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Environmental Audit Committee
House of Commons
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Dear Mr Irranca-Davies

Thank you for the opportunity to give evidence to the Environmental Audit Committee on the Airports Commission's recommendation at the hearing on 14 October and I trust you found our input of use. Following the hearing, I am writing to take up your invitation to provide you with further comment, specifically to elaborate on or clarify some of the points raised. I refer to the relevant question numbers from the transcript of the hearing in each section below.

Concerning air quality, it is perhaps worth noting (Q42) that certainly the legal advice we have received is clear that the 'last link approach' which the Airports Commission has employed for determining legal compliance is contrary to the European Air Quality Directive.

Moreover, it is important to recognise that the draft Defra Action Plan, published on 12 September after the Commission's Final Report, has key implications for the Airports Commission approach. The Commission assessed the impacts of a third runway at Heathrow in a future world where there is still significant non-compliance of air quality limit values – and it did not seek in any way through its mitigation package to meet these limits, nor sought to demonstrate that it could reduce the air quality impacts back to the Do Minimum level.

The draft Defra Action Plan has the effect of bringing forward compliance by around a decade and the predicted picture is that the Heathrow area (without expansion) would be compliant. There exists no assessment of the impacts of expansion under this scenario, nor of the required mitigation to ensure that air quality does not deteriorate further. The new Defra Action Plan presents a situation whereby a third runway may indeed risk moving us from compliance to non-compliance. This is a key test for any national infrastructure project. Our view is that, as a minimum, the assessment must be updated in order for the Government to make a decision that does not impact the health of Londoners for years to come.

With regard to surface access, we would also like to clarify the £15-20bn figure, lest there is any confusion about its composition (Q53). This is an estimate of the likely cost of the surface access infrastructure required by an expansion of Heathrow airport. That is not to say that there won't be other benefits accruing to non-airport passengers. Nor are we suggesting that all these costs be automatically borne by the airport operator. But it does need to be recognised that this scale of surface access intervention will be required if the airport is to offer the fast, comfortable, reliable journeys that passengers expect, to maintain the attractiveness of the airport, to achieve a sustainable mode share for passengers and staff which also helps address the air quality challenge – all without a detrimental impact on non-airport traffic.

Once one has factored in committed (even if not necessarily fully funded) schemes such as Western Rail Access and Smart running on the M4 into the baseline, there remains a capacity gap which in many cases affects both airport and non-airport demand. However, it is highly unwise to assume, as the Commission has effectively done, that further schemes will simply materialise in the light of growing background demand. If there are non-committed schemes that are required to make a three-runway Heathrow work, they need to be identified and their costs factored in – to ensure a reasonable degree of certainty that they will be committed to and delivered in conjunction with a third runway. If the £15-20bn investment in surface access is not forthcoming, there is a real risk that, following expansion, there will be severe impacts on both airport and non-airport traffic, increasing crowding and congestion, with a degraded journey experience for all and exacerbating the air quality problem.

You also raised the question (Q56) of road user charging to achieve the transformational mode shift required. We thought it might be helpful to draw your attention to the views of the Airports Commission's own consultants on this matter. In the "Surface Access: Demand Management Study" published by the Commission in July 2015, its consultants make clear that if Heathrow Airport Limited's objective of no increase in vehicles over 2013 levels (not including demand from catalytic economic activity around the airport following expansion) is to be reached, a £20 charge will need to be levied on all airport passenger journeys by car/taxi. This additionally assumes a range of demand measures could be deployed to reduce employee car trips by 20%. But if employees were exempt from any charge and employee car demand was not reduced, the consultants state that the charge for passengers would need to be £40. Moreover, the consultants also point out that one could expect a wider area scheme (beyond the airport boundary) to be more effective in capturing non-airport traffic. This would include the demand from catalytic economic activity around the airport that would result from Heathrow expansion. These options would face particular logistical, legal, economic and political challenges. In terms of political acceptability, any charge impacting non-airport trips could expect to meet substantial resistance; it is also worth noting the widespread criticism that has greeted the £1-3 airport passenger drop-off charges adopted by several major UK airports in recent years, a fraction of what is being proposed here.

These charging levels highlight the scale of the challenge if road traffic is to be managed – and if an expanded Heathrow is to have any chance of addressing its air quality impacts. Nonetheless, as we confirmed at the hearing, this might be necessary to make expansion work but is certainly not sufficient – significant public transport investment to carry those switching from car/taxi would still be needed if any charging regime is to be effective.

