



Feasibility Study of Selected Carbon-Leakage Prevention Measures in EU Aviation

*Legal and Policy Assessment of **Targeted SAF Allowances** and **Carbon Pricing**: EU and International Considerations*

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Disclaimer

This report provides an independent legal feasibility assessment. It is intended to inform policy discussions on carbon leakage prevention in EU aviation and does not constitute legal advice. It is based on applicable EU and international law provisions, and publicly available information as of July 2025.

This report is intentionally concise and policy-oriented, with hyperlinks in the text and footnotes. It does not replace a full legal implementation study, which may be warranted in a next phase. Any views expressed are those of the author and do not reflect the official position of T&E or any EU institution. While care has been taken to ensure accuracy, no liability is accepted for actions taken based on this report.

Executive Summary

This report presents a legal feasibility assessment of two proposed measures to address carbon leakage risks in EU aviation. Both aim to mitigate competitive distortions arising from uneven environmental obligations between EU/EEA-based and third-country carriers, while reinforcing the effectiveness of the EU's aviation decarbonisation framework and the EU's climate objectives.

(1) Targeted allocation of Sustainable Aviation Fuel (SAF) allowances under the EU Emissions Trading System (EU ETS)

This measure would allocate additional SAF allowances to flights on pre-identified routes exposed to carbon leakage risk—particularly those subject to ReFuelEU Aviation mandates but facing strong competition via non-EU/EEA hubs. Legally, such targeted allocation is feasible under EU law if designed to respect the principles of equal treatment, non-discrimination, and proportionality. It would require either an amendment to Delegated Regulation (EU) 2025/723, which introduced the SAF allowance reserve, or—more likely—a revision of the EU ETS Directive. Key legal tests include objective, evidence-based justification and alignment with, and proportionality to, a legitimate environmental aim. While State aid rules may be triggered, the measure appears compatible with existing guidelines if it is well-targeted to address a market failure, proportionate and time bound.

(2) Route-specific carbon pricing, based on three variants: specific airport pairs, proximity to EU borders, or passengers' final destinations

This option involves applying a differentiated carbon price based on route characteristics. Its legal feasibility depends on the variant selected, the mechanism's design, and the strength of its justification. As with the SAF allowance mechanism, any differentiation must be objectively justified, proportionate, and non-discriminatory in form and effect. Route-based pricing could be introduced either through amendments to the EU ETS Directive or as a standalone fiscal measure. The latter would be more politically sensitive, as it entails more visible financial differentiation between operators or routes, and would likely require unanimity in the Council under EU taxation rules—making its adoption more challenging.

Shared legal and technical considerations

Both measures would require adaptations to the current EU ETS architecture—particularly the Monitoring, Reporting and Verification (MRV) system and the Union Registry—to enable route-level differentiation in a legally robust way. While emissions are calculated per individual flight, this level of detail is not currently used to allocate allowances or enforce compliance obligations. This limits the legal feasibility of route-targeted measures under existing rules and would require corresponding changes to MRV compliance procedures and registry functionality.

Conclusion

Both measures are legally feasible under EU and international law, provided they are carefully designed, transparently justified, and proportionately targeted. Targeted SAF allowances may benefit from lower legal and diplomatic exposure, while route-based carbon pricing may require stronger justification and face greater implementation complexity and international sensitivity. International legal exposure—under Air Services and Transport Agreements and the Chicago Convention—appears manageable if the measures are framed as climate-related cost corrections in response to uneven environmental obligations and applied in a formally neutral way. Further legal and technical work would be necessary to enable either measure in practice.

1. INTRODUCTION

1.1. Purpose and Context

Concerns about carbon leakage in the aviation sector have prompted exploration of mitigating policy options, such as a Carbon Border Adjustment Mechanism (CBAM) for aviation and Sustainable Aviation Fuel (SAF) levies. This carbon leakage concern has also been examined in recent analyses, including a 2023 briefing by Transport & Environment (T&E).¹

Aware of the implementation challenges linked to existing CBAM and SAF levies proposals, T&E has commissioned the present legal feasibility assessment of two novel measures aimed at preserving the EU's climate ambition without undermining aviation competitiveness. Both ideas build on the legal framework of the EU Emissions Trading System (EU ETS) through the [EU ETS Directive 2003/87/EC](#) (the EU ETS Directive, as variously amended) as applied to aviation activities, covering flights to, from and within the European Economic Area (EEA).² They seek to address competitive distortions between EEA-based carriers and third-country operators, particularly where differing obligations under the EU ETS Directive and the [ReFuelEU Aviation Regulation \(EU\) 2023/2405](#)—such as mandatory SAF uptake—create uneven cost pressures.

The policy options are assessed through the lens of the following high-level research questions:

1. **Option 1 - Targeted SAF allowances:** To what extent can “targeted SAF allowances” be introduced under the EU ETS to prevent carbon leakage on high-risk routes?
2. **Option 2 – Route-specific carbon pricing:** How legally feasible is “route-specific carbon pricing” (via one of three variants: targeting high-risk routes, airports’ EU-border distance, or passengers’ final destinations), and how can these be implemented?

