



Review of Luton Airport proposal to allow 19mppa: implications for carbon emissions

Report for Luton Borough Council on

Planning Application 21/00031/VARCON to vary conditions to Planning Permission 15/00950/VARCON

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Contact:Mark Hinnells
Ricardo Energy & Environment

t: +44 (0) 1235 75 3493

e: mark.hinnells@ricardo.com

Ricardo is certificated to ISO9001, ISO14001
and OHSAS18001**Authors:**

Dr Mark Hinnells

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Table of contents

1	Purpose of this note	3
2	Planning policy on carbon emissions	3
3	Recent relevant planning cases	8
4	Assessing the Planning Statement against policy and recent decisions.....	11
5	Assessing the Environmental Statement against policy.....	13
6	Assessment of significance	16
7	Assessment of conditions: the carbon reduction plan	17
8	Conclusions	18

1 Purpose of this note

1. The purpose of this note is:
 - a. To advise LBC on whether there is a need for further environmental information, especially in the light of Government decisions on the sixth carbon budget, and a decision to include international aviation within the carbon budgets from the sixth carbon budget onwards, up to net zero¹.
 - b. To advise LBC on whether the proposal is acceptable, or can be made acceptable through appropriate conditions, including the proposed draft Carbon Reduction Plan.
2. In order to understand the Environmental Statement it is necessary to assess the impacts described in the Environmental Statement against the Planning Statement, changes in policy, and recent cases which have tested policy.

2 Planning policy on carbon emissions

3. Planning decisions must be made in accordance with the development plan unless there are material considerations that indicate otherwise, the development plan for the area is the Luton Local Plan (November 2017). Other areas of policy that need to be taken into account when considering the planning application include, the National Planning Policy Framework², and Making Best Use of Existing Runways³ (MBU) as the best statement of aviation policy and a distillation of the Governments work on Aviation 2050.
4. Government is expected very shortly (mid June 2021) to announce new policy on how it expects 6th Carbon Budget (including aviation and shipping) to be met. In the meantime, the Committee on Climate Change (CCC) recommendations on the sixth carbon budget (6CB)⁴, and the work of the Sustainable Aviation Group and its de-carbonisation roadmap⁵ (though not policy) are together an indication of what is possible or likely. Establishing this benchmark is critical for the proper assessment of the ES.

NPPF

¹ <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

² <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714069/making-best-use-of-existing-runways.pdf

⁴ <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

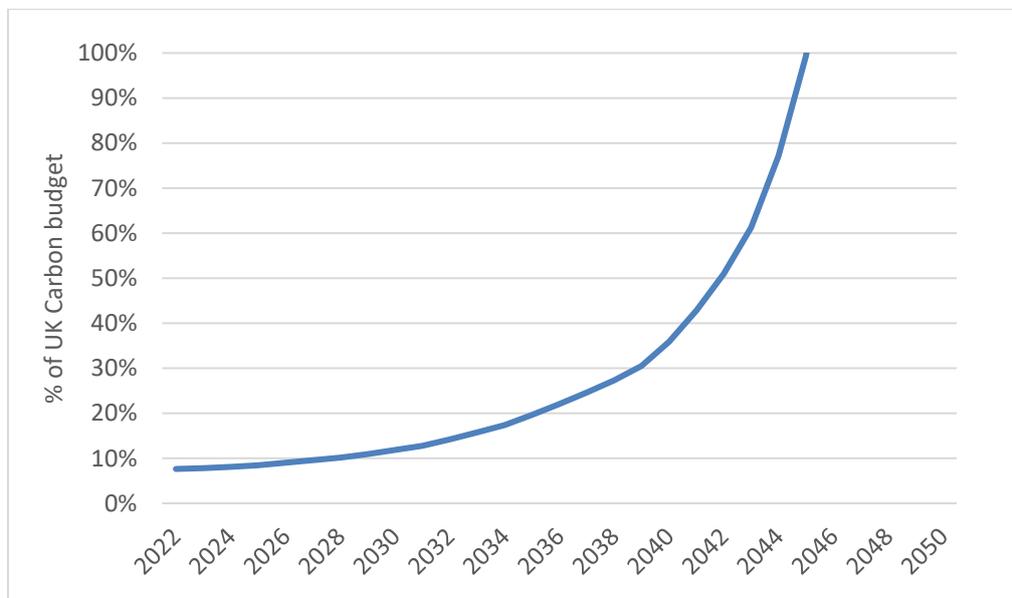
⁵ https://www.sustainableaviation.co.uk/wp-content/uploads/2020/02/SustainableAviation_CarbonReport_20200203.pdf

- Key objectives set out in the National Planning Policy Framework (NPPF) are stated in paragraphs 8 (sustainable development, which includes economic, social and environmental benefits in combination) and 148 (the purpose of the planning system is to support “radical reductions” in carbon emissions).

MBU

- Making Best Use of Existing Runways (MBU), has a ‘planning assumption’ for aviation emissions of CO2 of 37.5MtCO2. However it was written in 2018, before the Climate Change Act was amended to net zero, and before aviation was incorporated in the sixth carbon budget. Whilst MBU for now remains extant, the 37.5MtC target is simply mathematically incompatible with the decision to include aviation within the sixth carbon budget and the trajectory to net zero.

