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HOW THE RENEWABLE ENERGY DIRECTIVE UNDERMINES THE REFUELEU LEVEL PLAYING FIELD PHILOSOPHY



INTRODUCTION

The most important global driver of Sustainable Aviation Fuel* (SAF), ReFuelEU Aviation (ReFuelEU), does not achieve its intended goal: creating a level playing field for sustainable air transport. Suppliers have more potential to supply SAF in some Member States over others. This influences supply and demand, and thus the pricing of SAF, leading to an uneven playing field across fuel suppliers in European Member States.

How a reference to the Renewable Energy Directive distorts the SAF market

ReFuelEU sets a mandate for the supply of SAF and refers to the Renewable Energy Directive (RED) for the greenhouse gas methodology and the eligible feedstocks that for SAF supply under ReFuelEU. The general mandate for ReFuelEU will mainly be fulfilled by aviation biofuels, which has three categories 1) “advanced biofuels” (Annex IX A biofuels), 2) “biofuels” (Annex IX B biofuels) and 3) biofuels that are not mentioned in Annex IX of the RED (non-Annex IX biofuels).

The issue arises in the reference to Annex IX of the RED. Feedstocks added to Annex IX are assessed on sustainability, potential market distortions, and how advanced or mature the processing technology is. Feedstocks go through extensive due diligence before being added to Annex IX (Figure 1). Due to concerns of market distortion, ReFuelEU prioritizes Annex IX feedstocks over non-Annex IX feedstocks by means of a cap. Non-Annex IX feedstocks are allowed to fulfill the mandate up to 3 %. Annex IX was updated in 2024 to include additional feedstocks.**

*Sustainable Aviation Fuels as defined in the ReFuelEU Aviation Regulation (2023/2405)

**Delegated Directive (EU) 2024/1405

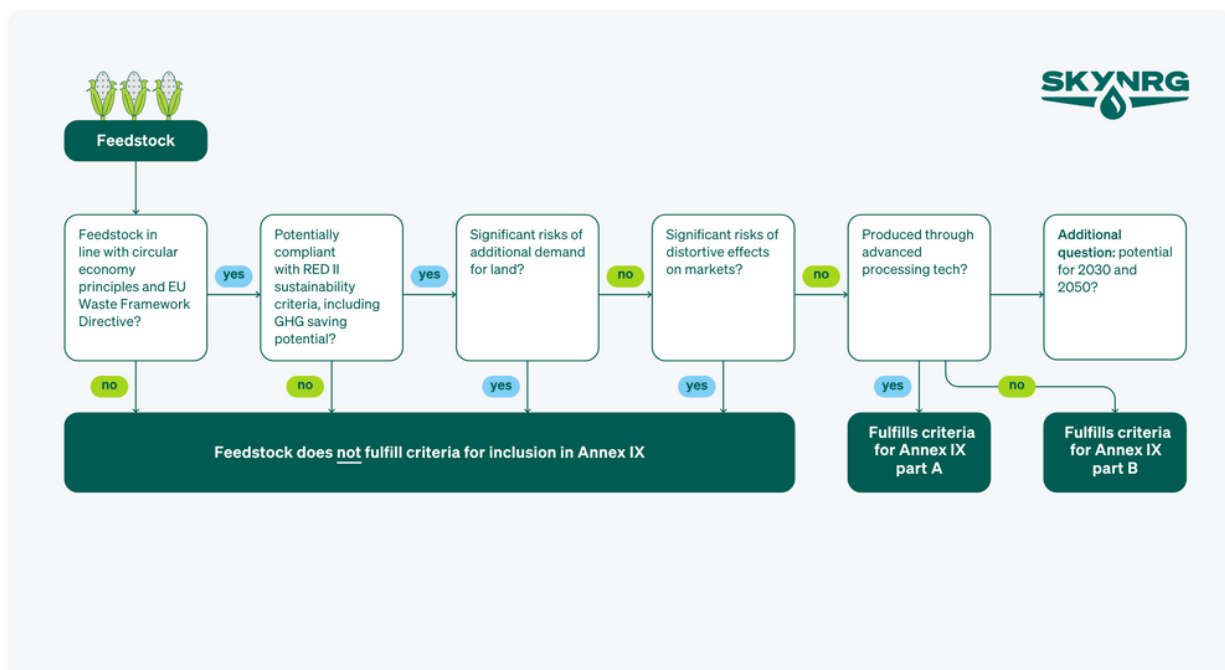


Figure 1: The European Commission assessment process to include feedstocks in Annex IX. *

