



AEF response to Consumer Environmental Information: CAA consultation on draft principles for aviation consumer environmental information

October 2024

Introductory remarks

The CAA's commitment to providing consumers with environmental information whilst booking flights was established following the publication of the CAA's Environmental Sustainability Strategy and the Government's Jet Zero Strategy in 2022. The original aim was to have this policy in place by the end of 2023, with the CAA identifying that there was an opportunity for the UK to be a leader in this space. Other European regulators and the market have made big strides since then, with clear progress in Switzerland and Europe, as well as continuous improvements to Google's Travel Impact Model (TIM) that supports several major travel booking sites: Swiss law will require operators and booking sites to provide information to consumers on the climate impact of a flight (not just CO₂ emissions), using a methodology that is currently being developed, while EASA is consulting on its proposal for a voluntary environmental labelling scheme to take effect in 2026. While it is unclear how many airlines will elect to use EASA's labelling scheme, we note that the CAA's Options 1 and 2 won't even match this level of ambition for voluntary reporting.

Given that airlines are already preparing for the Swiss law and EASA's proposals, we believe this is an opportunity for CAA to develop a requirement that matches its original ambitions for consumer information and, like Switzerland, aims to adopt a mandatory approach. It will be disappointing if the end result is another voluntary reporting requirement by airlines. The initial call for evidence was clear in supporting Jet Zero's strategic objective, and stated that the aim was 'to ensure that consumers get environmental information, at the point of planning and booking their flights, that is accurate, understandable, standardised, comparable, accessible and useful, so that they can trust it to make informed choices about their travel arrangements'. In a climate when courts and advertising standards bodies are upholding complaints about the sustainability claims made by airlines, we believe the case for meeting these objectives and ambitions is stronger than ever. We encourage the CAA to complete its preliminary work and bring forward a proposal as soon as possible.

The absence of a clear proposal in this consultation presents some difficulties in answering, because to a great extent the level of accuracy and confidence required depends on the

intended use. However, we strongly support developing Option 4 and have responded to all of the questions with this option in mind.

Response to questions

Draft Principles of Aviation Consumer Environmental Information Q9-12

- (Q9) Rank the 9 principles in importance

Approximate ranking:

1. Accountable and Accurate
2. Specific
3. Accessible
4. Standardised
5. Comparable
6. Consistent
7. Transparent
8. Timely
9. Subject to continuous improvement

We have ranked these principles in an order which we think reflects their importance, however they should all be regarded as critical elements of any design, and all principles should be followed when providing information to consumers. The priorities also depend on the intended purpose. For example, the relevance of being 'specific' differs between a) providing consumers with the means to distinguish between flights and b) providing an airline ranking. We understand this CAA task as contributing to the Jet Zero objective of providing consumers with information to make informed choices at or before the point of sale. Our answers are based on this objective.

We have placed the highest priority on the information provided being accountable and accurate, as providing incorrect or incomplete information could be counterproductive. Similarly, we also believe that for this information to be useful, it must be specific to each customer's requirements. Providing data that is too vague could have a misleading and detrimental effect on public understanding.

Public confidence and trust is vital - while several principles will contribute to this, including transparency and standardisation, we think that accuracy is key. In addition to this, accurate information provides little value to the consumer if it isn't easily accessible. This includes ensuring that information is available prior to booking regardless of the booking method used by the customer. Whilst the principles of standardised, transparent and timely are also important, these all come under the umbrella of accountable and accurate information. Similarly, the principles of comparable and consistent contribute to ensuring information is accessible. 'Subject to continuous improvement' is ranked 9th as this is really a process that ensures principles ranked one to eight remain relevant, and are not undermined by a reliance on information that is no longer up-to-date.

- (Q10) To what extent, if at all, do you agree or disagree that the draft principles provide actionable guidance for airlines on data publication? (Select answer from strongly agree to disagree)

Agree.

The principles cover the key elements of consumer information, accuracy and accessibility, in good detail. To ensure that these principles are followed, we believe that these should be accompanied by clear guidance and a methodology for ensuring that data is calculated in a consistent and standardised manner: there is no room for variation in the calculation of emissions data between airlines based on their interpretation, as this would undermine all of the principles relating to data accuracy and undermine public confidence.