1.2. Scope and Structure of the Report

This report provides an initial legal feasibility assessment of the two measures, grounded in EU law, including the Treaty on the Functioning of the European Union (TFEU), general principles of EU law, relevant case law of the Court of Justice of the European Union (CJEU), and applicable international obligations. This scoping-level assessment is intended for EU policymakers, legal and regulatory experts, and stakeholders involved in aviation decarbonisation. It is designed to inform policy development; more detailed legal analysis may be required in a subsequent phase.

The report is structured into four chapters:

- **Chapter 2** analyses the legal feasibility of a **targeted SAF allowance mechanism**;
- **Chapter 3** assesses **route-based carbon pricing variants**;
- **Chapter 4** briefly considers the **political and international contexts**;
- The final section offers **conclusions and comparative reflections** on both measures.

Chapters 2 and 3 share a common structure. They begin with a description of the policy concept and then analyse the relevant measures’ legal basis, compliance with EU law principles, administrative and operational feasibility, and compatibility with international obligations.

¹ Transport & Environment, [Aviation competitiveness and carbon leakage – Updated briefing, September 2023](#). The study concludes that the overall carbon leakage risk from EU Fit for 55 measures is low (3% of total CO₂ savings by 2035) and calls for more targeted interventions.

² The EEA consist of the EU27, plus Iceland, Liechtenstein and Norway. The EU ETS also covers Switzerland. In May 2025 the EU and UK [announced their intention to work towards linking their two ETS systems](#).

2. LEGAL FEASIBILITY MEASURE #1: TARGETED SAF ALLOWANCES

2.1. Policy Concept

Through [Directive \(EU\) 2023/958](#), amending the EU ETS Directive for aviation activities, the EU has introduced a mechanism to support SAF uptake. From 2024 to 2030, a reserve of 20 million ETS allowances is available to partially offset the cost differential between SAF and conventional fossil kerosene, with support levels varying based on fuel type and uplift location.³ This SAF support mechanism is applied **uniformly** to all ETS-covered flights, regardless of route or operator, provided the fuel is uplifted at EEA airports and the flight is subject to ETS surrender obligations.

The proposed policy measure builds on this existing support framework by exploring the targeted allocation of SAF-linked ETS allowances on a **route-differentiated** basis, focusing on routes at risk of carbon leakage. The rationale is to offer tailored support where SAF mandates risk creating competitive disadvantages vis-à-vis non-EU carriers not subject to equivalent obligations.⁴

Under such a model, airlines operating on pre-identified routes — e.g., from EU hubs to long-haul destinations with strong non-EU competition via competing third-country hubs — could obtain additional SAF-linked ETS allowances. These targeted allowances would:

- Reduce the effective compliance cost for SAF usage on competitive routes;
- Encourage direct routing from EU hubs, countering leakage and tankering incentives;
- Reinforce the decarbonisation impact of the EU ETS and ReFuelEU legislation.

This differentiated support deviates from the current neutral structure of the SAF allowance regime, introducing an element of selective economic relief. While conceptually consistent with the policy logic of ETS practices in other sectors (see **Box 1**),⁵ such a targeted mechanism would be new to aviation and raise important legal and policy questions, particularly its compatibility with EU law, administrative feasibility, and compliance with international obligations.

The next sections assess the legal and practical feasibility of targeted SAF support under EU and international frameworks, focusing on principles relevant to climate policy implementation.

Box 1 – Policy Context: Free Allocation and Carbon Leakage Prevention

In the industrial sector, the EU ETS provides free allowances to installations at risk of carbon leakage, based on emission benchmarks and trade exposure. As this support is phased out, it is being replaced by the **Carbon Border Adjustment Mechanism (CBAM)**.

Aviation also received free allowances, but on a transitional, non-targeted basis, now being phased out by 2026. Unlike in the goods sectors, no CBAM equivalent exists for aviation due to international legal constraints and the mobile, service-based nature of air transport. In this context, targeted SAF allowances could serve as a sector-specific alternative, offering tailored support on leakage-prone routes without applying charges to non-EU carriers.

³ See, Article 3(c)6 of the EU ETS Directive (as variously amended). See also next page.

⁴ [CE Delft \(2025\)](#) identifies differentiated SAF support as a promising anti-leakage measure, especially on high-risk routes prone to competitive evasion. The report highlights that such measures could “foster direct flights from EU hubs” while avoiding the broader legal challenges of CBAM-style approaches.

⁵ For a full analysis by the same author of this report on the application of CBAM to aviation including the legal implications, see, 'EU Air Transport and the EU's Environmental Agenda Struggle: A Leap of Faith or Can a CBAM Level the Playing Field?' (2022), [Air and Space Law 47\(6\)](#).

