LONDON ASHFORD AIRPORT (LYDD)

CARBON MANAGEMENT REPORT

AUGUST 2008

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In December 2006, London Ashford Airport (Lydd) ("LAA") submitted a planning application for a runway extension (reference Y06/1648/SH) and a planning application for a new terminal building (reference Y06/1647/SH) supported by an Environmental Statement. Following consultation that took place at the beginning of 2007, LAA submitted in October 2007 Supplementary Information to further support the two planning applications.

The Supplementary Information was consulted upon during Autumn/Winter 2007, with Shepway District Council ("SDC") requesting additional information in March 2008. The point in relation to sustainability is replicated below as follows:

Reference	***Information Request***
6. CO2 emissions	*The council welcomes proposals for a carbon management plan, but further information is required for both applications of CO^2 emissions, relating this to potential mitigation and management*.

1 RESPONSE TO COMMENT 6

In response to this request, the airport has worked on key outline principles for a carbon management plan and these are set out in this report.

Airports themselves contribute a relatively small proportion of the emissions from the aviation sector as a whole. However, airports can take steps to implement carbon reduction projects relatively quickly, whilst airlines' efficiency improvements through airframe and engine design and air navigation practices take longer to deliver.

Being seen to take a lead and support the work being carried out by the other parts of the industry delivers the message that there is a recognition that carbon reduction measures need to be delivered. In this respect, LAA is fully committed to implementing carbon reduction projects as set out in this report. As an example, the BREEAM bespoke pre-assessment of LAA has shown that LAA has the potential to achieve a VERY GOOD assessment result which is impressive for an airport development. Please refer to Section 9 of the Revised Design and Access Statement submitted with the 2008 Supplementary Information.

There are five key areas of potential management options which LAA can use as a framework to manage its carbon footprint:

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

Key options for techniques are set out below which it is proposed should form key building blocks of a more detailed carbon management plan which would be prepared pursuant to an appropriate planning mechanism upon the grant of planning permission. It is anticipated that this carbon management plan would be monitored and reviewed by both LAA and SDC, thereby ensuring that LAA remains in line, or exceeds, UK airport best practice as it emerges. The carbon management plan would also be closely linked to LAA's travel plan and accordingly the two plans should be monitored and progressed together.

In addition, the carbon management plan There is no standard framework for a scope, method and reporting of carbon emissions for airport operations at present, but as such frameworks are developed in the coming few years, this will assist the airport in

dealing with direct emissions (such as emissions which occur from sources that are owned or controlled by the airport (for example, from combustion in owned or controlled boilers and vehicles)) and approaches which seek to indirect emissions from sources not owned by the airport but which are central to its operation (such as electricity consumption, passenger access journeys and ground based aircraft movements). LAA is determined to be at the forefront of carbon management techniques in relation to airport carbon emissions and it sets out below a series of flow chart options identified as potentially being suitable for managing carbon emissions from airport vehicles, surface access journeys, energy use and aircraft operations. These options are designed to form the building blocks of the detailed carbon management which the airport would be committed to as part of an appropriate planning permission mechanism:

1.	**AIRPORT VEHICLES**
Engagement	Monitoring and reporting Controls and codes of practice Airport vehicle charter
Number of vehicles	Review the size of the fleet Limits on number of vehicles allowed to operate
Green Driving	Enhanced driver training to include green driving techniques Review and introduction of the most appropriate speed limits Introduction of switch off policy Spot checks carried out between CAP 642 tests Enforcement and penalties
Bio-diesel	Introduction of bio-diesel (noting the trade-off with NOx emissions)
Green vehicles	Investment in new vehicle technology - hybrid, electric or even hydrogen powered vehicles. Age limits on airside fleet All diesel engines to meet the latest Euro standard CO_2 emissions considered during procurement
Offset	Consider offset under CDM mechanism
2.	**SURFACE ACCESS JOURNEYS**
Engagement	Understand travel patterns of employees and passengers Set targets Publish public transport timetables, available fares, information on public footpath and cycle routes Develop personal journey plans and influence choice Ensure that ever employee has a personal target to reduce CO_2 emissions from their journey to and from work Establish Service Partner Travel Forum Develop Ground Transport Plan Develop an award scheme Link promotion to national schemes