Planning assumption of 37.5MtCO2 as % of Emissions under Balanced Pathway of 6th Carbon Budget



(Based on data in the CCC report, see <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-Charts-and-data-in-the-report.xlsb>)

- Even if the planning assumption of 37.5MtCO2 in MBU were to remain valid, the policy foresaw (in Table 1 of MBU) an additional 11 mppa in 2050 as a result of the MBU policy over and above a baseline, (or 9mppa in 2050 as a result of MBU over and above Heathrow North West Runway). If 8mppa is allowed at Stansted, and taking into account the proposed developments at Southampton and Leeds are more advanced than those at Luton, decisions to consent the additional capacity foreseen by the policy have been made (subject to approval by the Secretary of State and expiry of Judicial Review periods).
- Further, MBU appears to have significantly underestimated the appetite for expansion of runway capacity in a competitive market, estimating passenger numbers of around 444m at

most (Table 1). Ricardo have collated data on airport expansion which show plans for 480-500mppa at various stages, based on MBU. Thus, growth may be some 5-6 times what MBU anticipated. Such additional growth would have a significant impact on the ability of the UK to meet its carbon targets, particularly since a target of net zero has been adopted in 2019 and in April the Government indicated that it would incorporate aviation in UK targets.

Net Zero policy

9. Governments decisions on 6CB were momentous and need unpacking.
10. A decision in 2012 on International Aviation and Shipping⁶ (IAS) had concluded that *“In setting the levels of existing carbon budgets, which go out to 2027, the Government has taken account of international aviation and shipping emissions, and the recommendations of the CCC... In effect, the budgets for other sectors have been constrained so that, to 2027, the UK is on a trajectory that could be consistent with a 2050 target that includes emissions from international aviation and shipping.”*
11. The above accommodation was under considerable stress, after the amendment to the Climate Change Act in 2019, to increase the 2050 target from an 80% to a 100% cut in emissions. There was no longer any space for the rest of the economy to make further savings to compensate for additional emissions in IAS. The decision to include International aviation within the sixth UK carbon budget, and to set the sixth carbon budget on a more challenging course to net zero in 2050 was inevitable. The 37.5MtCO₂ ‘planning assumption’ for aviation whilst it is yet to be replaced, is out of date, leaving decision-makers somewhat in limbo.
12. To put the size of this change in perspective, until two years ago the UK was aiming at an 80% cut in CO₂ by 2050, excluding IAS. Now the UK target is a 78% reduction (so almost the same number), by 2035 including IAS. Because the target is to be achieved in less than half the time, 14 years instead of 32, IAS cannot rely on the rest of the economy making additional reductions to avoid reductions in aviation.
13. Although the Government has accepted the headline recommendations in CCC work on 6CB, it has not yet indicated how it would allocate carbon between economic sectors, only that aviation is no longer a special case and no longer excluded from the 5 yearly carbon budgeting process. Aviation now has to do what the rest of the economy has been doing since 1990 and that is to grapple with constrained carbon emissions.
14. The decision in April 2021 to set the sixth carbon budget at a 78% reduction including IAS was a change in the headline target, and the policy to deliver that change across the economy is still to follow. The announcement of the inclusion of aviation in the target said Government will be

⁶https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65686/7334-int-aviation-shipping-emissions-carb-budg.pdf

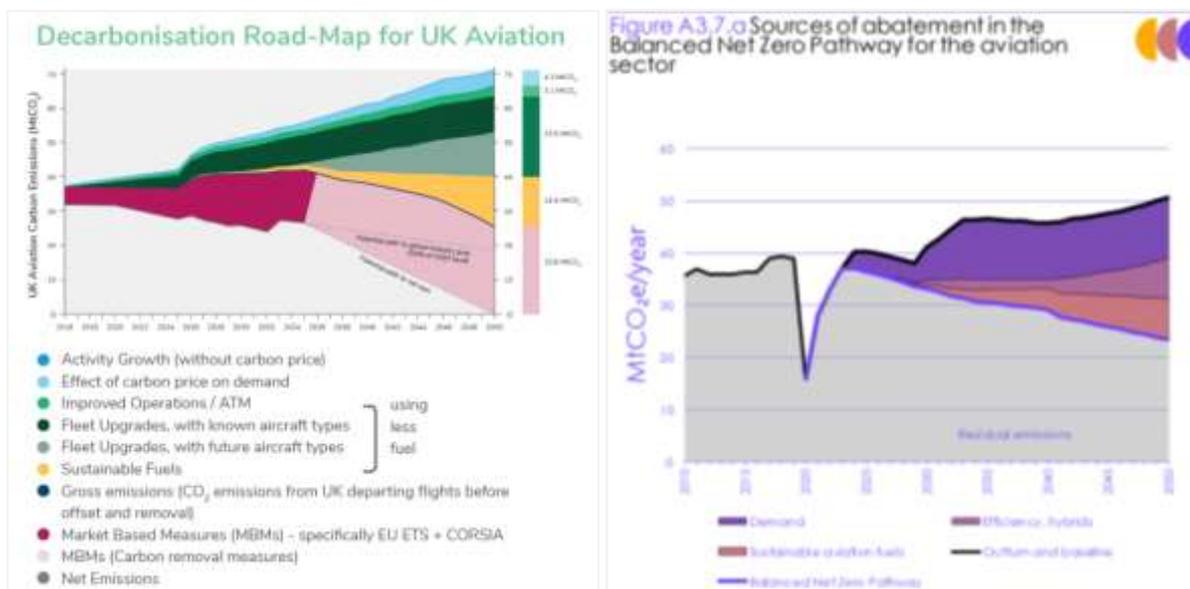
“publishing the Heating and Building Strategy and Transport Decarbonisation Plan later this Spring.” (my underline).

