

APP/L2250/V/10/2131934 & APP/L2250/V/10/2131936

SECTION 77 TOWN AND COUNTRY PLANNING ACT 1990 – REFERENCE OF APPLICATIONS TO THE SECRETARY OF STATE FOR COMMUNITIES AND LOCAL GOVERNMENT

TOWN AND COUNTRY PLANNING (INQUIRIES PROCEDURE) (ENGLAND) RULES 2000

**PROOF OF EVIDENCE OF STUART COVENTRY MA
CARBON MANAGEMENT AND CLIMATE CHANGE
MATTERS**

In respect of:

Planning Application Reference: Y06/1647/SH (New Terminal Building)

Planning Application Reference: Y06/1648/SH (Runway Extension)

relating to land at London Ashford Airport, Lydd, Romney Marsh, Kent, TN29 9QL



December 2010

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1. Qualifications and Experience

- 1.1. I am Stuart Coventry, director of Planning and Environment at Scott Wilson, now part of URS and trading as URS Scott Wilson.
- 1.2. I have undertaken environmental studies for many airports in the UK and overseas over the last 20 years, including Birmingham Airport and Changi Airport, Singapore. I have also directed many commissions for major organisations seeking to understand and reduce their carbon footprint, including government departments.
- 1.3. My proof of evidence covers carbon emissions and impacts on climate change for the Applications and is submitted on behalf of London Ashford Airport Limited (the "Applicant").
- 1.4. I was appointed to provide evidence on carbon management and climate change in relation to the proposed developments in November 2010. I was not previously involved in the preparation of the environmental statement but I have reviewed it and the supplementary documents submitted in support of the Applications.

2. Scope of Evidence

- 2.1. My evidence addresses carbon emissions and climate change. The call in letter from the Secretary of State makes no specific reference to climate change and carbon management issues. My evidence has been prepared therefore in the light of matters primarily raised by Rule 6 parties, though the Airport has paid particular attention to these matters in the preparation and promotion of the Applications.
- 2.2. In my evidence I use the term "carbon" as shorthand to include both carbon dioxide and other gasses that may have a greenhouse gas effect.
- 2.3. The environmental statements submitted in 2006 in support of the applications addressed climate change issues that drew upon information and data current at that time. This proof of evidence is based on information, data and assumptions which have been updated since that time.
- 2.4. In section 3, I present the policy and national guidance relating to climate change and aviation.
- 2.5. In section 4, I present the results of my analysis carried out in December 2010 of the carbon footprint of the Airport at present, covering the scope listed above, and also relating to the Airport operating at its 500,000 passenger capacity with both runway extension and new terminal building pursuant to the Applications. In section 4, I also assess the potential energy demand of the new terminal building and review how this meets policy requirements. In doing so I have used the design and design assumptions presented in the Design and Access Statement (CD 1.30 (LAA)). I then assess the proposed approach to carbon management by the Airport.
- 2.6. Finally, I provide comment on the statements on carbon and climate change made by Rule 6 parties to date. If there are any further detailed or additional comments raised by Rule 6 Parties I will deal with these in rebuttal evidence as required.
- 2.7. In preparing my evidence I have drawn upon data about the airport used by Louise Congdon in her evidence on socio-economic matters in respect of the air transport movements (LAA/4/a) for the 'with development' higher growth scenario and the "no development/fallback" case. I have also applied her data on potential journey time savings to calculate the carbon footprint of passenger travel to and from the Airport.

