(English version)

Question for written answer E-004638/25
to the Commission
Barbara Bonte (PfE)
(20 November 2025)

Subject: Recognition of nuclear energy as a clean energy source for the production of electro-sustainable aviation fuels (e-SAF)

With the ReFuelEU Aviation Regulation, the European Union has set certain targets for the use of sustainable aviation fuels, including electro-fuels or 'Renewable Fuels of Non-Biological Origin' (RFNBOs). According to the applicable legislation, such fuels must be produced using renewable electricity, usually from wind or solar energy.

The Member States enjoy exclusive competence to determine the composition of their energy mix.

Several Member States have significant nuclear capacity and see nuclear energy as an essential part of their low-carbon strategy. After all, nuclear power plants provide stable, continuous and virtually CO_2- free electricity, which is ideal for applications such as electrolysis, hydrogen production and the manufacture of e-kerosene.

However, EU legislation does not recognise nuclear energy as a renewable energy source. As a result, electric fuels produced from nuclear energy are not legally considered 'sustainable' and do not count towards ReFuelEU targets or European certification systems (Guarantees of Origin). This hinders investment in nuclear-based e-fuel projects, despite their potential for European energy independence.

Therefore:

1. Does the Commission consider nuclear energy to be a clean energy source that can play a role in the production of e-fuels for aviation?

2. When exactly does it intend to broaden the definition of 'sustainable' e-fuels to include nuclear-generated electrofuels?

3. Is the Commission prepared to develop a technology-neutral framework that allows Member States to use nuclear power for e-SAF production without discrimination from a legal perspective?

Submitted: 20.11.2025

Answer given by Mr Jørgensen on behalf of the European Commission
(4 February 2026)

The eligibility criteria and sustainability requirements for transport fuels in the European Union are primarily established by horizontal legislation, notably the Renewable Energy Directive ((EU) 2018/2001 ([1])) and the Gas and Hydrogen Market Directive ((EU) 2024/1788 ([2])), which set the framework for renewable fuels of non-biological origin (RFNBOs) and low-carbon hydrogen/fuels, respectively.

The ReFuelEU Aviation Regulation ([3]) builds on these acts to set specific mandates for aviation fuel suppliers regarding the supply of sustainable aviation fuel (SAF).

Its objective is to strongly incentivise the scale-up of SAF including synthetic aviation fuels (eSAF) while ensuring a level playing field across the entire European air transport market. 'Synthetic aviation fuels' under ReFuelEU Aviation are aviation fuels that qualify as renewable fuels of non-biological origin (RFNBOs) ([4]).

As according to Article 2(36) of the Renewable Energy Directive the energy content of RFNBOs must be derived from renewable sources, and nuclear energy is not classified as a renewable source, nuclear-based fuels are excluded from this definition.

It should be noted, however, that the target set out for synthetic aviation fuels under the ReFuelEU Aviation can also be met by synthetic low-carbon aviation fuels ([5]), which includes aviation fuels that are of non-biological origin, the energy content of which is derived from non-fossil low-carbon hydrogen. ([6])

([1]) https://eur-lex.europa.eu/eli/dir/2018/2001/oj/eng.
([2]) https://eur-lex.europa.eu/eli/dir/2024/1788/oj/eng.
([3]) Regulation (EU) 2023/2405: https://eur-lex.europa.eu/eli/reg/2023/2405/oj.
([4]) Article 3 (12), Regulation (EU) 2023/2405.
([5]) Article 4.1 Regulation (EU) 2023/2405.
([6]) Article 3 (13) Regulation (EU)2023/2405.

Such fuels can be produced from non-renewable electricity, including nuclear power, provided they achieve 70% emission savings ([7]). The Commission adopted on 8 July 2025 a methodology for determining the greenhouse gas emission savings of low-carbon fuels ([8]).

([7]) Article 9, Directive (EU) 2024/1788 & Delegated Regulation (EU) 2025/2359.
([8]) Delegated Regulation (EU) 2025/2359: https://eur-lex.europa.eu/eli/reg_del/2025/2359.