15. However, it is undeniable that the new target ushers in a paradigm shift for the industry for the next three decades, and there will either be significant changes in technology, or in costs, or capacity constraint (or some combination) if the target is to be met. If, in this context, new capacity is allowed, the technology strategy to deliver reductions needs to be clear, both centrally, from Government, and at a local level as part of a particular proposal for expansion.
16. In this context, and from a planning perspective, and in line with IEMA Guidance, any net increase in emissions (after mitigations including reductions, fuel switching, offsets or removals), should be treated as EIA significant.
17. Clarity on allocation of carbon between sectors within the 6CB is, at the present time, awaited, but the pathway for aviation may be informed by the CCC recommendations 6CB⁷, as well as Sustainable Aviation (SA) group report *Decarbonisation Road-map: a path to net zero*⁸ (and Luton Airport is a member of Sustainable Aviation). These two reports (graphs below) indicate a carbon budget for remaining direct emissions for aviation of between 23 and 25MtCO₂, by 2050, *and in both cases offset to net zero*. The differences between them lie in some of the detailed assumptions. SA allows a 70% growth in passenger numbers, such that its baseline projection is 70MtCO₂, whereas CCC allows a 25% growth in passenger numbers (no new net capacity with any increases in capacity offset by reductions elsewhere) and the baseline emissions before technical measures in 50MtCO₂.

⁷ www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Aviation.pdf

⁸ www.sustainableaviation.co.uk/wp-content/uploads/2020/02/SustainableAviation_CarbonReport_20200203.pdf

A comparison of SA Group and CCC 6CB key projections



18. The two analyses include the effect of successive reductions in carbon from demand management through pricing (much bigger impact in CCC work), improved air traffic management and operating procedures, introduction of known and new, more efficient aircraft, Sustainable Aviation Fuels (SAF) (25% in CCC work but a 50% or more take-up in SA making a 32% saving in carbon). Both analyses include electric and hybrid aircraft. The SA work shows actual emissions at about 25MtCO₂ then offset to Net Zero. The CCC work shows net emissions of 23MtCO₂ and doesn't show the slice where emissions are offset to net zero, but the CCC assumed ALL remaining UK emissions across the economy would be offset to net zero.
19. In summary, there is a good degree of consistency about outcomes, but not pathways. SA is more optimistic about technical solutions (which are yet to be proven either technically or commercially and where uptake may not be significant until after 2035) whereas CCC relies more on capacity constraint. This defines the envelope for likely policy.
20. The the issue must be addressed by the ES and Planning Statement, or further environmental information, or conditioned to be part of an evolving Carbon Reduction Strategy, or the option for capacity constraint (ie refusal) is a credible one, within planning and land use policy.
21. The Government argued in the Infrastructure Strategy (Dec 2020) that airports contribute to a globally connected and competitive UK outside the EU; and within the UK, to the levelling up agenda. If there is capacity constraint, policy may consider the benefits of London versus regional capacity, or prioritising capacity which it is easier to decarbonise (e.g. more accessible by public transport). It is likely the London airports are in more fierce competition than previously for approval for expansion and that may be on carbon emissions grounds.

Local Policy

22. In addition to the Luton Local Plan (November 2017) local policy on net zero by 2040 can be a material consideration, outlined in Luton's 2040 Strategic Vision⁹ published in October 2020 but not found in the ES, and also the Council's Climate Action Plan prepared by Anthesis¹⁰.

3 Recent relevant planning cases

23. Reconciling the competing and evolving policy frameworks is not easy. However, recent cases have shown the increasing importance of carbon emissions, even before the Government's announcement accepting 6CB recommendations. The council should bear in mind the following cases.
24. Recent and relevant airport decisions include:
- Heathrow Airport**¹¹. The Supreme Court considered Heathrow's challenge to the Court of Appeal decision that had quashed the Airports National Policy Statement, which was reinstated though it must be updated by other policy as it emerges, with HAL's third runway proposal needing to meet carbon planning assumptions in place at the time of a decision on a DCO application.
 - Manston Airport**¹² was consented, but subsequent judicial review proceedings were not contested by the Government and developer, and consequently the consent was withdrawn, pending a new decision.
 - Leeds Bradford Airport**¹³. The LPA resolved to approve the expansion, circa 3.5mppa, but the Government has issued an Article 31 Direction which prevents a decision being issued until the Government has decided whether to call in the application for a public inquiry. If consented, planning condition 37 would require submission of a carbon and climate change action plan to be submitted and approved. The S106 is to include Net Zero carbon from all ground based operations within the Airport control by opening of terminal, and annual sustainability monitoring framework, linked to sustainability action plan and carbon and climate change action plan.

