

## BELLONA EUROPA RECOMMENDATIONS ON THE HYDROGEN AND DECARBONISED GAS MARKET PACKAGE

As already [highlighted by Bellona Europa](#) at the release of the package in December 2021, **the current proposal from the European Commission fails to free Europe from a fossil lock-in**. This has become all the more clear with the release of the REPowerEU and a renewed dedication to reducing Europe's dependency on fossil gas.

**A main point of contention is the package's reliance on so-called "renewable gases" and "low-carbon gases"** - currently still **undefined in the Regulation** establishing common rules for the internal markets in renewable and natural gases and in hydrogen<sup>1</sup> and **ill-defined in the Directive** establishing common rules for the internal markets in renewable and natural gases and in hydrogen.<sup>2</sup> To reach its climate targets by 2030 and 2050, the EU increasingly rely on both low-carbon and renewable gases. The current lack of a climate framework and sustainability criteria for these gases draws into question their contribution, if any, to climate change mitigation.

The package also **fails to address one of the most critical issues: the targeted use of low-carbon and renewable gases**. These gases will remain a limited feedstock, and their use should be targeted, and limited, to those sectors that cannot otherwise decarbonise - such as the production of fertilisers and long-distance shipping. To decarbonise, these sectors need a pure feedstock. Providing them with **blended hydrogen through fossil gas pipelines, definitely characterised by not being a pure feedstock, won't contribute to decarbonisation**. Blended hydrogen risks rather than being used in sectors that could be otherwise decarbonised – such as home heating. Using blended hydrogen in these sectors won't provide any substantial decarbonisation due to the scale needed and would in fact be an **inefficient use of a precious resource: low-carbon and renewable gasses**.

Additionally, blending justifies continued investment into **fossil gas infrastructure** under the guise of a **potential shift to hydrogen in the future**. This justification **does not take into account that such a shift is not only unlikely to take place due to high costs and energy inefficiencies**, it also requires dedicated hydrogen infrastructure. With dedicated hydrogen infrastructure being different from the fossil gas infrastructure in use with blending, **blending is not a necessary stepping-stone in the direction of a decarbonised gas grid**. Investments into fossil gas infrastructure justified by blending as such comes **at the direct expense of investments into no-regret dedicated hydrogen infrastructure in industrial clusters**.

Moreover, if Europe used all its electricity to produce hydrogen, it would only be able to substitute 45% of the current European fossil gas demand. It is safe to assume that there would never be enough renewable and low-carbon gases to fully replace all the fossil gas currently filling the European gas grid. The promised full shift from blending to a fully decarbonised gas grid would simply not happen. **Investing in the current gas grid that is 'hydrogen-ready', with blending as a prioritised stepping-stone, is thus a waste of resources for an asset that is not fit to deliver a decarbonised world in line with the Paris Agreement**.

As [Bellona Europa's analysis](#) of REPowerEU from the 15th of March shows, electricity use must be prioritised for direct electrification applications. This is due to their comparatively higher effectiveness at achieving a higher fossil gas displacement compared to hydrogen production. It is therefore vital that the definition of both renewable and low-carbon gases ensures that these gases contribute to emission reductions and have a concrete climate benefit.

1 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0804>

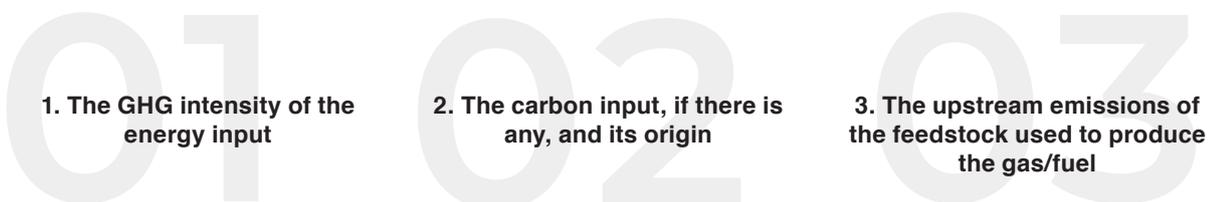
2 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0803>

## BASED ON THIS ANALYSIS, IT IS THEREFORE BELLONA EUROPA'S STRONG RECOMMENDATION THAT:

1. Clear and precise definitions for Low-carbon gases and Renewable gases are included in the Package, both Directive and Regulation

Such definitions must be included both in the Directive and Regulation – the latter in particular is currently lacking. This would ensure consistency and safeguard's the EU's climate credibility.

The definition and accompanying accounting included in the Hydrogen and Gas market decarbonisation package must take into account the below three factors to reflect the entire climate impact of these fuels:



## BELLONA EUROPA'S RECOMMENDED DEFINITIONS FOR LOW-CARBON GASES AND LOW-CARBON HYDROGEN

**Low-carbon hydrogen:** hydrogen the energy content of which is derived from non-renewable sources which meets a greenhouse gas emission reduction threshold of 70%, with a full lifecycle assessment including all upstream emissions, indirect emissions and the CO<sub>2</sub> capture and storage rate.

**Low-carbon gases:** part of low-carbon fuels which mean recycled carbon fuels as defined in article 2 of Directive (EU) 2018/2001, low-carbon hydrogen and Synthetic gaseous and liquid fuels the energy content of which is derived from low-carbon hydrogen, which meet the greenhouse gas emission reduction threshold of 70%, with a full lifecycle assessment including all upstream emissions, indirect emissions and the end-of-life emissions to the atmosphere.

*Our [brief on the matter from June 2021](#) provides the reasoning for each of the above points and explains how the definitions provided here were developed.*

2. Remove the 5% cap for blended hydrogen in the natural gas network. Instead of a 5% target for blending, prioritise the use of hydrogen in industries where it's most necessary and where there are no other alternatives (i.e., direct electrification).



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