



**Jet Zero Council – Ninth Meeting**  
**09:00am – 10:30am, Wednesday 8 November 2023**  
**Riverside House, 2a Southwark Bridge Road, London**

**Attendees**

Ministerial Attendance

- The Rt Hon Mark Harper MP, Secretary of State for Transport
- Baroness Vere of Norbiton, Parliamentary Under Secretary of State for Aviation, Maritime and Security

Jet Zero Council CEO

- Emma Gilthorpe, Chief Operating Officer, Heathrow Airport

In Person Member attendance

- Jonathon Counsell, Jet Zero Council Sustainable Aviation Fuels Delivery Group Chair (and Group Head of Sustainability, International Airlines Group)
- Rachel Gardner-Poole, Jet Zero Council Zero Emission Flight Delivery Group Chair
- Amy Ruddock, Vice President Europe and Middle East, Carbon Engineering
- Gary Elliott, Chief Executive Officer, Aerospace Technology Institute
- Karen Dee, Chief Executive, The Airport Operators Association
- John Copley, COO, ADS Group (deputising for Kevin Craven, Chief Executive Officer)
- Matt Gorman MBE, Chair, Sustainable Aviation
- Tim Johnson, Director, Aviation Environment Federation
- James McMicking, Chief Strategy Officer, ZeroAvia (deputising for Val Miftakhov, Chief Executive Officer)
- Helen Kennett, Director Government Relations Global Network, Rolls-Royce (deputising for Simon Burr, Group Director of Engineering, Technology and Safety)
- Chris Gadsen, Director of Government Affairs, easyJet (deputising for Jonah Lundgren, Chief Executive Officer)
- Freya Burton, Chief Sustainability Officer, LanzaTech (deputising for Dr Jennifer Holmgren, Chief Executive Officer)
- Holly Boyd-Boland, Vice President of Corporate Development & Chief of Staff, Virgin Atlantic (deputising for Shai Weiss, Chief Executive Officer)
- Maria Laine, President of Boeing UK, Ireland and Nordic region, Boeing
- David Lee, Professor of Atmospheric Science and Director of the Centre for Aviation, Transport, and the Environment; Manchester Metropolitan University
- Tim Hawkins, Chief of Staff, Manchester Airports Group, (deputising for Charlie Cornish, Group Chief Executive)

Virtual Member attendance



- Tim Johnson, Policy Director, Civil Aviation Authority (deputising for Rob Bishton, Chief Executive Officer)
- Louise Kingham OBE, UK Head of Country and Senior Vice President for Europe, bp
- Stephen Heapy, Chief Executive Officer, Jet2
- Julie Kitcher, Executive Vice President Communications and Corporate Affairs and Jay Asher, Senior Public Affairs Manager, Airbus
- Professor Iain Gray, Director of Aerospace, Cranfield University
- Sean Doyle, Chief Executive Officer, British Airways
- Kyle Martin, Vice President, European Affairs, General Aviation Manufacturers Association
- David Bunch, UK Country Chair, Shell
- Colin Tattam, Director Net Zero and Sustainable Industries, Innovate UK KTN
- James Marshall, deputising for Tom Mackle, UK Airline CEO, DHL
- Andy Smith, Head of Sustainability Strategy (Deputising for Jonathan Hinkles, Chief Executive, Loganair)
- Group Captain Maurice Dixon, Assistant Head CC&S Air Climate Change & Sustainability (Deputising for Air Chief Marshal Sir Richard Knighton KCB FREng, Chief of the Air Staff, Royal Air Force)
- Tim Alderslade, Chief Executive, Airlines UK

#### Department for Transport official attendance

- Rannia Leontaridi, Director General, Aviation and Maritime Security
- David Silk, Director, Airlines and Airports, Department for Transport
- Holly Greig, Deputy Director, Aviation Decarbonisation Division
- Claire Swadkin, Deputy Director, Low Carbon Fuels

