



## LAPFF Response to Jet Zero consultation

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### Background

- The Local Authority Pension Fund Forum (LAPFF) is a voluntary association of 84 local authority pension funds and seven LGPS pools, with combined assets of over £300 billion. It exists to promote the investment interests of member funds, and to maximise their influence as shareholders to promote high standards of corporate governance and corporate responsibility amongst the companies in which they invest.

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### Response

- LAPFF welcomes the opportunity to respond to this timely consultation. This section outlines our overall position, specific consultation questions are addressed in the following section.
- LAPFF has long recognised the imperative to address climate change as a systemic investment concern for our members. It poses material financial risks across all asset classes with the potential for significant loss of shareholder value.
- Responses to the COVID pandemic have been revelatory for the required transformation in capital markets to address the climate crisis. Companies' responses to the pandemic that previously might have taken several years in planning and implementation were undertaken within days or weeks.
- LAPFF affirms the conclusions of the latest Intergovernmental Panel on Climate Change (IPCC) report [Sixth Assessment Report \(ipcc.ch\)](https://www.ipcc.ch) which indicates that the carbon budget that gives an 83% chance of remaining within 1.5 degrees of warming, will be used up by 2027 at the current emissions rate. The Forum is thus cognisant of this short time-frame in considering how the global challenge of the climate crisis must be addressed in all sectors as well as the UK government's own climate change target to reduce emissions by 78% by 2035 over 1990 levels.
- Emissions from air transport are a significant contributor to economic and investment risk. In the UK, aviation emissions represent around 10% of the UK's

total carbon dioxide emissions<sup>1</sup> and projections show these could grow to be the largest or second largest sources of UK emissions by 2050<sup>2</sup>. Measures to combat this potential rise must be robust and ambitious.

- Our experience engaging with companies is that, without strong and timely regulation, achieving the UK's ambitions for reducing emissions will be slower and less effective as some companies tend only to meet minimum regulatory requirements. LAPFF therefore supports a clear legislative framework for aviation carbon reductions, so that companies can make the necessary decisions and financial commitments.
- LAPFF considers that the government should take the opportunity to support the development of UK leadership in electric flight, including supporting existing corporate leaders who have committed to electric-only private jet flights from 2025, by proposing a ban on fossil fuel powered private jets from using UK airports from 2025 onwards.
- In line with measures being taken by France, Austria and Spain, LAPFF supports the government pushing domestic flights to be replaced by train journeys or for any remaining domestic flights to be electric by 2025.
- All measures to promote net zero aviation should be considered within the context of overall provision of reliable and affordable transport including surface transport.

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<sup>1</sup> <https://www.aef.org.uk/what-we-do/climate/>

<sup>2</sup> <https://www.bbc.co.uk/news/business-49808258>

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## Detailed response

1. *Do you agree or disagree that UK domestic aviation should be net zero by 2040? How do you propose this could be implemented?*

In the context of the UK government's existing climate change target to reduce emissions by 78% by 2035 compared to 1990 levels, LAPFF considers that the date for domestic aviation to be net zero should be earlier than 2040.

Most popular UK domestic flight routes can be serviced by existing rail links. It is notable that France has banned domestic flights<sup>3</sup> on routes where passengers could complete the same journey by train in under 2.5 hours. This is part of the country's 'climate and resilience' bill that aims at cutting France's carbon emissions 40% by 2030. Given the UK's similarly ambitious emission targets, a similar measure should be encouraged. Spain has also signalled it is likely to implement similar measures<sup>4</sup> and Austria has also placed constraints on short-haul air travel<sup>5</sup>. Indeed in a European Investment Bank survey, 62% of respondents supported a EU-wide ban of short-haul flights<sup>6</sup>.

The role of domestic aviation in the UK should be seen as part of overall provision of reliable and affordable transport including surface transport.

LAPFF notes the aviation industry received £11 billion from the UK taxpayer during the Covid crisis<sup>7</sup> and considers that robust strategies for achieving zero-carbon businesses should be a conditionality for any further government support. For connectivity to regions such as the Highlands and Islands, electrification of air travel is already being promoted by the Scottish Government which aims to make the Highlands and Islands the 'world's first net zero aviation region'<sup>8</sup>. Regional carrier Logan Air expects its first fully electric planes to enter service on short Orkney routes in 2021<sup>9</sup>.

