



## Position Paper on the European Commission's proposed Revision of the EU Emissions Trading System (ETS) Directive

The **Global Alliance Powerfuels** welcomes the **revision of the EU Emissions Trading System Directive**<sup>1</sup> and endorses the European Commission's goal to enable Member States to fulfil the EU's climate objectives of the European Green Deal in a cost-effective way by strengthening the scale and scope of carbon pricing in the EU.

The **Global Alliance Powerfuels** was founded in 2018 and is backed by 16 member organisations and an international network of partner institutions. It is coordinated by the German Energy Agency (dena). The strategic objective of the Alliance is to foster the development of a global market for powerfuels.

The term **powerfuels** denotes not only renewable hydrogen but also all gaseous and liquid fuels from power-to-X processes that draw their energy content from renewable electricity. This includes, but is not limited to, synthetic gas (e.g. methane, hydrogen) and synthetic liquid fuels (e.g. methanol, ammonia, and Fischer-Tropsch products).

Powerfuels complement the direct use of renewable energy and are crucial where direct electrification is not technologically feasible or economical. By offering climate-neutral options to applications with no viable alternatives, powerfuels allow for more far-reaching de-fossilisation of all end-use appliances, across all sectors – thus enabling system-wide emissions reductions in a technology-neutral approach. Powerfuels can also accelerate the integration of the energy system by replacing fossil energy sources in existing end-use consumer equipment in the short term and offering flexibility as a long-term storage option.

### **Position and recommendations of the Global Alliance Powerfuels**

- The Alliance welcomes the increased ambition to reduce emissions in the sectors covered by the EU ETS by 62% until 2030 compared to 2005 levels. The expected price increase for carbon emissions resulting from the proposed measures, including the reduction of the overall cap and increase of the annual reduction factor to 4.2%, would reduce the cost gap between renewable energy carriers, including green hydrogen and other renewable fuels of non-biological origin (RFNBOs), and their fossil equivalents like grey hydrogen, making powerfuels more competitive. Specifically, a carbon price of €100/t, e.g., would add costs of ap-

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<sup>1</sup> Official Title: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757

proximately €0.90–1.30€/kg to the production of fossil hydrogen from steam–methane re-forming (SMR)<sup>2</sup> and therefore contribute significantly to reducing the cost gap between green and grey hydrogen, even if it would presumably not fully close it.

- The Alliance also welcomes the inclusion of the maritime sector into the existing ETS, as this will increase pressure to decarbonize shipping and add incentives for the use of RFNBOs such as e-methanol and e-ammonia, which are promising defossilisation options for this hard-to-abate sector.
- The amendment of Annex I to make all hydrogen production facilities that have a minimum production capacity of 25 tonnes per day eligible for free allowances in the existing EU ETS from 2026 onwards will help to reduce production costs of renewable/green hydrogen and therefore promotes the market development of RFNBOs. In addition, it will remove the disincentive for grey hydrogen producers to switch to renewable hydrogen production, as they will no longer face the dilemma of losing eligibility for any allowances under the ETS, and hence the revenues from selling these. To enhance this positive effect, the Alliance proposes to make green hydrogen production plants eligible directly (from the date the directive takes effect) and without the proposed minimum capacity restriction, which would otherwise rule out any electrolyser of a capacity below 100 MW.
- The Alliance welcomes the increased funding for the Innovation Fund, from which RFNBOs could benefit. Due to the fund's focus on highly innovative technologies and large-scale demonstration projects, however, it is unclear how long RFNBOs would remain eligible for funding, given that RFNBO technologies might no longer count as "highly innovative" but could rather be considered as proven or established technologies in the near-term already. Therefore, the Alliance recommends that not the innovation level itself but the cost gap to commercial viability of a technology should be the deciding factor in whether or not it receives funding.
- In the context of financing, the Alliance strongly supports the proposed inclusion of Carbon Contracts for Difference (CCfDs) as an eligible funding instrument. CCfDs are an important instrument for compensating for the remaining cost gap between the effective carbon price in the ETS and the mitigation costs of RFNBOs during the powerfuels market ramp-up phase.
- We welcome that the revision includes provisions for accounting CO<sub>2</sub> used as a feedstock in the production of carbon-based RFNBOs such as e-methane, e-methanol or e-ammonia. Regarding the proposal that the utilised CO<sub>2</sub> captured under an activity covered by the ETS should be accounted under that activity and have to surrender allowances, the Alliance

<sup>2</sup> Assuming lifecycle emissions of grey hydrogen from SMR of approximately 9–13 kg CO<sub>2</sub>eq / kg H<sub>2</sub>. See IEA, Future of Hydrogen, 2019; Greenpeace Energy, Kurzstudie Blauer Wasserstoff, 2020; Timmerberg et al., Hydrogen and hydrogen-derived fuels through methane decomposition of natural gas – GHG emissions and costs, 2020



would like to point out that this implies that the industrial emitters (“original” emitters) would have to surrender allowances regardless of whether they emit or capture the carbon from the industrial plant in question. Therefore, an incentive for the industrial installation to capture carbon instead of emitting it is needed.

- Regarding the provision under Art. 1 (16) that empowers the European Commission to adopt implementing acts on how to account for the eventual CO<sub>2</sub> release when the RFNBO is burned in the end-use sector, the Alliance proposes that – as emissions are already covered – the RFNBO end-user should not have to surrender allowances. In consequence, any type of powerfuel could be treated as carbon-neutral under the condition that emissions associated with its use are accounted for at the CO<sub>2</sub> capture stage, e.g. if the industrial installation is part of the ETS. Projections indicate, however, that a significant share of carbon-based powerfuels will be produced in regions outside the EU. Given that the industry sector in these markets often does not face emission caps comparable to the ETS, the implementing act needs to ensure that emissions that are associated with the carbon used for RFNBO production and captured from industrial sources, including those that result from the capture process itself, are accounted for to avoid that emissions are ‘bypassed’.

**Contact:**

Deutsche Energie-Agentur GmbH (dena)  
German Energy Agency  
Johanna Friese  
Friederike Altgelt  
Chausseestrasse 128 a  
10115 Berlin, Germany

Tel: +49 (0)30 66 777-160  
Fax: +49 (0)30 66 777-699

[powerfuels@dena.de](mailto:powerfuels@dena.de) | [friese@dena.de](mailto:friese@dena.de) | [altgelt@dena.de](mailto:altgelt@dena.de)  
[www.powerfuels.org](http://www.powerfuels.org) | [www.dena.de](http://www.dena.de)

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