

# Implications of the Jet Zero ambition

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# Definitions

NB

- GHG = greenhouse gas emissions
- Carbon used as shorthand

## Carbon Neutral

- No GHG reduction necessary
- Offset GHG emissions

GAL has been carbon neutral since 2017 via ACA L3+

## Absolute Zero

- Eliminate GHG emissions
- No offset or removals

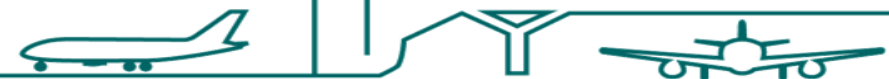
## Net Zero

- Reduce GHG emissions as far as possible
- Removal of any residual GHG emissions



# Jet Zero Strategy

Our ambition is for  
**all airport operations  
in England to be zero  
emission by 2040.**



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**Zero emission** – no GHG emissions are attributable to an actors operations. Under this definition, no offsets or balancing of residual emissions with removals are used.



# Jet Zero Strategy

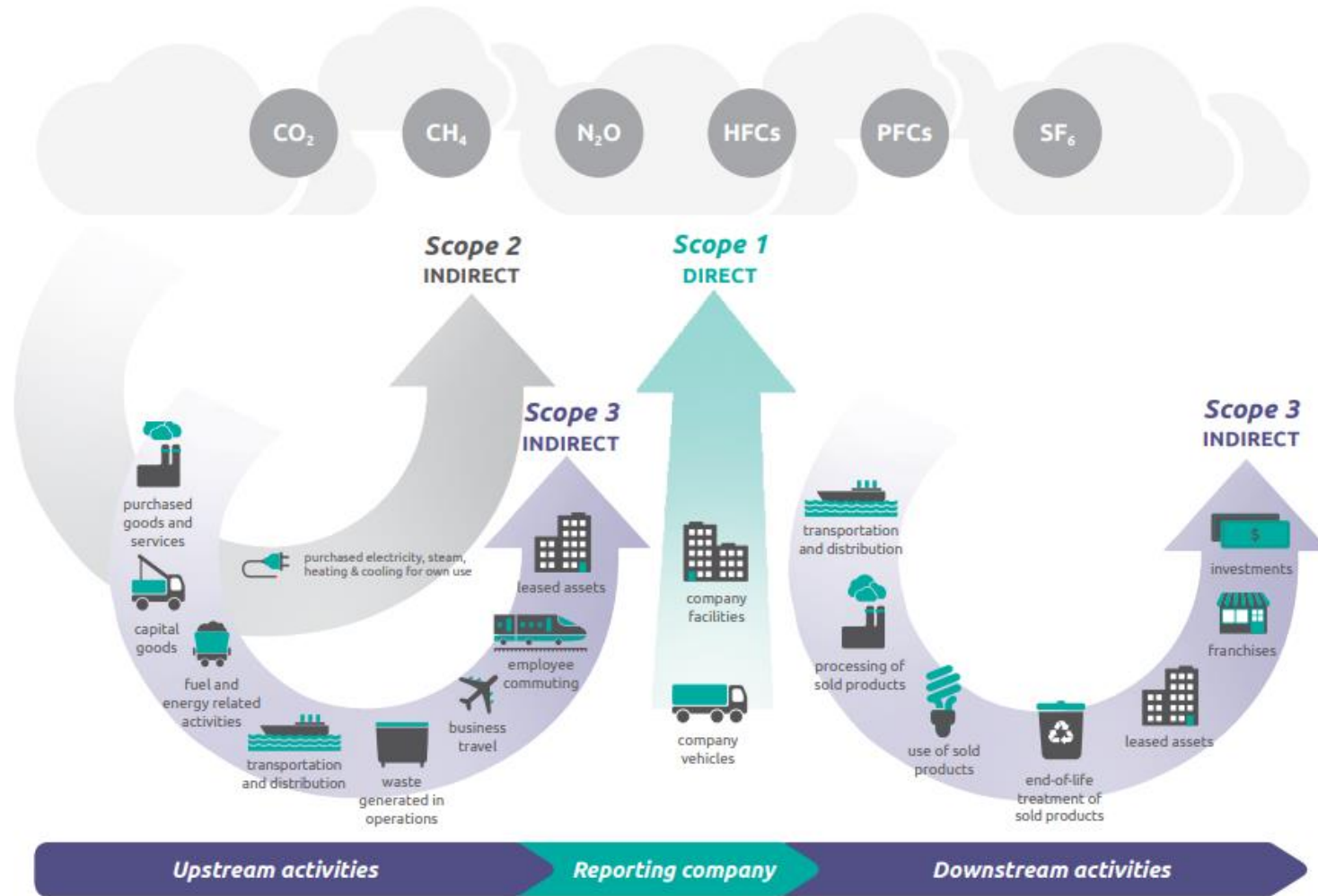
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To be determined:

- Definition of “airport operations”



# Scopes



GHG Protocol, World Resources Institute & World Business Council for Sustainable Development, 2013



**Which emissions  
can occur at an  
airport?**



Note: The presented list of possible emissions sources at the airport is not exhaustive. Furthermore, the operational structure of every airport is different. Therefore, not all of the depicted emissions sources are present at every airport.

