

POSITION PAPER

eFUEL ALLIANCE CALLS FOR A FAST AND PRAGMATIC IMPLEMENTATION OF THE OUTSTANDING DELEGATED ACTS (ARTICLE 27 AND 28 OF THE REDII)

GENERAL REMARKS

The eFuel Alliance clearly supports the European Commission's (COMs) climate-neutrality target by 2050. To achieve this goal and limit the global temperature increase to well below 2° Celsius of pre-industrial levels, all sectors must significantly intensify their efforts to reduce greenhouse gas (GHG) emissions. Hydrogen-derived products, such as carbon-neutral synthetic fuels, can make a decisive contribution here – initially by being blended with conventional fuels (drop-in capability), and ultimately as a 100% substitute for fossil fuels. They provide a climate-neutral solution for several sectors such as road transport, aviation and the maritime sector, offer a climate-neutral alternative to conventional heating oil and can also be used as feedstock for the industrial chemical sector.

In its European Hydrogen Strategy, the COM acknowledges hydrogen as “a key priority” and “essential to support the EU’s commitment to reach carbon neutrality by 2050”, and sets a target of up to 80 GW of installed capacity of electrolyser in 2030 – with 6 GW already in place in 2024. This ambitious goal can only be achieved though if pragmatic and viable conditions are implemented without delay to incentivise the necessary investments in the market ramp up of hydrogen and hydrogen-derived products such as synthetic fuels (so-called eFuels). These carbon-neutral energy carriers are covered by the COM's definition of “renewable fuels of non-biological origin” (RFNBO in Article 2(36) REDII).

However, investments in large-scale production facilities and electrolysers have so far been hampered by the absence of two Delegated Acts deriving from article 27 (renewable electricity supply concept) and 28 (GHG reduction methodology) of the Renewable Energy Directive (REDII), which has led to a lack of investment certainty. Recently, on 20 May 2022, the COM published the drafts of the two overdue Delegated Acts, several months after the official deadline in December 2021 had expired. In the meantime, the REDII is already being revised by both co-legislators and the legal basis for these Delegated Acts could be removed through relevant amendments by the European Parliament.

The eFuel Alliance welcomes the publication of the two Delegated Acts drafts as they are vital for the build-up of industrial production capacities for hydrogen and its derivatives. However, adjustments to both drafts as well as a more practical approach are urgently needed if an affordable introduction of clean hydrogen and hydrogen-based products is not to be jeopardised.

We therefore call on the EU Commission to seriously consider the following changes to the REDII Draft Delegated Acts to enable a rapid market ramp-up of hydrogen and hydrogen derivatives:

- ▶ ***Del. Act 27, Article 4, Paragraph 1: Reducing the minimum requirement for the average proportion of renewable electricity from 90% to 70%. If the average proportion of renewable electricity in the bidding zone where the RFNBO installation is located exceeds 70%, the electricity should be considered "fully renewable" for these full load hours.***
- ▶ ***Del. Act 27, Article 8: Grandfathering should also apply to the temporal correlation. We recommend a "monthly" temporal proof for plants that go into operation until 2027.***
- ▶ ***Del. Act 27, Article 4, Paragraph 2, point c: The proof for temporal correlation between the RFNBO production and the renewable electricity generation should be provided on a daily instead of an hourly basis. In Article 5, the documentation requirement needs to be amended accordingly.***
- ▶ ***Del. Act 28, Annex Article 11: Disqualifying industrial CO2 sources for the production of RFNBOs as early as 2036 will significantly slow down or even stall investments in RFNBO projects already today, since a lifespan of barely 10 years is not sufficient to amortize the costs of CO2 capturing. This prevents the production of eFuels at industrial sites such as the cement, steel or glass industry. To ensure that plants that came into operation before***

2036 can continue to operate, we recommend allowing industrial CO2 sources to be grandfathered.