While calculations need to be precise, the presentation of the data could be simplified in a way which makes it easy to understand, informs choice and can be readily used. Practically, for the principles, this would require adding further guidance and clarity to the 'accessible' and 'comparable' principles or introducing additional principles related to being 'understandable' or 'useful'. For example, to ensure that information is useful to consumers, we would like to see links to additional information that provides general context relating to a) the impact of distance - flying to Europe on holiday compared with, for example, flying to the Caribbean b) flying compared with not flying (replacing a business trip with videoconferencing for instance, or travelling by rail), and c) guidance on 'options to reduce the climate impact of your journey' next to all premium seat selections.

We understand that user needs will vary, from companies that require quantification to maintain their own emission inventories, to consumers who may benefit from examples of how emissions from flying relate to other modes or activities, and for whom graphics and visual portrayals may be most relevant. However, we think it is important that the above suggestions relating to the needs of users and the wider context are specifically reflected in the principles to ensure utility and comparability.

We cover this further below but we support providing information on non-CO₂ impacts. There are a number of potential approaches ranging from presenting users with generic information that seeks to inform and educate, to specific estimates of the likely impacts with appropriate metrics and explanation.

For the principles, 'complete' could be added either as a standalone principle or as an addition to comparable (i.e. comparable and complete). This would ensure that airlines provide the full picture of their emissions. The Swiss approach should also be noted here, which requires mandatory disclosure of a flight's 'climate' impact. Appropriate metrics should be specified either in the principles or in a set methodology given to airlines.

- (Q11) In relation to the draft principle that information should be timely, how often do you think the data should be updated? (10 options - daily/weekly/monthly/quarterly/bi-annual/annual/real-time/as-needed/event-driven/continuous)

We appreciate the need to strike a balance between accuracy and reasonableness in terms of maintaining the data. We would suggest reviewing, and updating where necessary, no less frequently than bi-annually to reflect seasonal changes in airline operations such as load factors and aircraft selection.

- (Q12) In relation to the draft principle that the information should be standardised, how would you define “minimum data standards” for measuring and reporting environmental data? Would the Government’s Environmental Reporting Guidelines provide an appropriate framework or can you suggest alternatives?

Whilst there are some useful components contained in the Government’s Environmental Reporting Guidelines (e.g. the principles for reporting data, guidance on measuring and reporting), these typically refer to an organisation’s total emissions. For the provision of consumer information, the data required is specific (on a flight by flight basis) and therefore has less relevance to typical environmental reporting. Large parts of the Environmental Reporting Guidelines would not be relevant, including recommendations on comparisons over time and baselines, future targets and different scopes.

The best way to ensure that minimum standards for calculating and disclosing emissions are met would be for the CAA to define a specific, aviation relevant methodology for airlines to follow. This could be done by using or replicating existing measuring and reporting systems that are already in place. Examples of this could include using the fuel burn data that airlines already report for compliance purposes under the UK Emissions Trading System (ETS) and CORSIA, with the added advantage that this data is already subject to verification requirements. Alternatively, if the information is to be calculated, standardising assumptions in line with existing models and approaches would help to promote consistency, for example, see the Travel Impact Model developed by Google, ICAO’s Carbon Emissions Calculator (ICEC) and the ISO standard. However, these methodologies currently differ in several important respects so the CAA should select an approach that is best aligned with its principles and which prioritise accuracy. Alignment could also be made with the EASA information requirement that will be finalised by 2025 and the guidance for the Swiss law requiring GHG disclosure at or before the point of sale.