Cycling	Promote the use of any existing cycle network or investigate opportunities of working with the local authorities to establish cycle routes Provide changing/showering facilities for cyclists
↓	
Car Sharing	Promote car sharing using existing car sharing web portals
↓	
	Allocate prime car parking spaces to car sharers Offer subsidies for the purchase or hire of cycles and cycle maintenance.
Driving	Incentivise employees to encourage use of public transport, e.g. allocating car parking spaces on the CO_2 emissions of the vehicle Offer priority queues for eco-taxis (hybrid or bio-diesel vehicles) Use of flexible working to reduce vehicle journeys
↓	
Subsidies	Negotiate discounted tickets (rail and bus) for journeys to and from employees home Develop demand responsive bus services with travel partners Investigate opportunities for developing bus services to match with shift starting times Consider interest free loans for monthly and annual travel tickets
↓	
Infrastructure	Install high quality onsite bus and coach facilities

3.	**ENERGY USE**
Engagement	Set company, departmental and personal targets Liaise with service partners Audit and publish savings on a monthly basis Implement suggestion schemes Signposting of work undertaken Award scheme for energy reduction/efficiency suggestions (eg. paying household electricity bill for 1 year)
↓	
Energy reduction	Review of equipment requirements Use of natural lighting Radiant floor cooling with chilled water and heating Rainwater harvesting Grey water systems Air displacement systems Seasonal shut down of systems Seasonal adjustment of terminal temperature set points Office equipment rationalisation Shut down policy Hibernation modes CO2 reductions considered along side financial aspects when making capital investment decisions
↓	

Energy Efficiency	Intelligent building management systems Lighting controls Efficient hand driers Optimisation of heating, ventilation and air conditioning LED lighting within terminals and on taxiways Variable speed motors Examine availability of any district heating systems
Renewable sources	Consider sustainable biomass production on non-operational land owned by the airport and installation of biomass boilers Consider potential use of solar panels and photovoltaics panels Purchase renewable sources
Offset	Consider offset under CDM mechanism

4. WASTE MANAGEMENT

Engagement	Establish targets with internal departments and service partners for specific activities around the airport to reduce emissions from waste generation Offer training on equipment and raise awareness of carbon emissions from waste management Monitor, report, provide feedback on progress towards meeting targets Develop incentives Ensure costs are transparent and that the polluter pays principle is used in setting costs Award scheme for reduce/reuse/recycle suggestions or initiatives Undertake annual Duty of Care audit Promote waste management schemes alongside national campaigns
Reduce	Support airline initiatives to reduce weight carried on board aircraft Ensure packaging materials are returned to suppliers Ensure each internal department has some waste reduction scheme in place
Reuse	Encourage reuse of equipment and materials by sharing either between departments or service partners Donate usable equipment to local charities Reuse arising from construction activities
Recycle	Install recycling facilities across the site including public areas ensuring that signage is common with national schemes Reduce transport costs by ensuring containers are only transported when full Install compaction machines for cans and balers for cardboard and plastics to reduce volume and therefore transport costs and emissions Monitor to ensure that standards of on site segregation are maintained Consider off site sorting to reduce number of transport movements

Recovery	Incineration for energy recovery
↓	Processing to refuse derived fuel Composting Consider partnership opportunities with external providers
Disposal	Aim towards zero landfill target
↓	
Offset	Consider offset under CDM mechanism

5. AIRCRAFT OPERATIONS

Engagement	With air service navigation providers, airlines, individual pilots Set targets Ask operators to publish emissions on a regular basis. Consider award scheme for best the best and most improved airline operation
↓	
Reduce time of engine operation	Single engine taxiing (if operationally viable) Mandatory to use fixed electrical ground power coupled with operational restriction on the use of ground power units and auxiliary power units Consider towing aircraft to starter grids Ensure that the taxiway infrastructure is as efficient as possible
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During LTO cycle	Reduce holding times Development of codes of practice for continuous descent approaches Restrictions on the use of reverse thrust

2 CONCLUSION

It is considered that the above principles represent a responsible approach to minimising carbon emissions from the proposed development and the airport is committed to developing these as part of a detailed carbon management plan in conjunction with the local authority and industry best practice.

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