Airlines International Representation in Europe

AIRE POSITION ON THE DRAFT COMMISSION IMPLEMENTING REGULATION FOR NON-CO2 EFFECTS OF AVIATION

AIRE values the opportunity to provide insights on the draft Implementing Regulation that aims to integrate non-CO_2 emissions from aviation within the EU Emissions Trading System (ETS) Monitoring, Reporting, and Verification (MRV) framework starting in 2025.

While CO_2 emissions and their climate impacts can be estimated with high precision, calculating the effects of non-CO_2 emissions involves **complex modelling and assumptions**. These estimations depend on various factors such as flight paths, weather data and fuel composition. Due to the inherent uncertainties and assumptions in these parameters, accurately assessing the impact of non-CO_2 emissions for individual flights is highly challenging.

AIRE emphasizes that scientific consensus on the climate effects of non-CO_2 emissions has not yet been established. Consequently, it remains unclear how the proposed data reporting requirements will advance scientific understanding. Therefore, AIRE's feedback should not be interpreted as an endorsement of the non-CO2 MRV within the EU ETS framework. Nevertheless, AIRE would like to highlight several concerns regarding the draft Implementing Regulation:

1. Monitoring Requirements and Timeline

The monitoring requirements are unclear and the timetable for the submission of the monitoring plan is infeasible, at least for the first year.

Operators expected to comply by January 1, 2025, would need to submit their monitoring plans by August/September 2024 [**Monitoring Plan to be submitted at least 4 months before the operator falls into scope is infeasible [Article 52(1)]** which may be before the final regulation is published.

AIRE fully believes that this short timeframe poses significant challenges for both operators and Member State regulators, to comply at least for the first year. Additionally, we suggests that a simplified template for the monitoring plan would facilitate the submission and reduce administrative burdens.

Moreover, the proposal require operators to provide extensive data into IT tools. The Commission **has not yet confirmed if NEATs will be available by 1st January 2025**, which still under development and makes validation against actual outcomes impractical. According to point 3, If NEATs is unavailable, operators would need to compile the following flight information.

> 3. Start undertaking the **monitoring** according to the chosen approach and follow the MRV Guidance document to be made available by the Commission). If NEATS is unavailable, at minimum, collect the flight information (Flight number; Day and time of the flight; Arrival and departure airport) and aircraft properties (Aircraft type; Engine UID; Aircraft mass) per flight. Once NEATS is available, these will be provided for a CO_{2e} calculation. If NEATS is available, at minimum, the aircraft and fuel properties (Aromatics content; Hydrogen to carbon ratio, Net calorific value) are to be monitored per flight. All other data (flight trajectories, meteorological data, etc.) is provided by NEATS.

However, if NEATS is unavailable and Calculation Method C is selected, **it remains unclear whether operators will still be required to collect fuel properties data.** Additionally, there is ambiguity about how these data reports will be integrated. Will they be included in the same template used for EU ETS and CORSIA reporting, or will the reports be generated directly from NEATS for submission? Clarification on this matter is crucial to understand the necessary developments required in the emission control systems.

Given that the specifics of the proposed non-CO2 Aviation Effects Tracking System (NEATS) are unclear, **including the exact data points and formats required.** This ambiguity raises concerns about the additional administrative load on operators, especially given the volume and potential inaccessibility of required data.

Finally, the use of conservative default values to fill data gaps may result in unrealistic representations of non-CO_2 climate effects, particularly regarding fuel specifications. Due to the nature of fuel supply and distribution, airlines typically lack detailed per-flight fuel specification data. **Some proposed default values, such as 25% aromatic content, significantly exceed typical**

averages of 14-17%, risking overestimation of non-CO2 climate effects due to data gaps originating from parameters outside the control of operators. **AIRE urges a reconsideration of these default values to prevent unrealistic representations of non-CO_2 values**, particularly concerning fuel specifications.

