, GAL's original set of application documents are simply signposted which provides no justification whatsoever as to why GAL believes it can accommodate such a significant baseline (let alone project)

growth in passenger throughput with such a minimal increase in terminal capacity.

GACC agree with the ExA comments in ISH7, as reflected in GAL answer to ExA Q GEN1.17 on Terminal Capacity in REP3-091 that it is surprising that GAL believe no increase in terminal facilities to accommodate the 25 mppa to reach the future baseline, but then significant expansion is subsequently required associated with the project. GACC's view is that the answer to this question is inadequate and should be expressed in terms of m2 of additional terminal capacity and reflect that needed for both the future baseline and the Project.

Greenhouse Gases, Future Baseline, Page 128

GAL has dismissed the reference to R (Finch on behalf of the Weald Action Group) v Surrey County Council regarding the importance of linking the expansion of runway use to the increased emissions of aviation emissions, on the grounds that the case was dismissed by the High Court and Court of Appeal. However this was after a challenge to the Supreme Court had been accepted. The fact that this case is still live should at least cause GAL to consider its implications, and how this aligns to the IEMA Guidance (2022) as discussed further in our comments relating to ISH6 above.

Ecology, Page 129

GACC are increasingly of the view that ecological impacts of this development are understated and GAL have not so far been willing to respond with the evidence requested to highlight the actual impacts in this area.

On page 129 GAL comment that, "surveys were undertaken for mobile spaces away from the Project site. This included with respect to bats ...". GACC understand that it may well be the case that bat surveys conducted by GAL have so far not all been made public through this DCO examination and shared with the ExA. **GACC would request that all surveys are required to be shared such the ExA obtain the best possible evidence as to the likely impact of the scheme on bat populations.**

Water Neutrality and Supply, Page 129

GAL references an email from Sutton and East Surrey Water that they can meet the additional water demand as a result of the Project. It is not clear however, whether this includes the additional future baseline demand and the additional project demand. **GACC request that GAL be required to release this email to the DCO examination together with provision of supporting evidence to clarify that the volume of additional water demand set out for both the future baseline and project demands would be met by SESW, and where this additional water would be drawn from.**

GAL notes that they aim to reduce potable water consumption by 50%.
GACC request that this is included as a requirement in the Section 106 agreement.

Surface Transport, Pages 130-131

The response by GAL to points highlighted by GACC regarding surface transport has been inadequate. The overall case made in our WR (see brief summary in bullet points below) remains unaddressed:

- GAL should define and model transport scenarios with no car growth and no worse crowding on rail network (noting luggage space too). This would mean new train services to/from airport and potentially between London and the South Coast elsewhere.
- Local traffic congestion and parking impacts in and around Gatwick should not be worse.
- As well as traffic there should be no increased impacts on air pollution, noise, flood impact or water neutrality.

Climate Change, Pages 131-133

GAL notes that it has directly responded to GACC's point in the Relevant Representation response (NB. GACC has actually made far more than one point in around 17 pages of detailed submission on this matter). However GAL simply state that carbon emissions are a government responsibility and not something it for which it has any responsibility.. It is not acceptable for GAL (which the calculations below based on its own figures determine that Gatwick could be responsible for over 5% of the UK's carbon budget by 2038) to dismiss the project's climate impacts in this way. The exclusion of inbound flights from the impact of the Project by equating this - a capital investment decision for which planning consent is sought which will increase air travel worldwide - with the way in which territorial emissions are monitored each year within the UK (page 197 of REP1-048) is not equating like with like. The dismissal of this point in relation to our relevant representation is not justified. The more substantive argument put in our written representation has received no response whatsoever.

The Applicant states that the Project has been assessed in line with the updated IEMA Guidance on Assessing Greenhouse Gas Emissions and Evaluating their Significance (2022) but provides no justification how this applies to indirect, induced and catalytic affects (i.e. exploring the overall development pathway that is backed through airport expansion). This is particularly pertinent as the Applicant suggested in ISH6 that the climate impact of the airport and its expansion should be expressed as part of the economy wide carbon budget, rather than through limiting its consideration to

a sector-based carbon budget. **As the economic benefits in terms of jobs have been presented in terms of direct, indirect, induced and catalytic effects, GACC requests that, for balance and fairness, GAL consider the economy-wide carbon impact in the same way.**

Air Quality, Pages 133-135

A substantive submission on air quality was made but the applicant does little more than signpost the comments made to the short paragraph submitted by GAL at the relevant representation stage.

Waste Water Impact Assessment, Pages 135-136

GACC request that GAL release flow data underpinning the modelling completed such that the total water flows into the waste water system are set out, specifically breaking down into the following:

- i) Providing current, future baseline, and future project demand, through to 2047.**
- ii) Separating the volume of sewerage flows modelled for the above, and how much of this is predicted to be surface water.**
- iii) With respect to surface water currently draining into the waste water network within the red-line area for the Project, please confirm a) the area of land from which surface water currently drains into the waste water system; b) how this is envisaged to change in the future baseline case and the project case; c) what peak volumes are modelled for this flow and what climate return period (e.g. 40 years or 100 years) has been considered;**
- iv) How much of the above flows currently go to Horley STW and to Crawley STW, and how this is envisaged to change in the future baseline, and the Project case, through to 2047.**

Comments on Rule 17 letter dated 9th May³

Comments on Question R17b.1

Question R17b.1 part b) requests that the Applicant, “provide a sensitivity analysis based on this JLA future baseline figure (or, if a range, then the minimum and maximum of this range) to test the effects of this alternative future baseline upon the outcomes stated in the application Environmental Statement. Such effects to include, but not necessarily be limited to, noise, air quality, socio-economics, traffic & transport, ecology/HRA, and historic heritage. In addition, consider whether this sensitivity analysis gives rise to any change in the magnitudes of impacts considered within the Transport Assessment. GACC request that it might be appropriate for this sensitivity analysis by GAL to also include the affect on the magnitude of the Project’s climate change impacts.