A typical private jet passenger journey emits around ten times as much as an economy class flight, representing about 40 times as much carbon per passenger as regular commercial flights<sup>10</sup> and around 150 times as much

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<sup>3</sup> [France Bans Domestic Flights on Routes Trains Can Reach in under 2.5 Hours | Railway-News](#)

<sup>4</sup> [France to ban some domestic flights where train available | Climate change | The Guardian](#)

<sup>5</sup> [AirportWatch | France to ban commercial flights on shortest domestic routes](#)

<sup>6</sup> [Germany, Spain, or EU? Who's next to ban short-haul flights after France? \(id1.de\)](#)

<sup>7</sup> [Written questions and answers - Written questions, answers and statements - UK Parliament](#)

<sup>8</sup> <https://www.pressandjournal.co.uk/fp/news/politics/holyrood/1833622/nicola-sturgeon-unveils-plan-to-create-emission-free-airways-over-the-highlands-and-islands/>

<sup>9</sup> [Electric planes will connect Highlands and islands | Scotland | The Times](#)

<sup>10</sup> [https://www.theguardian.com/environment/2019/oct/27/super-rich-fuelling-growing-demand-for-private-jets-report-finds?CMP=share\\_btn\\_tw](https://www.theguardian.com/environment/2019/oct/27/super-rich-fuelling-growing-demand-for-private-jets-report-finds?CMP=share_btn_tw)

as an equivalent journey made by high-speed rail<sup>11</sup>. Industry estimates suggest 40% of private jet movements are 'empty leg' journeys. Of private jet travel in Europe (measured between 2005 and 2019) the UK has the largest share of emissions, nearly one fifth of the total<sup>12</sup>. Private jets are twice as likely to be used for very short trips (less than 500 km) within Europe compared to commercial aviation<sup>13</sup>.

LAPFF considers that the government should take the opportunity to support the development of UK leadership in electric flight and propose a ban on fossil fuel powered private jets from using UK airports from 2025 onwards.

In line with measures being taken by France, Austria and Spain, LAPFF supports the government pushing domestic flights to be replaced by train journeys or for any remaining domestic flights to be electric by 2025.

2. *Do you agree or disagree with the range of illustrative scenarios that we have set out as possible trajectories to net zero in 2050? Are there any alternative evidence-based scenarios we should be considering?*

Of the four scenarios, LAPFF aligns most with scenario 4: 'High ambition with a breakthrough on zero emission aircraft'. However, the only 'demand management' aspect considered is that of carbon pricing. There could also be regulatory pressure to promote surface transport via rail and road to make it not only a reliable but affordable substitute for air travel.

LAPFF would also comment that more information could be provided to show what proportion of international aviation could be replaced with a series of short-haul electric flights. An interim measure would be to promote a 'hub and spoke' network for existing flights which has been shown to significantly decrease fuel consumption (by 68.17% in one study<sup>14</sup>) while ensuring the lowest passenger transportation cost.

3. *Do you agree or disagree that we should set a CO2 emissions reduction trajectory to 2050?*

LAPFF agrees there should be a CO2 emissions reduction trajectory to 2050. This should include firm targets set for 2025, 2030 and 2040.

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<sup>11</sup> [https://s3-eu-west-](https://s3-eu-west-1.amazonaws.com/media.afreeride.org/documents/Jet+Set+Go+Summary.pdf)

[1.amazonaws.com/media.afreeride.org/documents/Jet+Set+Go+Summary.pdf](https://s3-eu-west-1.amazonaws.com/media.afreeride.org/documents/Jet+Set+Go+Summary.pdf)

<sup>12</sup> <https://www.thetimes.co.uk/article/britain-is-worst-in-europe-for-private-jet-pollution-qf726pt8w>

<sup>13</sup> <https://www.transportenvironment.org/publications/private-jets-can-super-rich-supercharge-zero-emission-aviation>

<sup>14</sup> <https://www.hindawi.com/journals/ddns/2020/3682127>

*a. Should the trajectory be set on an in-sector CO2 emissions basis (without offsets and removals) or a net CO2 emissions basis (including offsets and removals)?*

Given that the aim should be zero-carbon emissions and with justifiable concerns over many offsetting schemes, the trajectory should be without offsets and removals.

*b. Do you agree or disagree with the possible trajectories we have set out, based on our high ambition scenario, which have in-sector CO2 emissions of 39 Mt in 2030, and 31 Mt in 2040 and 21 Mt in 2050, or net CO2 emissions of 23-32 Mt in 2030, 12-19 Mt in 2040 and 0 Mt in 2050?*

LAPFF agrees that these trajectories are ‘possible’ but would urge the government to aim for robust and ambitious targets starting from 2025.

4. *Do you agree or disagree that we should review progress every five years and adapt our strategy in response to progress?*

LAPFF considers that reviewing progress every five years should be an absolute minimum and would promote a yearly review, given that technology advances may occur more rapidly than over a five-year period.

