Response to questions raised by Thanet Green Party
October 2022

1. Why the date of 2035 has been chosen [for Manston's Carbon Net Zero target]?

As part of RSP's Redetermination Submission as requested by the Secretary of State (TR020002/RED2/SoSReq) for the Manston Airport DCO, RSP reiterated the commitment made during the examination to be a net zero airport within five years of opening (by 2030).

As a new airport, unburdened by old infrastructure and ground support equipment, Manston Airport is uniquely positioned to deliver a net zero carbon operation. The Jet Zero Strategy, published in July 2022, requires all airport operations in England to be zero emission by 2040, with the scope and implementation route to be defined following further consultation. RSP is committed to engaging with emerging guidance and policy and contributing to the transition towards a net zero economy.

2. How much greenhouse gas (GHG) carbon equivalents do you expect to emit from project commencement to 2035?

Emissions from Manston Airport were assessed in Chapter 16 of the ES (APP-034) submitted as part of the DCO Application. Table 16.14 of the Environmental Statement, appended to this document, provides a summary of total emissions. This assessment of effects of the Airport on the global climate considered both aviation and non-aviation sources of Greenhouse Gas (GHG) emissions. Construction and operation phases were considered for non-aviation sources. Embedded mitigation measures were incorporated into this assessment. Table 16.6 setting out the embedded mitigation measures is appended to this document.

Aviation emissions from Manston Airport are predicted to be 730.1 $KtCO_2$ per annum which is 1.9% of the total UK aviation carbon target of 37.5 $MtCO_2$ for 2050 (this 37.5 $MtCO_2$ target used in the Environmental Statement is based on the 'planning assumption' for international aviation allowed for in all carbon budgets up to and including the fifth carbon budget, the sixth carbon budget, legislated in June 2021, includes the UK's share of international aviation, rather than allowing for them by the use of a 'planning assumption'). As part of Chapter 16 of the ES (APP-034), further mitigations to reduce the carbon footprint of the Airport were discussed. It was proposed that a Carbon Minimisation Action Plan (CMAP), would be developed to reduce the GHG emissions associated with the Airport from the worst-case scenario provided in Table 16.14. The impact of this further mitigation on the total emissions from the Airport will be quantified as the CMAP is developed.

3. Carbon Minimisation Action Plan (in response to questions 3 to 6)

- **How do you plan to decarbonise fuel delivery, given that there is no fuel pipeline to Manston?**

- **To what extent are your net zero targets dependent on sustainable fuels, electric aircraft, carbon offsetting or carbon sequestration?**
- **How do you plan to make the following zero-emission: freight and staff transport to and from the airport, and aircraft movements?**
- **How would you counter the claim that your statement is greenwashing?**

Production of the CMAP is included as part of the Manston Airport DCO conditions 6 (construction phase) and 7 (operational phase). Specific measures addressing individual emissions sources (e.g. those mentioned in the questions from Thanet Green Party – freight transport to and from the Airport, staff transport to and from the Airport, aircraft movements) will be included in the CMAP. The CMAP will be developed in accordance with the latest guidance and policies relating to emissions from the aviation industry. It is anticipated that the CMAP will be developed in early 2023.

Chapter 16 of the ES, Table 16.15 (APP-034) commits to a number of specific measures to reduce CO_2 emissions that will be included in the CMAP. These can also be found within the Register of Environmental Actions and Commitments (REP11-008). Table 16.15 is appended to this document. The mitigation suggested in Table 16.15 are indicative of what could be included in the CMAP and are not considered an exhaustive list.

The CMAP will define the measures that will ensure the delivery of all commitments relating to carbon and will align with both detailed design and operation of the Airport, addressing all carbon emissions under the control of RSP. As highlighted in RSP's Redetermination Submission as requested by the Secretary of State (TR020002/RED2/SoSReq), a CMAP is considered to be the appropriate mechanism for RSP to plan, implement, measure and report on its actions. RSP remains confident that the approach adopted in the assessment and management of CO_2 emissions is robust and deliverable.

These answers draws on two key documents associated with the Manston Airport Development Consent Order (DCO) Application:

- Chapter 16 of the Environmental Statement (ES) (APP-034) submitted as part of the DCO Application; and
- RSP's Redetermination Submission as requested by the Secretary of State (TR020002/RED2/SoSReq).

Further details can be found in these documents.

Table 16.14 Total Emissions – ES Chapter 16 (APP-034)

Source	Year 2 emissions associated with the Proposed Development (kt CO2)	Year 20 emissions associated with the Proposed Development (kt CO2) – Worst-case
Flights / Aircraft engines	213.5	671.6
LTO cycle	13.9	58.5
Road traffic and transport	13.9	36.0
Airport operations energy use	9	9
Ground support equipment	0.4	1.8
Land use change	0	0
Offsetting	0	0
Embodied carbon	31.8	31.8
Sub-total aviation sources	221.8	730.1
Sub-total non-aviation sources	55.1	78.6
Total all sources	276.9	808.7

Table 16.6 Rationale for incorporation of environmental measures – ES Chapter 16 (APP-034)

Potential receptor	Projected changes and potential effects	Incorporated measure
Construction Phase Measures		
Global atmosphere	Potential GHG emissions from vehicles and plant during the construction phase	As part of the Construction Environmental Management Plan (CEMP) the contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development that have an added benefit of reduced GHG emissions. They include: • Avoiding the use of diesel or petrol-powered generators and use mains electricity or battery-powered equipment where practicable; • Ensuring all vehicles switch off engines when stationary - no idling vehicles; and • A construction logistics plan will be produced to manage the sustainable delivery of goods and materials. The details of the CEMP will influence the actual emissions savings involved, so these mitigation is not considered in the quantitative assessment of GHG emissions at the Proposed Development in this Chapter.
Global atmosphere	Changes in the character of traffic (such as increases in Heavy Goods Vehicles (HGVs)) as a result of proposed construction traffic.	A Construction Traffic Management Plan (CTMP) is to be agreed in consultation with KCC prior to construction works commencing. The CTMP includes a Construction Travel Plan, which includes the following mitigations: • Traffic routing strategy – ensuring vehicles access the site via the most appropriate route and avoid unnecessary conflict with sensitive areas; • Staff travel plan – will provide details of how staff will travel to the site by alternative modes in an effort to reduce single occupancy vehicles travelling to the site.