3. Policy Context

- 3.1. In this section I consider the main elements of national and local policy and guidance that may be relevant to carbon management and climate change matters in connection with the Applications
- 3.2. The **2003 Aviation White Paper** (The Future of Air Transport, December 2003) (CD 5.24) set out the Government's aviation policy until 2030. It expected to see a near trebling in the number of passengers using UK airports. To cater for this, it argued that the country would require up to 5 new runways, plus "full use" made of the existing runways at virtually all the airports in the country. As illustrated by the *Hillingdon High Court* ruling (January 2009)¹ in relation to a third runway at Heathrow, it is considered that there is a need to take account of more recent policy in the areas of climate change and economics in addition to the Aviation White Paper.
- 3.3. The **Climate Change Act** (CD 5.14) sets the UK target for emissions of greenhouse gases overall. This has been set at an 80% reduction of 1990 levels by 2050 (i.e. to 160 million tonnes CO₂ equivalent, (mtCO₂e)) including approximately 40 million mtCO₂e (ie 25%) from international aviation and shipping. Progress thus far has resulted in UK emissions in 2009 having over 20% reduction from 1990 levels.
- 3.4. Section 30 of the Climate Change Act relates to 'Emissions from international aviation or international shipping'. It states that: "Emissions of greenhouse gases from international aviation or international shipping do not count as emissions from sources in the United Kingdom for the purposes of this Part, except as provided by regulations made by the Secretary of State..." (Section 30(1))
- 3.5. The Act further stated that: "The Secretary of State must, before expiry of the period ending with 31st December 2012, make provision by regulations as to the circumstances in which, and the extent to which, emissions from international aviation or international shipping are to be regarded for the purposes of this Part as emissions from sources in the United Kingdom..." (Section 30(3a))
- 3.6. Section 31 of the Act: 'Procedure for regulations under section 30', then goes on to say that: "Before making regulations under section 30, the Secretary of State must obtain, and take into account, the advice of the Committee on Climate Change." (Section 31(1)),
- 3.7. The Committee on Climate Change ("**CCC**") is an independent body established under the Climate Change Act (2008). It advises the UK Government on setting and meeting carbon

¹ *R (London Borough of Hillingdon and others) and the Secretary of State for Transport (SoS) [2010] EWHC 626 (Admin)*

budgets and on preparing for the impacts of climate change.

- 3.8. The CCC advised Government in 2008 (Building a low-carbon economy) on carbon budgets for the three periods 2008-2012, 2013-2017 and 2018-2022 and recommended interim budgets based on a reduction of 34% relative to 1990 by 2020 (rising to 42% reduction by 2020 when there is progress on a deal to reduce global emissions). The budgets were enacted in secondary legislation in May 2009.
- 3.9. The CCC also advised that “International aviation and shipping should be part of the UK’s climate strategy, but should not be explicitly included in the initial carbon budgets given unresolved issues related to allocating emissions at the national level.”
- 3.10. In-line with this advice, the previous Labour Government made a commitment to reduce gross UK aviation emissions, including from international flights, in 2050 back to 2005 levels (House of Commons debate, January 2009), but excluded emissions from international aviation from the first set of legislated carbon budgets (May 2009).
- 3.11. In December 2009, the CCC reported on options for meeting the 2050 commitment in “Meeting the UK aviation target” (CD 12.16). The report sets out advice on the implications of the aviation target. It analysed the potential to reduce the carbon intensity of air travel through technological improvements in airframe and engine design, through operational efficiency improvements and through the use of sustainable bio fuels. It advised that the more rapidly carbon intensity can be reduced, the greater the extent to which aviation demand can increase while still meeting the emissions target. The report also explored the likely impact of a carbon price on demand and the potential reduction from modal shift to high-speed rail and the use of videoconferencing.
- 3.12. The report found that there is potential for aviation demand to increase while still meeting the Government’s target (i.e. 2005 levels in 2050) – in the most likely scenario, a 60% increase in demand would be allowed. It concluded that “Higher increases might be possible if technological progress and the development of sustainable bio fuels were more rapid than currently envisaged, but it is not prudent to base current policy on the assumption that speculative future technological breakthroughs are achieved”.
- 3.13. The report went on to state that, if left unrestricted, demand could grow around 115% between now and 2050, even given the likelihood of modal shift and an increase in the price of carbon (as aviation will be included within the European Union Emissions Trading Scheme (ETS) in 2012, which means that airlines flying in and into Europe will need to cap their emissions at defined levels or pay a levy per tonne of carbon if they exceed their defined level). The report therefore concluded that constraints on demand growth (in addition to mechanisms to ensure the price of carbon) would be required to meet the 2050 target.
- 3.14. The report also concluded that “The allowable overall level of demand increase could be

compatible with a range of different approaches to capacity expansion at specific airports, and it is not the role of the Committee to address the other factors which should determine the balance of demand between different airports. The policies pursued, should however be consistent with a total demand increase limited to at most 60% by 2050”.