2.2. EU Law Considerations

2.2.1. Legal Basis in the ETS Directive

The existing SAF support mechanism under the EU ETS, comprising a reserve of 20 million SAF allowances, derives from Article 3c(6) of the revised EU ETS Directive, as variously amended. The mechanism is further implemented through secondary legislation, including the Commission Delegated [ETS Auctioning Regulation \(EU\) 2023/2830](#), as amended, providing the procedural framework for withholding the SAF allowances from auction and Commission Delegated [Regulation \(EU\) 2025/723](#), setting out the rules for calculating and allocating SAF allowances.

The present SAF support allowance mechanism is applied on a route-neutral basis. The legal and technical adjustments required to enable route-based differentiation are discussed in Section 2.2.4 below. The following section addresses the compatibility of such route-based differentiation with principles of equal treatment and non-discrimination under EU primary law.

2.2.2. Equal Treatment and Non-Discrimination

The principle of equal treatment is a general principle of EU law.⁶ In addition, under [Article 18 TFEU](#), any discrimination on the grounds of (operator) nationality is prohibited within the scope of application of the Treaties. Even if the proposed measure does not necessarily explicitly distinguish between operators based on nationality, **differentiating SAF allowance support by route** could have **indirect discriminatory effects**, particularly where support is effectively available to specific EU-based operators due to the route-targeting structure or uplift locations.

In addition to these general principles, the EU ETS Directive, as applied to aviation activities, directly embeds the principle of equal treatment. Article 3c (on scope) assumes uniform and non-discriminatory treatment of operators and does not currently allow for differentiation. Any departure from this uniformity must therefore be justified in a manner consistent with EU law.

According to settled case law of the Court of Justice of the EU (CJEU), differential treatment is not unlawful when it is objectively justified. Such justification may be established where:⁷

- It is based on **objective, reasonable and transparent criteria**;
- Pursues a **legitimate public interest**;
- It is **proportionate**, meaning it does not go beyond what is **necessary** to achieve its aims;
- And it is **consistently applied**, avoiding arbitrary or selective favouritism.

In the context of targeted SAF allowances, a lawful approach under EU law would require:

- A **robust, objective, and evidence-based methodology** to identify carbon leakage-prone routes, focusing only on those where **leakage risk is demonstrably high**.⁸
- **Transparent eligibility criteria**, applied consistently across operators and routes.

⁶ As enshrined in Articles 20 and 21 of the Charter of Fundamental Rights of the European Union. See also, [Case C-550/07, Akzo Nobel Chemicals and Akcros Chemicals](#), para 54.

⁷ On equal treatment under the EU ETS Directive, see [Case C-127/07, Arcelor Atlantique et Lorraine and Others](#), paras 23 and 47, and case law cited, confirming the permissibility of differential treatment if objectively justified and criteria for justification, such as the environmental protection. See also, M. Peeters, 'The EU ETS and the role of the courts: Emerging contours in the case of Arcelor' (2011), [Climate Law, 2\(1\)](#).

⁸ Indicators may include, but are not limited to, the share of traffic carried by non-EU competitors on a given route; observed or anticipated shifts in hubbing behaviour, such as re-routing via third-country hubs (e.g. Istanbul, Doha); or pricing pressures and limited ability to pass on SAF costs in highly competitive markets.

- A clear demonstration that such differentiation is **necessary** and **proportionate**, and that route-neutral measures would be insufficient to address the risk of carbon leakage.

If such conditions are met, the measure may be justified as **pursuing a legitimate environmental objective** and, therefore, be compliant with equal treatment and non-discrimination principles. However, any perception of selective advantage—particularly if only EU operators benefit—could expose the measure to legal or political challenge (see section 4).

2.2.3. Compatibility with State Aid Rules

Introducing route-targeted SAF allowances may also raise questions under Articles 107 and 108 TFEU regulating State aid. Within the scope of the EU ETS, the *free allocation* of ETS allowances meets the criteria of [Article 107\(1\) TFEU](#) and thus can constitute State aid where:⁹

- The allowances **represent public resources** in the sense that they could otherwise have been auctioned to generate state revenue (i.e. revenues forgone);¹⁰
- The allocation **confers an economic advantage** that the recipient undertaking would not have obtained under normal market conditions;
- The advantage is **selective**, favouring certain undertakings or sectors over others; and
- It is **capable of distorting competition** and **affecting trade** between Member States.

Targeted SAF allowances, even if not allocated for free, may still benefit selective carriers on leakage-prone routes and thus trigger scrutiny under State aid rules. However, aid may be authorised if it (i) facilitates the development of certain economic activities, and (ii) does not adversely affect trade to an extent contrary to the common interest.¹¹

The Climate, Environmental Protection and Energy Aid Guidelines ([CEEAG](#))¹² clarify when such intervention is justified—namely, where certain activities would not arise, or would do so more slowly or under less favourable conditions, in the absence of aid. To meet the CEEAG compatibility conditions under points (i) and (ii) above, the measure must be, inter alia:

- **Well-targeted**, addressing a clearly defined market failure or policy objective;
- **Proportionate**, limited to the **minimum necessary** to achieve that objective;
- **Contributing** to environmentally sustainable activities and to legally binding targets under the [European Climate Law](#) and the EU's [2030 targets for energy and climate](#);
- **Time-bound and transparent**, avoiding indefinite or opaque preferential treatment.