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**Scope 1**

**Emissions from airport controlled sources**

- 01 Vehicles/ground support equipment belonging to the airport
- 02 On-site waste management
- 03 On-site waste water management
- 04 On-site power generation
- 05 Firefighting exercises
- 06 Boilers, furnaces

**Scope 2**

**Emissions from purchased electricity**

- 07 Off-site electricity generation
- A Heating
- B Cooling
- C Lighting

**Scope 3**

**Emissions from other sources related to the activities of an airport**

- 08 Aircraft landing
- 09 Aircraft taking off
- 10 Aircraft ground movements
- 11 Auxiliary Power Unit
- 12 3rd party vehicles/ground support equipment
- 13 Passenger travel to the airport
- 14 Staff commute
- 15 Off-site waste management
- 16 Off-site water management
- 17 Staff business travel



# Jet Zero Strategy

Our ambition is for  
**all airport operations  
in England to be zero  
emission by 2040.**

To be determined:

- Definition of “airport operations”
- Enforcement method

“Call for Evidence on the best approach to implementing the target in Autumn 2022” - now early 2023





# GAL's decarbonisation journey (Scope 1 & 2)



# Decade of Change



## 6. Airport emissions:

- Reducing GAL Scope 1 and 2 emissions by a further 25% by 2030 (i.e. reach 80% under 1990 baseline) as part of a science-based goal of reaching net zero before 2040;



# How to achieve Net Zero (Scope 1 & 2)

- No on-site combustion - electrification
  - Boilers and hot water (natural gas)
  - Fleet and plant (diesel, petrol, LPG etc.)
- Address fugitive emissions from refrigeration

Need to look at all concurrently



# Transition to Absolute Zero (Scope 1 & 2)

- Residual fleet
- Residual refrigeration
  - F-gases rated at 0 GWP
- Fire training
  - Legal requirements

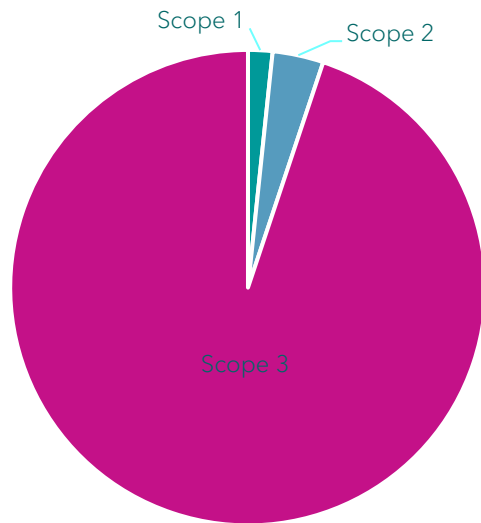


# GAL's decarbonisation journey (Scope 3)

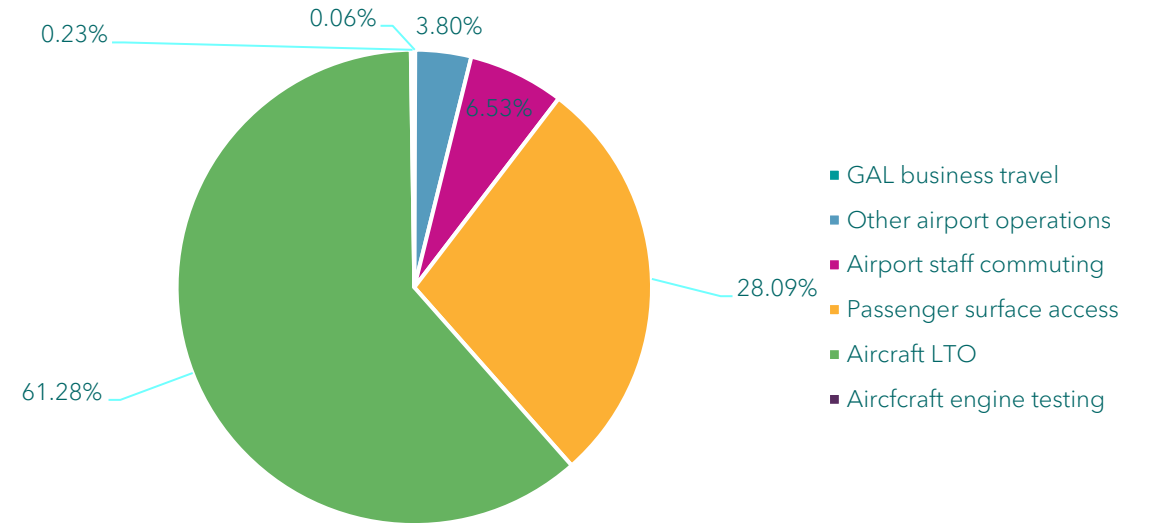


# GAL's scope 3 emissions

GAL 2019 carbon footprint



Scope 3 GHG emissions 2019



**Which emissions  
can occur at an  
airport?**



**CONTROL**

Facilities, services, activities and equipment for which the airport company has ownership/control.

**GUIDE**

Facilities, services, activities, and equipment owned / controlled by subcontractors, close partners and suppliers for which the airport company can provide guidance.

**INFLUENCE**

Facilities, services, activities and equipment owned/controlled by loose partners, tenants, customers, government agencies, etc. which the airport company can only influence.

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# Taking action on aviation

- APU off
- Reduced engine taxiing
- Carbon emissions charge as part of airport charges
- Making the airport “Jet zero ready”
  - SAF / Hydrogen / Electric
- Airspace modernisation
- ACA Level 4+ - “the airport actively drives third parties at the airport towards delivering emissions reductions themselves”





# NRP - Carbon Action Plan



# NRP & Carbon Action Plan

- Commitments in three areas:
  - Aviation
  - Airport Buildings and Ground Operations (ABAGO)
  - Construction
- Toolbox of measures to achieve the outcomes
  - Enabling and direct
  - Timescales for implementation
- Published as part of DCO application (linked to ES GHG chapter)



YOUR LONDON AIRPORT  
*Gatwick*

