

All Party Parliamentary Group on Heathrow Expansion and Regional Connectivity inquiry into "Building Aviation Back Better: Developing an Environmental Aviation Strategy"



Response from the Aviation Environment Federation

14th September 2020

The Aviation Environment Federation (AEF) is the principal UK NGO campaigning on aviation's impacts, for people and the environment. We have given evidence to a number of parliamentary select committees and similar in recent years, including the Transport Committee and the Environmental Audit Committee. We have a seat on the newly formed Jet Zero Council and on the Airspace and Noise Engagement Group, and we are part of the advisory council to Sustainable Aviation. In 2019 we acted as an expert witness in support of the successful Friends of the Earth legal challenge in relation to the Heathrow NPS.

Please note: All text in bold is from the APPG's Terms of Reference for the inquiry.

1. Aviation White Paper

The delay to the publication of the Aviation White Paper provides an opportunity to pause and rethink its priorities to ensure that it delivers for the whole country.

- **Is the mantra of 'growth everywhere' still feasible in a post-pandemic world? How much growth in aviation is compatible with the Net Zero targets?**
- **What incentives and penalties should be mandated to ensure technological improvements are delivered?**
- **What options should be considered for demand management?**

Prior to the pandemic, a growing gap was emerging between the Government's commitments on climate change and its continued support for growth in aviation. The Aviation Strategy green paper published in December 2018 defined growth as a top level principle but failed to set out any meaningful climate change policy or targets against which expansion plans could be assessed. The following June, the Government passed legislation that increased the ambition of the Climate Change Act so as to require a reduction in the

UK's net greenhouse gas emissions not just of 80% but of 100% compared to 1990 by 2050. The new target, Government representatives said, would apply to all sectors including international aviation and shipping, yet still the Government failed to produce anything like a policy plan for delivering net zero aviation or to revise its plans for airport expansion or aviation growth. Despite undertaking to consult again on aviation and climate issues, no consultation document has been published, despite an early indication that it would be out by November 2019.

In February of this year, in a landmark judgment, the Court of Appeal ruled that the policy underpinning Heathrow expansion – the ANPS or Airports National Policy Statement – was unlawful on the basis that it failed to take account of the Paris Agreement on climate change (the global agreement to which the UK's net zero legislation was designed to give effect). Soon afterwards, the first major action by campaign group Extinction Rebellion took place, closing parts of central London and calling for a range of measures to recognise the urgent need to act on climate change. This raised the public visibility of the climate challenge and many local authorities responded by making declarations of climate emergency and by committing to rapidly cut emissions. The impact of this shift in thinking is beginning to be felt in terms of airport development proposals. Both Bristol and Stansted Airport's applications for expansion have been turned down by their local planning authorities, with climate concerns playing a significant part in the decision. Manston Airport's approval from the Secretary of State to expand is being challenged through the courts, in part on grounds of its likely impact on climate change.

The inconsistency of airport expansion and climate change objectives was beginning to be laid bare, in summary, both by the courts and by local planning authorities, even before the impact of the Coronavirus. The Government's growth commitment and absence of meaningful climate policy looks increasingly out of step with this change. The pandemic has now had – and is likely to continue to have – a huge impact on the level of activity at airports. It has also impacted on public attitudes and plans. People have naturally become cautious about overseas travel, and Government restrictions including some quarantine requirements remain in place. Interestingly, a study from the CAST centre at Cardiff University found that levels of public concern about climate change have meanwhile remained high. In a recent survey of over 1500 people, the researchers found that “support for climate change mitigation policies, including measures to decrease meat consumption and flying, was higher during the COVID-19 pandemic than in 2019, which already represented a high point for public concern on climate change”¹.

The question of whether growth in aviation is compatible with Net Zero has yet to be seriously addressed but it seems likely to us that air travel will need to be kept to below pre-pandemic levels. Under the previous, less ambitious target of the Climate Change Act, the Government's Climate Advisers, the CCC, had argued that aviation growth of 60% over its level in 2005 could be compatible with the 2050 target as long as other sectors of the economy made emissions cuts greater than 80%. This would – accounting for likely technological efficiencies – lead to annual aviation emissions of around the same level as in 2005.

