

TRANSPORT FOR LONDON

LUTON AIRPORT EXPANSION DEVELOPMENT CONSENT ORDER WRITTEN REPRESENTATION

22 AUGUST 2023

I. Executive Summary

- I.1 The Mayor of London is greatly concerned about the environmental impacts associated with this development, particularly regarding carbon – because of the significant increase in aircraft movements and road traffic generated. These issues have not fundamentally been addressed and, as such, the Mayor is unable to support the proposed development.
- I.2 Underpinned by a 52% increase in aircraft movements, the Applicant's own estimate is that the construction and operation of the proposed development will result in an increase of 1 MtCO₂e, which it states will require 0.774% of the UK's carbon budget. This also includes an extra 1.4 million non-sustainable trips to and from the airport every year as a result of the proposed development, according to the Applicant – a 56% increase over the Do Minimum scenario. In the face of the step change in rail access in particular, the Applicant is nevertheless committing to a majority of surface access trips by non-sustainable modes – 55% for passengers and 60% for staff.
- I.3 We note the novel approach proposed in the 'Green Controlled Growth' (GCG) framework that seeks to make sure growth takes place within environmental limits. However, this framework is only as good as the thresholds it applies. The Applicant's approach appears to be to identify the core forecast, add some headroom (in the form of a 'reasonable worst case scenario') and then use that as the GCG limit value. This is a wholly inadequate approach which fails to ensure that the environmental and surface access impacts of the scheme are addressed. The scope of the GCG framework with regards to carbon (greenhouse gases) is such that it applies to just 17% of carbon emissions arising from the proposed development. The GCG limit values for surface access must ensure no increase in highway trips while the GCG framework for noise only makes sense if it targets people exposed rather than area exposed (as is currently proposed).

2. Introduction

- 2.1 This Written Representation is submitted by Transport for London (TfL) on behalf of the Mayor of London in relation to the Development Consent Order (DCO) application pertaining to the London Luton Airport Expansion project. The Mayor of London recognises the economic and connectivity benefits that airports bring to London – but also that the environmental and health impacts of aviation must be fully acknowledged and addressed.
- 2.2 Luton Airport may lie beyond London's boundaries, but it is an integral part of the London airport system, with a significant proportion of passengers travelling to, from or through London. As such, a holistic pan-London approach is required. The Mayor and TfL have an interest in this application with regard to its wider environmental implications, as well as impacts specifically within the London area in terms of surface access and emissions.

3. Carbon

- 3.1 The climate emergency requires significant and co-ordinated effort if greenhouse gas emissions are to be drastically reduced to keep global warming under the proposed 1.5°C or 2°C limits. Aviation constitutes a substantial and growing proportion of UK carbon emissions and the sector needs to redouble its efforts if it is to contribute to achieving binding climate change targets. In this context, it is deeply concerning that the proposed development is forecast to enable a 52%ⁱ increase in total aircraft movements by 2043 based on the core planning case compared to the without development case. The Applicant fails to set out how this could be compatible with UK climate change commitments.
- 3.2 The Applicant's own estimates are that construction and operation of the proposed development (including aircraft movements) will result in an increase of around 1 MtCO₂eⁱⁱ – which it states will require 0.774%ⁱⁱⁱ of the UK's carbon budget for 2033-2037. This is a significant proportion to be claimed by a single development and it is not demonstrated how this is consistent with the UK achieving its climate change obligations.
- 3.3 The Applicant commits to achieving net zero in terms of its ground operations by 2040, but this must be set against the much larger emissions increase from aircraft operations in the air that result from the proposed development and for which no commitment is given.
- 3.4 The Applicant's reliance on the uptake in the use of sustainable aviation fuel (SAF) also raises questions as to the credibility of its assumptions. It has assumed the accelerated pathway from the draft national sustainable aviation fuels strategy, whereby SAF would constitute 10% of all aviation fuel by 2030, with an average emissions reduction of 67%^{iv}. However, SAF development is in its early stages, and many of the technologies with the greatest potential for emissions reduction are yet to be developed and are thus unproven. As such, it is a significant risk that the Applicant's assumptions are overstating the carbon reduction assumed from SAF. In any case, the Applicant needs to demonstrate a SAF strategy, beyond provision of the supply infrastructure, including the concrete steps it will take and the commitments it will make to increase uptake.
- 3.5 It is a glaring omission of the GCG framework that it does not include aircraft movements even though the Applicant estimates that such emissions constitute 83.4%^v of total greenhouse gas emissions of the proposed development. The Applicant relies on the UK ETS and CORSIA schemes to address aircraft emissions, though both focus on offsetting rather than reducing emissions and are not without challenge. In any case, they do not absolve the Applicant from responsibility for ensuring the proposed development can address all of its carbon impacts.

