

CONSULTATION RESPONSE

Rules for RFNBO and RCF
production delegated
acts'

Consultation response

Renewable energy – method for assessing greenhouse gas emission savings for certain fuels

Bellona Europa welcomes the ongoing efforts by the European Commission, and the invitation to provide views, feedback and recommendations on the published draft proposal to the Delegated act on the method for assessing greenhouse gas emission savings for recycled carbon fuels and renewable fuels of non-biological origin.

We welcome the intention of the Commission to assess all fuels according to their full impacts across their entire lifecycle. In order to ensure emission reductions and create a robust and transparent accounting system, the methodology outlined in this delegated act must reflect the entire carbon intensity of the fuels produced.

This intention is not only vital for keeping climate ambitions, but also to deploy sufficient additional renewable sources to ensure energy security and fair energy prices for European consumers.¹

Positive aspects of the draft DA

- The proposal outlines measures that intend to take into account full life cycle emissions, which is commendable as it aims to illustrate the full impact of the fuels produced (Recital 4).
- The minimum greenhouse gas emission saving threshold of 70% should indeed be set for all types of recycled carbon fuels, in accordance with emission reduction goals for other fuels and overall climate targets (Recital 2, Article 2).
- Double counting of emission reductions from CO₂ captured should be avoided (Recital 5) to ensure that any possible emission reduction resulting from the permanent storage of CO₂ is recorded only once.

Negative aspects of the draft DA

Double counting renewable electricity: Not only does the DA provide a way out of additionality, but it also enables double counting of renewable electricity (e.g., counting both PPA solar and the yearly average RES penetration). This should be addressed in the Delegated act on the electricity use for RFNBO production (e.g., by expanding Recital 14 on double counting of RES).

Enabling accounting flexibility and therefore grid connection: it creates an incentive for electrolyzers to run the longest possible amount of hours and be as inflexible as can be; producers can cherry pick every hour which accounting method yields them the most renewable or low-carbon hydrogen, which incentivises never turning production off. This is now possible, despite hydrogen being initially foreseen as a way to capture excess renewable electricity production.

Unfair competition between member states: Member states that do foresee additional renewable electricity generation to be dedicated to hydrogen production will be disadvantaged compared to member states where electrolyzers will be running with a direct connection to the electricity grid with mixed energy sources.

¹ AK, [Edelsprit für alles?](#), 2021.

The origin of carbon used for the production of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels should not be disregarded in the short to medium term because it could disincentivise emission reductions at fossil point sources. In other words, if there is a demand for fossil carbon sources, there will be no incentive to reduce emissions in the short to mid-term (e.g., by changing the production process or capturing and permanently storing CO₂). Given the near term actions required to meet climate goals and long investment cycles in energy intensive industries, disregarding the source of carbon in the short or mid-term is detrimental. Therefore, fossil carbon should automatically be differentiated from atmospheric carbon, both for the production of RFNBOs and RCFs.

Recommended amendments to the Delegated act on GHG methodology

Draft text	Recommended amendment	Justification
Delegated act		
<p>(7) The origin of carbon used for the production of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels is not relevant for determining emission savings of such fuels in the short to medium term, as plenty of carbon sources are available and can be captured without hindering the progress of decarbonisation. In the long-term, the use of these renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels produced using non-sustainable carbon is not compatible with climate neutrality as the use of carbon from non-sustainable processes entails a continued use of non-sustainable fuels and the related emissions. Capturing of emissions from non-sustainable sources should therefore only be considered as avoiding emissions until 2035.</p>	<p>(7) The origin of carbon used for the production of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels is not relevant for determining emission savings of such fuels in the short to medium term, as plenty of carbon sources are available and can be captured without hindering the progress of decarbonisation. In the long-term,. The use of these renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels produced using non-sustainable carbon is not compatible with climate neutrality as the use of carbon from non-sustainable processes entails a continued use of non-sustainable fuels and the related emissions. Capturing of emissions from non-sustainable sources should therefore not only be considered as avoiding emissions. until 2035.</p>	<p>if there is a demand for fossil carbon sources, there will be no incentive to reduce emissions in the short to mid-term (e.g., by changing the production process or capturing and permanently storing CO₂). Given the near term actions required to meet climate goals and long investment cycles in energy intensive industries, disregarding the source of carbon in the short or mid-term is detrimental.</p>
<p>(12) The carbon intensity of the electricity mix is expected to gradually decrease due to higher proportions of renewable and low-carbon electricity. That effect should be taken into account in the greenhouse gas emission methodology by applying an improvement factor that is derived from energy statistics,</p>	<p>(12) The carbon intensity of the electricity mix is expected to gradually decrease due to higher proportions of renewable and low-carbon electricity. That effect should be taken into account in the greenhouse gas emission methodology by applying an improvement factor that is derived from energy statistics,</p>	<p>Given the fact that the decarbonisation of the grid is already considered in the data, this recital is redundant. As the grid becomes less carbon intensive, the reporting process should verify it.</p>

Annex to the Delegated Act

6. Grid electricity used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels that does not qualify as fully renewable according to Article 27(3) of Directive 2018/2001, shall be attributed the greenhouse gas emissions values according to part C of this Annex. This is without prejudice to the assessment under State aid rules.