Potential receptor	Projected changes and potential effects	Incorporated measure
Operational Phase Measures		
Global atmosphere	Congestion on the local road network.	Agree and enforce a strict routeing plan for incoming and outgoing HGVs, avoiding, where possible, peak traffic flow hours in order to reduce congestion and queuing.
Global atmosphere	Potential GHG emissions from vehicles.	Agree and enforce delivery and dispatch schedules for HGVs that avoid, where possible, causing congestion on the local road network and excessive emissions to atmosphere. Also, enforce a "no unnecessary idling" policy for all vehicles on the development site.
Global atmosphere	Potential effects on GHG emissions as a result of emissions from the Landing and Take-Off (LTO) cycle.	Planning aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times. Airfield layout design to minimise times taxiing and holding. Use of Fixed Electrical Ground Power (FEGP) to minimise engine/auxiliary power unit use.
Global atmosphere	Potential effects on GHG emissions as a result of emissions from the cruise phase of aircraft	Bans on older, less efficient aircraft.
Global atmosphere	Potential effects on GHG emissions as a result of emissions from aircraft ground support equipment (GSE).	Largely electric GSE fleet. Diesel GSE largely bought new and meeting current emissions standards. Planning aircraft arrival and departure scheduling to avoid, where possible, over-long operation of liquid fossil-fuelled GSE.

Table 16. 15 Proposed GHG mitigations for incorporation into the Carbon Minimisation Action Plan – ES Chapter 16 (APP-034)

Source of GHG emissions	GHG mitigation	Details
All	Targets and monitoring	A set of defined, achievable and measurable actions put in place within the Carbon Minimisation Action Plan. This will include metrics relating to emissions per passenger, emissions from construction activities and the use of operational efficient mitigations including Fixed Electrical Ground Power (FEGP)
LTO cycle	Fixed Electrical Ground Power (FEGP)	Mandatory use of the FEGP facilities that are installed, and a drive towards efficiency of their use (e.g. use up to a certain number of minutes after arrival/before departure, as evidenced at Barcelona El Prat Airport)
	Reduced thrust during take-off	Set targets for reduction of thrust levels during take-off. This can be achieved through engagement with airlines to influence policies on thrust rates.
Energy used in construction	Energy Efficiency	Effective programme management during the construction phase, ensuring that energy requirements are minimised as far as possible, reducing overall GHG emissions associated with energy use in the construction phase.
	Reduce emissions from plant vehicles	Hybrid models of various plant vehicles are now available, e.g. excavators. Retrofit diesel filters can also be fitted on many plant vehicles. These significantly reduce exhaust emissions of particulates as well as carbon monoxide in order to deliver overall reductions in the volume of GHG emissions.
	Low carbon welfare facilities	'Eco-cabins' offer an alternative to conventional modular welfare cabins. These are designed to be solar powered and include canteen facilities and WC and washroom capacity. The water system is also self-contained which means no need to draw on mains supplies.
	Encourage construction and operational staff to use public transport	Integration of the Travel Plan (Appendix L to the Transport Assessment) and the Construction Travel Plan (within the Preliminary Construction Travel Management Plan) into the Carbon Minimisation Action Plan in order to quantify and optimise emissions reductions.
Energy used in operation	Low carbon energy supply and storage	Opportunities for roof mounted solar photovoltaic (PV), solar carports, thermal storage, battery storage and a decentralised energy system to power buildings, tools and equipment should be explored.
	Energy efficient buildings	New buildings and conversions designed to reduce emissions using natural light and natural ventilation. Government guidance on high energy efficiency to be followed.
Embodied energy in construction	Design out waste	Reduce waste through appropriate materials specification and construction methodologies. e.g. using modular building designs or prefabrication of riser modules for mechanical and electrical services.
	Supply chain management	Seek out opportunities for contracts with suppliers and contractors that include stipulations to use designs and materials that facilitate the reuse, recycling or recovery of materials upon de-commissioning or replacement of the site. Set requirements for contractors that demonstrate commitment to sustainable procurement and practices.
	Re-use and recycling of materials	Reclamation of valuable resources generated during demolition, such as metals, or recycling of inert materials for use as aggregates for any fill required for the development.

Source of GHG emissions	GHG mitigation	Details
	Pre-fabrication	Assembling pre-constructed components on site reduces the requirement for raw materials and therefore waste.
	Effective storage and segregation	The provision of effective storage and segregation of waste materials at the site will be a key element to ensure waste is managed safely and efficiently to maximise the potential for reuse and recycling.
	Material selection and life-cycle assessment	Ensure the use of sustainable materials in construction by considering the life-cycle emissions associated with them. The embodied carbon assessment can serve as the starting point for identifying key areas of improvement (e.g. ceiling finishes, which make up a large amount of the embodied carbon in office buildings in the worst-case scenario provided in this assessment).