- 3.15. In June 2010, the CCC also published **Meeting Carbon Budgets, June 2010**. The findings of this report add to the policy context in two important ways; firstly, it recognises that: “The new Government has announced plans to cancel runway expansion at Heathrow and Stansted and is considering whether to replace air passenger duty with a per-plane tax; further analysis is required to establish whether these approaches could limit demand growth to 60%.”
- 3.16. By inference we see that, if further studies/reports were to identify that no or limited expansion at Heathrow and Stansted would reduce demand growth, then we see that there could be more leeway for other airports to increase their ATMs.
- 3.17. Secondly, it states that, whereas previously there were issues relating to measurement/monitoring methodology that made it difficult to include aviation emissions within UK Carbon Budgets, these issues have now been resolved and, as such, the inclusion of aviation emissions in carbon budgets is now appropriate. The document commits the CCC to considering this issue in more detail in conjunction with possible revisions to the first three budgets, either later in 2010 or in 2011. The aim is to provide advice to Government prior to the 2012 deadline set by the Climate Change Act.
- 3.18. On 25th October 2010, Philip Hammond, the Transport Minister in the Coalition Government, made his first major speech on aviation. The speech did not confirm the previous Labour government's commitment to reduce aviation's CO₂ emissions to 2005 levels by 2050, and announced that there would be a new aviation policy document for consultation in 2012 and focused on the decarbonisation of air travel and encouraging investment in low-carbon technologies and fuels.
- 3.19. The CCC published its fourth carbon budget report “Reducing emissions through the 2020s” in December 2010. This recommends the carbon budget for the period 2023-2027 (without counting international aviation and shipping (IAS)) and sets a target for 2030 at 310 Mt CO₂e, a reduction of nearly 40% on 1990 baseline. The report reiterates that budgets should be revised to take account of IAS emissions, once targets for those have been set. The report also reiterates the 2005 by 2050 commitment.

Planning Policy

- 3.20. PPS1 Supplement, Planning and Climate Change (CD 6.2 (SDC)) sets out how planning should contribute to reducing emissions and stabilising climate change and take into account the unavoidable consequences. It refers to the CO₂ targets in the Climate Change Bill

which, at 60% below 1990 by 2050, are lower than the 80% target in the Climate Change Act. In general, it advises that regional planning bodies and planning authorities should prepare and manage the delivery of spatial strategies that make a full contribution to delivery of the Government's Climate Change Programme. These would include measures such as seeking the highest viable energy efficiency (in development) and reduction in emissions and delivery of development that reduces the need to travel, especially by car (paragraph 9). It also directs that "new development should be planned to make good use of opportunities for de-centralised and renewable or low carbon energy (paragraph 10).

- 3.21. The extant Shepway District Council local plan (CD 7.5 (SDC)) was adopted before PPS1 Supplement: Planning and Climate Change and therefore does not take account of its policies.
- 3.22. I have also examined both the South East Plan and the Shepway District Council Core Strategy Preferred Options (CD 7.6).
- 3.23. In the emerging Shepway District Council Core Strategy Preferred Options Document (CD 7.6), Policy SG3 relates to sustainable construction. It requires that, as a minimum, all new build developments of more than 10 dwellings or 1000sq/m of non-residential floor space will be required to provide a minimum of 10% of their energy from decentralised and renewable or low carbon sources, unless, having regard to the type of development involved and its design, this is not feasible or viable. This is a repeat of the requirement made by the South East Plan (CD 7.1) policy NRM11. The Policy states that Shepway expects: "greater use of decentralised and renewable or low-carbon energy in new development, including sustainable wood fuels from the Kent Downs and bio fuels from Romney Marsh."
- 3.24. The Policy states that there is a need to: "achieve - and where appropriate surpass - targets for reducing carbon emissions ... from domestic and non-domestic buildings."
- 3.25. The Policy states that "it is suggested that all major (1000 sq/m) new non residential buildings and residential conversions meet with the following:
- 2011 - VERY GOOD rating
 - 2014 - VERY GOOD rating, including an EXCELLENT rating for energy and water
 - 2016 - EXCELLENT rating.
- 3.26. The assessment of the Terminal Building application against these Policy requirements is pertinent, but these building-related policy requirements are not relevant to the Runway Extension application.