#### Department of Energy, Security and Net Zero

- Joanna Warner, Deputy Director, Net Zero Frameworks, Department for Energy, Security and Net Zero
- Jonathan Hoare, Deputy Director –Net Zero Strategy Directorate (virtually)

#### Department for Business and Trade

- Paul Griffiths, Head of Aerospace and Defence Team

#### Additional attendees

- Sandra Sassone, Aviation Environmental Roadmap GGR lead, Airbus (presenting)
- Ministerial Private Secretaries
- Jet Zero Council Secretariat
- Rose Armitage, Climate Change Committee (observing)

#### Apologies

- The Rt Hon Claire Coutinho MP, Secretary of State for Energy Security and Net Zero



- Nusrat Ghani MP, Minister of State for Industry, Department of Business and trade
- The Rt Hon Jesse Norman MP, Minister of State, Department for Transport
- Baroness Brown Julia King DBE FREng FRS, Jet Zero Council Adviser (and Crossbench Member of the House of Lords)
- Andy Johnston-Luff, Jet Zero Communications & Engagement Network Chair (and External Relations Manager, GKN Aerospace)
- Thomas Woldbye, Chief Executive Officer, Heathrow Airport
- Professor Sarah Sharples, Chief Scientific Adviser, Department for Transport
- Professor Piers Foster, Interim Chair, Climate Change Committee

## Actions

- DESNZ and DfT to collaborate on the development of GGR policy in the UK with a view to supporting the efforts of the aviation sector in reaching net zero.
- JZC to discuss hydrogen at the 10<sup>th</sup> Jet Zero Council meeting in early 2024.

## Summary of Meeting

- The Secretary of State for Transport highlighted the progress on aviation decarbonisation, including on sustainable aviation fuel (SAF), zero emission flight and non-CO<sub>2</sub>.
- HMG officials, Amy Ruddock (Carbon Engineering) and Sandra Sassone (Airbus) gave an overview of Greenhouse Gas Removals (GGRs), followed by a discussion amongst Council members on their implications for aviation decarbonisation.
- The Department for Transport (DfT) and SAF Delivery Group chair provided updates on the progress made on SAF since April, followed by reflections from Council members.

## Readout

### 1. Opening remarks

The Secretary of State for Transport highlighted the Government's [Jet Zero Strategy One Year On](#), commitment to introduce a consultation on a [industry funded revenue certainty mechanism by 2026.](#), by April 2024, and that the response to the Government's second SAF mandate consultation will be published in the coming months.

The Secretary of State also noted that the launch of the [Transport Research and Innovation Grant \(TRIG\)](#) to support airports in handling zero emission aircraft and ground operations. He also informed Council members of his recent meeting with the newly launched of the [Hydrogen in Aviation](#) industry body as well as the progress of the [Tees Valley Hydrogen Hub](#).

On non-CO<sub>2</sub>, Secretary of State noted the newly established non-CO<sub>2</sub> task and finish group, who met earlier that week, as well as the Government's recently launched non-CO<sub>2</sub> multi-million-pound research project.

Finally, the Secretary of State looked forward to the discussions ahead on Greenhouse Gas Removals (GGRs) and what Council members could do to support their deployment.

## 2. Greenhouse Gas Removals

Holly Greig (DfT) explained why GGRs are important for aviation in achieving Jet Zero and the role set out for them in the [Jet Zero Strategy](#). She emphasised Government's commitment to maximising in sector reduction but noted that despite the emergence of new technologies and fuels, the UK aviation sector will still have significant residual emissions in 2050 and that GGRs will therefore be crucial for meeting net zero.