- ▶ ***Del. Act 28, Annex Article 11: In order not to exclude RFNBOs imported from third countries, the limitation on industrial sources for the production of RFNBOs to industrial point sources that are an EU ETS listed activity and subject to an upstream Emission Trading System or equivalent should be eliminated in favor of all anthropogenic industrial sources of carbon dioxide (with the exception of captured CO2 stemming from a fuel that is deliberately combusted for the specific purpose of producing CO2).***

DELEGATED ACT ARTICLE 27: POWER SUPPLY CONCEPTS

The Delegated Act, based on Article 27 of the current REDII, defines the electricity supply criteria for grid-connected facilities that produce RFNBOs, thereby setting several temporal, geographic, and other conditions that must be met in order for renewable hydrogen and its derived products to count towards the targets set out in the Renewable Energy Directive. While the eFuel Alliance welcomes the proposed use of Power Purchase Agreements (PPAs) as proof of the electricity origin, as well as the inclusion of repowered renewable energy facilities in addition to new facilities, there are several other requirements in the Delegated Act that should be reconsidered:

By far the most critical provision in this Delegated Act is the **additionality** criterion, which states that the electricity for the production of RFNBOs must come from new renewable energy plants that started operation no more than 36 months before the electrolyser. This restriction is a massive obstacle to meeting the EU's hydrogen targets: In addition to the construction time, new renewable energy plants also require a lengthy planning and permitting process, which in Germany, for instance, can take up to 6 years for new wind turbines¹. This is further compounded by the fact that these new renewable energy plants would have to be built in the grid area of the electrolyser due to the required geographical correlation. These requirements significantly jeopardise and delay the roll out of the European hydrogen market and make the achievement of the European Union's hydrogen goal unrealistic.

In addition, the draft imposes a close **temporal correlation** between the RFNBO production and the renewable electricity generation, according to which proof of the PPAs must be provided on an hourly basis. Such proof is technically difficult to realise, as it requires that the RFNBO plant is constantly in an operational state, meaning ready for operation 24/7. The resulting frequent start-up and shut-down of the RFNBO installation (electrolyser) is also highly inefficient and reduces the economic viability of production. The stricter the temporal correlation, the larger hydrogen storage facilities are needed, which increases the production costs of RFNBOs. **Instead, the eFuel Alliance recommends maintaining the proposed daily proof of PPAs after the transitional period and allow a grandfathering on a monthly basis for plants that come into operation before 2027.**

Finally, the draft DA introduces **geographic correlation** by requiring, among other things, that the RFNBO generation and the RE plant are located in the same bidding zone. While this approach is generally feasible, the definition of bidding zones needs to be re-evaluated. Even though its current form allows for "equivalent concepts", in the case of third countries, the specific and unique regulations for bidding zones in the EU are not directly transferable to the electricity markets in other third countries, which operate under completely different models. In this regard, clarification is urgently needed to define exactly which electricity market models are considered equivalent and thus minimise the uncertainty that this provision leaves open for RFNBOs produced outside the Union. "Looking into this issue on a case by case approach", as suggested by the COM during the Stakeholder Workshop

¹ <https://www.cleanenergywire.org/factsheets/german-onshore-wind-power-output-business-and-perspectives>

on 15 June 2022, lacks a reliable and legally sound methodological approach and leaves envisaged RFNBO projects in third countries in limbo.

Aside from the mentioned requirements, the DA draft defines several exemptions. In this regard, we welcome the inclusion of a transitional phase until 31st December 2026, in which the additionality criterion has not to be fulfilled. It also defines a **monthly proof via Power Purchase Agreements** as sufficient. We call for grandfathering to also apply for this temporal correlation, so that plants build until 2026 can continue to certify the origin of their renewable energy on a monthly basis from 2027 on – in addition to be grandfathering of the additionality.

We also strongly recommend lowering the **minimum percentage that defines all grid electricity as fully renewable** from 90% to 70%. This would allow for a feasible solution in most Member States after the transition period. As a result, a hydrogen ramp-up would be possible in several countries in parallel and already generated renewable energy would be widely available, thereby immediately realising currently available CO₂ emission reduction potential.

