

CITY AIRPORT DEVELOPMENT PROGRAMME
(CADP1) S73 APPLICATION

ENVIRONMENTAL STATEMENT

VOLUME 2: APPENDICES

DECEMBER 2022



P e l l F r i s c h m a n n

City Airport Development
Programme (CADP1) S73
Application

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Appendix 11.3 Outline Carbon and
Climate Change Action Plan

December 2022

Appendix 11.3: Outline Carbon and Climate Change Action Plan LCY S73 Application

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Experts in air quality
management & assessment

1 Objective

- 11.1.1 This document describes the Outline Carbon and Climate Change Action Plan (CCCAP) that has been produced in support of the LCY's S73 application to grow the airport to 9mppa by 2031. It builds on the airport's existing Sustainability Roadmap and provides further detail on actions that the airport will commit to in the event that planning permission is granted.
- 11.1.2 At this stage the CCCAP is in outline and describes:
- LCY's climate change targets;
 - the scope of activities that are managed by the CCCAP;
 - outline actions; and
 - the timeframe, governance and monitoring arrangements of the CCCAP.
- 11.1.3 It is proposed that a **Detailed CCCAP** will be produced by LCY within 6 months of the grant of planning permission. This will set out a detailed programme of actions by 2031 together with Key Performance Indicators (KPIs) so that delivery can be tracked, reported and independently validated.
- 11.1.4 Longer term actions beyond 2031 will also be included in the detailed CCCAP.

2 Targets

- 11.2.1 LCY has set the following headline targets for the CCCAP:
- To reduce the emissions the airport controls (scope 1 and 2) to net zero¹ by 2030 and to zero by 2040;
 - To work with airlines to reduce flight emissions to net zero by 2050; and
 - For construction related emissions to achieve BREEAM 'Very Good' certification as a minimum.
- 11.2.2 The airport is also targeting 80% of all passenger journeys to be made by sustainable modes of transport by 2030 which will also reduce GHG emissions from passenger surface access travel.

¹ Net zero emissions requires LCY to minimise its emissions as far as possible before use of carbon removals and or offsets to counter balance any residual emissions remaining by 2030.

3 Scope and Activities covered by the CCCAP

11.3.1 The scope of the CCCAP covers both actions to **mitigate** climate change (through the management of GHG emissions) and actions to ensure **adaptation** to climate change. The scope of each is considered in the sections that follow.

Mitigation

11.3.2 The Greenhouse Gas Protocol² is widely recognised as the accepted basis for reporting of GHG emissions. The GHG Protocol's approach has been adopted by UK Government in its guidance for company reporting³ and by the Airport Carbon Accreditation Scheme⁴ (ACAS) operated by Airport Council International the international trade body representing world airports, of which LCY is a member.

11.3.3 The GHG protocol recommends that GHGs are reported under three separate scopes, known as:

- Scope 1: These include emissions from activities owned or controlled by LCY that release GHG emissions into the atmosphere. They are known as direct emissions and can be **controlled** by LCY.
- Scope 2: These include emissions released into the atmosphere associated with LCY's consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of LCY's activities. Whilst LCY does not directly emit these emissions it can **control** them through its energy management and purchasing decisions.
- Scope 3: Emissions that are associated with LCY but occur from sources which are not owned or controlled by the airport and are not classed as scope 2 emissions. LCY can **influence** these emissions but not control them.

11.3.4 The mitigation element of the CCCAP reports and manages GHG emissions based on these GHG scope definitions. It also differentiates between **operational** emissions that occur due to airport activities that continue on an annual basis, and **construction** activities that are linked to specific projects forming part of the proposed development.

Operational Emissions

11.3.5 Table 1 below sets out in detail the operational GHG generating activities that are reported and managed under the mitigation element of the CCCAP.