4. Carbon Footprint

4.1. In this section I look at the current carbon footprint of the airport and review how this may change as a result of the development from both the current position and from the assumed 'fallback' position (as set out in the evidence of Louise Congdon). For each case I have used data on the aircraft movement numbers and mix as presented in the evidence of Louise Congdon. I have also assumed present day technologies and fuel efficiencies and thus have not factored in the benefits of the improved fuel efficiencies that would be in place by the time that LAA would reach its new capacity.

4.2. There is an emerging body of practice on how organisations and businesses should calculate and publish their carbon footprints. One such method of defining this for airports (representing current good practice in my opinion) is the "Guidance Manual; Airport Greenhouse Gas Emissions Management" Airports Council International (ACI), November 2009. I have used this methodology in my calculations.

4.3. The ACI methodology subdivides carbon emissions into three main groups.

- Scope 1: Airport owned or controlled sources
- Scope 2: Emissions from grid power usage
- Scope 3: Other airport related Activities and sources
 - Scope 3a: Emissions from other airport sources that an airport operator can influence
 - Scope 3b: Emissions from other airport sources that an airport operator cannot reasonably influence

4.4. The components of each include the following:

Scope 1

- On site Power plant
- Airport vehicles
- Airport maintenance
- Ground support equipment
- Emergency Power
- On site waste and water management

Scope 2

- Power requirements from grid for on-site use, especially terminal buildings

Scope 3a

- Landside and airside airport vehicles
- Aircraft operations on the ground
- Tenants' ground support equipment (if any)

Scope 3b

- Aircraft in Landing Take Off (LTO), other than taxiing
- Power purchased by tenants
- Passenger and staff travel to Airport

- 4.5. In using this approach, I have not included emissions from aircraft in flight, other than in the landing take off cycle. Although the ACI guidance includes these emissions (for departing aircraft only) in Scope 3, for more precision it would be necessary to know much more detail on aircraft routes than presently available to undertake that calculation. It is also becoming the practice for UK airports to report their carbon footprint without that contribution.
- 4.6. Annual Scope 1 emissions are currently of the order of 140 tonnes. In the fallback/no development case the footprint is not likely to increase significantly, and in the higher growth case is likely to rise to approaching 400 tonnes. The principal reason for this is the fuel usage of the airport vehicles needed to service airport operations to support 500,000 passengers, and the use of the proposed biomass boiler and other heating sources. Scope 1 would contribute about 2% of the total airport emissions in the 'with development' case, using current assumptions on vehicle types. The use of more fuel efficient vehicles in future as the airport increases its activities would significantly reduce that footprint and this is a measure which the airport is focused on by way of mitigation.
- 4.7. Annual Scope 2 emissions would be likely to rise from a present day figure of about 340 tonnes (which would also be likely to be similar in the fallback/no development case) to about 415 tonnes once the new terminal building is operating. This relatively small increase takes account of the energy efficiency measures and the renewable energy features that would form part of the terminal building and which I address below.
- 4.8. Scope 3 emissions form the major part of the carbon footprint as they include, in particular, aircraft emissions (which an airport operator cannot reasonably influence significantly). Not unsurprisingly, there will be significant growth in the overall Scope 3 emissions in the development scenario but that would also be the case with the fallback/no development scenario, as explained further below.
- 4.9. Currently annual Scope 3 emissions are about 1,700 tonnes CO₂e. About 15% of this is accounted for by staff travel and 85% by aircraft movements. These movements are

predominantly general aviation and about 15% of emissions in this category are from business jets.