Options for implementation of the principles

- (Q13) Please rank the following options for implementation of the principles based on your preference between 1 (most preferred) to 4 (least preferred)
 - *Option 1: The CAA publishes the principles as a guidance document*
 - *Option 2: The CAA publishes the principles as a guidance document and publishes report*
 - *Option 3: The CAA publishes the principles as a policy decision + calculates and publishes average CO2 emissions for key routes*
 - *Option 4: The CAA publishes the principles as a policy decision and uses its powers to gather relevant data from airlines to calculate the carbon footprint of all individual scheduled flights. This info can then be published by CAA or*

provided by airlines with ticket info. More intensive and consistent across all routes in the UK but may differ to approaches in other countries

Option 4 is our preferred option and is, we believe, the only option that can be implemented whilst adhering to all of the draft principles and contributing to the Jet Zero policy objective. This is crucial as setting up a system which can't deliver on all the implementation principles undermines its purpose.

There are significant problems with options 1-3 that make all three unfeasible. Options 1 and 2 are voluntary and therefore do not ensure the principles are adhered to in the first place, and if not adopted universally by airlines, would prevent consumers from making comparisons. Additionally, these two options leave the power and interpretation in the hands of airlines which could a) lead airlines to adopt practices that produce environmental data that reflects well on themselves or is only partially disclosed, and/or b) unintentionally leads to differences in how the data is collected. This links to a key issue, which is that consumers need independent verification of data (as per the CAA consumer [research](#)) to be able to trust the data. Providing this independent verification in the form of a report is not an effective way of reassuring consumers. This independent verification by the CAA should be done before the emissions data reaches consumers.

Options 1 and 2 also create significant timing issues. The CAA consumer research in 2021 showed that many consumers want to have environmental information that they can trust about the impact of their flights. Additionally, according to the Jet Zero strategy, a proposal was intended to be in place for the end of 2023. Options 1 and 2 introduce several additional stages to provide guidance, encourage airline reporting, verify, and in the case of option 2, to compile and publish a report. We believe these approaches will lead to further delays in the CAA meeting its responsibility to provide environmental information. In the interest of time, it is more efficient to pursue option 4 and use the principle of 'continuous improvement' to make any adjustments needed following regular reports and reviews.

Option 3 creates a separate set of issues that clash with the principles of providing 'specific', 'accurate' data. Crucially, providing data only for key routes would mean that any passengers not flying on these routes would be left without any relevant information at all. This option also risks being so limited and generic that the public won't find it useful and relevant — a common mistake in other carbon footprint and calculator websites. By averaging the data on the key routes provided, there would be a lack of differentiation between airlines and aircraft, meaning the data would not be specific and would not help to inform consumer choice. This option could also create confusion and prompts further questions, including what the key routes are, how many key routes are displayed, if key routes are decided by passenger numbers or emissions, how often routes are updated and the impact of major airline route changes or aircraft selection on key routes.

Option 4 does not share the same problems as options 1-3. A well-designed Option 4 would result in consistent and accurate information being provided to consumers and would demonstrate that the UK aviation industry is committed to transparency and

environmental integrity. This is, in our view, the only option that would meet the CAA and Jet Zero objectives.

Suggested approach to developing a methodology:

We would be willing to engage beyond this consultation in the process of identifying and developing an exact methodology for implementing option 4. This should include looking at experiences and lessons from existing approaches. As these schemes are largely operational it provides an opportunity for the CAA to evaluate their performance to create a simple and effective system.

Our response to the CAA's first consultation suggested 3 approaches, ranked from highest to lowest level of confidence:

1. The 'gold standard' would be to use actual emissions data based on carrier-specific, flight information for the route flown. Airlines hold the most accurate information about their fuel use and therefore emissions. As this data is currently reported by operators for the purposes of CORSIA and ETS compliance, it should not be complicated or costly to repurpose. An agreement to share this reported data for the provision of information for consumers, would ensure the highest levels of accuracy. Airlines may also be more prepared to share this data if they are signed up to EASAs labelling scheme.
2. An alternative would be to use modelled data and a methodology based on key factors including:
 - Distance flown (actual track miles, or Great Circle Distance plus a standard uplift factor to account for additional track miles)
 - Aircraft type and fuel burn for the route
 - Airline-specific seat configuration and load factors

The majority of calculators available today to inform the public, including ICAO's carbon calculator, rely on modelled data, but differences in assumptions can lead to varying results which risks undermining public confidence. Where there are differences between methodologies, the CAA should prioritise accuracy

3. Significantly less accurate would be a methodology based on average airline emissions (across an operator's fleet) per passenger km differentiated for short, medium and long-haul operations, and seating class.