- 3.6 The limit values of the GCG framework for the 17%^{vi} of carbon emissions which are in scope also raises concerns. These are based on the Applicant's core forecast for emissions, with headroom added to reflect a 'reasonable worst case scenario' and no indication that it has taken into account the impacts of carbon emissions and what level would be compatible with UK climate change commitments. It affords the Applicant almost unimpeded growth and as such leaves it essentially dependent on action from other carbon emitters if UK carbon targets are to be met.
- 3.7 It is also a concern that the GCG framework does not require the Applicant to make all reasonable efforts to tackle Scope 3 emissions, instead permitting it to rely on offsetting – particularly with regard to surface access. According to the Applicant's data, surface access emissions with the proposed development are over 30 times as large as emissions from (ground) airport operations in 2043^{vii}. The Applicant claims surface access emissions are largely outside its control. But it has substantial levers at its disposal to encourage sustainable mode shift – including varying parking and drop-off charges and DART fares – and offsetting reduces the incentive to seriously tackle these emissions.

4. Surface Access

- 4.1 Securing sustainable mode shift must be a key priority for the proposed development, not least to reduce the carbon and air pollution emissions – the latter including both tailpipe emissions as well as fine particulate matter generated by brake and tyre wear. Additionally, increased highway trips contribute to worsening congestion which exacerbates emissions.
- 4.2 The total lack of ambition in tackling surface access trips is of deep concern. The proposed limits sought by the Applicant in the latter phases of the scheme – targeting 45%^{viii} on sustainable modes by 2039 – are only around 7%^{ix} higher than current levels. The Airport has benefited from transformative improvements in its rail access proposition in recent months. The launch of the Direct Air-Rail Transit (DART) connection between the terminal and the Airport Parkway rail station makes it the last London airport to be directly accessible by rail. Together with the increase in East Midlands Railway frequency – now branded the 'Luton Airport Express' – and the opening of the Elizabeth Line providing onward connections from Thameslink services at Farringdon, this marks a step-change in the airport's rail access proposition. These will help to deliver a substantial uplift in rail travel to and from the airport in the base case – so any development proposal should be seeking to substantially exceed the base case rail mode share.
- 4.3 The aspirations for staff journeys likewise lack ambition, with a target of 40%^x by sustainable modes in the end phase, compared to around 31% pre-pandemic. It is also notable that the Applicant's definition includes car sharing, as well as factoring in working from home. Given the proximity of the town of Luton to the airport, the Applicant could commit to measures designed specifically to increase the proportion of staff travelling to work by walking (currently 6%^{xi}) and cycling (currently 2%^{xii}), in addition to taking concrete steps to encourage public transport use.
- 4.4 The net result is that, under the Applicant's proposals, the majority of surface access trips will be by non-sustainable modes – with 55%^{xiii} for passengers and 60%^{xiv} for staff in the final phase. The Applicant forecasts that the proposed development will result in 1.4 million additional kilometres every year by non-sustainable modes – a 56% increase compared to the Do Minimum scenario^{xv}. It is proposing a 52%^{xvi} increase in passenger parking capacity to support this increase in car trips. There is no justification for any increase in vehicle trips, not least given the currently available and potential public transport access that could be provided and such an approach is completely at odds with the Applicant's environmental obligations.

- 4.5 The Applicant must set out a credible plan for driving sustainable mode shift, underpinned by committed measures. Rail has a key part to play but this should also include the instigation of new bus and coach services in corridors where rail is a less competitive alternative, including those London suburbs not easily accessible from the Midland Main Line. The Applicant should detail how it will use charges for parking and drop-off to reduce car demand in favour of sustainable modes – and be mindful of the potential cost advantage of cars for larger groups travelling together. The monies raised should be hypothecated to fund sustainable surface access enhancements.
- 4.6 Clarification is also sought about the modelling of capacity on rail services – primarily East Midlands Railway and Thameslink – but also onward connections to the Elizabeth Line. The analysis undertaken relies on post-pandemic background demand and an assumption that it would increase by 3% a year^{xvii}. This leads to assumptions about available capacity that could prove very optimistic if rail demand continues to recover to pre-pandemic levels. In the absence of modelling of rail flows having been undertaken, the Applicant has drawn conclusions based on average line loadings across the peak period, without consideration of the impact of the additional passengers on individual sections of the line and on individual train loadings and interchange flows. It also does not appear to have taken account of luggage in calculating crowding, which it notes is an issue for trains departing St Pancras during the evening peak. The result of these issues is that the rail modelling is far from robust.
- 4.7 Notwithstanding these misgivings about the paucity of its surface access strategy and assessment, the Applicant again relies on the GCG framework to resolve any impacts. But again, the framework falls short, based as it is on the core forecast with extra headroom, rather than seeking to actively drive mode shift. In every phase of the GCG framework, the majority of passenger and staff trips continue to be by non-sustainable modes. The limits must be set to ensure no increase in highway trips compared to today – and yet the limits designed by the Applicant would allow for a substantial increase in trips by non-sustainable modes and the increased emissions that would result.