Targeted SAF support could meet these conditions, particularly where it enables increased SAF uptake that would not otherwise occur in competitive, leakage-prone markets and whereby additional emissions would be displaced to less-regulated carriers (see also section 2.2.2).

⁹ The four cumulative criteria for the existence of State aid are well established in case law of the CJEU, see, [Case C-280/00, Altmark Trans GmbH v. Regierungspräsidium Magdeburg](#), paras. 74-75, 82-84 and case law cited. See also, G. Catti De Gasperi, 'Making State Aid Control "Greener": The EU Emissions Trading System and its Compatibility with Article 107(1) TFEU' (2010), [European State Aid Law Quarterly](#) 9(4), and [Commission Notice \(2016\)](#) on the notion of State aid as referred to in Article 107(1) TFEU.

¹⁰ See, [Case C-279/08, European Commission v Kingdom of the Netherlands](#), paras 102-113.

¹¹ See, Article 107(3)(c) Treaty on the Functioning of the European Union (TFEU).

¹² See, Commission Communication, Guidelines on State aid for climate, environmental protection and energy 2022. For a detailed analysis of the CEEAG see, A. Metaxas, "[The new State Aid Guidelines on Climate, Environmental Protection and Energy: what changes do they bring?](#)" In Research Handbook on EU Competition Law and the Energy Transition. Edward Elgar Publishing Limited (2024).

2.3. Operational and Administrative Feasibility

To implement route-based differentiation in the allocation of targeted SAF allowances, both regulatory adjustments and technical EU ETS system-level adaptations would be required:

- **Regulatory pathway:** Either revise Delegated Regulation (EU) 2025/723 to allow allocation based on route characteristics or further revise the ETS Directive 2003/87/EC, as amended, to introduce an explicit legal basis for conditional support. These changes may also require calibration with the Auctioning Regulation (EU) No 1031/2010.
- **Monitoring, Reporting and Verification (MRV) System limitations:** While operators are required to calculate emissions per flight and report aggregated emissions per airport pair (route), the current MRV system under the [Monitoring and Reporting Regulation \(EU\) 2018/2066](#) and [Accreditation and Verification Regulation \(EU\) 2024/1321](#) does not link this data to differentiated allowance allocation. Adapting the MRV to support route-based measures would require changes in how emissions data are applied within the EU ETS.¹³
- **Union Registry functionality:** The Union Registry is the central EU database for recording the issuance, transfer, and surrender of allowances under the EU ETS. While it ensures transparent and accurate accounting of emissions and compliance obligations, it is not currently designed to allocate allowances based on specific flight routes and data.

These adaptations would entail increased **administrative complexity** for airlines and authorities, including more granular emission and SAF tracking to specific routes, enhanced verification procedures, and enforcement and equitable treatment under a differentiated scheme. While not insurmountable, these administrative requirements and operational challenges may reduce the measure's cost-effectiveness and political feasibility if not carefully designed.¹⁴

2.4. International Legal Constraints

2.4.1. The Chicago Convention (1944) and the ICAO Framework

Targeted SAF allowances must be compatible with the Chicago Convention of 1944 (see **Box 2**), particularly Article 15, which requires non-discriminatory access to air navigation services and airport facilities. While this provision historically applies to airport user charges, its principle of equal treatment could be invoked where public measures affect international route economics.

Box 2 – Legal Context: The Chicago Convention (1944) and ICAO

The **Convention on International Civil Aviation** (commonly known as the Chicago Convention, 1944) is the foundational treaty governing international civil aviation. It establishes principles of sovereignty, equal treatment, and non-discrimination among contracting states, and regulates i.e., access to airspace, infrastructure, and related charges. The Chicago Convention is adhered to by practically all States (193), including all EU States, but the EU itself is not a party to it because it is not a State.

The **International Civil Aviation Organization (ICAO)**, established under the Convention, develops global **Standards and Recommended Practices (SARPs)**, including the Carbon Offsetting and Reduction Scheme for International Aviation (**CORSIA**).

¹³ See, K. Herman, 'Intermediaries and complexity: assessing emissions-based governance in the European Union's EU-ETS' (2024), [International Environmental Agreements: Politics, Law and Economics](#), 24(4).

¹⁴ A full assessment of the necessary MRV and registry changes falls outside the scope of this study. However, the current MRV framework does not link SAF allowance allocation to specific flight routes, which is a prerequisite for implementing route-differentiated measures in a legally sound manner.