Alternatively, electricity taken from the electricity grid that is used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels that does not qualify as fully renewable according to Article 27(3) of Directive 2018/2001, may be attributed greenhouse gas emissions values depending on the number of full load hours the installation producing renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels is operating. Where the number of full load hours the electrolyser is producing is equal or lower than the number of hours in which the marginal price of electricity was set by installations producing renewable electricity or nuclear power plants in the preceding calendar year for which reliable data are available, grid electricity used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels shall be attributed a greenhouse gas emissions value of zero g CO₂eq/MJ. Where this number of full load hours is exceeded, grid electricity used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels shall be attributed a greenhouse

6. Grid electricity used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels that does not qualify as fully renewable according to Article 27(3) of Directive 2018/2001, shall be attributed the greenhouse gas emissions values according to part C of this Annex. This is without prejudice to the assessment under State aid rules. ~~Alternatively, electricity taken from the electricity grid that is used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels that does not qualify as fully renewable according to Article 27(3) of Directive 2018/2001, may be attributed greenhouse gas emissions values depending on the number of full load hours the installation producing renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels is operating. Where the number of full load hours the electrolyser is producing is equal or lower than the number of hours in which the marginal price of electricity was set by installations producing renewable electricity or nuclear power plants in the preceding calendar year for which reliable data are available, grid electricity used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels shall be attributed a greenhouse gas emissions value of zero g CO₂eq/MJ. Where this number of full load hours is exceeded, grid electricity used in the production process of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels shall be attributed a greenhouse gas emissions value of 183 g CO₂eq/MJ.~~ When calculating the share of renewable hydrogen produced using grid connected electrolysers, the Power Purchase Agreements

Temporal correlation should be ensured when using electricity marked as renewable or low carbon. The marginal plant approach should consider this, therefore only the methodology set out in point 7 should be kept.

Moreover, to avoid double counting of renewable electricity for hydrogen production, when then share of electricity from the grid allows for the partial production of renewable hydrogen, this should not include renewable electricity already earmarked for hydrogen production under the "Production of renewable transport fuels – share of renewable electricity (requirements)" delegated act.

<p>gas emissions value of 183 g CO₂eq/MJ.</p>	<p>earmarked for hydrogen production shall be excluded.</p>	
<p>7. Alternatively, the greenhouse gas emissions value of the marginal unit generating electricity at the time of the production of the renewable liquid and gaseous transport fuels of non-biological origin in the bidding zone may be used if this information is publicly available from a reliable source.</p>	<p>7. Alternatively, the greenhouse gas emissions value of the marginal unit generating electricity at the time in the same calendar hour of the production of the renewable liquid and gaseous transport fuels of non-biological origin in the bidding zone may be used if this information is publicly available from a reliable source.</p>	<p>Temporal correlation should be ensured on an hourly basis in line with the other directive.</p>
<p>11. Emissions from existing use or fate include all emissions in the existing use or fate of the input that are avoided when the input is used for fuel production. These emissions shall include the CO₂ equivalent of the carbon incorporated in the chemical composition of the fuel that was or would have otherwise been emitted as CO₂ into the atmosphere. This includes CO₂ that was captured and incorporated into the fuel provided that at least one of the following conditions is fulfilled: (a) The CO₂ has been captured from an activity listed under Annex I of Directive 2003/87/EC and has been taken into account upstream in an effective carbon pricing and is incorporated in the chemical composition of the fuel before 2036, or;</p>	<p>11. Emissions from existing use or fate include all emissions in the existing use or fate of the input that are avoided when the input is used for fuel production. These emissions shall include the CO₂ equivalent of the carbon incorporated in the chemical composition of the fuel that was or would have otherwise been emitted as CO₂ into the atmosphere. This includes CO₂ that was captured and incorporated into the fuel provided that at least one of the following conditions is fulfilled: (a) The CO₂ has been captured from an activity listed under Annex I of Directive 2003/87/EC and has been taken into account upstream in an effective carbon pricing and is incorporated in the chemical composition of the fuel before 2036, or;</p>	<p>See justification above (7., DA).</p>

Consultation response

Production of renewable transport fuels – share of renewable electricity (requirements)

Bellona Europa welcomes the ongoing efforts by the European Commission, and the invitation to provide views, feedback and recommendations on the published draft proposal to the Delegated act on the production of renewable transport fuels defining the share of renewable electricity.