⁹ www.luton.gov.uk/Council_government_and_democracy/Lists/LutonDocuments/PDF/Luton2020-2040/Luton-2040-strategic-vision.pdf

¹⁰ www.anthesisgroup.com/wp-content/uploads/2020/03/Luton-Climate-Action-Plan-Support_FINAL_v2.pdf

¹¹ <https://www.supremecourt.uk/cases/uksc-2020-0042.html>

¹² <https://infrastructure.planninginspectorate.gov.uk/projects/south-east/manston-airport/>

¹³ <https://publicaccess.leeds.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=Q9SM3LJBKXX00&documentOrdering.orderBy=date&documentOrdering.orderDirection=descending>

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- d. **Southampton Airport**¹⁴. The local planning authority has recently resolved to approve (subject to a legal agreement) the extension of the runway by 164m which will allow larger aircraft [including A320s and 737-800s) to use the airport. However, arguably there were very particular local circumstances, given Flybe liquidation and dispersal of fleet that can use the shorter runway, as well as significant surface access traffic constraints. Consequently, the argument is that most of the impact from the development is therefore largely restoring the airport to previous operations. Following Full Council's resolution to grant planning permission on 10 April, the Planning Casework Unit (PCU) at the Ministry of Housing, Communities & Local Government have advised that they have received several requests for the Secretary of State to consider call-in of this planning application. The PCU have asked the Council whether they would voluntarily agree to not issue the Decision Notice until the Secretary of State has assessed the case and decided whether or not to call in the application for a public inquiry. The Council have agreed to this request.
- e. **Stansted Airport** appeal (to increase passenger numbers from 35 to 43mppa) was allowed¹⁵. The decision letter dated 26 May 2021 placed significance on MBU and noted that the Government is supportive of airports beyond Heathrow making best use of their existing runways, and at para 18, notes MBU is a recent expression of policy by the Government, "*given in full knowledge of UK commitments to combat climate change, having been published long after the Climate Change Act 2008 (CCA) and after the international Paris Agreement*". However the decision may yet face Judicial Review¹⁶ in not considering that MBU is mathematically incompatible with the Government's decision announced 20 April 2021, to cut carbon emissions by 78% by 2035 compared to 1990 levels and that the sixth Carbon Budget will incorporate the UK's share of international aviation and shipping emissions.
- f. **Bristol Airport**. North Somerset District Council refused planning permission for the 2mppa expansion of the airport and a public inquiry is now scheduled for July to last until October, climate change is one of the matters that will be considered by the Panel of Inspectors. Bristol airport has also published their Carbon and Climate Change Action Plan (CCCAP) as part of the public inquiry, proposing:
- i. **By 2030** and with 12 mppa, all operations and activities will be carbon net zero. This means all Scope 1 and 2 emissions will be minimised as far as practicable with any residual emissions being removed.

¹⁴ www.eastleigh.gov.uk/planning-and-building/southampton-airport-planning-application

¹⁵ <https://acp.planninginspectorate.gov.uk/ViewCase.aspx?caseid=3256619>

¹⁶ The decision letter was dated 26 May so the six week JR period expires 7 July 2021

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- ii. **By 2050** the Airport as a whole will be carbon net zero. This includes Scope 1, 2 and 3 emissions, and means all of the companies that operate from or provide services to the airport, including the airport and the airlines, will be contributing to the UK's carbon net zero economy.
 - iii. A commitment to continuing to **guide** and **influence** the companies and passengers that use the Airport to help them to reduce their GHG emissions in line with the UK's net zero 2050 target.
 - iv. Progress towards achievement of these KPIs will be reviewed and reported on every year in an Annual Monitoring Report that will be accessible from our public website. The CCCAP will be reviewed every five years in line with UK carbon budgets and adaptation cycles.

Whilst the proposals at Bristol are still subject to public inquiry and refusal remains an option or planning conditions may change, this is a possible benchmark for the assessment of plans at Luton.

25. From these cases it can be concluded that
- a. From the Heathrow case, policy should be updated by later targets
 - b. MBU (even if assumed to be sound and current) might be considered to have met the additional passenger numbers foreseen under MBU (Table 1).
 - c. Precedent may mean that even if the proposal at Luton were consented by the LPA, the Secretary of State may prevent the council from issuing a decision.
 - d. Conditions to make the proposal (eg climate change action plans) acceptable can weigh in the planning balance.
26. Non airport decisions with significant carbon implications include:
- a. **West Cumbria Coal**¹⁷. The LPA resolved to grant planning permission subject to referral to the Secretary of State – the SoS initially confirmed that the application could be decided by the LPA, however, before the s106 was finally signed by the Council, the SoS decided that there had been changes since his original decision, particularly the Climate Change Committee's sixth carbon budget recommendations raised issues of more than local importance, and as a consequence he called in the application for a public inquiry.
 - b. **Drax Power**. The Court of Appeal upheld Drax's power station DCO despite its carbon emissions impact, but the court was clear carbon must be weighed in the

¹⁷ <https://www.gov.uk/government/publications/decision-to-call-in-west-cumbria-coal-mine>

planning balance¹⁸. Also to be weighed in the planning balance was that the power sector has made huge strides in decarbonisation and there was a need for plant (either gas plant like this, or storage) to offer grid stability alongside decarbonisation. However, following this decision, Drax has decided that it would not construct the consented project, and focus instead on becoming carbon negative by 2030 (generating using biomass and using carbon capture and storage)¹⁹

- c. **RIS2 (Roads Investment Strategy) and National Networks NPS.** Roads policy has been subject to Judicial Review for inappropriate consideration of carbon²⁰.
- d. **A38 Derby Junction Scheme.** Inspectors recommended the DCO be approved, subject to Secretary of State making decisions on carbon emissions under the Paris Agreement²¹. However, local campaigners launched Judicial Review proceedings against the decision on the basis of carbon emissions, and Government has withdrawn the decision and a new decision will need to be made²².