Joanne Warner (DESNZ) gave an overview of different GGR technologies and the actions Government are taking to support their development. She confirmed Government's objective to support the growth of a GGR sector in the UK, noting that it is a rapid area of global growth. She highlighted that Government published a [GGR business model consultation response](#) in June, that there will be a further consultation on the inclusion of engineered and nature-based GGRs in the UK ETS and that Government is minded to include GGRs in the [Carbon Capture, Usage and Storage](#) programme. She also noted that the [Biomass Strategy](#) was published in August, which emphasised the importance of GGRs being verified and stored permanently.

Amy Ruddock (Carbon Engineering) presented on deploying [commercial scale Direct Air Capture](#) (DAC) plants. She noted the role that DACs can play in de-risking aviation reaching net zero and gave an overview of Carbon Engineering's progress in deploying the technology globally. She noted the level of demand from UK aviation, and invited the Council to consider how the sector could be more active in scaling solutions.

Sandra Sassone (Airbus) provided an aviation industry perspective, explaining how the aviation industry can further support the deployment of GGRs. She noted alignment across the aviation sector on the importance of GGRs, direct investment into the technology, policy development, and signally demand as key factors for the Council to consider. She also gave an overview of the work Airbus is doing to support the deployment of GGRs.

Key discussion points included:

- Council members welcomed the opportunity to discuss GGRs and recognised their importance to aviation in meeting Jet Zero. It was recognised that the technologies are at an early stage of development and that aviation has an important role to play in scaling the technology. Incorporating GGRs into the UK ETS was highlighted as an important measure to encourage and reward the sector in using GGRs.
- Some members emphasised the importance of developing public support for aviation's use of GGRs, and recognised there was a need to ensure GGRs are credible and permanent.
- The role of nature-based solutions was noted, including the role of peatland in the UK. It was also recognised that GGRs could be an important tool in addressing aviation's non-CO2 impacts.
- Council members noted that aviation could be competing with other hard to abate sectors and how HMG assure to not actively or passively deprioritise

the aviation sector. Will HMG rely on market signals or will they set strategic priorities?

- Council members noted the interlinkages between SAF and GGRs, including to address the lifecycle emissions of SAF and the potential to use captured carbon as a fuel feedstock. Both are needed and projects here (UK) and in US can lead to net negative SAF (making fuel and sequestering CO<sub>2</sub>). Policy thinking and industry focus need to be incorporated.

### **3. Sustainable Aviation Fuel update**

Claire Swadkin (DfT) gave an update on the HMG SAF programme, including:

- Ongoing work to set out the final design of the SAF mandate in the government's response to the second SAF mandate consultation.
- Progress on the 100% SAF Transatlantic Flight, scheduled for 28 November.
- Collaboration with the SAF Delivery Group to develop options for a Revenue Certainty Mechanism, which Government aims to launch by end April 2024.

The SAF Delivery Group Chair (Jonathan Counsell) gave an overview of progress made across the Mandate, Technology and Commercialisation Subgroups. He highlighted in particular the conversations on creating a feasible Power to Liquid (PTL) industry and on the considerations in securing long-term feedstock supply, as well as the work of members in helping to shape the content and design of a revenue certainty scheme.

Key discussion points included:

- Council members noted increasing uptake of SAF but recognised there is still a long way to go. It was noted that the majority of current uptake consists of HEFA SAF, and the key role the mandate and a revenue certainty mechanism will play in driving supply.
- The progress towards the 100% SAF Transatlantic Flight was welcome by members.
- Council members emphasised the need for pace in decision-making on both the SAF mandate and revenue certainty mechanism to enable investment decisions, SAF plant construction and take-up of SAF. The Secretary of State for Transport noted these points.

### **4. Closing remarks & AOB**

- JZC CEO thanked attendees for the discussions and noted the importance of integrating SAF and GGRs moving forward in order to facilitate a more joined up approach to JZC targets.
- Baroness Vere thanked JZC members for attending noting the quality of the presentations were excellent, commending the number of women presenting.
- She noted the need for greater engagement with the private finance sector and looked forward to the hydrogen discussion planned for Jet Zero Council 10 in early 2024.