When applied non-discriminatorily, targeted SAF allowances would be **formally open to all operators** on eligible routes but would, **in practice, primarily benefit EU carriers**, who are subject to more stringent obligations (e.g., EU ETS, ReFuelEU) than third-country carriers.

In this context, the measure is best framed not as conferring an advantage, but as a **proportional cost-correction** to restore competitive balance in response to regulatory asymmetry. The support is unlikely to be incompatible with Article 15 of the Chicago Convention, provided that it is:

- Objective and route-based, rather than nationality-based;
- Transparent in design and proportionate to its cost-corrective purpose;

Similarly, the support measure is not expected to conflict with ICAO's **CORSIA scheme**. By incentivising SAF uptake, the proposal may be seen as complementary to ICAO's climate goals.

2.4.2. Bilateral Air Services Agreements (ASAs)

The EU and its Member States are parties to bilateral Air Services (or Transport) Agreements (ASAs) with third countries.¹⁵ These agreements typically include provisions that ensure **fair and equal opportunities, non-discrimination, and a level playing field** for airlines.¹⁶ These first two clauses are functionally similar in effect to the principles discussed in the previous sections.

This proposed SAF allowance mechanism creates a potential risk of perceived favouritism or economic distortion under certain ASA provisions, particularly with countries with close aviation ties to the EU. However, the same mitigation logic applies: the measure can be framed as a proportional response to a regulatory asymmetry (i.e. uneven obligations/cost pressures).

The legal and diplomatic risk depends on the specific terms of each agreement, which analysis falls outside the scope of this study, and can be minimised through:

- Transparent and objective design, i.e. route-based rather than nationality-based.
- Clear framing as justification for an environmental cost-correction.
- And, where feasible, inclusive eligibility criteria, including for non-EU operators.

The next subsection will delve into the global regime set up by WTO rules.

2.4.3. World Trade Organisation (WTO) Rules

The WTO's trade rules apply only **marginally** to international air transport. While the [General Agreement on Trade in Services \(GATS\)](#) governs services broadly, its [Annex on Air Transport Services](#) excludes most aspects of civil aviation, including traffic rights and air services.

As a result, the proposed SAF allowance mechanism is unlikely to fall within the scope of WTO disciplines. Even the Agreement on Subsidies and Countervailing Measures (ASCM) applies only to goods and would not capture support linked to SAF use in air services.

That said, third countries could still raise concerns about competitive impacts if the support is perceived as favouring EU carriers. The measure's framing of **environmental cost correction** and a **formally neutral, objective, and proportionate design** could mitigate these risks.

¹⁵ Air Services Agreements (ASAs) are bilateral treaties that regulate international air transport between two countries or regions. They establish the legal framework for, i.a., market access, operating rights, and regulatory cooperation, and, in the case of the EU, often reflect broader principles such as fair competition.

¹⁶ For example, Article 7 of the [EU-Qatar Comprehensive Air Transport Agreement](#) (2021) provides that "air carriers shall enjoy fair and equal opportunities to compete in the provision of air transport services."

2.5. Conclusion

The above initial assessment finds that a targeted SAF allowance mechanism is likely legally feasible under EU and international law, provided it is designed in a way that is **proportionate, route-based, and non-discriminatory in both form and effect**. While implementation would require regulatory adjustments and impose added administrative complexity, these challenges are not insurmountable. The measure can be justified on environmental grounds as a **corrective response to regulatory asymmetry**, preventing carbon leakage risk, and may be preferable to more distortionary or extraterritorial instruments, such as CBAM for aviation.

3. LEGAL FEASIBILITY MEASURE #2: ROUTE-BASED CARBON PRICING

3.1. Policy Concept and Targeting Approaches

The second proposed policy option involves applying a **differentiated carbon price** to operators most exposed to carbon leakage risk. Unlike the SAF allowance mechanism, which provides targeted cost relief, this approach would impose an additional price signal on selected routes or categories of operations where environmental obligations distort or may otherwise be avoided.

The rationale is to disincentivise evasive routing (e.g. hubbing through non-EEA airports), level the playing field between EEA and non-EEA carriers and strengthen the environmental integrity of the EU's carbon pricing framework. Three targeting approaches are considered in this study:

- I. **Route-based pricing (airport pair targeting)** applies a higher carbon price to flights between specific pairs of EEA and non-EEA airports identified as high-risk for carbon leakage. It allows for granular targeting but may raise legal and political sensitivities.
- II. **Border-distance pricing** differentiates carbon pricing based on the proximity of the non-EEA airport to the EU's external borders, reflecting exposure to leakage via nearby third-country hubs. This approach may be simpler to administer and appear more neutral, but its effectiveness depends on behavioural assumptions and may be less proportionate.
- III. **Final-destination pricing** applies differentiated pricing based on the passenger's actual end destination, including connecting flights beyond the EEA. This variant is legally sensitive because the measure is liable to affect the sovereign rights of third (non-EU/EEA) States and raises concerns regarding data privacy and enforceability, as it relies on access to itinerary data not currently used in ETS compliance.