- 27. These cases show that infrastructure has to date been planned with inadequate analysis of the impacts on achieving net zero. There is likely to be an ongoing, even increasing collision between net zero and infrastructure plans, with more decisions likely to be subject to appeal or Judicial Review, or being called in by the Secretary of State, or (at least in the period whilst policy is under significant development) held by the Secretary of State.
- 28. Luton Borough Council needs to show a transparent process for consideration of carbon emissions to make any decisions robust against appeal by the applicant (if refused) or judicial review by interested third parties (if consented). This is a very difficult balance to strike, and thus, the council should make every effort to make sure its decisions are based on the most up to date information and thorough analysis.

4 Assessing the Planning Statement against policy and recent decisions

- 29. **The Planning statement para 5.2.28** outlines a view of the NPPS, but not one I can agree with. A presumption in favour of Sustainable Development needs all three (economic, social and environmental) objectives to be met or improved, not one (economic) outweighing the other

¹⁸ www.judiciary.uk/judgments/clientearth-v-secretary-of-state-for-business-energy-and-industrial-strategy/

¹⁹ www.drax.com/investors/full-year-results-for-the-twelve-months-ended-31-december-2020/

²⁰ www.highwaysmagazine.co.uk/Shapps-overrode-advice-to-review-RIS-2/8866

²¹ (para 9.3.1) <https://infrastructure.planninginspectorate.gov.uk/projects/east-midlands/a38-derby-junctions/>

²² <https://derbynews.org.uk/2021/04/11/a38-road-expansion-stopped-following-residents-legal-objection-on-climate-change-grounds>

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- two. That said, there is still an assessment of the 'planning balance' to be made, that considers more than just carbon, but that is beyond this assessment.
30. Para 148 of NPPS on radical reductions in CO₂ is not emphasised. Conditions (in particular on the proposed Carbon Reduction Plan and later updates), could focus on delivering radical reductions.
 31. **Paras 5.2.6 and 5.2.7** discusses the Making Best Use policy (MBU). These paragraphs rightly recognise that MBU allows local authorities to make decisions on environmental impacts.
 32. **Para 6.5.26** supports use of the 37.5MtCO₂ target for assessment, and states the expansion implies 1.85 – 2.18% of the planning assumption of 37.5 MtCO₂/yr in 2050. As above the 37.5MtCO₂ planning assumption is not compatible with the newly announced inclusion of aviation within the net zero by 2050 target, and this latter target must now be the benchmark, and there is thus a case for requesting further environmental information under Regulation 25 of the EIA Regulations as to how the airport meets this target
 33. **Para 6.5.28** states LLAOL has also committed to produce a Carbon Reduction Plan (CRP). This will set out the roadmap for achieving a net zero airport for Scope 1 and 2 emissions, as well as indicating the approaches by which LLAOL can influence Scope 3 emissions. An outline version of the Carbon Reduction Plan will be produced during the consideration of this ES, and ahead of the determination of the planning application. As has been discussed, Government policy on carbon emissions has moved since this was drafted, and the CRP may need to be updated either voluntarily or by condition if consented.
 34. **Para 6.5.30** states that the development is unlikely to affect the Governments 37.5MtCO₂ target. Again the 37.5MtCO₂ planning assumption has been superseded by the decision to include aviation in carbon budgets from the sixth carbon budget onwards up to net zero.
 35. **Para 8.1.7** states the overall effect of projected GHGs associated with the proposal on the global climate is considered minor adverse, and therefore not significant based on the commitment for further mitigations.
 36. This is not an assessment I can concur with, particularly since the Governments decision on 6CB, and the impact must be seen as significant, unless mitigations can reduce impacts to net zero. The Council needs to consider whether:
 - a. In the light of the decision on 6th Carbon Budget, a decision to consent or otherwise should be made only once further policy has been published (expected by mid June 2021, just a few weeks away) on any amendments or replacements that may impact MBU; or
 - b. refusal in the light of CCC advice on capacity constraint and technologies to reduce emissions not being proven technically and/or commercially;

- c. or whether to secure a commitment to delivering Government policy locally, ie local commitment to net zero, through planning condition. This could include some combination of emissions reductions and offsets or extractions. A key issue for many airports would be that expansion is expected in the period to 2035, whereas technology to reduce emissions will be much slower, and is not expected to make a major contribution until after 2035. There is likely to be a peak in emissions just when the economy is being asked to decarbonise fastest, so it is not just a 2050 issue but a speed of decarbonisation issue, with the UK Nationally Declared Contribution to Paris (including ground based activities, surface access and domestic aviation) needing to be reduced to 68% by 2030, and sixth carbon budget requiring a 78% cut including all the above plus International Aviation by 2035. Consenting but requiring carbon reductions to be delivered through the Carbon Reduction Plan means that sanctions must be clear if the airport is in breach.
37. One issue to consider is that this particular proposal (unlike others) does not include any expansion of facilities, only an increase in numbers through using bigger planes with existing facilities. In that context, the airport is not risking investment in infrastructure that may not be used if Government decides later to constrain capacity. This counts in its favour. Secondly, the airport has shown a willingness to engage in development of a Carbon Reduction Plan, and would accept a condition. This too counts in its favour.