Question R17b.c requests that the Applicant provide further details regarding the proposed Peak Spreading. In addition, GACC is concerned that such peak spreading, together with the propensity for additional routes to extend the flying time to more distant destinations, plus the desire for airlines to avoid the need for overnight stays, could increase the number of planned Night Flights, as well as increase the risk of delayed flights returning during the night time period. The impact of the spread of flights (specifically in terms of future night flights) should be set out with regard to the anticipated times of flight take offs and landings, and, assuming the same delays occur in the future as now, when the actual departures and arrivals are most likely to occur.

Comments on Question R17b.2

In providing details of the waste scoped in, or scoped out of the EIA regulations Schedule 4 Paragraph 5(c), might the Applicant clearly set out the mass of waste expected to be produced, reused, recycled, materially recovered, incinerated (including with energy recovery) and disposed of, both at the construction and operational phases of the project , including end destinations, and whether there is sufficient capacity to process the waste at these destinations.

³ See <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR020005/TR020005-002271-20240509%20TR020005%20R17.pdf>

Response to ExA Question at ISH6 (30th April, Climate Change) on 2038 Gatwick carbon emissions compared to Carbon Budget.

ESTIMATION OF THE SIGNIFICANCE OF GATWICK AIRPORT'S CLIMATE IMPACT and THE PROJECT'S OVERALL CLIMATE IMPACT

This note, prepared to answer the ExA's question of GACC in ISH6 on 30th April 2024, has updated the similar note prepared and submitted to the GATCOM meeting on 14 October 2021. This compares the overall Gatwick Airport greenhouse emissions and the full climate impact of the Project, against the UK anticipated carbon budget in 2038.

In our written representation (REP1-173) GACC stated that, "If expansion were permitted, Gatwick alone would be responsible for over 3-5% of the UK's sixth carbon budget (2033 – 2037), with or without Jet Zero mitigations." This is an estimate, as shown in the calculations of the significance of Gatwick and the Project's climate impact against the UK's carbon budget in 2038 below. This significance should be assessed against the 1.5°C compliance trajectory following the Institute of Environmental Management and Assessment (IEMA) guidance (Assessing GHG emissions and their significance, 2022).

Overview of Calculation Conducted

Firstly, GACC represents the calculations it made in 2021, which set out how the Gatwick's Preliminary Environmental Information Report (PEIR) showed that the airport would generate over 5.5% of total UK greenhouse gas (CO₂e) emissions by 2038 if its expansion proposals were approved. These figures are still valid but are now an upper-bound figure, based on the non-achievement of the Jet Zero strategy.

Secondly, GACC considers the impact of the Jet Zero assumptions, including on technological and operational improvements in aircraft efficiency and adoption of alternative fuels, leading to the lower amount for aviation emissions predicted by the Applicant in this DCO planning application. These figures lead to a lower-bound figure, based on full achievement of the Jet Zero strategy.

Thirdly, GACC sets out how these upper bound and lower bound figures will in reality be higher, to take full account of the global warming effect of flights. The above calculations are based on the same method currently used by the government to monitor UK territorial emissions. It does not include the actual overall global warming effect of flights, such as the vapour trails, which have a short-term but very potent warming effect. An upper bound figure and lower bound figure for uplifting such direct carbon emissions are considered, in line with GACC's Written Representation (REP1-173).

Fourthly, the Project creates additional runway capacity, which will lead to an overall increase in flights. This additionality occurs both as flights departing from Gatwick (monitored as part of UK territorial emissions) and as flights arriving in Gatwick (accounted for in the accounts of other UK airports, or occurring internationally). However, many other countries do not have carbon budgets, let alone carbon budgets that account for flights, so it would be wrong to assume that this increase will be managed within carbon budgets for other countries. This is not least because international aviation is subject to voluntary agreements through ICAO and therefore not automatically reflected in Nationally Determined Commitments to reduce greenhouse gas emissions.⁴ In any case, the Project will generate the potential for these new flights, so the Project impacts would increase these emissions. A lower bound assumption has been considered based on the 13 mppa assumed by the Applicant. An upper bound assumption of the scale of the project increase in flights is based on a future baseline of 50-55 mppa (REP1-069, Appendix F, paragraph 44).

Key Findings

A summary of the key findings of the calculations are as follows:

1. Following the same methodology for monitoring UK territorial greenhouse gas emissions, **the Project would increase Gatwick Airport's climate impact to between 4.2 and 5.5% of the UK carbon budget in 2038**, depending on whether the Jet Zero assumptions hold.
2. **If the impact of non-CO2 effects is accounted for**, based on the latest government recommended metrics, **this would increase Gatwick Airport's climate impact to between 7.0 and 9.4% of the UK carbon budget in 2038**, depending on whether the Jet Zero assumptions hold.
3. **Taking account of the full climate impact of the Project**, including arriving flights and departing flights, and non-CO2 effects, and the lower future baseline suggested by the Joint Authorities of 50 mppa, **the Project would account for 4.4 - 5.9% of the UK carbon budget in 2038**, depending on whether or not the Jet Zero assumptions hold.

Therefore, GACC contends that Gatwick's, and this Project's, greenhouse gas emissions are significant. This means that approval would require government to ignore the Climate Change Committee's 2023 Progress Review recommendation that airport expansion should not be permitted until a UK-wide capacity-management framework is in place.