¹ <https://cast.ac.uk/wp-content/uploads/2020/08/CAST-Briefing-04-Covid-low-carbon-choices-1.pdf#page=11>

Under the new target, the CCC's advice is that the aviation sector will need to operate at 'net zero' emissions by 2050 through a combination of lower carbon technologies and fuels and investment by airlines in carbon removal technologies such as BECCS (bioenergy with carbon capture and storage). CCC has so far declined to make a recommendation about the maximum amount of flying that can be accommodated under the new target. While its modelling retains the old assumption of a 60% growth in demand over the level in 2005 (equivalent to a 25% increase over the level in 2018), this leaves around 30 Mt of aviation emissions in 2050, even with optimistic technology development. The CCC's proposed economy-wide pathway to net zero in fact amounts only to a 96% reduction in emissions, with 35 Mt of emissions still above the 'zero' line in 2050, perhaps because of anticipated limits on the maximum capacity for carbon removals. Emissions of 30 Mt from one sector alone – aviation – seem hard to justify in this context.

In its forthcoming transport decarbonisation plan (likely to be published in advance of an Aviation Strategy) the Government should, we argue, set out how it plans to ensure that the aviation sector achieves net zero emissions by 2050, and what impact the necessary measures are likely to have on aviation demand and traffic levels. The Government should also accept the advice of the CCC to amend the Climate Change Act legislation to formally include international aviation (and shipping) in carbon budgets. This would be the best way to ensure that the industry is appropriately incentivised to deliver on airframe and engine technology improvements, the development of low and zero carbon fuel, and investment in carbon removals to balance its remaining emissions. If the industry is confident in its ability to achieve net zero, as claimed in the latest Sustainable Aviation CO2 roadmap, it should have nothing to fear from this legislative change.

An outline of measures that the Government should consider for bringing the sector into line with net zero (including demand management options) is included in the final section of our response² to DfT on its transport decarbonisation plan outline.

AEF's response³ to the aviation green paper in June last year set out in detail our concerns about the lack of effective environmental policy or conditions included in the Government's proposals, including in relation to noise as well as climate change. For reasons of brevity we will not repeat those here but will note only:

- 1) That there has been no progress, so far as we can tell, on addressing the regulatory vacuum in relation to noise impacts that we described in our response, and
- 2) That the Coronavirus lockdown has led to a dramatic reduction in aviation noise, and that noise impacts are likely to be more keenly felt than ever if and when air travel resumes.

2. Regional Balance

² <https://www.aef.org.uk/uploads/2020/07/Decarbonisation-plan-response-FINAL.pdf>

³ <https://www.aef.org.uk/2019/06/20/aviation-2050-aefs-response/>

Government policy is to help rebalance the economy and this should seek to focus any growth in aviation in the regions, within existing planning constraints and ensure that this is compatible with net zero climate targets.

- **What support do regional airports require from Government?**
- **Where would growth in aviation best deliver economic benefit within existing environmental targets?**
- **What investments in surface transport are required to facilitate fewer car journeys to regional airports?**

Until and unless measures are put in place to put aviation on a path to net zero emissions any growth at regional airports will inevitably result in an increase in emissions. We are concerned about the fact that some local authorities have begun to provide loans to regional airports which (a) risk diverting money from more sustainable businesses which councils could be supporting and (b) begin to build in financial incentives for councils to support future growth at these airports in order to see a return on their investment or recoup loans.

We would oppose any interventions by the Government to prop up regional airports at a time when investment in a green recovery, including the delivery of a just transition for workers into sustainable employment in low carbon sectors, must be the priority. As set out above, we have seen no convincing evidence that aviation growth anywhere would be consistent with environmental targets. Any investments in transport should focus on: improvements in walking and cycling infrastructure; better provision for and investment in electric cars and bikes; and increased public transport provision within and between cities to allow for the greater social distancing now required. Airports should finance any investments in roads and railways from which they are the primary beneficiary.