The problem: feedstock categories approved under Annex IX A are opaque and it is unclear which feedstocks are included in the following categories:

- d) Biomass fraction of industrial waste (...)
- p) Other non-food cellulosic materials
- and
- q) Other ligno-cellulosic material except saw logs and veneer logs

These three categories can be seen as “umbrella categories” and contain many potential feedstocks. Member States decide whether a feedstock is part of this category, thus deciding if the feedstock is suitable for the production of advanced biofuels. Fuels produced from these feedstocks would not be subject to a cap under ReFuelEU. Vice versa, if certain feedstocks are not approved by the Member State under Annex IX A, they are capped under ReFuelEU. Not only does this process result in a large administrative burden for national authorities, but Member States currently interpret these categories differently.

The consequence: Obligated parties (fuel suppliers) under ReFuelEU have more potential to supply uncapped Annex IX SAF in some countries than others. This influences supply preferences and thus the pricing of SAF and creates an uneven playing field across European Member States.

*Publications Office of the European Union. (2022). Assessment of the potential for new feedstocks for the production of advanced biofuel

MEMBER STATES INFLUENCE THE LEVEL PLAYING FIELD

Before ReFuelEU was introduced the Member State interpretation of feedstocks was not a problem because the RED does not aim to create a level playing field, but the link with ReFuelEU has created an issue. Below we provide five examples of how Member States currently influence the level playing field for fuel suppliers:

- Not all Member States share their interpretation of Annex IX A feedstocks;
- Member States have different lists of feedstocks that are approved under Annex IX A;
- Similar feedstocks are defined differently across Member States;
- Annex IX A can be used to circumvent the exclusions of feedstocks under ReFuelEU Aviation;
- Not all feedstocks that can be classified as “advanced” are added to the Annex IX A lists.

Not all Member States share their interpretation of Annex IX A feedstocks

A level playing field starts with transparent dissemination of knowledge and not all Member States are transparent. For example, Finland doesn't publish a list of raw materials approved as waste, residue or lignocellulose.* The ISCC materials list states feedstocks categorized as waste specific for Finland, but the list is not complete. Suppliers that have information on the Finnish approved materials list have a competitive edge over suppliers who do not.

Member States have different lists of feedstocks that are approved under Annex IX A

Member States have their own interpretation of the RED with differing lists of feedstocks approved under Annex IX A. So far, SkyNRG has identified approximately 80 different country-specific feedstocks allowed under the national implementation of the RED, and Member States are continuously extending the lists of approved feedstocks. Feedstocks are rarely approved in multiple countries as depicted in Figure 2. Member States that want to support a local industry might be more lenient in approving the feedstocks than in countries without such goals.

* Finnish [Energy Authority](#): “Finland does not publish any lists of raw materials approved as waste, residue or lignocellulose.”