Detailed Calculations

1. 2018 emissions and original estimate for 2038 emissions in the PEIR

The PEIR reports that Gatwick's total CO₂e emissions in 2018 were 5.11 million metric tonnes.⁵ In 2018 total UK emissions were 537 million metric tonnes⁶. Gatwick therefore accounted for 0.95% of total UK emissions in 2018.⁷

The PEIR projects that Gatwick's total CO₂e emissions for 2038 would be 7.575 million metric tonnes if the airport's expansion proposals were approved.⁸ This would represent a 48.2% increase in the airport's emissions between 2018 and 2038.

The PEIR compares Gatwick's projected emissions for 2038 to average annual emissions under the sixth carbon budget.

The Sixth Carbon Budget of 965 MtCO₂e was set by the UK government on 13th July 2021 as a total budget for 2033-2037.⁹ The Sixth Carbon Budget is the most recent Carbon Budget formally adopted by the government. It includes the UK's "share" of international aviation emissions and all domestic aviation emissions.

Based on those figures the PEIR states "Compared to the last year of the Sixth Carbon Budget (2037) [Gatwick's] in-scope emissions (domestic and international) for 2038 are estimated as 7.575 MtCO₂e per year – equivalent to 3.9% of the national emissions target for that year"¹⁰.

This comparison is misleading because it uses average national emissions over a period where emissions should be reducing year on year, and because it is for the wrong period (2033-2037 rather than 2038).

A more appropriate comparison would be to relate the scale of 2038 emissions to the Climate Change Committee's Balanced Net Zero Pathway

⁵ Gatwick Preliminary Environmental Information Report, Chapter 15, Table 15.6.5: 2018 Baseline: Summary

⁶ CCC 6th Carbon Budget

⁷ These figures include all emissions from aircraft departing from Gatwick and landing phase emissions from aircraft landing at Gatwick. They therefore exclude climb, cruise and descent emissions from aircraft landing at Gatwick. In our view this understates the emissions the airport is responsible for and is inconsistent with recent government guidance. We will address this issue separately.

⁸ Gatwick Preliminary Environmental Information Report, Chapter 15, Table 15.9.10: Emissions Assessment Summary for 2038

⁹ See <https://www.legislation.gov.uk/ukxi/2021/750/article/2/made>.

¹⁰ Gatwick Preliminary Environmental Information Report, Chapter 15, paragraph 15.9.40

total emissions figure for 2038, which is 137 MtCO₂e.¹¹ Although the CCC's Balance Net Zero Pathway target for 2038 has not been formally adopted by government, it provides the mathematical and methodological basis for both the adopted Sixth Carbon Budget and for the legally binding 2050 Net Zero target.

Therefore, using the CCC's Balanced Net Zero Pathway 2038 target, Gatwick's projected emissions in year 2038, based on its own figures used in the PEIR, would be 5.53% of national emissions.

In addition Gatwick's projected 2038 emissions amount to over 25% of all 2038 aviation emissions forecast in the CCC's Balanced Net Zero Pathway.

In our view, both the increase in emissions projected by Gatwick and their absolute scale would have a material impact on the UK's ability to meet its carbon reduction targets and are therefore inconsistent with government policy.

2. Gatwick's total emissions in 2038, considering assumptions made in the Jet Zero strategy (as in the DCO application).

Gatwick's 2038 emissions projection in the PEIR did not include any consideration of aircraft efficiencies, "sustainable" aviation fuels or other improvements such as uptake of electrical or hydrogen powered aircraft, all of which have been included in the government's Jet Zero strategy. This is considered overly optimistic and an upper-bound figure rather than new estimate, as the legitimacy of its assumptions is being challenged in the High Court by both Possible and GALBA.¹² The PEIR acknowledges this noting that the likely trajectory of the industry to Net Zero, and the impact of different mitigation measures to achieve this, are unclear¹³. It does not provide an assessment of the way in which the airport will achieve net zero emissions, or offer any commitments in that respect.

GAL's assessment of total carbon emissions and project carbon emissions is as follows;

- Greenhouse gas emissions from flights (APP-194)
 - Without project (Table 5.2.1) – 4.588 MtCO₂e
 - With project (Table 5.3.1) – 5.583 MtCO₂e. Comparing to the above, this suggests that the Jet Zero assumptions would lead to a 26.3% reduction in greenhouse gas emissions for flights by 2038.
 - Without project, slow fleet transition (Table 6.1.1) – 4.681 MtCO₂e
 - With project, slow fleet transition (Table 6.1.2) – 5.725 MtCO₂e

¹¹ CCC 6th Carbon Budget, dataset, scenario key metrics, CCC balanced net zero pathway

¹² [REDACTED]

¹³ Gatwick Preliminary Environmental Information Report, Chapter 15, paragraph 15.9.54

- Greenhouse gas emissions from surface transport (based on GAL surface access commitment assumptions and alignment with High Ambition pathway of Transport Decarbonisation Plan – both of which are considered by GACC to be optimistic assumptions) (APP-193). Estimated to be 0.13 MtCO₂e in 2038
- Greenhouse gas emissions from Airport Buildings and Ground Operations (APP-192) – noted as minimal (1.85 ktCO₂e) with Carbon Action Plan in place.
- Greenhouse gas emissions from Construction (APP-191) – no construction work noted for this date. This is considered unrealistic given the scale of terminal capacity against the predicted passenger numbers by 2038, as noted elsewhere by GACC.

The most optimistic total emissions for 2038 with the Project in place is therefore $5.583 + 0.13 + 0.002 = 5.715$ MtCO₂e. This accounts for 4.17% of the 2038 UK carbon budget.