Each variant reflects a different balance between targeting precision, legal compatibility and justification, and administrative feasibility. The feasibility of such a mechanism—particularly under EU law and ASAs—will depend in part on how each variant is designed and justified.

3.2. EU Law Considerations

3.2.1. Legal Basis and Instrument Type

The legal basis for a route-based carbon pricing mechanism depends on how the measure is structured—either as part of the EU ETS or as a separate financial instrument.

If integrated into the ETS, the measure would require a revision of the EU ETS Directive. As discussed in Section 2.2.1, the ETS is not currently designed to apply variable pricing or obligations based on flight routing. Significant legal and technical adaptations would be needed, and this approach may be difficult to reconcile with the ETS principle of operator-level neutrality.

Alternatively, the measure could be designed as a **standalone pricing instrument**—such as a levy or charge—applied to selected routes or airports. The legal basis for such a mechanism would depend on its form and policy objective. Although EU-level environmental measures can be adopted by majority decision, provisions primarily of a fiscal nature require unanimity in the Council.¹⁷ Similar unanimity is required if the EU were to seek to harmonise fiscal measures across Member States,¹⁸ such as national-level airport or ticket taxes (see **Box 3**).¹⁹

Box 3 – Legal Context: Distance-Based Airport Taxes in the EU

Several EU Member States, including Germany, France, and the Netherlands, apply distance-based air passenger taxes, which increase with the destination's distance. Falling within their competence, EU Member States have the right to introduce national aviation taxes, as long as they respect EU law and international agreements.

These schemes have become a policy tool for incorporating climate considerations into aviation pricing—albeit at the national, not EU level.

Thus, the legal framing and feasibility depend on whether the pricing mechanism is positioned as part of the market-based EU ETS or as a quasi-fiscal measure and the legal basis of that measure.

3.2.2. Equal Treatment and Non-Discrimination

The legal principles of equal treatment and non-discrimination applicable to route-based carbon pricing are the same as those analysed in Section 2.2.2. Any differentiation must be **objectively justified** and **proportionate to a legitimate policy objective**—namely, correcting carbon leakage risks and reinforcing EU environmental policy—and **be neutral in form and application**.

Because pricing mechanisms impose a **direct and visible financial burden**, they may face greater legal and political scrutiny (see also section 4), particularly from affected third-country carriers. In terms of proportionality, differentiation must be narrowly tailored:

- **Airport pair** and **border-distance** variants may be more easily defended, as they rely on objectively verifiable route-level data. However, proportionality could be questioned if the criteria are drawn too broadly, potentially capturing routes or airports with limited risks.
- **Final-destination pricing** is more legally vulnerable, as it introduces differentiation based on itinerary data for all passengers. This may misalign the burden of compliance with the measure's objective, raising enforceability and proportionality concerns.

Neutral application may also be more difficult to maintain where the pricing mechanism disproportionately affects non-EU carriers, for example, if the cost corrections apply only at their expense. Legal feasibility could improve where the measure applies equally to all operators on eligible routes, based on route characteristics rather than carrier nationality, and is paired with offsetting or a cost-correction mechanism for EU carriers, such as targeted SAF allowances.

¹⁷ See, [Articles 191 and 192 TFEU](#). For an analysis on the interpretation of 'primarily' and 'fiscal nature' with regards to environmentally driven taxes, see, E. Scuderi, "Provisions Primarily of a Fiscal Nature": Time to Dispel Doubts" (2022), [EC Tax Review 31\(5\)](#).

¹⁸ See, Article 113 TFEU.

¹⁹ Under the EU Treaties, taxation is primarily an exclusive national competence, particularly for direct taxes (e.g. income, corporate), which fall entirely within Member State authority, subject to general EU law principles. Indirect taxes (e.g. VAT, excise duties, environmental or passenger charges) are a shared competence and may be adopted at national level, provided they comply with EU law.

In summary, differentiation in carbon pricing can potentially be consistent with EU law, provided it is evidence-based, targeted at correcting a genuine distortion, and implemented through **transparent, consistent, and neutral criteria**. The choice of targeting variant will affect the proportionality and justification, as well as the measure's exposure to legal or political challenges.

3.3. Implementation Feasibility

Many implementation issues associated with differentiated and targeted SAF allowances (see Section 2.3) also apply to route-based carbon pricing. However, whether carbon pricing is implemented as a standalone mechanism outside the ETS (o) or within, introducing new data and enforcement (■), additional or heightened challenges arise. These can be grouped as follows:

- **Liability of operators for paying the EU ETS-related expenses and revenue collection:** Standalone pricing requires clear liability, including enforcement, provisions and robust procedures for billing, collection, and oversight.
- **Access to itinerary data:** Final-destination pricing depends on passenger data not used in ETS, raising legal issues regarding data access and privacy concerns.
- **Consistency across Member States:** A new pricing instrument risks uneven application due to differing national competences as to tax systems or enforcement capabilities.
- **Administrative burden and cost-effectiveness:** Complex pricing variants may impose higher design, monitoring, and enforcement costs, reducing overall efficiency.
- **Integration with ETS:** As with SAF allowances, ETS-based pricing would require updates to MRV processes; variants using passenger-level data may need more complex changes.
- **Proportionality and enforceability:** Differentiation based on passenger destination or unverifiable routing data may be hard to administer and challenge proportionality.