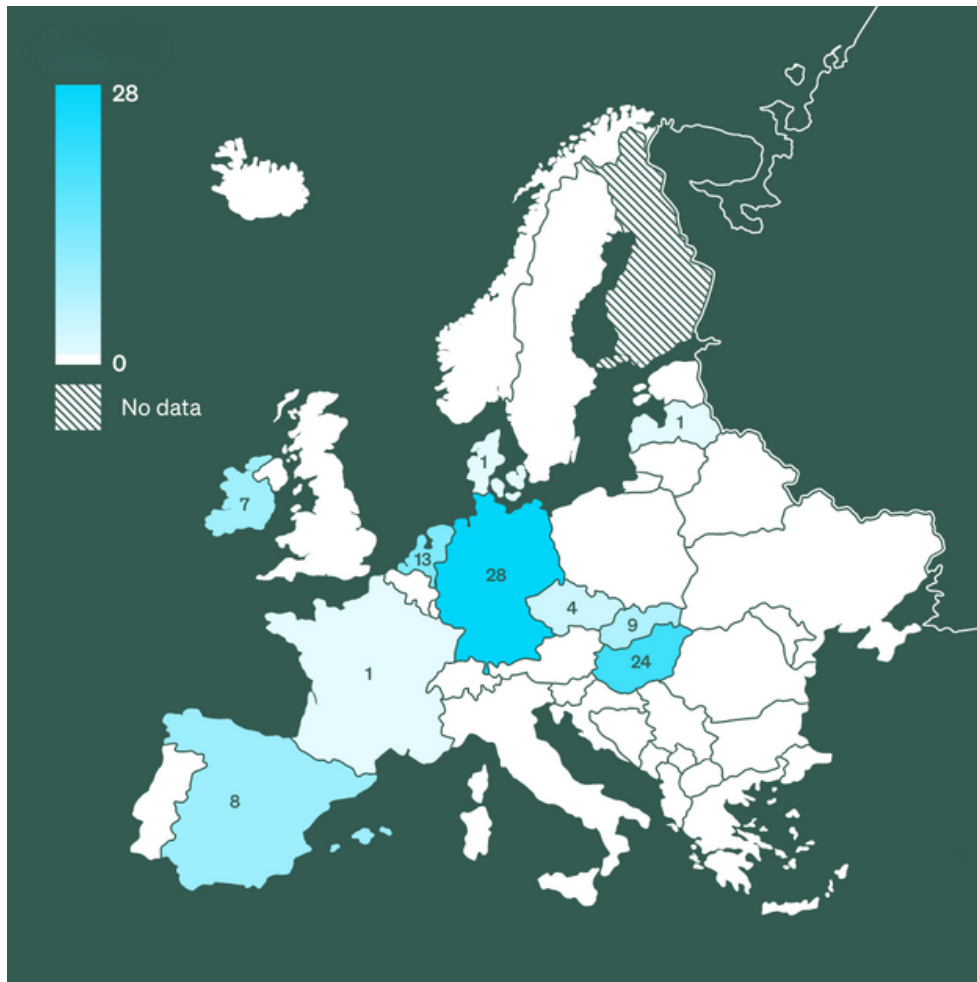


Figure 2: The number of feedstocks approved under Annex IX A by member state

Similar feedstocks are defined differently across Member States

Member States have a certain level of flexibility in accepting and defining feedstocks under Annex IX A* because of insufficient guidance from the European Commission. This creates uncertainty on whether one feedstock is allowed in multiple Member States under the same circumstances. In Germany, feedstocks are approved in combination with the specific production methodology (e.g. HEFA, HVO, ethanol production) and product. For a supplier, this flexibility makes comparing feedstocks between countries difficult. For example, “Biomethanol from waste in production of technical alcohol” is included in Germany, the Netherlands and Spain, allow the use of waste and residues from alcohol processing, while Slovakia only includes the wastewater from alcohol processing under Annex IX A. These definitional differences create uncertainty for producers. And prevent the SAF to be traded as the same commodity.

* The European Commission gives additional, but limited guidance in Implementing Regulation 2022/996.

Annex IX A can be used to circumvent the exclusions of feedstocks under ReFuelEU Aviation

Article 5 (4) of ReFuelEU states that feedstocks, such as soap stock and its derivatives are not allowed under the set mandate. The legislation provides an exclusion to feedstocks that are “included in Annex IX to Directive (EU) 2018/2001, under the conditions set out in that Annex.” This allows Member States to create loopholes to allow for feedstocks through their interpretation of Annex IX. Taking soap stock and its derivatives as an example: Germany allows for the production of biofuels from soap from pulp production, Spain and Ireland allow for SAF production from soap stock acid oil contaminated with sulfur, Slovakia for free fatty acids and waste soaps, and Hungary for soap precipitate. This means that soap stock and its derivatives can be supplied, despite the ReFuelEU exclusion, as long as the producer can find the right market to supply the SAF to. This again creates an uneven playing field.

Not all feedstocks that can be classified as “advanced” are added to the Annex IX A lists

Additionally, feedstocks that should be accepted by national authorities as “advanced” are not always recognized. The Commission requested an assessment for the production of advanced biofuels as part of the EU process to add new feedstocks to Annex IX A in 2022. A large number of feedstocks have not been assessed because, according to the report, they should already be covered under the Annex IX umbrella categories referred to above. One would therefore assume that all Member States have included these feedstocks in their lists of approved feedstocks under Annex IX, but this is not the case.

CONCLUDING REMARKS AND RECOMMENDATIONS

The European Union has established a landmark regulation crucial to accelerating sustainable aviation fuel supply with ReFuelEU, which SkyNRG strongly supports. The mismatch with the RED influences the investment in and delivery of SAF, creates unnecessary movement of fuels across the European Union and challenging supply and demand dynamics, which raises prices for airlines. To restore the level playing field, the Commission and Member States should:

- Publish a new implementing act on RED III Annex IX. The act should provide 1) additional guidance for the Member States on how to interpret the feedstocks published in Annex IX, 2) include a detailed list of feedstocks that are approved by all Member States to ensure a level playing field, 3) establish an obligation Member States to disclose all nationally approved feedstocks.
- Create a harmonized approach across all Member States about how feedstocks are defined and approved under Annex IX A sub d, p and q.