² Green House Gas Protocol, A Corporate Accounting and Reporting Standard, World resource Institute, Revised Edition

³ HM Government, Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, March 2019

⁴ See <https://www.airportcarbonaccreditation.org/>

Table 1: Scope of Operational GHG Emissions Covered by the CCCAP (Mitigation)

Scope	Degree of control	GHG Emissions Source	2019 CO ₂ e (T)	2019 Scope Totals (T CO ₂ e)	% of Total
Scope 1	Control	Natural gas consumption	281	1,008	0.32%
		Airside vehicles and plant	510		
		Fire training activity	1		
		Refrigerant loss	216		
Scope 2		LCY electricity consumption (grid connection)	2,321	2,321	0.74%
Scope 3	Influence	Tenant grid electricity consumption	245	310,250	98.94%
		LCY business travel	16		
		3rd party airside vehicles and plant	175		
		Waste Management	28		
		Staff Transport	1,336		
		Passenger Transport	18,157		
		Aircraft	290,294		
TOTAL				313,578	100.00%

Construction Emissions

- 11.3.6 There are also GHG emissions from construction that will be managed through the CCCAP. These occur due to construction related activities, processes and from GHG emissions embedded in construction materials. Unlike the GHG emissions described above, these emissions do not occur on a regular annual basis and are related to specific projects. These are estimated as 92 kt CO₂e. These emissions are scope 3.

Adaptation

- 11.3.7 The CCCAP also identifies and manages climate change related adaptation risks to LCY's infrastructure and operations as well as interdependency risks related to road and rail transport, telecommunications and utility provision.

4 Outline Action Plan

11.4.1 The outline action plan is presented below structured around the emissions LCY Controls and Influences across five key focus areas:

1. Net zero airport by 2030: relates to the Scope 1 and 2 GHG emissions on-site only, which LCY has direct control over.
2. Reducing emissions from vehicles: relates to the second largest source of Scope 3 GHG emissions at LCY (i.e., surface access emissions). LCY can only influence these emissions.
3. Reducing emissions from 3rd parties: relates to smaller emissions sources such as business travel, 3rd party vehicles and waste management. LCY can only influence these emissions.
4. Sustainable flights: relates to the largest source of Scope 3 GHG emissions at LCY (i.e., emissions from aircraft or flights). LCY can only influence these emissions.
5. Low carbon design and construction: This focus area includes emissions sources that are specifically associated with the infrastructure built at the airport. This focus area is unique in that it is considered separately as a one-off emission source at the time of construction.

11.4.2 The detailed CCCAP, to be published following planning approval, will include a trajectory to carbon net zero 2030 to indicate how and when LCY's Scope 1 and 2 emissions will be reduced.

11.4.3 LCY will influence emissions associated with the airport that do not fall under Scope 1 and 2 through its efforts with subcontractors, close partners and suppliers, including the airlines. These will be in line the UK's net zero 2050 target. The measures provided for these Scope 3 emissions are qualitatively described in this CCCAP, as they are influencing measures that are dependent on a range of third parties.

Emissions LCY Controls

Net Zero Airport by 2030

- Deliver the airport's Energy Strategy that includes investment in Renewables (PVs), LEDs, Microgrids, Demand management, Energy efficiency/BMS, and ASHP/hydrogen heat network;
- Continue to procure renewable electricity to meet all demand across the airport;
- Explore further solutions and partnership opportunities to increase use of renewable sources, including solar panels;
- Reduce emissions from fire training and refrigerants by adopting new technological solutions where financially viable;
- Continue to upgrade LCY's airside operational fleet to zero emissions technology;

- Offset any residual emissions through investment in high quality carbon offsets focussed on nature-based solutions under certified schemes;
- Support local offsetting projects where possible;
- Retain the highest level of performance (level 4+) under ACI Airport Carbon Accreditation; and
- Complete feasibility studies to establish steps to enable the airport to reduce Scope 1 and 2 emissions to zero by 2040.

Emissions LCY Influences

Reducing Emissions from Vehicles

11.4.4 The key way to manage GHG emissions from vehicle emissions is through the airport's Travel Plan which aims to ensure LCY is the best-connected airport in the UK with 80% of all passenger journeys to the airport to be made by sustainable transport modes by 2030. Key measures to reduce emissions from travel to the airport include:

- A Travel Plan to encourage the use of sustainable modes and discourage vehicle use by passengers and staff, which includes measures to encourage staff car sharing and pick up charges for passengers;
- Contribution towards enhancing local walking and cycle facilities;
- Increased facilities for secure cycle parking;
- Provision of an enhanced forecourt;
- Contributions towards enhancing DLR and bus services;
- Extending Hartmann Road eastwards to join the A117 Woolwich Manor Way (the Eastern Access) and associated changes to highway signage, including provision for segregated pedestrian and cycle routes;
- No additional car parking provision; and
- Contribution towards establishing a localised Controlled Parking Zone on roads.