The equivalent without the Project is $4.681 + 0.108 + 0.002 = 4.791$ MtCO₂e.

3. Uplift to fully account to Direct Global Warming Impact of Flights

In addition the Applicant does not attempt to quantify the airport's non-greenhouse gas climate impacts, although it acknowledges the likelihood that these contribute to changes in climate¹⁴.

This is inconsistent with recent government guidance, which reiterates the Government's position that aviation's non-CO₂ effects should be quantified. Specifically in its (June 2021) guidance on business greenhouse gas reporting, the Department for Business, Energy and Industrial Strategy said, "Organisations should include the indirect effects of non-CO₂ emissions when reporting air travel emissions to capture the full climate impact of their travel [...]." Including the government's recommended uplift of 1.7 for non-CO₂ impacts¹⁵ (see section 4 below) would increase these percentages of the aviation emissions by 70%.

This would increase the total emissions as follows:

- Future baseline, including Jet Zero assumptions would increase to: $(4.681 \times 1.7) + 0.108 + 0.002 = 8.068$ MtCO₂e, which equates to 5.9% of the 2038 UK carbon budget.

¹⁴ Gatwick Preliminary Environmental Information Report, Chapter 15, paragraph 15.4.7

¹⁵ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023> (see 2023 download, Tab: Business Travel - Air).

- With Project, including Jet Zero assumptions would increase to: $(5.583 \times 1.7) + 0.13 + 0.002 = 9.623 \text{ MtCO}_2\text{e}$, which equates to 7.0% of the 2038 UK carbon budget.
- Without the Jet Zero assumptions, this would increase to: $(7.575 \times 1.7) + 0.13 + 0.002 = 12.876 \text{ MtCO}_2\text{e}$, which equates to 9.4% of the 2038 UK carbon budget.

So, including for these non-CO2 effects, Gatwick airport emissions, with the Project is estimated using the Applicant's figures, to account for between 7 and 9.4% of the UK carbon budget.

4. Estimate overall increase in Project Emissions (through consideration of arrivals as well as departing flights from Gatwick, optimism bias in future baseline and non-CO2 effects).

4.1 Base estimate

Based on the above the estimate Project emissions are 0.924 MtCO₂e, based on an increase of 13 mppa in 2038 with Jet Zero assumptions, and 1.244 MtCO₂e without Jet Zero assumptions holding.

4.2 Impact of considering non-CO2 effects of all of these flights.

As noted above the full greenhouse gas impact of the project includes the non-CO₂ effects of flights. Including this would uplift the flight element of the above by 70% - i.e. $(0.902 \times 1.7) + 0.2 = 1.555 \text{ MtCO}_2\text{e}$, or 2.100 MtCO₂e without Jet Zero assumptions holding.

4.3 Impact of considering arriving as well as departing flights

As noted above, the increase in flights resulting from the decision to approve the Project would include arriving as well as departing flights. This would double the impact of the Project on emissions related to flights in 2038 – i.e. $1.555 \times 2 = 3.111 \text{ MtCO}_2\text{e}$, or 4.201 MtCO₂e without Jet Zero assumptions holding.

4.4 Impact of more realistic future baseline

As noted above, the Joint Authorities estimate of a future baseline as being more realistically in the 50-55 mppa range. Should Gatwick then increase emissions to that stated in the project by 2038 from 50 mppa instead of the assumed future baseline of 62 mppa by 2038 then the Project would result in an increase in mppa from 50 to 75 mppa, an uplift of 25 mppa. This is assumed to increase emissions from flights (and to a lesser degree surface transport) proportionally – i.e $(25/13) \times 3.111 = 5.982 \text{ MtCO}_2\text{e}$, or 8.079 MtCO₂e without Jet Zero assumptions holding. This equates to a

This equates to an overall Project impact of 4.4%-5.9% of the 2038 UK carbon budget and around 20-25% of all 2038 aviation emissions forecast in the CCC's Balanced Net Zero Pathway.

Comments on ISH6 hearing

Comments regarding material significance of comparing Gatwick's future emissions to the UK's Sixth Carbon Budget

GACC also support AEF comments highlighting the material significance of the Sixth Carbon Budget being that this is based on limiting the actual (not estimated) emissions in aviation and shipping, so there is a need for actual carbon emissions due to aviation to actually be reduced. GACC also supports Mr Bedford KC's comments that it is relevant to understand [the significance] of Gatwick's aviation emissions not just with a future baseline, but in comparison to existing emissions. Therefore, the significant of Gatwick Airport's existing and proposed increase in emissions at the time of the sixth carbon budget and beyond are, in GACC's view, critical aspects to be considered as part of the DCO examination. The significance is much greater in the case of Gatwick than recent public inquiries cited by GAL. In contrast GACC would counter that Gatwick is the most significant aviation project put since the establishment of the UK's Climate Change Act.

Comments on the sufficiency of Jet Zero to meet aviation's sector based targets.

At the ISH6 hearing GAL stressed at ISH6 that the government has not set aviation or transport sector carbon budgets but an economy-wide target, and repeated its view that Jet Zero is the way in which the government has set out that this can be achieved. GACC disagrees with GAL's view that they can, "legitimately assume that Jet Zero is going to be achieved", as this is tantamount to absolving itself from having any real obligation or responsibility to act on its climate impacts.

GACC agree with the notion that there are sector specific targets for aviation (as highlighted both by Michael Bedford KC for the Joint Authorities and Estelle Dahan QC on behalf of CAGNE), but disagree with GAL's insistence that Jet Zero policy is a failsafe way to deliver emission reductions in aviation, even if airports expand. There are many uncertainties about the deliverability of the emissions reduction set out in Jet Zero, not least the deliverability of proposed scale of sustainable aviation fuels¹⁶ and the fact that a significant residual emission remains with no plan to address this, as well as the fact that non-carbon greenhouse gases of flights are unaccounted.