We welcome the intention of the Commission to safeguard the climate ambitions of hydrogen through the introduction of additionality, temporal correlation and geographic correlation. However, the introduction of a grandfathering clause risks jeopardising the entire purposes of the delegated act.

Positive aspects of the draft DA

Article 4 of the “additionality” delegated act creates a system that allows for hydrogen to be supporting the energy transition:

- The requirement of establishing PPAs with newly deployed unsubsidised renewable generation prevents hydrogen from cannibalising existing renewables from the grid.
- The requirement of hourly matching between renewable generation and hydrogen production ensures that renewables are consumed when they are available, helping with the integration of non-dispatchable renewables in the power system
- The requirement of locating renewable generation and hydrogen production nearby each other ensures that there is an actual flow of electrons between the two facilities

Negative aspects of the draft DA

However, the positive aspects related to additionality are not safeguarded as all the installations built before 2027 will not have to support any new deployment of renewables at any point of their operating life.

With a normal transitional period, these electrolyzers would need to provide additionality at a later stage. This would enable them to ramp up production in the early stages and comply with additionality at a later stage. However, with the grandfathering clause in place, those pre-2027 electrolyzers will never have to comply with additionality.

Recommended amendments to the Delegated act

Draft text	Recommended amendment	Justification
<p><i>Article 3</i></p> <p>(b) the installations generating renewable electricity came into operation not earlier than 36 months before the installation producing renewable liquid and gaseous transport fuel of non-biological. Where additional production capacity is added to an existing installation producing renewable liquid and gaseous transport fuel of non-biological origin, the added capacity shall be considered to be part of the existing installation, provided that the capacity is added at the same site and the addition takes place no later than 24 months after the initial installation came into operation;</p>	<p><i>Article 3</i></p> <p>(b) the installations generating renewable electricity came into operation not earlier than 36 24 months before the installation producing renewable liquid and gaseous transport fuel of non-biological. Where additional production capacity is added to an existing installation producing renewable liquid and gaseous transport fuel of non-biological origin, the added capacity shall be considered to be part of the existing installation, provided that the capacity is added at the same site and the addition takes place no later than 24 months after the initial installation came into operation;</p>	<p>Facilities that came into operation 3 years before the deployment of electrolyzers would be considered additional. Moreover, the expansion of RFNBO installation capacities further extends this period by 24 months, effectively leading to five-year-old installations being declared additional.</p> <p>This period should be shortened to ensure that facilities that are used for the production of RFNBOs were deployed for that purpose. If not, this risks redirecting existing renewables away from more efficient uses on the grid.</p>
<p><i>Article 4.2</i></p>	<p><i>Article 4.2</i></p>	<p>As above.</p>

<p>(a) the installation generating renewable electricity came into operation not earlier than 36 months before the installation producing the renewable liquid and gaseous transport fuel of non-biological origin.</p>	<p>(a) the installation generating renewable electricity came into operation not earlier than 36-24 months before the installation producing the renewable liquid and gaseous transport fuel of non-biological origin.</p>	
<p><i>Article 7</i></p> <p><i>Transitional phase</i></p> <p>Article 4(2), points (a) and (b) shall apply from 1 January 2027.</p> <p>Until 31 December 2026, by way of derogation from Article 4 (2) (c)(i) and Article 4 (2) (c)(ii), the renewable liquid and gaseous transport fuel of non-biological origin shall be produced during the same calendar month as the renewable electricity produced under the renewables power purchase agreement or from renewable electricity from a storage asset that is located behind the same network connection point as the electrolyser and that has been charged in during the same calendar month in which the electricity under the renewables power purchase agreement has been produced.</p> <p>For projects involving State aid, other than where the aid remunerates only capital expenditure, the derogations in the second paragraph shall not apply.</p>	<p><i>Article 7</i></p> <p><i>Transitional phase</i></p> <p>Article 4(2), points (a) and (b) shall apply from 1 January 2027. RFNBO installations shall instead contribute X € per every kWh of electricity consumed to the Union Renewables Financing mechanism during the time in which it uses existing capacity as interim solution.</p> <p>Until 31 December 2026, by way of derogation from Article 4 (2) (c)(i) and Article 4 (2) (c)(ii), the renewable liquid and gaseous transport fuel of non-biological origin shall be produced during the same calendar month six hours period as the renewable electricity produced under the renewables power purchase agreement or from renewable electricity from a storage asset that is located behind the same network connection point as the electrolyser and that has been charged in during the same calendar month six hours period in which the electricity under the renewables power purchase agreement has been produced.</p> <p>For projects involving State aid, other than where the aid remunerates only capital expenditure, the derogations in the second paragraph shall not apply.</p>	<p>New renewable deployment should be always supported by hydrogen producers, thus in the transitional period, projects that do not comply with additionality should at least contribute to a fund ensuring additional renewables are deployed in Europe. The Commission should perform an assessment to determine the amount of the contribution that would be needed to deploy the renewable generation required to cover the demand from electrolysers.</p> <p>Moreover, temporal correlation ensures that renewable electricity is used when available. As non-dispatchable renewable production varies largely between day and night hours, rather than on a monthly basis. Relaxing the temporal correlation rules for the transitional period, to allow easier roll out of electrolysers, can be acceptable only insofar this does not compromise completely the original purpose of the correlation.</p> <p>Finally, states have invested taxpayers' money in subsidising renewable installations with the purpose of decarbonising the power sector. Allowing these projects to account for the hydrogen production diverts this electricity away from the power sector, pushing the power sector</p>

