Statement on the European Commission's proposed revision of the EU Gas Directive and the Gas Regulation

The **Global Alliance Powerfuels** welcomes the **revision of the EU Gas Directive[1] and the Gas Regulation [2]** and endorses the European Commission's goal to support the EU's delivery of its strengthened climate targets by facilitating the gas market integration of renewable and low-carbon gases, including renewable hydrogen and other renewable fuels of non-biological origin (RFNBOs). Enabling and accelerating the transition away from fossil fuels has become even more urgent in view of Russia's unjustified and unprovoked invasion of Ukraine. Measures included in the package, e.g. to incentivise the import of renewable and low-carbon gases via pipelines as well as LNG terminals, can contribute to speeding up this transition and reducing the dependency on natural gas imported from Russia. However, in view of the EU's increased renewable hydrogen ambition regarding both the targeted production volumes in Member States and those of imports, some of the proposed provisions, e.g. on the regulation of hydrogen network operators and the timeline for specifying GHG requirements for low-carbon and renewable gases, should be re-evaluated to enable the needed mobilisation of financial and technical resources, in particular in the early powerfuels market development phase.

The **Global Alliance Powerfuels** was founded in 2018 and is backed by 14 member organisations and an international network of over 20 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 other gaseous and liquid energy carriers and feedstocks 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.

[1] Official Title: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on common rules for the internal markets in renewable and natural gases and in hydrogen

[2] Official Title: Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the internal markets for renewable and natural gases and for hydrogen (recast)

Position and recommendations of the Global Alliance Powerfuels

We share the conviction underlying the revision of the Gas Regulation and the Gas Directive that the introduction of renewable and low-carbon gases into the energy system needs to be accelerated and requires a profound transformation of the European gas market. Facilitating the market access of these gases requires both a clear definition of their specific characteristics and sustainability requirements they have to meet, and targeted incentives for their production, supply, and use.

Transmission tariff framework for renewable and low-carbon gases

We support the Commission's proposed dual approach of de-fossilising the existing gas network alongside the build-up of a dedicated hydrogen network. Regarding the integration of powerfuels as well as other renewable and low-carbon gases into the existing gas network, the proposed transmission tariff framework removes an important present barrier. Specifically, the proposal entails a reduction of injection costs for renewable and low-carbon gases by applying a 75%: discount to capacity-based tariffs at entry points from renewable and low-carbon production facilities as well as entry points from and exit points to storage facilities. The Commission further proposes to de facto abolish cross-border tariffs for renewable and low-carbon gases at all interconnection points, including entry points from and exit points to third countries as well as entry points from LNG terminals.

For the discounts to apply, a Proof of Sustainability (PoS) pursuant to Articles 29 and 30 of Directive 2018/2001 will need to be provided for the injected renewable and low-carbon gases. This requirement, which currently only applies to the discounts at interconnection points, should be expanded to the discounts applied to entry points from renewable and low-carbon production facilities and entry/exit points from/to storage facilities.

While we generally consider tariff discounts to constitute an effective instrument to reduce costs for network users, their long-term implementability can be questioned. Even though revenue losses for TSOs will likely be small in the initial market integration phase, they will grow with increasingly high shares of renewable and low-carbon gases in the network. Anticipating such effects, the Commission proposes to revisit the 75%: discount to capacity-based tariffs five years after entry of force of the Regulation. In the case of the abolished discounts at interconnection points, it provides that if the revenue shortfall emerging from the granting of discounts to renewable and low-carbon gases exceeds 10%, the affected and neighbouring transmission system operators shall negotiate a compensation mechanism (Art. 16 of the proposed Gas Markets Regulation). However, uncertainty with regard to the implementation and design of such cross-border compensation remains. It will need to be ensured that investments in cross-border infrastructure are not hindered or delayed, e.g. through supply-side quotas for renewable gases.

Build-up and regulation of a dedicated hydrogen network

It is essential to establish rules at EU level for the deployment of hydrogen as an independent energy carrier via dedicated hydrogen networks, as the lack of provisions on aspects such as operation and ownership of the network and quality requirements of hydrogen transported therein currently constitutes a major barrier. We generally endorse that the Commission's proposal recognises the need for flexibility and regulatory adaptability concerning the development of hydrogen transport networks, especially in the early stages of building up the dedicated network.