All three of these methodologies would incentivise airlines to reduce their emissions per passenger kilometre. As we have stated, it is vital for the integrity of the system and to avoid consumer confusion, that all the airlines are following the same methodology.

(Q14) For option 1, what is the likelihood that your organisation would participate in a consumer environmental information scheme that conformed to the principles if it were voluntary? Please answer realistically. (Highly likely to unlikely)

Not relevant to our organisation.

- (Q15) Would your organisation like to work with the CAA to pilot a consumer environmental information scheme? (Yes/no/don't know)

Not relevant to our organisation, however we would like to contribute ideas to the design of such a scheme.

- (Q16) Which, if any, of the following do you think are barriers to your organisation implementing such a scheme? (Please select from the list or specify "Other" with a brief explanation - technical difficulties, access to data, already using another system, cost, other)

Not relevant to our organisation, but we don't accept that the data requests will put an unfair administrative burden on reporting airlines given that most of this information is already collated and submitted to regulatory authorities for the purposes of ETS and CORSIA.

- (Q17) When do you think any such scheme should commence? (2026/2027/Later)

2026

This information should be available as soon as possible as there is demand from consumers and a long-standing information duty granted to the CAA. Please refer to our answer to question 14 for our reasoning behind why providing this information as soon as possible is important. Providing this information in 2026 should not be seen as premature. Airlines hold accurate information already, and other regulators are acting quickly to develop their own requirements. The CAA should be seen as a leader and delays to the provision of this data would not only see it fall behind other European initiatives, but the resulting information gap could contribute to uncertainty.

- (Q18) Does your organisation currently undertake any verification for your emissions data internally (Yes/no/don't know)

Not relevant to our organisation

- (Q19) To what extent do you think there is value in implementing a verification requirement for CO2 calculations for the information provided to passengers? (A lot of value to no value)

A lot of value.

Confidence in the information presented is critical and verification will play a big role in creating consumer trust. The wider question is who does it and who pays for it? If the data used is based on ETS/CORSIA submissions, then verification has already taken place. As such, we do not envisage any additional cost burdens on airlines stemming from a potential disclosure requirement since this data is already monitored, reported and verified by operators for the purposes of compliance with the UK Emissions Trading System and ICAO's CORSIA.

That said, whilst verification is important for ensuring that information is trustworthy, it is typically retrospective, so alternative approaches should also be investigated including a role for the CAA. While the CAA can increase the likelihood that any data is accurate by setting out a clear, standardised methodology on how airlines should provide consumer information, some form of verification to ensure that airlines are following CAA instructions would be necessary.

In summary, a standardised methodology, with regular checks to ensure consistency and accuracy, would reduce the risk of information being misrepresented.

- (Q20) Should environmental information be integrated into the global distribution system alongside ticketing and scheduling information? (Yes/no/don't know)

Yes, this is the approach taken by some leading market providers and other regulators (users of Google's TIM, and the Swiss law for example). The UK needs to provide consumers with relevant and up to date information tools. We wish to stress that information being provided before the ticket purchase alongside price information, and not after purchase, is a key requirement, and the most efficient way to give consumers access to this data is through integration with the global distribution system.

- (Q21) Do you think that airlines or other relevant organisations should be required to publish CO₂e data or CO₂? (Yes/no/don't know)

Yes

There should be a requirement to publish data on airlines and travel booking sites/agents. In principle, as a carbon-intensive industry, information about greenhouse gas emissions from flights should be publicly available. Consumers purchasing flights have a right to be informed about the emissions produced by the airline: being able to see the difference in emissions between airlines on a given route is a key part of ensuring that the consumer can make informed choices. This differentiation is important as evidence from ICCT suggests there can be as much as a 60% differential in emissions between carriers operating transatlantic routes.