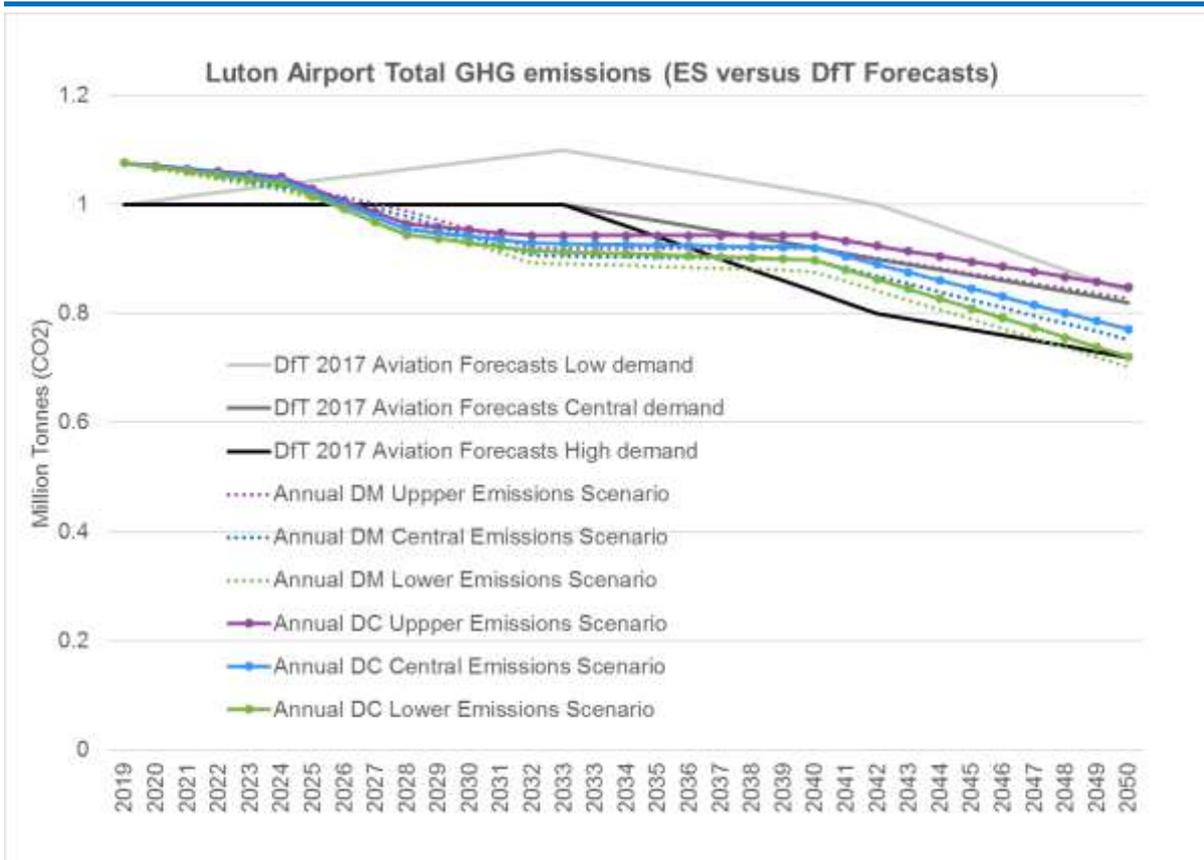
5 Assessing the Environmental Statement against policy

38. The Government's decision to accept the target of a 78% reduction by 2035, and to include aviation within the UK target from 2035 onwards, culminating in net zero, could be reason to ask for further environmental information under Regulation 25. Whilst planning policy can be interpreted by officers, predictions of impacts cannot and the applicants ES (or amendments) have to be relied upon.
39. If further environmental information were to be requested or submitted, **Paras 7.3.3 and 7.3. and 7.3.13 and 7.3.15 4** (all covering treatment of International Aviation, the 'planning assumption') have become outdated as a result of the Government's announcement on 6CB, and would need updating.
40. **Para 7.3.5** says the UK is part of the European Union (EU) Emissions Trading Scheme (ETS). This is no longer the case. The UK set up its own ETS as it departed the EU at the end of