5. Air quality

- 5.1 Air pollution is an important consideration associated with both the aircraft movements and surface access trips of the proposed development. The severe health impacts of air pollution have been brought into sharp focus in recent years and the Applicant must demonstrate how it is addressing this, including from aircraft themselves, in the vicinity of the airport, as well as surface access to and from the airport.
- 5.2 The Applicant's assessment is largely limited to the Luton area. However, TfL is concerned that the Applicant has not sought to understand what the potential air pollution impacts are beyond that, and in particular within the Greater London area. London remains a key origin/destination for Luton airport passengers and the weakness of the Applicant's approach to sustainable surface access (set out in the section above) raises concerns of increased highway flows with a detrimental effect on air quality – particularly on roads already close to or above legal limits.
- 5.3 As well as needing to provide a more complete assessment of air quality impacts, it is essential that the Applicant goes much further in committing to measures that will reduce car trips to and from the airport.
- 5.4 It should also be noted that whilst the Applicant has committed to ensuring air quality remains below the UK legal limits, this is unlikely to address the health impacts. Limits put forward by the World Health Organisation (WHO) are more credible in tackling these – for example, the UK legal limit for PM_{2.5} is four times that of the WHO recommended

limit. An increasing number of studies are highlighting the damaging impacts of such particulate matter on public health.

- 5.5 Limits for air quality as laid out in the GCG should be further tightened, currently based on a core forecast with additional headroom. An increase in sustainable surface access targets would in turn reduce the number of cars travelling to and from Luton, improving air quality.

6. Noise

- 6.1 Though the populations affected are generally outside London, we would expect the Applicant to fully assess and address the noise impacts of the proposed development. There is no escaping the increased noise exposure for local communities as a result of the significant proposed increase in flights. It is important that the benefits of new technology – notably new, quieter aircraft – are shared with local communities and the assessment rightly focuses on the comparison with the future ‘Do Minimum’ rather than current operations.
- 6.2 Assessment of a suite of noise metrics to better understand the impacts is critical and we welcome the Applicant’s efforts in this regard. It is also worth noting the World Health Organization (WHO) Europe guidelines which reflect the latest scientific evidence. For aircraft noise, these recommend 45 dB L_{den} for average noise exposure and 40 dB L_{night} for average night noise exposure as the limits above which there are adverse health effects.
- 6.3 Given the greatest noise impacts of the proposed development appear to relate to the night-time period – and given the particularly negative health impacts associated with sleep disturbance from aircraft noise – the Applicant needs, in particular, to set out its commitment to limit night-time movements.
- 6.4 Air noise insulation is a part of the proposed mitigation strategy; the Applicant needs to consider whether the proposed thresholds are sufficient to include all those experiencing substantial noise exposure – and whether residents will be able to fund their share of insulation when only eligible for a contribution from the Applicant.
- 6.5 The GCG framework is again relied on to manage the noise impacts, but it is flawed. It is puzzling that it is focused on the area exposed, regardless of whether anyone lives there^{xviii}. If the limit values are to address the impact on the public health of local communities, then it must target the number of people exposed. An additional target could also ensure that the frequency of noise events above a certain threshold is captured.
- 6.6 Again, the GCG limit value has been based on the core forecast, with additional headroom, rather than a level which would ensure key health and quality of life outcomes. One result of the forecast-driven approach to noise limits is that the GCG framework supports an increase in noise beyond 2039^{xix}. Rather than seeking to reflect uncertainty about the continuing introduction of quieter ‘New-Gen’ aircraft, the GCG framework should be used to incentivise and drive that change. Anything less renders the framework meaningless.

7. Green Controlled Growth framework

- 7.1 The Applicant has devised the Green Controlled Growth (GCG) framework as the cornerstone of its application. It is a novel mechanism for seeking to ensure that each phase of expansion can only proceed so long as environmental conditions are met.
- 7.2 The mechanism can only be effective if underpinned by ambitious limits which meaningfully address the environmental impacts. When the limits are not sufficiently

challenging, it renders this framework ineffective. The basis for the limits needs to be fully evidenced and sufficiently stringent that additional environmental impacts can be avoided.

