

For business sustainability leaders

How can your company align with best practice in accounting for the full climate impact of business air travel?

A 5-point plan

Ensure that the full climate impacts of business flying are visible at the point of decision.

1 Ask for both CO₂ and non-CO₂ emissions of aviation to be included in travel agency services and the booking information visible to travelers.

Take steps to reduce all greenhouse gas emissions from business flying.

2 Lower the overall number of flights by reducing frequent flying, shifting to rail for regional travel, and substituting virtual collaboration tools for long-haul flights.

3 Reduce those flights particularly conducive to contrail formation, such as high-altitude long-haul flights and cold-air winter evening or night flights.

Report the full climate impacts of business flying, using the best available standard.

4 Report annually on air travel, including both CO₂ and non-CO₂ emissions.

5 Use a methodology that applies a Radiative Forcing Index factor of at least 1.7 to CO₂ emissions, such as the UK BEIS¹ conversion factors for company reporting of greenhouse gas emissions.

¹ UK Department for Business, Energy & Industrial Strategy, now succeeded by the UK Department for Energy Security & Net Zero.

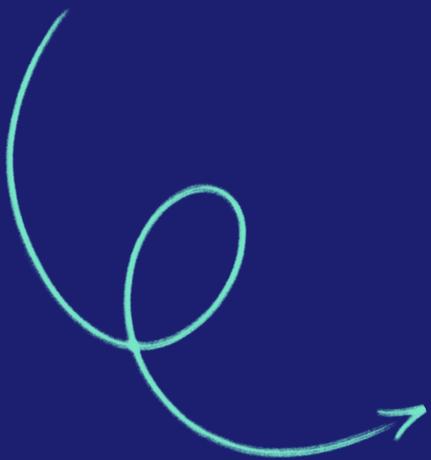
The tip of the iceberg

When an airplane burns jet fuel, it releases carbon dioxide (CO₂), and produces additional emissions which contribute to global warming. The most visible of these take the form of contrails, the long cloudy strips that usually form at high altitude and through cold and humid air, where moisture in ice-saturated air freezes around soot particles released from jet engines.

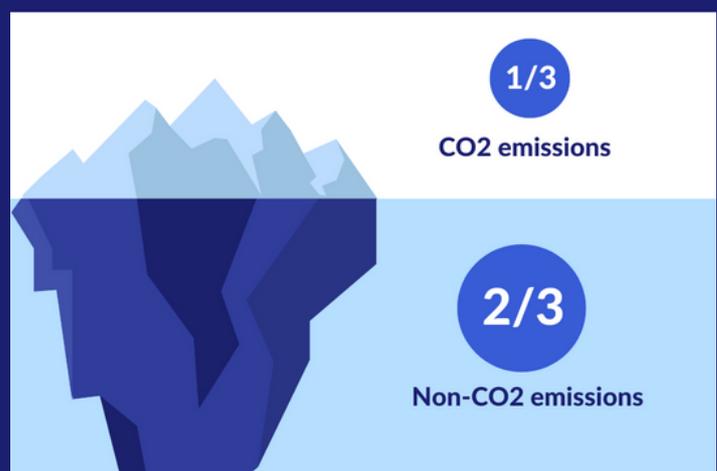


These contrails, and nitrogen oxide (NO_x) emissions, are the largest contributors to so-called “non-CO₂” effects, **which warm the climate twice as much as do CO₂ emissions.**

Policy measures such as pricing of NO_x emissions, adapting flight plans to avoid contrail formation, improving jet fuel quality and increasing the use of sustainable e-fuels, are needed in order to mitigate these impacts. While scientific understanding of non-CO₂ effects must be further improved, in light of the increasingly critical climate challenges we face, it is both necessary and possible to take actions to resolve one of aviation’s biggest climate problems.



Non-CO₂: The hidden side of aviation's total climate impact



Tools to account for the full climate impacts of business air travel

Findings

Non-CO₂ emissions are referenced in the Greenhouse Gas (GHG) Protocol and UK BEIS calculation factors, but their reporting is left optional.

Travel agencies offer corporate clients the option of integrating non-CO₂ emissions into booking information, however this is left to the choice of the business.

The most commonly used Radiative Forcing Index (RFI) factor is that of UK BEIS, which is 1.7 in the conversion factors 2023².

Regulations affect requirements for reporting standards, which affect the use of GHG calculation methodologies, which affect the practices of travel agencies as regards booking tools.

²The UK BEIS RFI factor was updated on 7 June 2023 from a previous value of 1.9 in the conversion factors 2022, in line with the latest GWP100 estimates from "The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018" (Lee et al. 2021).

Transport & Environment commissioned the **Climate Neutral Group** to research the extent to which the full climate impacts of flying are accounted for by the most frequently used GHG calculation methodologies, travel agency corporate booking tools, and reporting standards.

The **Travel Smart Campaign** is a global effort to encourage businesses to reduce their air travel emissions, improve their sustainability, and help to significantly reduce aviation's climate impacts in the present decade.

Conclusions

Having an international consensus on using an RFI factor of a minimum value could significantly improve measuring, reducing and reporting GHG emissions.

In the short term, the following revisions could effectively ensure that GHG calculation methodologies adopt the RFI factor:

- The UK BEIS conversion factors should remove the factors excluding non-CO₂ effects from the tool, so that opting out is no longer possible.
- The GHG Protocol for company reporting should move the RFI factor mention to an extra bullet under 'should' in the section entitled 'emissions factors needed.'

Regarding reporting standards, the EU Corporate Sustainability Reporting Directive should contain a specific obligation on reporting business air travel emissions, including non-CO₂ effects, so that this becomes part of reporting frameworks for companies that are mandatory, publicly accessible, and independently verified.

Travel agents should use an RFI factor as a default when calculating emissions, and offer the option of opt-out instead of opt-in to profile themselves as more sustainable.

The **2023 Travel Smart Ranking** revealed that a large majority (85%) of top global flyers publish annually their corporate travel emissions data. Among these, 40 leading global companies (12%) account for the full climate impacts of their flying.