

Common terminology for gases

A European climate and industrial leadership is needed to achieve the Paris Agreement objectives and allow for a carbon neutral economy by 2050.

To this end, Europe should adopt a forward-looking approach and foster innovation in key emerging energy carriers, which will be needed to enable a competitive economy, reliably powered by clean and carbon neutral energy. Significant benefits and synergies can be found through the coupling of the electricity and gas sectors, as a key link in the transition to a decarbonised economy.

Direct electrification from renewable-based and carbon-neutral electricity supply – complemented in “harder to abate” sectors with power-to-gas and non-emitting fuels & gases – will make a major contribution to help Europe meet its climate targets. Moreover, power-to-gas technologies will also support a highly renewables based electricity system by providing firmness and flexibility solutions to both power and gas networks.

As a participant of the European Gas Regulatory Forum (Madrid Forum), Eurelectric is actively contributing to the ongoing discussions on the future role of gases to achieve a cost-effective decarbonisation. **A common terminology for gases will be a key milestone to design regulation, which will allow decarbonisation targets to be met.**

As a follow-up to the initial discussions on a common terminology for gases during the latest Madrid Forum in June 2019 and ahead of the upcoming Forum in October 2019, **the European power sector would like to present its preliminary remarks and propose the following key principles.**

1. Define the purpose of the common terminology for gases in a clear manner

Eurelectric calls on the European Commission to precisely determine the objective of a common terminology of gases, independently and with close involvement of relevant stakeholders. As an example, the ETS scheme sets eligibility rules for gases containing recycled carbon, based on its CO₂ footprint, which may be different from the renewable characteristics of a gas considered in the scope of Renewable Energy Directive (RED II 2018/2001).¹ As the purpose of these rules is different, the chosen criteria are different as well.

The first step should therefore be a common understanding of the objective, and we welcome the partnership between the European Commission and the Florence School of Regulation through the creation of an online platform to facilitate and extend the debate on sector coupling and its challenges by exploring new ideas, innovative projects and technologies.

2. Develop a clear and consistent terminology of gases at European level.

Ongoing discussions about the future of gas cover a wide range of products (hydrogen, biogas, biomethane, natural gas, synthetic methane, etc.), technologies and production processes (pyrolysis, electrolysis, methanisation, methanation, etc.) with different technical maturities and carbon footprints.

Any new or updated regulatory framework should be based on a commonly accepted classification and accurate definition of all the terms related to the different types of gases. The purpose of the classification should be to enable policymakers, stakeholders and ultimately consumers to speak a common language. It should therefore be as clear as possible in order to be easily understood and applied.

Most importantly, **this classification should only address specific issues where current regulation is not sufficiently clear.** For example, Article 2(1) of RED II already defines what a renewable energy source is and should remain as such, while article 2(35) defines recycled carbon fuels. For further classification needs, the European Commission should also leverage relevant existing work (e.g. the CertiFHY project 2 aiming at designing an EU-wide scheme of low-carbon hydrogen guarantees of origin).

¹ Synthetic gas may not be able to comply with RED II Art.25 emissions savings requirements (recycled carbon fuels need to save at least 70% emissions compared to the fossil alternative; assuming that the Member State in questions decides to accept recycled carbon fuels accounting towards the 14% target in transport).

Therefore, ETS needs to reflect the need for the first emitter to surrender allowances, but exempt users of “recycled carbon” from surrendering allowances for the same carbon. This serves both purposes above, namely avoiding internal carbon leakage, but also ensuring consistency with RED II.”

3. Make the climate performance of the product (GHG emissions) the basis of the terminology.

We understand that **the common terminology aims at identifying the contribution of a gas product to the decarbonisation objectives of the European economy.** We thus call on the European Commission to develop **a terminology that is genuinely climate and technology neutral and applies in a non-discriminatory way**, placing existing and future plants on the same footing.

Given the variety of feedstocks and processes, **the only relevant criterion for classifying gases should be the emissions over their whole lifecycle: starting with the production process and until the delivery of the gas to the end-consumers' entry point.** For instance, some non-renewable power generation technologies used for electrolysis have a very low climate footprint (nuclear, CCS) while some hydrogen production processes from renewable sources (biomass) can have a higher carbon footprint, depending on where the feedstock comes from and on how it is produced.

Therefore, **the classification of gases should reflect the climate performance of the gas and should be based on a GHG life-cycle assessment that may take the following elements into account:**

- **The source of CO₂ and any methane leakage resulting from the production phase of the gas, shall be considered within the life-cycle assessment,** among other pollutant emissions, which may alter the climate performance of the production process.
- **This life-cycle GHG evaluation** (e.g. starting with the production process and until the delivery of the gas to the end-consumers' entry point, and taking into account the CO₂ content of the product itself) **should establish the absolute amount of emissions per unit of energy** (for example gCO₂ eq/MJ) of each gas and be the basis for future classification.
- In our view, the amount of emissions captured or the percentage of emission reductions compared to natural gas are not relevant metrics for the purposes of this exercise.

Eurelectric also acknowledges that the distinction between renewable and decarbonised gases should not be disregarded. But we believe that the carbon footprint of different gases should be used as the main criterion in the common terminology in order to clearly indicate the contribution of the product to the decarbonisation objectives.

4. Avoid using production processes to define the ex-ante climate performance of gases.

Classifying gases by using categories based on a production process would not clearly reflect the climate impact of gases.

This is due to the fact that many processes are already well established, while some are only at a development stage, and new technologies might only appear in the coming decades. Production processes are also very complex and despite the same name (e.g. electrolysis, anaerobic digestion) they can lead to very different GHG emissions.