With regard to noise, an issue we touched upon (Q64) but which is perhaps worth elaborating, is the assumed use of new navigation technologies by Heathrow Airport Limited and the Airports Commission to disperse flightpaths. This is probably the most significant factor in the claimed reduction in people experiencing significant noise, but what this also entails is many people exposed to noise for the first time. The Commission chose not to publish the figure for the higher carbon traded scenarios, but its best case (carbon capped) scenario is that over 150,000 people will be newly exposed to significant aircraft noise by a three-runway Heathrow. One scenario the Commission offers indicates over 300,000 people could be newly exposed by an expanded Heathrow.

This is important not only for the consequences it will have on the health and well-being of those local communities exposed to significant noise for the first time, but also because of how this sits with Government policy, as set out in the in the Aviation Policy Framework (March 2013):

“Consistent with its overall policy to limit and where possible reduce the number of people adversely affected by aircraft noise, the Government believes that, in most circumstances, it is desirable to concentrate aircraft along the fewest possible number of specified routes in the vicinity of airports and that these routes should avoid densely populated areas as far as possible...However, in certain circumstances, such as where there is intensive use of certain routes, and following engagement with local communities, it may be appropriate to explore options for respite which share noise between communities on an equitable basis, provided this does not lead to significant numbers of people newly affected by noise.”[3.31, 3.32]

The Commission data makes clear that significant numbers of people will be newly affected by noise (and indeed there has been no engagement with local communities on this) and as such, the approach taken by the Commission is wholly inconsistent with Government policy – nor can it credibly be treated as respite. If one were to model the noise exposure based on more conservative assumptions, closer to today’s operations, one would reach a figure of a million people, as per the modelling undertaken for us by the CAA.

It is perhaps also worth putting in perspective the extent to which a more optimistic assumptions set could actually mitigate the noise impacts (Q67). Notwithstanding the serious concerns we and others have raised, Heathrow Airport Limited and the Airports Commission have employed a range of assumptions at the optimistic end of the scale

with regards to technology and operational procedures – as well as the radical recasting of flightpaths. But even in their (carbon traded) scenario with the lowest noise impacts – 516,700 exposed at 55dB L_{den} in 2050 – an expanded Heathrow would still expose more people to noise than its five main European rivals combined today (the latter based on today's technology and operational procedures). To put it another way, that's 60% more people than all those exposed by noise from every other UK airport combined, again, at today's levels. Even if the Airports Commission were justified in claiming their lower noise impact figures, this would be no cause for celebration amongst local communities nor a great boon for public health.


If full and fair consideration is to be given to the environmental impacts of Heathrow expansion (Q71) – and an informed decision is to be taken – it must be underpinned by a robust assessment. The Airports Commission's analysis falls short in several regards. As a minimum, we would expect the following tests and assumptions to be utilised:

- **Surface access**
The road and rail networks should be modelled at full runway utilisation and up to 2040, including appropriate background demand growth. The recently revised GLA background growth data – including substantially higher employment forecasts for London – should be used. Sensitivities should be run to capture less positive assumptions with regards to staffing efficiencies, proportion of staff working each day and the proportion of inter-lining passengers. Both freight and catalytic demand should be properly incorporated into the modelling. The baseline should only include committed schemes or those with a strong likelihood to be funded within the timescales. It should not be assumed that strategic roads forecast to be above capacity in the future base – but which additionally see a notable increase in traffic as a result of expansion – are out of scope.
- **Air quality**
More robust surface access data should be used to underpin the air quality modelling. The detail of the methodology used should be reviewed, including the model verification and adjustment, the distribution of receptors, and the exclusion of concentrations in proximity to new roads, from new and existing car parks, as well as the impact that the wake vortices from runways have on dispersion at nearby tunnel portals. The assessment needs to be updated following publication of the draft Defra Action Plan and will subsequently need to take account of any changes in the final published plan, recognising the marked shift in the baseline.
- **Noise**
A full suite of results should be published, for both carbon traded and carbon capped, including total affected and those newly affected, and with data for a

Do Minimum based on comparable assumptions. Additional modelling should be undertaken based on a more conservative assumptions set which is more in line with today's operations, in particular assuming slower uptake of noise-reducing technologies and not relying on dispersal of flightpaths. If scenarios with dispersal of flightpaths are to be used, then an appropriate suite of metrics should be employed, including Lden and LAeq at thresholds lower than 55dB and 57dB respectively.

Thank you again for the opportunity to present the evidence we have gleaned from our analysis to date. We remain at your disposal if we can be of any further assistance in aiding your understanding of the environmental issues and implications of the Airports Commission recommendation.

Yours sincerely



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