The Applicant noted that the Secretary of State has the duty to meet the sixth carbon budget, not GAL. GACC would note that the Secretary of State might

¹⁶ See for example the report published by the Institute of Fiscal Studies on 14th May 2024 [REDACTED]. This research found that there is currently "no realistic or scalable alternative" to standard kerosene-based jet fuels, and touted "sustainable aviation fuels" are well off track to replace them in a timeframe needed to avert dangerous climate change, despite public subsidies [REDACTED].

take on the advice of its independent Climate Change Committee and exercise this duty by refusing to increase capacity of UK airports. GACC supports the comments made by Tim Johnson of AEF that Jet Zero relies on future policies that are yet to be enacted and that there are significant doubts regarding the emission reduction trajectories being relied upon by government (in our view with respect to both the High Ambition pathway of the Transport Decarbonisation Plan and with respect to Jet Zero).

Comments with respect to the need for climate policy and decision-making to be science-based and in line with international climate agreements

GACC support the points raised by CAGNE that policy regarding climate change must be science-based. GACC reiterates that 2023 was the hottest year on record, with global temperatures 1.48°C above pre-industrial levels.¹⁷ The 1.5°C limit of global warming was breached each month for a whole year for the first time in February 2024.¹⁸ According to NOAA April 2024 was the 11th consecutive month with record high global temperatures.¹⁹ World ocean temperatures have been at record high levels now every day for over a year, since 4th May 2023, as reported in the BBC last week.²⁰ A recent survey found that many of the world's leading scientists expect global temperatures to exceed 2.5°C above pre-industrial temperatures this century.²¹

In light of this, and the continued discussion of carbon budgets at the ISH, it appeared that a carbon budget was understood, at least by the Applicant, as a budget that could all be planned to be used up (much like an economic budget). However, a carbon budget is not that. It is a limit to stay as far below as possible – the opposite of planning - or budgeting to spend as much as possible of an allotted amount. A carbon budget represents a percentage chance of failure: of dangerous, runaway climate change. And as this limit is science-based, and as the evidence of dangerous climate change mounts (as noted above), the risk of exceeding this limit, resulting in dangerous climate change, locking in significant feedback loops, high long-term temperatures and irreversible trends increases. It appears that GAL believe they can 'use up' as much as possible of the carbon budget, rather than accepting corporate social responsibility to stay well within the budget/limit, and to reduce their carbon footprint.

Jet Zero Strategy: One year on (2023) makes no reference the mounting evidence that urgent action is needed to realign the economy, UK and

¹⁷ [REDACTED]

¹⁸ [REDACTED]

¹⁹ <https://www.noaa.gov/news/april-2024-was-earths-warmest-on-record#:~:text=The%20average%20global%20temperature%20in,of%20record%2Dhigh%20global%20temperatures>.

²⁰ [REDACTED]

[REDACTED]

globally, to have any hope of meeting our internationally declared intention to meet climate targets.²²

The link between international climate agreements in national policy has now been tested.

The KlimaSeniorinnen v Switzerland case at the European Court of Human Rights (2024),²³

found that Switzerland failed to comply with its positive obligations under the European Convention of Human Rights concerning climate change. This important judgement means that the UK national policy must align to international climate agreements. Yet, the Royal Court of Justice subsequently ruled in favour of Friends of the Earth that the UK currently has an inadequate climate plan (2024).²⁴

GACC suggests that to ensure that climate policy is science-based and compliant with international climate obligations requires an acceptance that current climate policy making and decision making must change, including with respect to airport expansion.

Comment on the position of Gatwick's carbon emissions pathway outside the Jet Zero strategy – and in light of UK's future net zero plan already being off-track.

That GAL is proposing a more rapid increase in carbon emissions proposed by GAL than in Jet Zero was raised in the WR of both GACC and AEF (REP1-173 and REP1-114). GAL's continual assistance that Jet Zero was sufficient to manage aviation's climate impact failed to address this point, in part by stating this was not an issue. GAL should be required to evidence that their pathway is consistent with Jet Zero, and why the trajectory set out by AEF is, in their view, incorrect.

Combining this plan to exceed the carbon budget (area under the carbon emissions – time graph) that underpins the Jet Zero strategy, with the fact the UK government's future plans are already off-track and that this carbon budget requires strengthening (i.e. reducing) to respond to empirical climate-science findings (all as noted above) requires a significant shift in approach.

GACC contends that if the actual growth trajectory for Gatwick exceeds that set out in Jet Zero, and the overall economy future plans exceed the Climate Change Act trajectory, and collective NDC agreements (including that of the UK) exceeds that for a safe future climate, and that climate is exhibiting unprecedented warming, then the current approach, as set out in this DCO

²² <https://www.gov.uk/government/publications/jet-zero-strategy-one-year-on>.

²³



Application is completely and wholly at odds with the IEMA guidance. In addition, the significance of the proposed increase in carbon emissions should be considered greater as overall economy-wide and global targets are off-track. Instead of airport expansion that enables us to increase our carbon emissions and for other countries to increase theirs by the same amount, it is time for a higher priority to be given to climate policy against other aspects of the policy mix. This is explored from an economy-wide perspective in the next section.

Comments regarding GAL's insistence that the economy-wide impacts of Gatwick's climate impacts are considered

The IEMA Guidance (2024)²⁵, page 24, defines significance as, "Whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050 (or other date as defined in targets for devolved administrations or as may be defined for the UK or specific economic sectors in future)."