Reducing emissions from 3rd parties:

- Remove the mileage allowance for staff using private cars for undertaking business travel where public transport, active travel and car share usage is possible;
- Require 3rd party operators to invest in low emissions vehicle technology where feasible when seeking permission to operate new vehicles at the airport;
- Deliver the airport's Energy strategy that includes investment in Renewables (PVs), LEDs, Microgrids, Demand management, Energy efficiency/BMS, and ASHP/hydrogen heat network;

- Continue to procure renewable electricity to meet all demand across the airport;
- Eliminate all avoidable single use plastics by 2025; and
- Be a zero-waste airport by 2030.
- To work with airport concessionaires to promote lower carbon alternative food and beverage options to passengers.

Sustainable flights

- Work with airlines to facilitate the first zero emissions flight from the airport within the next decade;
- Apply restrictions that permit only next generation aircraft to fly on Saturday afternoons thereby accelerating the take up of newer more fuel-efficient aircraft;
- Alongside airlines, aircraft manufacturers and fuel suppliers review opportunities for providing the necessary storage and refuelling facilities needed to increase the usage of SAFs by airlines, with an ambition to exceed the Government policy of 10% SAF use by 2030;
- Work with partners to adapt the Airport's infrastructure and operating environment to facilitate the development and roll-out of new generation aircraft, the use of SAF, and emerging technologies for Zero Emission Aircraft (ZEA);
- Continue to examine any near- and longer-term requirements resulting from increased use of ZEA aircraft at the airport to ensure ZEA can be accommodated in the airport masterplan. The illustrative masterplan therefore safeguards for future sustainable aviation infrastructure and shows the potential for moorings in the dock to facilitate delivery;
- Continue to support key electric flight initiatives across the aviation sector;
- Implement operational procedures to encourage single engine taxiing and reduced use of auxiliary power units (APUs);
- Examine and implement policies to reduce taxiing times and delays to aircraft on the ground;
- Continue to engage with Sustainable Aviation to drive long term policy for the sustainable growth of UK aviation; and
- Continue to track and monitor non-CO₂ effects.

Low Carbon Design and Construction

11.4.5 The key vehicle for meeting this commitment will be the implementation of the Proposed Development's Construction Environmental Management Plan (CEMP) which seeks to minimise energy use and GHG emissions. Example measures from the CEMP and more broadly include:

- To operate high efficiency HGVs that meet ULEZ compliance;

- To optimise use of high efficiency plant and building equipment;
- Ensure construction site connection to grid electricity (where feasible) to reduce use of mobile generation;
- Regular carbon emissions reporting to target outstanding emissions sources and continually improve performance;
- Ensure construction plant is switched off when not in use (no idling) and avoid waste to landfill wherever possible;
- Consideration of whole-life carbon in materials selection to reduce embodied carbon wherever possible;
- Optimise transport and logistics of materials brought to site; and
- Maximise procurement of materials/goods and services from local suppliers.

Adaptation

11.4.6 A climate change adaption plan will be produced as part of the detailed CCCAP. The plan will:

- Identify and prioritise climate change adaptation risks to LCY's infrastructure including risks due to key interdependencies. A risk-based approach will be used that draws on latest projections of UK climate change to identify key asset vulnerabilities and potential effects to LCY's operation;
- In response to the prioritised risks develop climate adaptation measures to protect existing assets ensuring this is reflected in LCY's asset management and operational plans and develop a climate adaptation standard for new assets at risk from future climate change; and
- Monitor and track climate change adaptation actions on annual basis.

5 Timeframe, Monitoring and Governance

11.5.1 The intention is to further develop this outline CCCAP into a detailed plan for publication within 6 months of grant of planning permission. The detailed plan will provide further detail on short (1 to 5 years), medium (5 to 10 years) and longer term (more than 10 years) actions, the likely emission reductions from actions, ownership and specify Key Performance Indicators (KPIs) to allow delivery of the actions to be tracked.

11.5.2 To monitor delivery an annual performance report will be produced and shared with LBN. This will report whether actions specified within the CCCAP are effective and conclude if they are complete, on track or behind schedule. For actions that are behind, the report will propose remedial actions to remedy performance.

- 11.5.3 An annual review will be convened between LCY and LBN to consider the annual performance report. The annual review will be an opportunity to agree any remedial actions and changes to the CCCAP that may be required, for example to reflect a change in UK climate change policy.
- 11.5.4 Following the annual review, the CCCAP performance report will be placed on LCY's website.