DELEGATED ACT ARTICLE 28: GHG REDUCTION METHODOLOGY

The Delegated Act, based on Article 28 of current REDII, introduces criteria and a methodology for assessing the GHG footprint of RFNBOs. These must emit at least 70% less greenhouse gases compared to fossil fuels, following a calculation method described in Annex I of the draft that takes into account all life cycle emissions. Therefore, the draft DA also addresses the question of the origin of the CO₂ used for the production of RFNBOs, such as captured CO₂ from industrial sources.

Unfortunately, the draft limits the **source of CO₂** to that captured from an activity listed under Annex I of Directive 2003/87/EC (EU Emissions Trading System) and that has been taken into account upstream in an effective carbon pricing regime. This has the effect of (i) severely limiting the sources of CO₂ that may be used as feedstock for an RFNBO facility, and (ii) limiting the jurisdictions from which CO₂ may be sourced to those in the EU and possibly those that have an effective upstream carbon pricing regime. We note that, of the largest CO₂ emitters outside the EU, very few countries have this type of regime in place. We therefore encourage the COM to allow all anthropogenic carbon dioxide to be used as feedstock for RFNBO facilities (with the exception of captured CO₂ stemming from a fuel that is deliberately combusted for the specific purpose of producing CO₂). This will encourage RFNBO facilities to be financed and built in the near term. And it will encourage the development of new technologies to collect and purify point source emissions, which is one of the most significant climate challenges facing industry today.

Additionally, the draft limits the **use of industrial sources of CO₂** until 2035, stating that the production of RFNBOs from these sources is "not compatible with climate neutrality" compared to Direct Air Capture (DAC) and CO₂ from biogenic sources. The eFuel Alliance disagrees with this time limitation, as it would not only discourage investment in such RFNBO plants from the outset, but would also lead to the investments already made in industrial carbon capture being stranded, as their time horizon for economic viability is at least 20 years. Instead, the eFuel Alliance calls for a grandfathering of such plants beyond 2036, so that they can use the industrial CO₂ emissions that would be emitted anyway and realise their immense GHG reduction potential by substituting fossil energy carriers in the numerous potential use cases. Otherwise, investments that could meaningfully recirculate CO₂ emissions will be prevented.

Direct Air Capture (DAC) will certainly play a decisive role in the production of carbon-neutral eFuels in the medium-to long term. At this stage, however, the technology is not yet available on a commercial scale, making its integration into RFNBO production process more expensive. Similarly biogenic CO₂ sources, have only limited availability. We therefore strongly advise the Commission to permit the use of all anthropogenic CO₂ and introduce a grandfathering for early projects. Otherwise, the European hydrogen market will be delayed by many years and major industries are excluded.

Figure 1: CO2 demand covered by point sources and DAC through the transition from 2020 to 2050: relative shares (left) and absolute volumes (right)

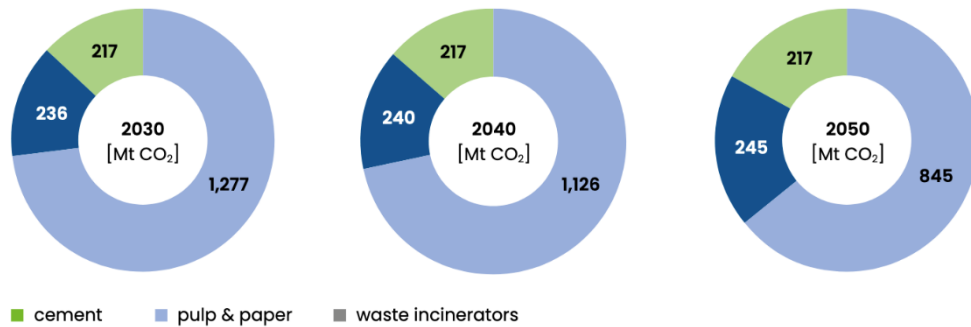
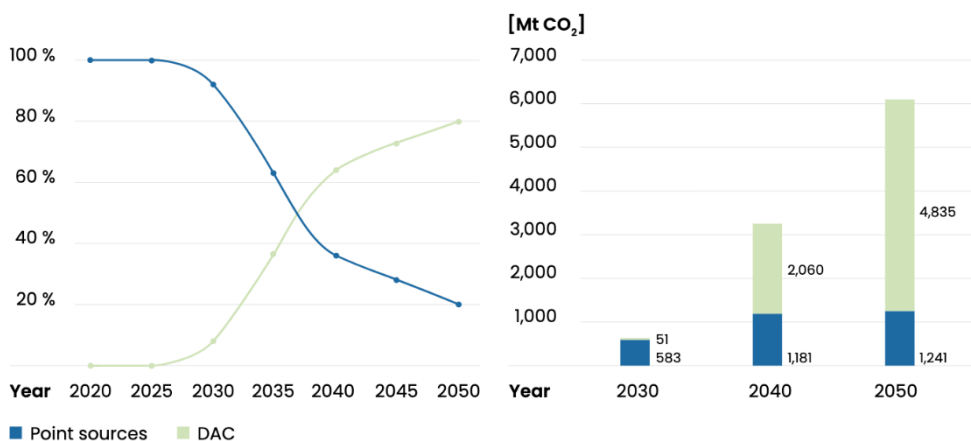