For listed companies, LAPFF promotes a yearly ‘Say on Climate’ which requests disclosure of emissions, a plan to manage those emissions and the opportunity to review this yearly. Given the scale of the challenge faced by the aviation industry, yearly reviews would be most effective and would ensure that the strategy remained on course.

5. *Do you agree or disagree with the overall approach to improve the efficiency of our existing aviation system?*

LAPFF has concerns with the way the approach to efficiency has been presented. Efficiency in reductions of emissions ‘per passenger’ can mask a rise in actual emissions due to more passengers flying. Such a focus also results in the ludicrous ‘ambitious net zero example’ given in the consultation of Bristol announcing its intention to being a ‘net zero’ airport by 2030, thus conveniently ignoring the carbon impact of the flights in and out of the airport.

6. *What more or differently could be done to ensure we maximise efficiency within the current aviation system?*

The emphasis in ‘international leadership and influence’ (2.14) appears to be for offsetting and sustainable aviation fuels. Maximising efficiency within the current system should include prioritising surface transport where-ever

possible. After that, very short-term measures could be to restrict fuel tankering, promote hub-and-spoke networks or the use of more efficient aircraft<sup>15</sup>. However, LAPFF considers that a focus on existing high emitting technology is likely to only be a delaying tactic to attaining zero-carbon transport, so these initiatives should be limited in time and scope.

7. *Do you agree or disagree with the overall approach for the development and uptake of SAF in the UK?*

Disagree.

8. *What further measures are needed to support the development of a globally competitive UK SAF industry and increase SAF usage?*

Providing support for technologies such as sustainable aviation fuel (SAF) which still results in carbon emissions and locks this continued technology into the system is ultimately a mis-use of resources that would be best spent on developing zero-carbon flight. This is especially relevant given the context that the costs of sustainable aviation fuel are high and uncertain compared to existing fossil fuel technology, ranging from two to three times the price of the fossil counterfactual, and ‘potentially up to eight times more for certain technology pathways.’

The motivation that appears to be providing the ‘push’ for SAF usage is that the longest haul flights, which make up just over 10% of overall flights, are responsible for over 60% of UK aviation emissions. It is noted ‘these flights may be more challenging to conduct by zero emission aircraft’. It seems odd therefore that so much resource is devoted to this small proportion of flights without seeming to offer any exploration of alternatives. This ‘10% of overall flights’ figure might also be much reduced in future, given the likely continuing impact of the reductions in travel due to covid restrictions. Many companies are now reviewing and restricting travel budgets as virtual meetings have proved no detriment to the successful functioning of their businesses.

9. *Do you agree or disagree with the overall approach for developing zero emission flight in the UK?*

Agree. Of the two focused Delivery Groups, LAPFF commends the establishment of the zero-emission flight group and recommends that this be provided with maximum resources to promote technological developments.

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<sup>15</sup> [Transatlantic airline fuel efficiency ranking, 2017 \(theicct.org\)](https://theicct.org)

As noted, the consultation cites ‘whilst it may be ‘too early to specify the optimal mix’ LAPFF is concerned about the actual funding proposed which appears to promote the use of sustainable aviation fuels with no funding for electric technology. The government’s existing commitment to support the development of sustainable aviation fuel amounts to £15 million. The funding of £3 million into research and development for the infrastructure to ‘fuel, take off and land’ ‘zero emission aircraft’ implies that this is not even currently allocated or proposed funding for electric technology, as the term ‘fuel’ would not be applied to electric flight technology.

The government should therefore ensure appropriate financial backing for genuine zero-carbon technologies, such as increasing the passenger and distance capacity of electric flights, and retain an appropriate challenge to so-called ‘sustainable aviation fuels’ or the use of off-setting.

10. *What further measures are needed to support the transition towards zero emission aviation?*

Appropriate funding for electric aircraft and zero-emission flight development. Currently most funding appears to be diverted to SAF technology.

Mandating the use of electric aircraft or pushing for early roll-out of electric aircraft on Public Service Obligation (PSO) routes.

Ensuring companies in the aviation sector do not overly influence policy. The aviation sector has emerged as one of the strongest opponents of climate policy in Europe. At a European level, airlines are committing to high level support for ‘net zero by 2050’ but are opposing climate regulations aimed at delivering this and lobbying for offsetting to take precedent over policies. This in the context of ten airlines accepting around €30bn in EU and UK government bailouts since the beginning of the Covid-19 crisis<sup>16</sup>.