3. Bailouts

It is likely that many aviation sector businesses will need financial assistance. The UK Government could include social and environmental objectives in any bailout approach as has happened in other European countries.

- **What financial support should Government be willing to offer to the aviation sector?**
- **What conditions should be attached to any financial support?**
- **Are there any regulatory mechanisms or legislative changes required?**

AEF opposes the provision of Government support to the aviation sector by way of bailouts. The conditions attached to support of individual airports and airlines in other European countries are, in our view, unlikely to be effective in reducing aviation emissions. Many of them simply repeat commitments already made and are in any case unenforceable. Telling Air France, for example, to reduce its domestic flights while having no mechanism to prevent other airlines from picking up those routes has little if any benefit for the

environment. As set out in the "Building Back Better for Aviation" briefing⁴, which AEF developed with a wide range of environmental NGOs in June, in order to deliver a green, resilient recovery the Government should instead ensure that the aviation sector:

- Is fully accounted for in the economy-wide drive to achieve net zero emissions
- Is equitably taxed to help fund the green recovery and to reduce demand for flying
- Is required to invest in the radical new technologies that will be needed for any zero carbon flight, and to balance its emissions through paying for genuine, long-term carbon removals.

We strongly oppose any reduction, even temporary, in APD, as set out in a recent briefing⁵. Many airlines have benefited from government loans and made extensive use of the staff furlough scheme during the pandemic. In recovering, they should make a fair contribution towards rebuilding public finances, and on the spending necessary to support a green recovery.

4. Jobs

It is vital that transition arrangements are put in place which ensure that good quality employment in the sector is protected, while also facilitating the development of the skills necessary for roles in the future.

- **What level of demand is likely to return to aviation in the next few years and at what pace?**
- **What policy options does Government have to protect workers (particularly low-skilled and lower-paid workers) in the sector?**
- **What skills and training do workers require to transition into alternative sectors?**

The likely pace of recovery from the Covid pandemic is still unknown, but on the assumption that a vaccination will be found in the next year, and allowing for a period of time to restore public confidence, most industry analysts predict that 2019 levels of activity could be reached by 2023⁶.

As illustrated in the recent report by Possible, jobs per passenger in aviation have been steadily falling for many years⁷, probably as a result of increasing automation at airports and an increase in the proportion of low-cost travel. Since seeking to increase the volume of air travel in order to protect jobs is clearly not a sustainable option, either environmentally or in terms of the ongoing need to limit Coronavirus transmissions, the Government should focus on supporting aviation workers to find alternative employment in the green economy. Insufficient work has been undertaken, in our view, on how – practically – this should be

⁴ <https://www.aef.org.uk/2020/06/05/building-back-better-for-aviation-joint-ngo-briefing/>

⁵ <https://www.aef.org.uk/2020/07/07/suspending-air-passenger-duty-would-undermine-green-recovery/>

⁶ IATA, August 2020

⁷ <https://neweconomics.org/uploads/files/aviation-workers.pdf#page=18> (the statistic is expressed in terms of increasing numbers of passengers per job in Figure 2.2)

done. We would support the setting up of a Just Transition Commission to make recommendations on this issue.

5. Taxation

The Government is due to review the tax arrangements of the aviation sector.

