



EU launches consultation on draft methodology for low-carbon hydrogen

October 8, 2024

EU definitions of hydrogen by source

Renewable H2

RFNBO*

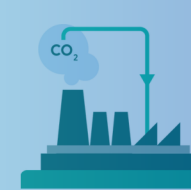


Produced from renewable energy sources other than biomass



Produced from biogas and biomass

Low-carbon H2



Produced from non-renewable energy sources

**RFNBO: Renewable fuels of non-biological origin*

- ➔ The new Gas Package introduce **renewable and low-carbon gases** to the existing EU gas market rules
- ➔ The EU Commission launched a consultation process to publish a **delegated act on methodology for producing low-carbon H2**
- ➔ Low-carbon H2 offers more options for European producers, but specific targets and support schemes remain unclear



Yamna

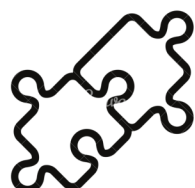
What is the new Gas Package about?



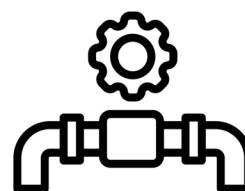
In May 2024, the EU adopted **the hydrogen and decarbonised gas market package (“Gas Package”)** which includes rules on:



Certification of
low-carbon gases



Integration of
clean gases



Access to new
H2 infrastructure



Coordinated
network planning

The new Gas Package amends the existing gas legislation to include **renewable and low-carbon (“RES&LC”) gases**

- **Renewable gas**: biogas, biomethane, biohydrogen and renewable fuels of non-biological origin (RFNBO)
- **Low-carbon gas**: hydrogen and synthetic fuels with at least 70% lower emissions than fossil fuels, regardless of the energy source (e.g., nuclear, natural gas + carbon capture)

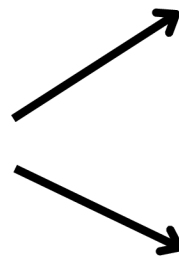
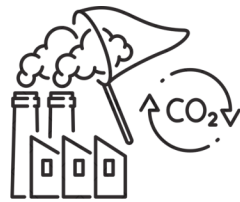
How is “low-carbon” hydrogen defined?



The definition of low-carbon hydrogen is first introduced in the Gas Package as the following:



Low-carbon H₂ produced from



Renewable fuels of
non-biological origin
(RFNBO)



Low-carbon



with at least 70% GHG emissions reduction
($< 28.2\text{gCO}_2/\text{MJ}$ or $3.4\text{ kgCO}_2/\text{kgH}_2$
throughout the entire supply chain)

**Consultation on draft methodology
for low-carbon hydrogen is currently
ongoing until the end October 2024*



What is the implication?

The introduction of low-carbon hydrogen **provides more flexibility in defining clean energy options** beyond RFNBOs



Yamna

Can renewable and low-carbon gases enter the existing gas grid?



Yes, they can! The Gas Package introduces tariff discounts and maximum blending level to encourage H2 blending into the existing gas network

Tariff discounts of

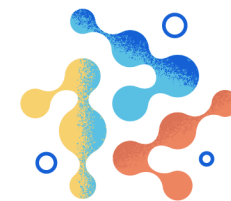
100% for renewable gases

75% for low-carbon gases

in entry/exit and cross-border points
in gas pipelines

with

H2 blending allowed



up to **2%**

by volume, into natural gas at
interconnection points



Discounted tariffs will **encourage the integration of RES&LC gases** into the existing gas pipelines while ensuring the safety level

Accessing the new hydrogen infrastructure



Renewable and low-carbon hydrogen can access new H2 infrastructure (e.g., pipelines, storage) based on regulated third-party access from 2033

Before 2033



Reserved access to negotiated party

From 2033



Open access under regulated tariffs

**Except for H2 terminals including liquefaction and cracking facilities (negotiated access continues to apply)*



Access to hydrogen infrastructure will help to **create an open and competitive hydrogen market**

What are the next steps for low-carbon hydrogen?



The EU Commission will clarify the definition and methodology for calculating the emission savings of low-carbon H₂ and fuels in a separate delegate act

	Definition	Methodology	Target	Support
RFNBO	 <i>RED II</i>	 <i>RED II Delegated Acts</i>	 <i>RED III</i>	 <i>EU fundings (e.g., Innovation Fund auction)</i>
Low-carbon	 <i>Gas Package</i>	In progress <i>(Delegated Act by mid-2025 at the latest)</i>	?	?

However, key questions remain to be answered...



What are the targets and support mechanisms for low-carbon H₂?



How will low-carbon H₂ interact with the existing RFNBO targets and regulatory framework?



Will the EU prioritize low-carbon H₂ as much as RFNBO?
If so, how will it balance the varying priorities of Member States?
(e.g., H₂ produced from nuclear in France vs. RFNBO H₂ in Spain)