CO₂e data should be published. Additionally, the public has an interest in the total climate impact of a flight, not just CO₂ emissions. We suggest implementing a CO₂e requirement to cover the Kyoto gases, with a minimum requirement to provide additional information on how non-CO₂ impacts contribute to net warming (see response to question 22 below).

- (Q22) Recognising the current scientific uncertainty, do you agree or disagree that non-CO₂ emissions should be included in the calculations and verification (Strongly agree to disagree)

Strongly agree

We agree that non-CO₂ emissions should be included in the information provided. Given the scientific evidence on the impacts of non-CO₂ emissions, we believe that it would be more misleading to exclude non-CO₂ impacts from consumer information than to include them with necessary caveats.

There are a number of initiatives underway on how to incorporate this non-CO₂ information into calculations and these can inform how the CAA applies a non-CO₂ requirement in the future. Information could be as simple as a text box informing consumers about the net warming from non-CO₂ impacts, their scale, and why altitude and time of day matter to contrail formation, through to making calculations (airline-specific non-CO₂ factors, average non-CO₂ factors for long, medium, short and domestic flights, or a multiplier based on global averages).

Providing non-CO₂ information is important in the context of currently limited policy instruments available to address their impact. In this context, improving public awareness of non-CO₂ emissions is important and could have significant benefits for creating public acceptance of policy goals and measures in the future, as well as informing consumer choice (for example, whether to avoid flights predominantly during hours of darkness if there is a likely risk of contrail formation). We are happy to engage further with the CAA on the best way of providing this information to the public.

As an initial step, while more precise methods are investigated, the CAA could provide a short pop-up narrative that provides context without stating an exact emissions value e.g: 'In addition to producing CO₂ emissions, flying can impact on the climate in other ways (these effects are often termed non-CO₂ impacts), including releasing water, particulates and nitrogen oxides and, in certain atmospheric conditions, the formation of condensation trails (contrails). Non-CO₂ emissions from aviation are widely estimated to contribute twice the net warming associated with the sector's CO₂ emissions. A large proportion of this warming results from the creation of contrails. Contrails only occur on a fraction of flights as they are dependent on a number of factors including altitude and atmospheric conditions, but the majority of persistent contrails are observed on long-haul flights in Europe, the US and across the Atlantic. Contrails at night are particularly likely to cause warming.'

- (Q23) Is there anything else you would like to share or any additional comments you have regarding the topics discussed in this questionnaire?

It is crucial that the CAA/airlines communicate clearly the relevance and context of the information, to avoid consumer confusion, indifference or at worst resistance. This comes back to our points on presentation. We have already provided some comments on the presentation of information but would like to make it clear that we are opposed to the use of colour coding in the form of a traffic light system that implies some flights are 'green'. There is currently no such thing as a 'green' flight, and even flights using SAF produce the same emissions when combusted. Accordingly, whilst consumers may like these types of visuals, they would create a high risk of data being misinterpreted. This relates back to the CAA objectives, which

are to ensure that people can find: reliable information, at the point of looking for and booking flights, using a standard approach and data, in a format that is understandable, contextualised and accessible, which will give them the confidence to make decisions on whether and how they travel. The goal is not to make people feel good for choosing a flight that is labelled as a greener choice without also highlighting that it still creates significant emissions.

This leads into how to ensure that this system is future proofed to adapt to new aircraft technology or fuels. For example a hydrogen or electric flight could potentially be rated zero emissions — in this context using green labelling could be appropriate. For indirect emissions reductions, including purchases of offset or allowance credits, investment in carbon capture technologies or the purchase of SAF, information could be made available in a separate information box, or via a link, about these initiatives on an airline by airline basis. It should not, in our view, be accounted for by way of a reduction in the published emissions per flight without first making other adjustments e.g. for a valid comparison, including SAF where the net savings are made during production rather than during combustion would require the associated 'lifecycle' emissions from producing kerosene to be included in the CO₂ data (an uplift of about 20%). Doing otherwise would undermine the integrity of the data.

Comparisons to other forms of transport (driving) or emissions (eating meat, heating) would be beneficial for providing consumers with context.

We would also suggest that there is an enforcement provision for non-compliance with the requirements.