GAL stated that on page 36 of the ANPS it confirms that the government is committed to airport growth and that it must be achieved within its climate change obligations, and that the government is charged with balancing the economic and climate objectives with respect to aviation. Similarly, GAL stated that Flightpath to the Future talks of being committed to aviation and airport growth on one hand, and for that being achieved within climate change obligations.

In light of the IEMA guidance GACC highlight the importance of the impact that the proposed expansion has not just in terms of the significance of its own carbon emissions (as calculated above based on GAL's figures) but on the overall effect of enabling the economy to be aligned to Net Zero, both in the UK and globally.

Firstly, GACC contend that GAL (and the Secretary of State) must consider the possibility that it may indeed not be possible to commit to continued aviation and airport growth whilst adhering to (science-based) climate change obligations. What if planning applications are needed to enable Jet Zero to be delivered? What if climate commitments require carbon budgets (limits) to take precedence over freedom of aviation to grow to meet forecast demand, as GACC believe to be the case? GACC would highlight that then is a need for airport and aviation emissions to be constrained by climate change obligations, and ensure greater not reduced potential for the rest of the economy to do the same.

GAL has not demonstrated it possible to limit growth of aviation emissions without any measures to constrain a) the number of flights (most pertinently

²⁵ [REDACTED]

through whether or not to permit additional runway capacity) b) highway capacity and offsite as well as on-airport parking such that Surface Access Commitments are deliverable. GACC contend that to argue that it is possible to cut carbon emissions through technical measures alone (whether SAF or electrification of ICE vehicles) without any supply side constraints (such as could be afforded by restricting planned airport expansion) or any overall demand side measures (as none currently exist of note for either flights or road traffic in the UK) leads to a high risk of failure.

Secondly, with regard to wider economic effects, GACC disagree with the unbalanced approach to the economy that GAL has taken with respect to benefits and impacts. In terms of Gatwick's economic benefits, such as the considered impact through job creation, GAL refers to its direct, indirect, induced and catalytic economic and employment effect. However, in terms of climate impact only direct impacts, not upstream or downstream impacts have been considered. Examples of these include:

- How increased flights leads to increased tourism-related economic development, and high carbon (flight) dependant economies around the world at odds with their and the UK climate emission reduction commitments. It appears somewhat ironic that there is still an increase in air-bound tourism to small island states that are amongst the most at risk from sea-level rise and other climate impacts going forward.
- How expansion of the SRN to cope with the forecast increase in road transport to/from the airport induces increased other transport flows and increases flows on local roads (including links to potential increases in off street parking as increased car journeys seem to outstrip increased car parking provision) and thereby work against the carbon reduction targets in the LTP4 sustainable transport strategies around the Airport.
- How the proposed airport growth supports an increase in airfreight which increases the embodied carbon associated with UK imports and exports, both as products are transported further and are switch to aviation as a more carbon intensive transport/tonne freight (the opposite of the proposed modal shift to lower carbon transport modes for surface transport access).

These indirect, induced and catalytic greenhouse gas emission impacts associated with aviation growth in its current form must be assessed, against the IEMA guidance to ensure that the overall development pathway as well as the 'direct impacts contribute to reducing carbon emissions. GACC contends that the indirect, induced and catalytic impacts of aviation growth on climate change are highly significant. The lack of focus on this significant impact should not lessen the importance of ensuring policy is complied with.

International climate impact of Gatwick Expansion

In considering the impact of increasing Gatwick's greenhouse gas emissions on the UK's sixth carbon budget, the Applicant claimed that it was only appropriate to consider the increase in emissions due to departing aircraft. GACC disagree. As noted above we consider that the total impact of

expanding Gatwick Airport be considered as part of the environmental impact of the Project. Increasing international flights will mean the UK is incentivising an increase in flights in destination countries around the world, thus encouraging other countries to adopt a higher carbon development pathway in the future. This is touched on above.

GACC highlight the extent to which expanding international aviation is odds with the need for Annex 1 (developed) countries to exemplify climate resilient development pathways worldwide. GAL should not be permitted to further lock-in carbon emissions through enabling and incentivising high-carbon development and economic models in middle and low-income nations, which make up some of the tourist destinations that Gatwick airport serves.

Embodied Carbon

With respect to IEMA guidance noted above it is not clear how a whole life carbon approach can be consistent with the guidance whether the investment in embodied carbon for the construction of the Project then leads to further emissions downstream. This appears, by its very nature, to be a Project that fails to comply with the IEMA guidance as there is no return on the embodied carbon invested in the project, but instead a direct and indirect increase in future emissions.

Operational Carbon Emissions

Can GAL please clarify whether the operational emissions include that related to offsite incineration of waste, now and proposed to be in the future, as set out in the Operational Waste Strategy. Please can a breakdown of the operational carbon emissions be provided.

BREAAM Standards

GACC contend that GAL should set out to achieve BREEAM excellent throughout and the existence of a Carbon Action Plan should not be used as an excuse to have no sustainability standards for the proposed construction. This is not clearly committed to currently (see APP-259, paragraph 6.12.3.8). GACC do not accept that answer to GEN1.18 and GEN1.22 in REP3-091 on this matter is sufficient.