- **Are existing aviation taxes fit for purpose?**
- **How can Government ensure that all aviation companies make a fair contribution to the reduction of emissions?**
- **Should revenue raised from aviation taxes be directed to investing in emissions reductions technologies?**

The aviation industry has benefited from tax exemptions or zero-ratings, most notably on fuel and VAT for tickets, for far too long. We have set out – both in the joint NGO position on a green recovery, and in our letter to the Treasury on taxation (both linked above) our headline views on the need for aviation taxes to be increased, both in order to make a fairer contribution to public expenditure particularly in the context of delivering a green recovery from the Coronavirus pandemic and to ensure that the environmental costs of air travel are internalised in ticket prices. We hope to have the opportunity to engage with the Treasury about this issue once its proposals for potential aviation tax reform are published. We note that the Government has recently announced funding for low carbon aerospace research by way of the ‘Fly Zero’ initiative. Broadly our view is that the aviation industry rather than the public should pay for the development of the new technologies that will be needed to deliver net zero emissions in the sector and that tax revenues should as a first preference be used to invest in the green economy and in alternatives to air travel such as domestic tourism, and the electrification of surface transport.

One of the obstacles preventing a more rapid transition to lower carbon fuels is the absence of an effective carbon price. It is very likely, especially following the pandemic, that airlines will choose to offset rather than invest in more expensive mitigation options given the lack of a strong carbon price on airline emissions.

As noted in response to question 3, we oppose any suspension of Air Passenger Duty.

6. Policy Framework for Decarbonisation

In order to meet Net Zero targets there will need to be a robust framework for decarbonisation from Government with strict targets and incentives to help boost investment and innovation.

- **What would these targets and incentives look like?**
- **What role might be played by electric and hybrid aircraft?**
- **Are any changes required to the Renewable Transport Fuels Obligation?**

Please see our detailed comments above about the urgent need for an aviation decarbonisation strategy, and for International Aviation and Shipping (IAS) emissions to be formally included in carbon budgets. We would also note that:

- A report commissioned jointly by DfT and the CCC anticipated that fully electric aircraft would not be commercially available until after 2050 for anything but the shortest routes (which by definition generate a very small proportion of emissions). A new report from the IEA⁸ shows that even in a 'sustainable development scenario', electrification will only cover up to 40% of flights and 10% of aviation emissions even by 2070 – 20 years after the sector needs to achieve net zero emissions.
- We note the view of the CCC that sustainable biomass is likely to be in limited supply and better used in applications where it can provide a semi-permanent carbon store (eg buildings) or combined with CCS (eg in power generation) rather than in aviation. Other fuels, such as synthetic liquid 'e-fuel' made from captured CO₂ are potentially zero carbon on a lifecycle basis but not currently commercially available. Kerosene remains by far the cheapest fuel for airlines to use.

7. Community Impacts

The operations of aviation have significant impacts on local communities near airports and under flight paths. As demand returns to pre-pandemic levels there is an opportunity to ensure that the most robust mitigation measures are in place.

- **Do current noise impact assessments consider changes in the noise environment?**
- **What impact will the intensification of existing flight paths have on local communities?**
- **How can improvements in local air quality be secured for the long term?**
- **What schemes or incentives are required to increase the number of people accessing airports via public transport?**
- **Can the impact of night flights be mitigated?**

The direct impact of aviation on air pollution remains unclear, particularly in relation to ultrafine particles from aircraft which are not currently well understood. An association between airports and high air pollution nevertheless exists given the road traffic, generated both by airport passengers and freight. Lower levels of aviation demand in future would help to reduce these impacts.

The recently revised WHO community noise guidelines noted that a change in noise can lead to higher levels of annoyance. The last Government aircraft noise study, SoNA, was criticised by some by some community groups because its random sampling approach failed to interview enough respondents who had recently experienced an airspace change, potentially underestimating community reaction at a time when precision based navigation was resulting in many new flightpaths (a trend that's likely to continue if the Government

⁸ <https://www.iea.org/topics/energy-technology-perspectives>

moves ahead with its airspace modernisation programme). We hope 'the change effect' will be taken into account in ICCAN's planned aircraft noise attitudes study.

Meanwhile, airspace change is creating winners and losers, especially where more concentrated flightpaths result in communities experiencing more flights directly overhead. The community representatives on the DfT's Airspace and Noise Engagement Group have made repeated requests for the Government to undertake research on the health impacts of concentrated flightpaths.

It is difficult to mitigate the impacts of night flights except through partial or full night curfews.