11. *Do you agree or disagree with the overall approach for using carbon markets and greenhouse gas removal methods to drive down CO2 emissions?*

LAPFF supports carbon prices to drive cost-effective emission reductions, such that these influence the travel choices of consumers. Given that a majority of emissions are produced from only 10% of flights, any such market mechanism should, as stated ‘*implement the ‘polluter pays’ principle – that those who engage in activity that has an environmental impact should bear the cost of that impact’.*

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<sup>16</sup> [influencemap.org](https://www.influencemap.org) The Aviation Industry and European Climate Policy

LAPFF questions the use of greenhouse gas removal methods given the lack of evidence that there are '*robust schemes that remove ... emissions elsewhere*' and the range of documented concerns over offsetting schemes. The focus should be to create a system that does not produce carbon emissions in the first place, and certainly not to encourage increasing levels of carbon emissions.

12. *What could be done further or differently to ensure carbon markets and greenhouse gas removal methods are used most effectively?*

An indicated, greenhouse gas removal is not yet implemented at commercial scale, either in the UK or globally, and forecasts of costs and scale-up potential are highly uncertain. Given this, the UK should focus on developing existing technology already in commercial operation for zero-emission electric flight. Resources should not be expended on 'highly uncertain' technology at the expense of technologies already being scaled up and more widely adopted.

13. *Do you agree or disagree with the overall focus on influencing consumers?*

Agree, but the focus of influencing consumers should not be to the detriment of also influencing the business strategies of airlines to be focussed on a zero-carbon pathway.

LAPFF agrees with the proposal to work with the Civil Aviation Authority to explore whether mandating the provision of environmental information to customers at the time of booking flights could influence consumer decision-making when presented with standard, reliable and accurate flight comparisons.

The UK citizens' assembly, set up to represent a spectrum of views from all over the UK, came to a consensus<sup>17</sup> that government should limit support for high-carbon industries. Measures supported included investment in clean aviation technology. The conclusions from this group can be taken as an indication of what measures would be considered fair and acceptable by the public in the UK. The government should therefore ensure appropriate financial backing for genuine zero-carbon technologies, rather than the use of off-setting or SAFs.

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<sup>17</sup> <https://www.bbc.co.uk/news/science-environment-54087176>

14. *What more can government do to support consumers to make informed, sustainable aviation travel choices?*

From a greenwashing perspective, there is real potential for mis-messaging from airlines on their and society's progress to net zero for the aviation sector. Marketing which creates a consumer impression that flying is or can be 'sustainable' or 'clean' risks misleading people about the behavioural changes needed to make air travel Net Zero and the state of aviation sector businesses' plans to get to Net Zero.

LAPFF supports the government looking at other ways to support consumers to make sustainable choices when booking flights and support those parts of the aviation sector that are providing zero-carbon flights.

This approach should be considered within a coherent domestic and international integrated approach to travel policy including surface transport. This would aim for widely available rail connections and ensuring the reliability and affordability of surface transport. Cost is a vital factor when people are deciding how to travel abroad with the low cost of flights to Europe being a primary motivator for people to choose plane travel rather than trains. This in the context that nine out of the ten most popular countries visited by people who live in the UK are within Europe and could be reached without flying<sup>18</sup>.

15. *What could be done further or differently to ensure we tackle non-CO2 impacts from aviation?*

Aviation accounts for around 2.5% of global CO2 emissions, its overall climatic impact is greater, representing 3.5% of 'effective radiative forcing' which is a closer measure of its warming impact<sup>19</sup>. Research has shown that after including the impact of particles other than carbon dioxide 'aviation emissions are currently warming the climate at approximately three times the rate of that associated with aviation CO2 emissions alone.'<sup>20</sup> Most of this increased impact is due to contrails, the water vapour trails from aircraft exhausts.

LAPFF supports government proposals to continue to negotiate for improved emission regulation by the International Civil Aviation Organization (ICAO). It is noted that hydrogen powered aircraft produce up to 90% less nitrogen oxides than usual (kerosene) aircraft fuel. However

<sup>18</sup> Fare Competition, 2021, <https://bit.ly/3pbpcVz>.

<sup>19</sup> <https://ourworldindata.org/co2-emissions-from-aviation#:~:text=Aviation%20accounts%20for%20around%202.5,to%20climate%20change%20is%20higher.&text=Overall%2C%20the%20warming%20effect%20is,of%20these%20impacts%20were%20included.>

<sup>20</sup> [Aviation's climate impact much greater than previously thought, regulator finds – POLITICO](#)



their primary by-product is water vapour which gives a greater warming impact as indicated. LAPFF therefore considers strong enabling mechanisms to promote electric flight would ensure such non-CO<sub>2</sub> impacts were minimised.