Comments on ISH7 hearing

Comments regarding Future Baseline

At the start of the Compulsory Purchase Acquisition Hearing GAL (00:12:) GAL noted that the disputed differences in the future baseline between the Applicant and the Joint Authorities relate to the likelihood of airlines willingness to take up the remaining capacity in a viable manner. In addition, GACC remain concerned, as it would appear does the ExA, that the Project does not include sufficient terminal capacity to cope with the increase in passenger throughput (but at any given time and throughout the course of a day) reflected in both the future baseline and Project case. GACC would wish to be able to review the evidence base for this and to compare this to that presented to and analysed by the Airport Commission up to 2014. Whilst GAL claims that the additional runway capacity increases resilience at Gatwick Airport, GACC would content that it actually reduces resilience (in part due to the only very limited proposed increase in terminal capacity, as well as potential for delays with increased flights through two runways being served by the same airspace) and risks additional unforeseen local impacts, such as an increase in unplanned Night Flights. Without this resilience being demonstrated it is unclear that airlines would be willing to take up the additional capacity at Gatwick Airport both in the future baseline and in the Project, and if so, how much of the potential additional capacity (in theory) would match the needs of the airlines and thereby be likely to be realised (in practice). GACC feels that currently the Applicant has presented what it wishes might happen, rather than is most likely to happen. GACC believe it is important to understand the likely take-up and full range of impacts that might materialise from the Project, to ensure that conditions to manage those impacts might be appropriately structured and sufficient in nature.

Comment on sufficiency of the hotel and office capacity

GAL appeared to say in the ISH7 that the Project has sufficient additional hotel and office capacity for the 13 mppa associated with the project. GACC are still not clear as to whether there is sufficient capacity for the future baseline increase in addition to this. GACC request that the analysis underpinning the level of provision of hotel and office capacity be provided.

Comment on future baseline in comparison with expansion of Heathrow Third Runway

GACC comment that the absence of the consideration of Heathrow Runway as part of the future baseline, risks undermines the Need Case for the runway expansion.

In addition, the demand for the additional capacity appears largely drawn from London and the area of South East England to the south of London. Should the UK's economy develop in a more balanced way going forward,

with economic benefits spread more to the North and West of London it is unclear how this would affect the Need for expansion, or the ease with which even the current modelled surface transport modal shift to the airport, if expanded, could be realised.

Comments relating to Flooding

GACC would like to raise concerns about the time taken for the Applicant to share the required material on flood modelling with the EA so they can complete their review. It is our view that this should have been completed before the start of the DCO Examination. GACC request a further ISH on flooding be scheduled, ideally in June, once this review of the flood modelling by the EA is published through the DCO portal. This should be provided with some indication as the impact of the use of the 2009 rainfall dataset by the Applicant, as highlighted by Mr Michael Bedford KC.

GACC agree with the Joint Authorities on the inadequate justification (that the airfield might 'evolve' in future) provided by GAL for why it has not adopted a 100-year flood return period for the whole Project, as was recently the case for Manston Airport.

GACC shares the concerns raised by the Joint Authorities that a) the modelling should look at the impact on individual surface water catchments to provide greater clarity and robustness in determining whether or not the Project would increase flood risk in any of these catchments and b) that the runoff rates should be limited to greenfield runoff rates, as required.

GACC reiterated the request for more information what we made in our WR that the Applicant provide details of the last 15 years when they have made these emergency discharges and the volumes and frequency of those into the River Mole. GACC request that the information shared verbally is shared in writing, together the answer to this question, setting out a schedule of emergency discharges in the past 15 years, setting out the volumes of discharge in each case.

Wastewater

GACC reiterate our disappointment that the Applicant did not secure the review from Thames Water, a private company, before the submission of the DCO application, and that this review is now not going to be complete until after the examination period has been completed. We consider this to be completely unacceptable. GACC would request clarity as to the reason for this failure to have the required scrutiny of the wastewater modelling prior, or even during, the examination period. In addition, GACC would request that the Initial Assessment by Thames Water be shared publicly, together with the baseline work that was noted in the ISH7 of being completed by the end of May 2024, so that it can be viewed by all those participating in the DCO examination in public. It would be helpful for these documents to be shared in May 2024 so that they might be reviewed alongside GAL's proposed

addition of a waste water treatment facility, the consultation of which is scheduled to end on June 11th.

Water Supply

It is unclear from the ISH7 discussion whether SESW have simply stated that they have a statutory duty to supply the water required or that they have sufficient capacity to be able to supply that water, without it affecting existing water supply commitments. Does GAL have any fall back position to secure supply from elsewhere should this not be able to be provided, in the same way as it is now seeking to do so with regard to wastewater treatment capacity.

Air Quality

GACC supports the stated concerns around ultrafine particles raised by Mr Leon Hibbs for the Joint Authorities, where he notes that very significant exposure occurs in the Horley Riverside estate that is greater than if you were standing on a curb in central London. GACC agree that the Applicant should be required to fund monitoring of this air pollution and its impacts on the local community, and for mitigation actions to be included within the scope of the Air Quality Action Plan as a control document within the Development Consent Order (and if not permitted, within the Section 106 agreement). This should commence now, regardless of whether the NRP is permitted, and in advance of any new national policy, as this is already having a significant impact on health and quality of life to residents who live around the airport. GACC are in agreement with CAGNE and others that the current approach is not sufficient.

Comments on the Applicant's Response to the Examining Authority's Written Questions

Traffic and Transport (REP3-104)

ExQ1: TT.1.3 Gatwick Parking Provision – Comparison with Other South East Airports

Response: "Data for London Heathrow is not directly available as published information in connection with development proposals is provided for passenger and staff spaces combined."

GACC comment: Why has baseline data, without development proposals not been provided? Also, why not compare Heathrow and Gatwick passenger and staff spaces combined data?

ExQ1:TT.1.4 Zero Traffic Growth Option for the Proposed Development

Response: Paragraph 6.1.5 of Written Summary of ISH4 Oral Submissions from ISH4 Surface Transport [REP1 059] provides a post-hearing note on the response to the queries on no car traffic growth, which is reiterated.