- 7.3 As it stands, the limits set out for carbon, noise, air pollution and highway trips are completely lacking in ambition, based on the core forecast with additional headroom provided in the form of a 'reasonable worst-case scenario'^{xx}. Such an approach is not designed to offer any environmental gain. The GCG limits should be driving environmental improvements, not providing a cushion for the proposed development to pollute greater than forecast.
- 7.4 There are specific, critical flaws in the way that the GCG framework has been designed that fundamentally undermine its ability to address the environmental impacts. These include the total exclusion of aircraft emissions from the GCG framework despite constituting over 80%^{xxi} of the proposed development's emissions. Noise limit values should be based on people, not square metres, exposed and there is no justification for allowing for noise to increase beyond 2039^{xxii}. The GCG framework should not be targeting that the majority of surface access trips will continue to be made by non-sustainable modes^{xxiii}. Rather, there should be a clear target of no increase in the absolute number of car trips.
- 7.5 The use in the GCG framework of offsetting to address Scope 3 emissions – and surface access trips in particular – raises concerns. If the GCG framework is designed to set limits for the environmental impacts of the scheme, it should not allow offsetting to reduce the incentives for the Applicant to use the levers at its disposal to drive sustainable mode shift. This is all the more important given that the surface access emissions are over 30 times greater than those from airport ground operations^{xxiv}.
- 7.6 There is also an issue that some of the GCG phases result in very large differences in thresholds at the start of each new phase – notably for greenhouse gas emissions^{xxv}. This blunts the GCG framework as a tool as it would only be towards the end of each phase would there be pressure to meet GCG limits. For the duration of that phase, there could be several years of near uninhibited growth, given these limits are based around the reasonable worst case. This issue could be addressed by intermediate milestones or trajectories with associated limits within each currently proposed phase. This would help avoid the scenario where environmental impacts are not being addressed during the phase where the GCG framework is unable to keep them in check.
- 7.7 A robust, well-designed GCG framework could ensure the Applicant is incentivised to proactively take effective steps utilising the various levers at its disposal, to address the key environmental impacts of the proposed development.

8. Conclusion

- 8.1 Transport for London requests that the Examining Authority considers the points raised in this representation and investigates these during the DCO examination process.
- 8.2 The Applicant has not satisfactorily demonstrated that the environmental and surface access impacts can be addressed. It relies heavily on the GCG mechanism but, for the reasons set out in this representation, this does not provide the assurance that these impacts will be addressed by the project.

ENDNOTES

Please note that all page numbers listed (in brackets) are for the page as per pdf viewer, not the page number printed on the document.

ⁱ TR02000I-000830-7.04 Need Case, Table 6.9 (p146)

ⁱⁱ PEIR-Non-technical-Summary-Rev-I, I2.3.2 (p35)

ⁱⁱⁱ Ibid

^{iv} TR02000I-000667-5.0I Environmental Statement Chapter I2 Greenhouse Gases, Table I2.II (p50)

^v TR02000I-0007I6-5.02 Environmental Statement Appendix I2.I Outline Greenhouse Gas Action Plan, 4.I.I (p9)

^{vi} Ibid

^{vii} TR02000I-000667-5.0I Environmental Statement Chapter I2 Greenhouse Gases, Tables I2.I9 & I2.20 (p65-66)

^{viii} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.8 (p94)

^{ix} TR02000I-0008I9-7.02 Transport Assessment – Part 4 of 4 (Chapters II-I6), Table II.4 (pII)

^x TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.8 (p94)

^{xi} TR02000I-0008I7-7.02 Transport Assessment – Part 2 of 4 (Chapters 5-8), Table 6.4 (p3I)

^{xii} Ibid

^{xiii} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.8 (p94)

^{xiv} Ibid

^{xv} TR02000I-0007I7-5.02 Environmental Statement Appendix I2.2 GHG Methodology and Data, Tables 2.I4 & 2.I5 (pI4-I5)

^{xvi} TR02000I-0008I6-7.02 Transport Assessment – Part I of 4 (Chapters I-4), table ES.I (p7)

^{xvii} TR02000I-0008I9-7.02 Transport Assessment – Part 4 of 4 (Chapters II-I6), II.3.I (pII)

^{xviii} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.I (p63)

^{xix} ibid

^{xx} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, 3.I.7 (p53)

^{xxi} TR02000I-0007I6-5.02 Environmental Statement Appendix I2.I Outline Greenhouse Gas Action Plan, 4.I.I (p9)

^{xxii} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.I (p63)

^{xxiii} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.8 (p94)

^{xxiv} TR02000I-000667-5.0I Environmental Statement Chapter I2 Greenhouse Gases, Tables I2.I9 & I2.20 (p65-66)

^{xxv} TR02000I-000833-7.07 Green Controlled Growth Explanatory Note, Table 3.7 (p87)