- December 2020²³. The para further states the EU ETS currently incorporates emissions from domestic aviation flights. In fact all EEA flights were included in the EU ETS and now the new UK ETS.
41. **Paras 7.3.17; 7.3.18 and 7.3.19** are unfortunately now out of date. The planning assumption of 37.5MtCO₂ cannot be considered to be effective, given the acceptance of the 6th Carbon Budget as whole (or if it is effective, there is an issue as to the extent to which it is used up by Stansted, Southampton and Leeds).
42. **Table 7.4 Baseline 18mppa** shows International aviation falls 27%, which is just under 1% per annum, which is reasonable given baseline improvements in engine efficiency. However, domestic aviation declines from 39 to 29 MtCO₂, or a 25% reduction. Domestic aviation is already within the Climate Change Act as amended in 2019 and thus should be shown (with mitigations) to fall by 68% by 2030, under the NDC, and net zero by 2050.
43. **Table 7.9** shows that a 5.5% increase in passenger numbers from 18 to 19m leads, under the central case to a 6% increase in emissions in 2024, reducing to a 4% increase in emissions in 2050. However, the Upper and Central scenarios show significant uncertainty. In one scenario, emissions in the Development Case could be lower than in the Baseline Case.
44. **Para 7.10.1** states that relative to the 2019 baseline emissions, (aviation only) both with development and without development are lower in all scenarios and all assessment years. This is because with expansion, the aircraft fleet composition includes what is currently foreseen as the latest generation of aircraft. The argument that the larger airport attracts the most efficient fleets may not be realised, if multiple airports are expanding, and is uncertain given the economic stress the airlines are in post-COVID, and is an assertion that cannot be proven (unless conditioned).
45. In order to better understand the risk to UK targets (both the 37.5MtCO₂ and net zero) Ricardo have assessed the emissions projections in the Environmental Statement against DfT 2017 Aviation Forecasts²⁴ (see chart below). The DfT forecasts build a UK-wide forecast from a bottom up assessment of individual airports, and introduce a range of drivers including the effect of economic conditions on demand, improvements in aircraft technology etc. The DfT estimated aviation emissions in 2050 to be between 35.0 and 42.1 MtCO₂ across all UK airports. Although DfT forecasts are often criticised by individual airports, as underestimating potential growth, they are the best benchmark we have as to whether a given proposal will affect the ability of the UK to meet carbon targets.

²³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945899/2012_16_BEIS_EWP_Command_Paper_Accessible.pdf

²⁴<https://www.gov.uk/government/publications/uk-aviation-forecasts-2017>



46. The graph above shows an envelope of DfT forecast carbon emissions in grey, with Do Minimum (DM) Case in dotted colours and Development Case (DC) in solid colours. The analysis shows:
- a. Carbon emissions were higher in 2019 than DfT forecast because of more rapid growth (within existing consented envelope) than DfT forecast in 2017.
 - b. There is inherent uncertainty in forecasts. Neither DfT or Environmental Statement forecasts show the impact of COVID which is a short term deep suppression in demand, expected to recover in 2024-25. Economic growth will also affect passenger growth and there is clear forward economic uncertainty. Finally the uncertainty of different assumptions over future aircraft efficiency is bigger than the difference between the DC and DM. This suggests that conditions may be more material than growth.
 - c. Emissions decline because (even with capacity growth) the improvement in aircraft efficiency is forecast to outweigh the increase in passenger numbers. The point of inflexion on emissions depends on the timescale of investment and fleet choices by airlines. The graphs indicate likely fleet changes in the late 2020s and then again in the 2040s, though the trajectory in the 2040s will not in practice be a straight downward trendline, it will be closer to a step change for each airline or route, but

- both the extent and the timing of the step is uncertain, hence the usual modelling practice is to represent it (however approximate) with an annual percentage change.
- d. The graph shows no significant impact (ie the uncertainty is greater than the impact) on a 37.5MtCO₂ target.
 - e. However, as discussed above, the 37.5MtCO₂ target is out of date and none of these projections are compatible with the inclusion of international aviation in the UK net zero target. Assessment against sixth carbon budget is difficult without knowing sectoral policies the Government wishes to pursue, but the graphs do not show aviation at Luton taking an equal burden of a 78% cut for the 6th carbon budget period (2033-37).
47. In practice, therefore, to meet targets would require those options analysed in in the CCC 6CB recommendations, and in the work by Sustainable Aviation Group (including Sustainable Aviation Fuel, electric, hydrogen and hybrid solutions, as well as changed airframes and modes of operation), would be needed, and then remaining emissions offset, or better removed (eg through Direct Air Capture or similar), to net zero. The council could ask for an update to the ES to assess such options.
48. Alternatively it could take the view that since policy and technology is still an unknown, the best approach is to secure through condition, that the airport implement national policy (to get to net zero) at a local level, and ask the airport to show, through the Carbon Reduction Plan and as measures and policy change, through subsequent updates, how it will achieve that.
49. **Figures 7.3 and 7.4** show emissions from surface access and ground operations (including on a location base and on a market base for electricity) respectively. Whilst these show very significant reductions, neither of these scenarios achieve a net zero scenario based on evidenced mitigations and improvements.
50. Again a condition would be appropriate to show, through the Carbon Reduction Plan and subsequent updates, how surface access and airport ground operations will get to net zero.

6 Assessment of significance

51. **Section 7.11** considers the extent to which the scheme materially affects the ability of the UK to meet the aviation 'planning assumption' of 37.5MtCO₂. This is now the wrong test against which to assess the proposal. In particular **Para 7.11.7** states international aviation emission from LLA as a *whole* in 2019 (i.e. 18 mppa) represented 2.77% of the UK total. **Para 7.11.8** claims this is a "*small impact*".
52. A secondary assessment was performed against the CCC assumption of 23MtCO₂ (though without the offsetting to net zero that CCC assumes), but the assessment didn't show how the

airport would get to that level of emissions, it only used the 23MtCO₂ to show what a small proportion of 23MtCO₂ (not net zero) the proposal was.

53. As a test showing what a small percentage of a given budget the increase is, completely misses the point. The *need* is to show how the net zero target would be delivered locally.
54. **Para 7.11.14** concedes that further measures such as those suggested by the CCC will need to be put in place through (UK wide) legal mechanisms and policy drivers to assist with emission reductions across the aviation sector.
55. **Para 7.11.26** also claims “*the scale of GHG emissions from the Proposed Scheme are such that they are unlikely to affect the ability of Luton Borough Council to meet its carbon neutral borough aim*”. Although it would be reasonable to exclude aviation emissions from Borough emissions, this is a claim that goes untested and unsubstantiated in the ES.

