

The Mayor of London's response to the Airports Commission consultation on shortlisted options

Carbon

Supplementary Note 08

February 2015

Key findings

- The approach to the Carbon assessment is considered to be relatively robust. However, a notable gap is the assessment of carbon emissions associated with arrival and departure routes.
- The proposal with the most substantial carbon impact is Heathrow NWR option, closely followed by Heathrow ENR option. It is clear that Gatwick option results in the least substantial carbon impact.
- The Commission's classification of carbon impact as 'adverse' in all three cases does not allow for the fact that the Gatwick option clearly has the least adverse impact of the three proposals.

Key recommendations for further work

- While discussed, mitigation measures are not currently quantified or 'assessed'. More work on this prior to making a recommendation is advised.

A: Key observations

- 1. The shortlisted scheme with the most substantial carbon impact is the Heathrow northwest runway (NWR) option**
 - 1.1. The Airports Commission have identified a forecast change in carbon emissions in a Do Minimum and Do Something scenario, for each of the three shortlisted options. The results are presented as a monetised value (central, high and low).
 - 1.2. Based on the carbon capped scenario, the proposal with the most substantial carbon impact is Heathrow NWR option, closely followed by Heathrow ENR option. It is clear that the Gatwick option results in the least substantial carbon impact.

- 2. The Commission's classification of all schemes as "adverse" prevents meaningful differentiation between the schemes**
 - 2.1. The assessment is generally reasonable. However, the Commission's classification of carbon impact as 'adverse' in all three cases does overlook the fact that Gatwick is clearly the least adverse impact of the three proposals.

- 3. The Commission's assessment fails to evaluate all elements influencing the carbon impacts**
 - 3.1. The Commission does not assess changes in carbon emissions as a result of arrival/departure route changes from an additional runway, although the route changes were made in the assessment of noise impacts. Emissions from construction are based on the predicted value of the works. The wider consultation review has highlighted that there may be issues with this estimate if the full costs have not been captured in the long term.
 - 3.2. The Commission's assessment does not make reference to the carbon impacts of previously considered options. A qualitative statement addressing the benefits of new build low carbon infrastructure versus retrofitting technology would have been useful to ascertain what changes would need to be made with each option in order to reduce operational carbon emissions.

B: Does the Commission’s assessment constitute a robust approach?

To be robust, the option appraisal must entail a complete assessment. It must also be consistent across all the options, with the Commission’s previous analysis, with best practice in the appraisal of large infrastructure projects – including principles of HM Treasury Green Book – as well being aligned with the Commission’s own Appraisal Framework. The table below sets out a summary of the extent to which the Commission’s assessment meets these requirements.

Table 1: Does the Airports Commission’s assessment constitute a robust approach

Criteria	Met?	Comments/examples
Approach to Assessment		
Aligned with Airports Commission Appraisal Framework?	Partial	Majority of proposed assessment has been carried out, however some areas are incomplete, for example non carbon impacts do not appear to have been discussed or quantified. Departure and arrival route changes have not been assessed.
Consistent approach to assessment: <ul style="list-style-type: none"> Between options? With previously considered options? With best practice/Green Book? 	Yes	Carbon capped scenario is tested for all
Assessment complete (evidence gaps addressed, suitable geographic/temporal scope)?	Partial	Some areas of scope missing as identified within the compliance with Appraisal Framework The Business Case gives the additional mass emissions and monetary valuations for passenger surface access, airport operations energy & fuel use, construction of airport facilities & surface access infrastructure but omits ATMs. It is stated that monetisation of increased ATMs is not included “because it is assumed that aviation is part of an aviation emissions trading scheme, meaning that there is no need to monetise carbon emissions in such scenarios as the scheme does not increase overall emissions this is in set out in WebTAG Unit A3.” This statement is not entirely correct; the ATM component is the most substantial in terms of additional CO2 and is reported as such in the Sustainability Assessment.
Assumptions		
When multiple	Partial	Carbon capped scenario assessed for each option.

<p>scenario/assumption sets used, has the most appropriate been identified – or worst case scenario tested?</p>		<p>Assumptions around surface access and construction value are questionable.</p> <p>It is noted that the 2008 surface access mode share figures for Heathrow are shown to be slightly different in the Heathrow NWR and Heathrow ENR assessments; given they are both for the same surface access network at Heathrow (Heathrow Hub's specific proposals having been dropped by the Commission), the figures should be the same.</p>
<p>Analysis: impacts and conclusions</p>		
<p>Risks fully stated and impact reflected in conclusions?</p>	<p>No</p>	<p>The difference in the scale of impact when comparing options is not adequately reflected within the overall findings</p>
<p>Understanding of net/cumulative impacts?</p>	<p>Partial</p>	<p>Carbon emissions for total UK aviation and surface access emissions are presented</p>