The feasibility of implementation and manageability depends heavily on the variant chosen, each requiring more research, with a focus on **privacy, enforceability, and cost-effectiveness**.

3.4. International Legal Constraints

As noted in Section 2.4, many of the international legal considerations relevant to SAF allowances also apply to route-based carbon pricing. However, pricing instruments, such as **levies or surcharges**, may raise heightened legal sensitivity under international aviation frameworks.

- **The Chicago Convention (1944) and ICAO regime:** As noted in Section 2.3.1, Article 15 of the Chicago Convention prohibits discrimination on charges. A carbon price or levy applied on specific routes may be viewed as a charge on international, non-EEA operators. Legal compatibility will depend on a clear environmental justification aligned with ICAO principles, including CORSIA, where the financial instrument applies to extra-EEA flights or segments.²⁰
- **Air Services Agreements (ASAs):** As discussed in Section 2.3.2, many of the EU's ASAs contain fair competition and non-discrimination clauses. While a pricing mechanism that predominantly affects non-EU carriers may raise concerns, it can be defended as a proportionate response to regulatory asymmetry, aimed at restoring—rather than distorting—the level playing field in terms of reciprocal obligations.

²⁰ Much has been written on the extraterritorial application of the EU ETS and the legal implications of unilateral carbon pricing measures in international aviation. For a detailed discussion of the EU's approach in light of ICAO's CORSIA framework, see for instance, M. Jaśkowski, "External Aspects of the EU ETS in Aviation in Light of CORSIA" (2021), [International Community Law Review 23\(2–3\)](#). See also section 4 below.

- **WTO:** Although WTO coverage of aviation is limited (see Section 2.3.3), pricing mechanisms—particularly if framed as charges or taxes—may raise questions under general non-discrimination or subsidy disciplines, but this risk appears minimal.

Section 4 provides a brief analysis of political and diplomatic exposure.

3.5. Conclusion

This assessment finds that a route-based carbon pricing mechanism is legally feasible, though likely to be more exposed than a support-based approach in terms of legal complexity. While the underlying policy objective—addressing carbon leakage and reinforcing climate ambition—is legitimate, the measure’s impact on route economics and third-country carriers may attract closer scrutiny under EU and international law (see Section 4 for political and diplomatic context). In this sense, legal justification will depend heavily on the choice of targeting variant, the clarity of environmental justification, and the proportionality and neutrality of its design.

4. Political and Geopolitical Dimensions

This chapter offers a brief overview of the political and geopolitical context surrounding the two proposed measures. While the report focuses on legal and administrative feasibility, political acceptability and external sensitivity remain essential for implementation. The points below are **indicative** and may warrant further research and consultation with relevant stakeholders.

4.1. EU Internal Political Acceptability

Within the EU, stakeholder reactions are likely to differ between the two measures. The SAF allowance mechanism may be more politically palatable, as it builds on an existing legal framework (see Section 2.2.1), provides support rather than imposing new costs, and aligns with ReFuelEU objectives. However, it still requires adjustments to ETS governance and raises equity concerns about selective support and increased administrative complexity.

By contrast, a route-based carbon pricing measure may face stronger opposition from parts of the aviation sector and some Member States, especially where it resembles a tax or threatens air connectivity. As noted in Section 3.2.1, EU-level pricing instruments are politically sensitive, and fiscal harmonisation remains difficult (see also **Box 4**). Nonetheless, such mechanisms may appeal to those seeking a more ambitious or revenue-based response to carbon leakage.

Box 4 – Legal Context: Aviation Fuel Taxation

Contrary to common belief, international air law does not impose a blanket ban on taxing aviation fuel. Under the **Chicago Convention (Article 24)**, only taxation of **fuel already onboard** an aircraft, used in transit through a foreign State, is prohibited. Most ASAs also prohibit taxation of fuel introduced into the aircraft while making a stop in another State. Hence, in practice, **fuel used in international aviation** is rarely taxed, also because States fear competitive disadvantage for their home carriers and hubs.

Within the EU, aviation fuel for commercial flights is **currently exempt from energy taxation** under the **Energy Taxation Directive (2003/96/EC)**, unless an agreement between Member States provides otherwise. In 2021, the Commission proposed to phase out this exemption for intra-EU flights as part of the **ETD revision**. However, **negotiations remain stalled** in the Council due to unanimity requirements and divergent national positions.