GACC comment: The response is inadequate, and does not address the policy choice options available to the Applicant. Applicant's response notes "it would be unrealistic to assume that no additional journeys would be made by road." But allowing additional journeys by road is a policy choice and the applicant has made a policy choice to facilitate car traffic growth. The Applicant could have chosen to constrain car traffic growth to no more than current levels or without project levels, but has chosen not to. If, as noted by the Applicant, higher levels of public transport mode share cannot be achieved then, we would contend, the planning application should not be approved or delivery should be conditional on no additional car growth. Additional car growth will cause a deterioration in air quality, increase greenhouse gas emissions and reduce journey times.

The response notes that the "Applicant is committing to significant investment in public transport". The main mode of public transport access for the majority airport users is rail and the applicant is providing no additional rail service or capacity funding. Without additional investment in rail services and capacity, we disagree with the Applicant's claim that they are committing significant investment in public transport.

ExQ1:TT.1.6 Paragraph 6.2.10 addresses passenger mode share. How are remote off airport parking passengers considered in the mode share (authorised off airport parking, park (on street or public car park) and bus, taxi or walk). Is there any data on these passengers?

Response: [Explains that remote car drop off locations such as stations or bus stops meant that the final leg was allocated to public transport.]

GACC Comment: GACC are concerned about any car traffic growth generated by the project, whether allocated to the final leg or generated as a result of drop at a remote location. The response appears to suggest that GAL is trying to absolve itself from being responsible for impacts simply because they occur a particular distance from the airport. GACC disagrees with this approach. It also implies that, at best, the mode share figures for the Project require careful interpretation and, at worst, are overestimating achievement of the targets as car trips are hidden from the figures.

ExA Q1:TT.1.9 Does off airport parking including on street? If not have any surveys/ analysis been undertaken to ascertain off-site parking including on street and other not specifically authorised parking places

Response [part]: "It is noted that it is not possible to determine with certainty if a car parked on-street has carried airport passengers, airport staff or is there for non-airport reasons.....On-street parking and use of private driveways and other premises for informal parking "rental" offered by local residents is not found to be significant amount of airport parking activity relative to on-airport and off-airport authorised parking sites or control of unauthorised sites that are subject to planning enforcement activity."

GACC Comment: The response provided is contradictory. It is unclear how the applicant can legitimately say that on-street or use of private driveways is not significant when it also notes that it is not possible to determine with certainty if a car parked has carried airport passengers or airport staff. The uncertainty around off-airport parking is a significant gap in the ability to control car use and raises questions about the ability of the applicant to achieve its mode share targets. Several RRs have suggested the adoption of a Green Controlled Growth approach and this response underlines the need for such an approach.

ExA Q1:TT.1.35 Has the Applicant undertaken any sensitivity analysis of failure to meet the modal targets? If not, why not?

Response: As noted in the answer to TT.1.13, during the development of model forecasts, and through discussions with key stakeholders including National Highways and SCC and WSCC, some sensitivity analysis has been undertaken to build confidence in the forecasting process, assumptions and outputs. However, the Applicant has set out the mode shares it is committing to achieve in ES Appendix 5.4.1: Surface Access Commitments...

GACC comment: This is a weak, vague and obscure response, and provides no confidence in the robustness of the forecasting. GACC would expect to see a range of sensitivity analyses to be reported, showing the impact of a failure to meet modal targets.

ExA Q1:TT.1.39 Car Parking Strategy - With reference to Table 2 of the Car Parking Strategy [REP1-051] explain the derivation of the increase factor in

Park and Fly trips with the Project. Also provide and explain any similar increase factor for the future baseline projections along with an explanation of any difference between these two factors.

Response: The estimate of passenger car parking requirement was made at an early stage in the transport modelling process, because parking provision and location is an input to the strategic model and therefore needed to be defined before the full model runs could be undertaken. The Applicant is keen to ensure that there is sufficient parking capacity available to accommodate park and fly trips and avoid any shortage of capacity leading to increased parking in surrounding streets or unauthorised locations, or transferring to kiss-and-fly trips instead.

GACC comment: This suggests that the car parking requirement was a fixed input into the modelling process, whereas the level of car parking is actually a key policy variable which will determine the level of car use in the models. In the absence of a model which includes a dynamic interaction between car parking need and highway demand, were a series of sensitivity tests carried out to determine the impact of alternative car parking input assumptions on car demand and, therefore, mode shares? If these tests weren't carried, can the Applicant explain how it determined the level of car parking requirement as an input to the modelling process.

The response suggests that the Applicant has chosen to supply sufficient car parking to facilitate car access as a result of an absence of effective controls on off-airport car parking and park and fly trips. GACC regards the absence of these controls as a significant failure of the project transport strategy, and leads to doubts that the applicant will achieve its (already weak) mode share targets. For this reason, we recommend the adoption of a Green Controlled Growth strategy with respect to Surface Access Commitments, specifically the mode share targets, as proposed for Luton Airport.

ExA Q1:TT.1.41 Parking Levels and Mode Share Comparison Table Provide a table showing the Proposed Development comparison with the Future Baseline for the years 2019, 2029, 2032 and 2047 of target (or actual) mode shares, estimated parking accumulations and parking provision.

Response: (Table 4) sets out the information requested....

GACC Comment: Parking provision is shown as absolute figures and mode shares are shown as percentages. GACC would like to see added to the table the absolute increase in car trips to the airport and how these are reconciled with the provision of car parking. As currently presented it is not possible to determine how the car parking provision is matched to the number of car trips. An overall picture of all car trip categories to the airport, including short and long term parking, park and ride and any other categories so that it can be seen how these are matched with parking provision.

END