Recommendations

- **Allowing more time for the monitoring plan to be summited by aircraft operators,** particularly for the first year.
- **Ensuring that the monitoring and reporting system is thoroughly tested and refined before implementation** to identify and address potential issues.
- **Clarify NEATS methodology in detail**, including the tools and information it incorporates.
- **Using a more practical data collection method** to facilitate the submission and reduce the administrative burden.

2. Short Time Horizons for Global Warming Potential (GWP)

Using Global Warming Potential (GWP) metrics over short time horizons can lead to an overestimation of CO_2-equivalent emissions from non-CO_2 species, as these metrics often fail to capture the long-term climate effects of CO_2. This approach risks drawing incorrect conclusions about future mitigation strategies

The application of "efficacy" to adjust GWP is currently unclear and lacks a solid scientific foundation. Given that efficacy is a complex and unresolved issue in climate science, it is unreasonable to expect aircraft operators to apply this concept without clear guidelines.

Recommendations:

- **Adopt average values instead of unrealistic conservative estimates for GWP calculations**.
- **Provide clear guidance on how operators should apply ‘’efficacy’’ in refining GWP metrics.**

3. Humidity Sensors to Enhance Scientific Understanding of non-CO_2 Effects

AIRE supports the initiative to advance the scientific understanding of non-CO_2 emissions from aviation. A key element in this endeavour is the promotion of precise humidity and temperature measurements. **Current humidity measurements at cruise altitudes are insufficient** for validating the output of Numerical Weather Prediction (NWP) models used in the NEATS system. Improved humidity data would improve the validation of these models, support the evaluation and refinement of NEATS, and further scientific understanding of the processes affecting upper-tropospheric humidity.

Given the significant impact of ambient relative humidity on contrail formation and persistence, **AIRE recommends that the European Commission (EC) provide funding opportunities to support this initiative,** such as the development and installation of advanced water vapor sensors onboard aircraft. Investing in real-time humidity measurement technologies could greatly enhance the accuracy of climate impact assessments and improve the overall effectiveness of emission reduction strategies.

4. Inconsistencies with EU ETS scope

The proposed scope of non-CO2 emissions will apply to routes between two aerodromes within the EEA, as well as routes departing from an EEA aerodrome to Switzerland or the UK. This inclusion appears to include outermost regions, **which is not aligned with the existing ETS scope** and could potentially create significant confusion. To illustrate the inconsistencies between the ETS and the proposed non-CO2 scope:

EU ETS Scope	Proposed Non-CO2 Scope
Tenerife to Las Palmas (**excluded from ETS**)	Tenerife to Las Palmas (**included in non-CO2**)
Tenerife to Madrid (**excluded from ETS**)	Tenerife to Madrid (**included in non-CO2**)
Tenerife to Berlin (**included in ETS**)	Tenerife to Berlin (**included in non-CO2**)

Managing different scopes for ETS and non-CO_2 emissions is chaotic and inconsistent, particularly when CO_2-excluded flights are included under the non-CO_2 regulations.

Recommendations

To avoid confusion and inconsistencies, **it is recommended to align the scope of non-CO_2 emissions with the existing ETS scope.** This alignment will streamline management and ensure consistency in the regulatory approach.

5. Financial Burden and Emission Factor Risks

AIRE is deeply concerned about the financial burden on the aviation sector due to **the risk of changing the emission factor, which could significantly increase the costs of the sector's participation in the EU ETS system**. It should be noted that the aviation sector is already highly financially burdened by the legislative changes brought by the Fit for 55 package. Additionally, expanding the MRV scope would result in higher expenditure towards obtaining and reporting the necessary data. This added financial strain comes at a time when the aviation industry is striving to recover from the economic impacts of the COVID-19 pandemic and adapt to existing environmental regulations.

AIRE appreciates the commitment to addressing non-CO_2 emissions and acknowledges the effort involved. However, we urge a thorough reassessment of the proposed measures to ensure their feasibility and effectiveness. It is crucial to address these concerns prior to implementation to ensure that the approach is both practical and scientifically robust. AIRE looks forward to continued dialogue and collaboration to develop a practical and scientifically sound approach to addressing non-CO_2 emissions in aviation.