4.2. External Diplomatic Exposure

As noted in Sections 2.3 and 3.4, both types of measures risk **international pushback**, but the route-based pricing option is more likely to provoke policy objections. It may be perceived as **extraterritorial** or **discriminatory**, particularly by countries with strong aviation ties to the EU. Past experience with the inclusion of international aviation in the EU ETS suggests that price-based interventions are especially sensitive,²¹ particularly given that **CORSIA** remains the internationally preferred framework for addressing aviation emissions.²²

In contrast, the SAF allowance mechanism is less visible externally and can be framed as an internal support measure aligned with climate goals and aimed at correcting a regulatory asymmetry. The legal and diplomatic risks are comparatively lower; however, transparency, formal neutrality, and justification remain important to mitigate accusations of favouritism.

4.3. Strategic Alignment with EU Climate Diplomacy

From a broader climate policy perspective, both measures reflect the EU's ambition to address carbon leakage and reinforce regulatory integrity. The SAF allowance mechanism is more easily aligned with ICAO rules and the EU's messaging on innovation and transition support. Route-based pricing, while potentially more economically direct, bears a greater risk of clashing with third countries and may complicate ongoing EU climate diplomacy and trade relations.

Ultimately, the political feasibility of a measure will depend on how it is designed, communicated, framed, and justified—both internally and on the international stage.

5. Conclusions and Comparative Reflections

This assessment finds that both proposed measures—targeted SAF allowances and route-based carbon pricing—are legally feasible under EU law, subject to careful design and legal safeguards. Each measure must comply with the principles of **equal treatment**, **proportionality**, and **transparency** under the TFEU and the EU ETS Directive, and be consistent with relevant international obligations, including Air Services and Transport Agreements and ICAO rules.

The two measures diverge in terms of legal complexity, administrative burden, and political sensitivity. The targeted SAF allowance mechanism builds on an existing legal and institutional framework and could be enabled through a delegated act—provided that **route-based allocation criteria are carefully justified**. It is likely to be perceived as **supportive and corrective in nature** and may therefore be more acceptable from both a legal and political standpoint.

In contrast, route-based carbon pricing would introduce more **visible financial differentiation** between operators or routes. It may therefore attract greater legal scrutiny—particularly in light of **non-discrimination obligations** under EU and international law—and involve more extensive administrative adaptation. Its feasibility will depend significantly on the choice of **targeting variant**, the robustness of the **environmental justification**, and the **neutrality of its application**.

²¹ In 2012, the EU moved to include all international flights under the EU ETS, triggering legal and political resistance from third countries. Surprisingly, the CJEU upheld the legality of the measure in [Case C-366/10](#), but the EU subsequently adopted the “stop the clock” decision to suspend application to extra-EEA flights amid intense diplomatic pressure. Under Directive (EU) 2023/958, the intra-EEA scope remains in place.

²² The EU applies the ETS to intra-EEA flights, while emissions from extra-EEA flights fall under CORSIA. This reflects a dual-track approach, balancing international alignment with the EU's internal climate policy.

This report concludes with **a schematic overview** summarising both measures. While each instrument has a potential viable legal path forward, they present different legal, political and implementation challenges and exposure risks that merit further consideration and research. As a next step, a more detailed legal and technical implementation study may be warranted.

Table 1 - Summarising Overview of the Two Policy Measures

Dimension	Targeted SAF Allowance	Route-Based Carbon Pricing
Instrument type	Support-based mechanism	Pricing-based mechanism
Legal foundation	Art. 3c(6) of the EU ETS Directive and Delegated Regulation (EU) 2025/723—revision needed for route-based allocation	Requires amendment to EU ETS Directive for integration, or new legal basis if introduced as a standalone fiscal measure
Targeting approach	Selective allocation to empirically defined, high-leakage-risk routes based on objective criteria	Three variants: route-specific, EU/EEA border-distance, or final-destination-based pricing
Legal feasibility	Feasible, likely requires ETS Directive revision and robust justification for the selectively defined routes	Feasible in principle—requires stronger justification and significant legal changes depending on variant and type of measure chosen.
Equal treatment & justification	Permissible if applied based on operator neutrality, proportionate, and justified as an environmental cost-correction	Requires strong, proportionate justification and route-neutral application to avoid perceived discrimination
Administrative feasibility	Moderate—requires ETS/Registry adaptations, but less complex than pricing instruments.	High—via EU ETS requires major MRV, registry, and enforcement changes, especially for data intensive variants
International exposure	Lower—less likely to trigger claims of discrimination	Higher—may raise concerns under Air Services Agreements
Political acceptability	Relatively high—particularly if framed as targeted, and cost-corrective support for regulatory and competitive asymmetry	More sensitive—visible cost differences leading to perceptions of discrimination; as well as charges leading to sovereignty concerns
Implementation pathway	Requires revision of the EU ETS Directive and/or delegated act to enable route-based allocation; changes to allocation rules and registry functionality also needed	Requires coordinated legislative change, new MRV and registry functionality, mandates, and possibly Council unanimity if introduces as fiscal measure