Figure 18: Shares of captured CO₂ from different point sources through the transition



Source: Ram et al. 2020 - Ram M., Galimova T., Bogdanov D., Fasihi M., Gulagi, „Powerfuels in a Renewable Energy World - Global volumes, costs, and trading 2030 to 2050“, Lappeenranta, Berlin, 2020, p. 29

REASONABLE, CONSISTENT AND NON-DISCRIMINATORY REQUIREMENTS FOR ALL CLIMATE PROTECTION SOLUTIONS

Aside from the DA-specific necessary changes, there are also cross-cutting issues which need to be addressed:

Although both Delegated Acts are in principle based on the same Directive, they display **numerous inconsistencies** with regard to some provisions. The DA on Art. 28 provides different criteria for green electricity to the DA on Art. 27. Regarding the proposed time limit for the criterion of additionality in the DA on Art. 27, it is also unclear why the maximum periods indicated vary between 24 months for "off-grid" plants and 36 months for "grid-connected" installations. Furthermore, the inclusion and applicability of certain terms to third countries outside the EU need improvement: this concerns not only the definition of a "bidding zone" mentioned above, but also the definition of "aid", which leaves out the question of how to apply the proposed legal framework to the urgently needed imports of hydrogen and hydrogen derivatives. The Delegated Acts would therefore greatly benefit from simplification and clarification of these sometimes conflicting provisions, as well as a reduction in the number of requirements, in order to provide a clear, coherent regulatory framework.

In general, we point out the inconsistency of an approach that requires that hydrogen and eFuels have to meet criteria like additionality, temporal or geographical correlation while other technology applications like battery electric vehicles or heat pumps do not have to provide such evidence in use, regardless of the underlying electricity mix, and therefore receive preferential treatment. Here, **different technologies are plainly treated in different ways**. We strongly advocate a level-playing field for all technologies.

As the European Parliament and the Council have no way to influence the content of these Delegated Acts, other than to reject them outright, it is crucial that the Commission itself takes industry voices into account when publishing the final proposal. **We therefore strongly urge the Commission to take into account the points raised in order to present coherent and technology-neutral Delegated Acts necessary for the ramp-up of hydrogen production. This is the only way to achieve the ambitious goals formulated in the European Hydrogen Strategy.**

Thank you for your time and consideration.

ABOUT THE eFUEL ALLIANCE

The eFuel Alliance is a stakeholder initiative committed to promoting the political and social acceptance of eFuels and to securing their regulatory approval. We represent more than 170 companies, associations and consumer organizations along the value chain of eFuel production. We stand for fair competition and a level-playing field for all relevant emission reduction solutions. We are clearly committed to more climate protection and aim to win broader recognition of the significant contribution eFuels can make in the drive for sustainability and climate protection. Our goal is to facilitate the industrial production and widespread use of carbon neutral fuels made from renewable energy sources.