- 4.10. In the fallback/no development case, emissions from general aviation, and business jets in particular, would grow considerably. Based on current emission factors we would anticipate an annual increase in the carbon footprint from these sources of approximately 6,000 tonnes. There would also be an expected increase in emissions related to staff travel and airport activities of up to 500 tonnes.
- 4.11. In the 'with development case' annual emissions would increase further through the introduction of passenger aircraft and the associated passenger transport movements and general airport activities to support the expected level of throughput. The former would account for about 6,000 tonnes and the latter about 7,500 tonnes, assuming current engine technologies. In this scenario, emissions from aircraft in the Landing Take Off (LTO) cycle would then account for about half of the overall airport footprint, and passenger transport to and from the airport about one third.
- 4.12. It is key to note that the emissions from the LTO cycle of an aircraft, especially a passenger jet, is likely to be greater if that aircraft were to fly from larger and more congested airports, such as Gatwick, due to increased holding times (both in the air and on stand) and longer taxiing distances. LAA has an advantage in that respect.
- 4.13. The 7,500 tonnes CO₂e per annum footprint for passenger transport at full capacity takes into account origin/destination information provided by Louise Congdon and modal split from the evidence of Keith Sowerby. It assumes 48% of movements by passengers driving themselves, 42% by taxi or drop off and 10% by public transport. If these passengers were all to fly from London Gatwick Airport instead of LAA, then it is calculated that the annual carbon footprint for the passenger vehicle movements would be nearly 6,000 tonnes greater at about 13,000 tonnes per annum (using the same assumptions for modal split). This is simply because LAA is significantly closer to home than is Gatwick for many of the passengers.
- 4.14. In other words, by flying from LAA, then there would be a saving in transport carbon emissions compared to flying from Gatwick. Moreover, that saving would be nearly twice the carbon footprint of running LAA if emissions from aircraft movements are excluded (i.e. scopes 1 and 2) and roughly equivalent to the increased LTO cycle emissions. In these respects, the development of LAA is entirely consistent with the carbon footprint reduction policy of PPS1 Supplement (CD 6.2).
- 4.15. In order to minimise the carbon footprint as far as possible, LAA has also sought to develop the proposals in accordance with planning policy and good practice in airport carbon management. To address these points I look first at the terminal building design and operation.

Terminal Building

- 4.16. The sustainability measures to be incorporated into the design of the terminal building and its likely BREEAM rating (under BREEAM 2006) are described in the Design and Access Statement (2005) (CD 1.30 LAA), with further information provided to Shepway District Council on the sustainability measures to be incorporated into the terminal building in October 2007 (CD 1.23k). The 2007 information stated, inter alia:
- 4.17. *“Natural ventilation has been ruled out from the terminal design as it is deemed counteractive to other sensitive issues, mainly being acoustics, insulation and control of the building environment. As it conflicts with other issues, it has been dismissed from the terminal design.”*
- 4.18. *“Heating, Ventilating and Air Conditioning (HVAC) and the plant necessary to support it, is to be included in the terminal design. The proposed system for most of the terminal building will be via a displacement system within the high volume areas. This will provide the most energy efficient system for delivering comfort conditions in the space. The offices and retail spaces will be served with fresh air from central, variable volume air handling plant along with chilled water and low temperature hot water connections also served from pumped variable volume circuits”.*
- 4.19. *“Utilisation of thermal mass effects shall be encouraged within the terminal building wherever permissible within the structural engineering design. This would be better utilised within the retail and office spaces. A co-ordinated approach will be taken to try and utilise the thermal mass of the building to reject heat throughout the un-occupied periods. The mass will be able to absorb heat gains during the occupied period, and then with using lower air volumes and electricity tariffs will be able to use the ventilation system to purge the spaces at night. This will assist with levelling out the temperature fluctuations within the space during the occupied period and will also allow for lesser capacity cooling systems to be utilised.”*
- 4.20. *“The primary heating medium will be produced from a combination of biomass boilers and oil fired boilers. The inclusion of ground source heat pumps in the terminal design is proposed, however this cannot be confirmed until the ground conditions have been proved to be favourable. Favourable conditions consist of suitable aquifers below ground at a depth which is economically reachable, also, the presence of surface water that can be used as a heat sink/source for a heat pump”.*
- 4.21. *“The design of the mechanical and electrical services systems within the terminal building will be Building Regulations Part L compliant. This will ensure compliance with the five criteria. Full dynamic simulation of the proposed designs will be undertaken using BRE (Building Research Establishment) approved software. The purpose of this simulation is to ensure that the buildings carbon footprint is minimised and the necessary reduction in carbon emissions is achieved to comply with Part L2A. The use of natural daylight has been*

incorporated into the terminal design in order to maximise available daylight where it is expedient to do, e.g. in public areas by incorporating transparent glazing panels in the wall and roof. Excessive heat gain in summer and heat loss in winter will have to be controlled, and such methods include, shading through external brise soleil (louvers)".