Regarding the unbundling of hydrogen network operators, the Alliance supports the goals underlying the provisions to create incentives for the necessary investments, guarantee the market access of new entrants, and avoid conflict of interests between producers, suppliers, and transmission system operators (TSO). However, it needs to be ensured that the unbundling rules do not unreasonably impede the build-up of the dedicated hydrogen network. We are therefore in particular critical of the proposed inadmissibility of vertical unbundling according to the independent transmission operator (ITO) model after 2030 (Art. 62 of the proposed Gas Markets Directive). Against the backdrop of the European Commission's finding in its "Report on the ITO Model"[3] that most of the requirements related to the ITO model functioned in practice and were adequate and sufficient to ensure effective separation of the transmission business from generation and supply activities, the ITO model should remain admissible as a third option besides ownership unbundling and unbundling in accordance with the rules on independent system operators (ISO).

Investments in hydrogen and other powerfuels as well as in their respective infrastructures will in a substantial part be driven by companies currently or historically active in the production and supply steps of natural gas seeking to de-fossilise their business. In addition, as it can be expected that the dedicated hydrogen network will to a large share consist of retrofitted / repurposed pipelines that were built for natural gas, horizontal unbundling rules should both be practicable for joint methane and hydrogen network operators and allow market entry of third companies as hydrogen network operators. It is questionable whether legal separation, as provided for in Art. 63 of the proposed Directive, is necessary to achieve this goal, as it could lead to the build-up of ineffective 'double structures'. What is more, a clear allocation of costs to the operation of the existing gas network on the one hand and the hydrogen network on the other hand can be achieved effectively through the accounting unbundling requirements in Art. 64 and 69, and does not require legal unbundling. We therefore suggest to leave out the provisions set in Art. 63 of the proposed Directive.

[3] https://ec.europa.eu/energy/sites/ener/files/documents/2014_iem_communication_annex3.pdf

Definition of low-carbon hydrogen and other low-carbon gases

We welcome that the revised Gas Markets Directive proposes a definition of low-carbon hydrogen and other low-carbon gases (Art. 2) and hereby reduces the uncertainty and ambiguity around these terms. We generally support the proposed requirement for low-carbon energy carriers to achieve GHG emission savings of at least 70% compared to their fossil equivalents, i.e. the same threshold that applies for RFNBOs.

Recent literature findings show that so-called "blue" hydrogen produced from natural gas coupled with carbon capture and storage (CCS) can only achieve total emissions of no more than 2 - 3.5 kg CO2-eq / kg H2, and hence potentially comply with the 70% GHG reduction requirement[4], when the methane emission rate from the supply of natural gas is below 0.3 per cent (GWP20), and the carbon capture rate is above 90 per cent[5]. When developing the methodology for assessing the total GHG emissions and emission savings from low-carbon gases, it therefore needs to be ensured that these two factors, and in particular the methane emissions from the supply of natural gas, are fully accounted for.

The Commission's proposal provides for the abovementioned methodology to be specified in a Delegated Act by December 31, 2024 (Art. 8 of the Gas Markets Directive). As this creates significant investment uncertainty, including for companies considering both powerfuels and low carbon fuels projects, the Alliance calls for the Delegated Act to be adopted by the end of 2023 at the latest.

The definition of "natural gas" should not include renewable gases such as bio-methane or renewable synthetic methane, as despite their similar chemical composition, they differ significantly in their GHG impact and should therefore also be regulated distinctly. We thus suggest to amend the definition in Art. 2 of the Gas Markets Directive to exclusively cover non-renewable gases that primarily consist of methane. If certain gas market rules are to apply to natural gas as well as renewable gases transported in the gas grid, this should be explicitly stated in the respective provision of the Directive.

[4] Assuming life-cycle emissions of "grey" hydrogen produced from natural gas of 12.5 kg CO2-eq / kg H2 as defined in EU Directive 2015/652

[5] See Bauer, C., Treyer, K. und Antonini, C. (2022), On the climate impacts of blue hydrogen production, Sustainable Energy & Fuels, Iss. 1, retrieved from https://doi.org/10.1039/D1SE01508G.

Contact:

Deutsche Energie-Agentur GmbH (dena)
German Energy Agency
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 | Friederike.Altgelt@dena.de
www.powerfuels.org | www.dena.de

Date: 4/2022

Please cite this publication as follows: German Energy Agency (Publisher) (dena, 2022)
"Statement of the Global Alliance Powerfuels on the European Commission's proposed revision of the EU Gas Directive and the Gas Regulation"