		towards a larger fossil fuel dependency. Therefore, installation that received state aid of any form should not be eligible for derogations on temporal correlation .
<p>Article 8</p> <p><i>Scope of application</i></p> <p>Article 4(2), points (a) and (b) do not apply to installations producing renewable liquid and gaseous transport fuel of non-biological origin that come into operation before 1. January 2027. Any additional production capacity added to these installations following their entry into operation will fall under the scope of application of this Regulation.</p>	<p>Article 8</p> <p>Scope of application</p> <p>Article 4(2), points (a) and (b) do not apply to installations producing renewable liquid and gaseous transport fuel of non-biological origin that come into operation before 1. January 2027. Any additional production capacity added to these installations following their entry into operation will fall under the scope of application of this Regulation.</p>	<p>Applying a for life grandfathering clause exempting first movers from having to contribute to the deployment of the renewables they are using goes against the requirements in RED. The end of the transitional period should also correspond to the end of the exemption on the additionality rule.</p>
<p>Article 8</p> <p><i>Scope of application</i></p> <p>Article 4(2), points (a) and (b) do not apply to installations producing renewable liquid and gaseous transport fuel of non-biological origin that come into operation before 1. January 2027. Any additional production capacity added to these installations following their entry into operation will fall under the scope of application of this Regulation.</p>	<p>Article 8</p> <p><i>Scope of application</i></p> <p>Article 4(2), points (a) and (b) do not apply to installations producing renewable liquid and gaseous transport fuel of non-biological origin that come into operation before 1. January 2027 until the end of 2030. Any additional production capacity added to these installations following their entry into operation will fall under the scope of application of this Regulation.</p>	<p>If a grandfathering clause is to be applied to stimulate initial investment, this should not be indefinite. First movers can be given an advantage to source their electricity from non-additional PPAs in the short term. However, by 2030, when RFNBOs targets within RED enter into force, it should be ensured that all RFNBOs are produced with additional renewables, complying with the requirements set in RED.</p>

Legal issues of the DAs on RFNBOs and RCFs

- The weakening of the additionality principle disregards and conflicts with essential elements of the Renewable Energy Directive (2018/2001), or REDII. This suggests that the Commission exceeded its delegated powers and is manifestly misapplying the law.
- By encouraging a massive increase in electricity demand and displacement of renewables, and by creating GHG accounting methodologies which will clearly benefit certain Member States over others, the delegated acts fail to uphold the Energy Efficiency First and the Energy Solidarity Principles, which are binding on the Commission under Article 194 TFEU.
- The Commission has not met its obligation under the European Climate Law to assess the delegated acts against the EU's climate targets. If such an assessment was made, it would likely demonstrate that the delegated acts

neither help enable the collective achievement of climate neutrality nor prioritise 'swift and predictable reductions', as required by that law.

Due to these issues, it is crucial that amendments to the Delegated acts reflect the scope and mandate which was given in the Renewable Energy Directive.

Contact

Marta Lovisolo

Policy Advisor Renewable Energy Systems

marta@bellona.org

Mobile: +32 (0)489638862



Ana Šerdoner

Senior Manager Industry & Energy Systems

ana@bellona.org

Mobile: +32 (0)487798419