- 4.22. The Design and Access Statement (CD 1.30 LAA) shows that the building incorporates a biomass boiler responsible for 50% of the heating load, which significantly reduces the CO2 emissions for heating purposes.
- 4.23. The Design and Access Statement (DAS) also identifies in Figures 4.1 to 4.3 (page 44) that the lighting energy is responsible for the majority of the power requirements. At the planning stage, the lighting calculations are normally not carried out in detail, and therefore the assumptions/inputs in the energy model presented in the DAS are general. This is likely to result in an overstatement of the energy requirements. Notwithstanding this overstatement, the DAS shows that the terminal building would in fact achieve a 12% improvement over Part L2A of the Building Regulations (Section 6.4) and therefore is more than compliant with the building regulations. These factors assist the building to achieve a BREEAM score at the top end of "Very Good" (page 42) and almost achieving "Excellent".
- 4.24. I have referred in Section 3 above to the policies in the South East Plan and the emerging LDD Core Strategy to the requirement for 10% of energy required to be provided from decentralised and renewable or low carbon sources. The 10% requirements relate to the total energy requirement of the building, after inclusion of any measures to reduce the energy demand.
- 4.25. The renewable/low carbon measures that are proposed for the Terminal Building comprise the biomass boiler and the potential ground source heat pump. These measures would make a valuable contribution to meeting the 10% target. Given that it is not intended that the terminal building would be built immediately upon the grant of planning permission and that the technology and economics of energy efficiency measures and renewable energy solutions may well change and need to be kept under review, I consider it appropriate for a condition to be attached to the Terminal Building consent relating to the 10%. I am satisfied that the condition can currently be met, but the use of such a condition would ensure that any advances in technology could be incorporated into the design as necessary and appropriate in the future.
- 4.26. In addition, if it can be demonstrated that the building's carbon footprint can be reduced more cost-effectively by reducing the energy demand of the Terminal Building rather than by providing renewable/low carbon energy, then LAA should have the flexibility to implement the former in preference to the latter.

Proposed Mitigation and Control Mechanisms for Airport Operation

- 4.27. In March 2008 Shepway District Council requested further information on the Applications in

respect of the carbon emissions. In particular they noted that *“the council welcomes proposals for a carbon management plan but further information is required for both applications of CO2 emissions, relating this to potential mitigation and management”*. In response the Applicant submitted a Carbon Management Report (CD 1.34d). This report set out the approach to carbon management and included the following observations and commitments;

- *That LAA is fully committed to implementing carbon reduction projects as set out in the report*
- *That the pre assessment of the BREEAM rating for the terminal building showed that it would achieve VERY GOOD*
- *That LAA is determined to be at the forefront of carbon management techniques in relation to airport carbon emissions*
- *That a detailed carbon management plan would be prepared upon grant of planning permission and that the carbon management plan would be monitored and reviewed by LAA and SDC , thereby ensuring that LAA remains in line with, or exceeds, UK airport best practice as it emerges*

4.28. The report set out the five key areas for carbon management for LAA can use as a framework to manage its carbon footprint;

- Airport vehicles
- Surface access journeys
- Minimising energy use
- Waste management
- Aircraft operations

4.29. In each of these it set out a range of initiatives and actions for consideration.

4.30. The Carbon Management Plan also noted that: *“the Applicant will commit to minimising its own carbon footprint by establishing a carbon management plan which will include examining Airport buildings, ground operations, aircraft fleet, flight paths, and landing/take off operations. The Applicant will also become a signatory to the UK Sustainable Aviation Strategy. In terms of cleaner aircraft, aviation fuel tax and emissions trading, these are all initiatives which the Government is targeting primarily towards airline operators. The Applicant will review the environmental practices of airline operators wishing to use the developed facilities”*.

4.31. Furthermore, in the environmental statements for the runway extension (CD 1.17) and terminal building (CD 1.14), mitigation measures were outlined, inter alia, to reduce carbon emissions. For the runway extension, these are to be found in Section 15.9 and for the Terminal Building in paragraph 15.11.11. These, together with the Carbon Management

Plan show that the Airport Operators intend to employ good practice in the aviation sector to control their carbon footprint.