7 Assessment of conditions: the carbon reduction plan

56. Conditions are important because they may make the proposal acceptable in environmental impact terms
57. **Para 7.13.2** States “*A Carbon Reduction Plan will be produced which will set out the roadmap for achieving a net zero airport for Scope 1 and 2 emissions, as well as indicating the approaches by which LLAOL can influence Scope 3 emissions. An outline version of the Carbon Reduction Plan will be set out ahead of the determination of the planning application by LBC*”.
58. In discussions, LLAOL have suggested that airline emissions are a matter for Government and the airline and not the airport. In planning terms however, increased emissions are a direct result of the decision to request expansion, and conditions to make the proposal acceptable in environmental terms can reasonably be placed on the applicant. The airport can play a vital role in decarbonising aviation. It has commercial arrangements with the airlines which in future will need to take account of carbon. It can insist on, or incentivise, or accommodate more efficient aircraft; and part of ‘business as usual’ commercial negotiations going forward include the timescale for and extent of provision of low or zero carbon infrastructure in servicing an airline fleet, including for Sustainable Aviation Fuel; charge points for electric aircraft (which may be significant enough to change the airports own grid connection); and hydrogen supply for hydrogen or hybrid aircraft. This is easier and more urgent for smaller aircraft on shorter routes. It is harder and more long term for long haul flights. But the airport simply cannot claim it is not responsible for, or cannot influence, low carbon or zero carbon aviation.

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59. Given the announcement by Government that International Aviation is within the UK target from 2035 onwards, and that the UK target in 2035 is a 78% cut, a draft Carbon Reduction Plan MUST include ways to work with the airlines to reduce scope 3 emissions, including all Landing and Take Off and Climb Cruise Descent Emissions, to net zero, or the impacts would not be acceptable. The plan MUST focus on early actions, given the 2035 time horizon for a 78% cut, because many technologies will not contribute significantly by that timescale. The plan will need revising

8 Conclusions

60. The purpose of this note is
- a. To advise LBC on whether there is a need for further environmental information, especially in the light of Government decisions on the sixth carbon budget, and a decision to include international aviation within the carbon budgets from the sixth carbon budget onwards, up to net zero.
 - b. To advise LBC on whether the proposal is acceptable, or can be made acceptable through appropriate conditions, including the proposed draft Carbon Reduction Plan.
61. Given recent planning cases (explored in section 3) Luton Borough Council needs to show a transparent process for consideration of carbon emissions to make any decisions robust against appeal by the applicant (if refused) or Judicial Review by interested third parties (if consented). This is a very difficult balance to strike, and thus, the council should make every effort to make sure its decisions are based on the most up to date policy, impact assessment, and thorough analysis.
62. Based on analysis in sections 4-7, carbon emissions in the light of policy changes could properly be the subject of a Regulation 25 request for further information, or made the subject of a condition to make the proposal acceptable, and in particular:
- a. Section 4 shows the Planning Statement has become out of date because MBU is no longer compatible with sixth carbon budget and net zero (but even if valid the growth envisaged by MBU has been largely met by Stansted, Southampton and Leeds).
 - b. Section 5 showed the Environmental Statement was remiss in that Surface access, ground activities, and Domestic Aviation have been included in the UK carbon target since 2008, and since 2018, this target has been net zero by 2050. There are new intermediate targets and since 2020 and the UK NDC, this has been a 68% reduction by 2030. Proposed mitigations are limited energy efficiency improvements to airport buildings and promotion of the use of public transport for airport employees and passengers and other measures to achieve net zero for these activities are needed.

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- c. In the light of Government decisions on 6CB, sections 4 and 5 show the Planning Statement and Environmental Statement have become out of date. The inclusion of international aviation in the UK target of net zero from the 6th carbon budget onwards is meaningful, and other measures to achieve net zero for international aviation are needed (and will need close collaboration between airlines and airport). Consideration needs to be given to both emissions in the sixth carbon budget period 2033-37 (now that aviation is included), as well as longer term emissions to 2050, given that most technology options are likely only to make limited contributions to carbon emissions reductions before the mid-2030s. One option is to delay expansion, and link it to lower emissions aircraft.

63. In conclusion:

- a. There are grounds to ask for further environmental information under Regulation 25 of the EIA regulations to address the issues identified in this analysis.
- b. Further government policy can be expected in June on measures to deliver net zero aviation, including whether there is a need to constrain or prioritise airport capacity. A regulation 25 request may be needed against new policy.
- c. If the proposal is consented section 7 showed the need for conditions to make the application acceptable, ie a commitment to delivering Government policy on net zero aviation locally. This could include some combination of emissions reductions and offsets or extractions to achieve net zero carbon emissions. It should cover scope 1, 2 and 3 emissions (ie including aircraft emissions). The airport is a partner in delivering low carbon aviation and needs to work with airlines to deliver net zero.



Ricardo
Energy & Environment

The Gemini Building
Fermi Avenue
Harwell
Didcot
Oxfordshire
OX11 0QR
United Kingdom

t: +44 (0)1235 753000
e: enquiry@ricardo.com

ee.ricardo.com