- 4.32. In my view this is a reasonable and appropriate approach, particularly for a small regional airport. However, in order to reflect current good practice, the CMP should be monitored and reviewed, as envisaged by the airport, in order that it continues to take into account emerging good practice for small regional airports. Good practice is described for example in the document produced by Sustainable Aviation “Aircraft on the Ground CO₂ Reduction Programme” (2010) (CD8.14) and Airports Council International’s (ACI) “Guidance Manual: Airport Greenhouse Gas Emissions Management. (2009) (CD8.15).

5. Response To Rule 6 Parties Comments

RSPB: Climate change and aviation policy

- 5.1. In this section, I present the comments on carbon and climate change made by Rule 6 Parties in their statements of case (in italic print) and my response to these points.
- 5.2. *The Government's aviation policy - Aviation Transport White Paper 2003 (ATWP) (which makes only passing mention of Lydd) and updating Progress Report 2006 - was examined this year in R (London Borough of Hillingdon and others) and the Secretary of State for Transport (SoS) [2010] EWHC 626 (Admin).*
- 5.3. *It was recognised in the judgment that since the Government's aviation policy was created important changes and developments such as the White Paper Planning for Sustainable Communities 2007 (which recognised the increasing importance of climate change in planning policy and the need for a more efficient procedure for national planning policy to be applied in "major projects" decisions), the Planning Act 2008, the Climate Change Act 2008 and climate change policy have occurred and it was not possible for the Secretary of State to continue to follow his pre - existing policy without consideration of all those changes. The Secretary of State, himself acknowledged that advice needed to be sought from the Climate Change Committee (CCC) when announcing the 2050 Target (15th January 2009).*
- 5.4. *The RSPB is deeply concerned that the Applications would be accompanied by a significant increase in CO2 emissions contributing to climate change. This increase would contradict national, regional and local policies on climate change and sustainable development.*
- 5.5. *The Applicant states (in the operational impacts mitigation strategy (in the revised updated schedule of mitigation measures)) that a carbon management plan will be implemented, which will examine airfield buildings, ground operations, aircraft fleet, flight paths and landing/take off operations. Whilst this is a worthwhile action, it is difficult to see how this will have a significant impact on reducing carbon emissions, if numbers of flights themselves are not reduced.*
- 5.6. Response: The general concerns of the RSPB in these respects are not well founded. As set out in my evidence above, implementation of the carbon management plan would have a significant effect on reducing carbon emissions at, and associated with, the Airport. The operation of the plan would be in line with good practice at UK airports of a similar size and will be kept under review pursuant to an envisaged condition. I have also explained how the advice of the CCC has been taken into account as to aviation policy and that it does not diminish the justification for the application for the reasons that I have explained.

- 5.7. *The RSPB is concerned that the Applicant is relying on the Government to address the impact of aviation on climate change. We recognise the Government's target to restore aviation emissions to 2005 levels by 2050, but unless and until there is a credible plan as to how this may be achieved further aviation expansion is not appropriate. The 80% emissions reduction target set out in the Climate Change Act 2008, and the more immediate carbon budgets agreed by Government until 2022, reflects the urgency and scale of the task to reduce greenhouse gas emissions. The CCC has issued advice to Government, stating that aviation emissions should be taken into account in the UK's strategy for meeting its long - term climate change goal (an 80% reduction in emissions by 2050)¹⁰. It is clear from its and others' analyses that it will be almost impossible to achieve this goal if aviation emissions are not constrained.*
- 5.8. Response: I have identified in Section 4 of my evidence the carbon emissions associated with LAA operations.
- 5.9. However, I have also shown that where emissions from aircraft movements are discounted then the carbon emissions saved through passengers using LAA rather than London Gatwick Airport (LGW) are greater than those created by the operation of LAA. This outcome is consistent with national, regional and local policy.
- 5.10. Even if there were to be some ATMs that were not a displacement from other airports, this can still comply with UK policy given that the Committee on Climate Change advice is that there can be an increase of 60% in ATM movements to 2050 while still meeting the CO₂ emission target. The additional ATMs at LAA would be a tiny fraction of this number since the proposed number of commercial ATMs (about 5,000) would be about 0.25% of the current number of ATMs in UK.
- 5.11. In addition, the carbon budgets agreed by Government to 2022 and proposed by the Committee on Climate Change to 2027 do not yet include an allowance for emissions from international aviation. The Committee advises that the budgets can be increased to account for aviation emissions and still be consistent with the target for 2050. Accordingly RSPB's objections on this basis are not justified.

CPRE Protect Kent

- 5.12. **2.6 Greenhouse gas emissions from additional flights, airport operation, traffic generation and ancillary activities.** *We will present evidence that the expansion of runway capacity at the Airport is not compatible with the Government's carbon emission target for aviation that the level in 2050 should be at or below 2005 levels. This is not compatible with expansion of the runway capacity for the south east, and recent policy decisions – in particular the decision to over-rule the third Heathrow runway – which point to an increasing recognition of the damaging environmental impacts of aviation.*
- 5.13. *While the applicants have outlined the methodology of a carbon management plan, we will*

argue that the applicants have not provided any estimate of a carbon budget for their expansion plans or a baseline of their current operations, which we understand they may be required to do as part of the Carbon Reduction Commitment (CRC) regulations.

- 5.14. CPRE's first contention is similar to that of RSPB and I have responded to it above. It is not well founded for the reasons that I have explained. As to the Carbon Management Plan I consider that this is appropriately left as a matter for condition, but I have anyway indicated in my evidence a carbon budget for the current operation and the proposed expansion.
- 5.15. As to the final point LAA would not fall under the obligations of the CRC regulations since the energy usage is likely to be substantially less than the threshold at which organisations need to register for CRC.

6. Conclusions

- 6.1. I have reviewed the position concerning carbon management and climate change associated with the proposed runway extension and terminal development at LAA. I have reviewed the acceptability of those proposals when considered against national and local planning policy guidance and good practice in carbon management at airports.
- 6.2. I believe that these matters can be considered at three levels:
- whether the principle of airport growth at LAA is consistent with meeting UK climate change policy;
 - whether the design of proposals meets local policy and good practice; and
 - whether their operation meets the same.
- 6.3. UK Climate Change policy is defined by the Climate Change Act 2008 and advised upon and reviewed by the Committee on Climate Change (CCC). The CCC have advised that the UK can meet its policy on reducing the carbon emissions by 2050 even allowing for a 60% or higher growth in air transport movements. This is based on the expectation of reduction in the carbon intensity of air travel through technological improvements in airframe and engine design, through operational efficiency improvements and through the use of sustainable biofuels.
- 6.4. Clearly the proposed growth at LAA (even if it all represents new growth) comprises only a tiny percentage, approximately one quarter of a percent, of the UK air transport movements and thus can be accommodated within the 60% growth, even more so if it represents displaced flights from other airports. Indeed, on the basis that passengers flying from LAA would otherwise use an alternative airport, I have calculated that there is an annual saving of between 5 and 8 tonnes through reduced passenger transport journeys by road, and that this is greater than the carbon footprint of the operation of the airport (other than aircraft emissions). This results in a carbon saving.
- 6.5. I have examined the carbon footprint and energy efficiency of the proposed Terminal Building. I have concluded that the proposals exceed current building regulations and represent a BREEAM Very Good (nearly Excellent) rating.
- 6.6. I have set out that the renewable/low carbon measures that are proposed for the Airport's ground operations will make a valuable contribution to meeting a 10% renewable energy target, even though such a target is not yet part of existing local policy. I am satisfied that the airport can meet a 10% target. Given the potential timeframe for construction of the terminal building and the likely progress in the technology and economics of energy efficiency

measures and renewable energy solutions, it is therefore appropriate for a condition to be attached to the Terminal Building permission such that appropriate measures are included to meet the policy standards pertaining at the time, subject to feasibility and viability. If it can be demonstrated that the building's carbon footprint can be reduced more cost-effectively by reducing the energy demand of the Terminal Building rather than by providing renewable/low carbon energy, then LAA should have the flexibility to do implement the former in preference to the latter.

- 6.7. The proposed carbon management plan represents in my view a reasonable and appropriate approach, particularly for a small regional airport. The CMP would be monitored and reviewed, as envisaged by the airport, pursuant to a planning condition.

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