

What is renewable hydrogen?



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The European Commission has this week adopted two Delegated Acts required under the Renewable Energy Directive that help clarify this question.

The first Delegated Act sets out detailed rules for the production of renewable liquid and gaseous fuels of non-biological origin for transport (also known as "RFNBOs"), defining under which conditions hydrogen, hydrogen-based fuels or other products can be considered as a RFNBO. It thus clarifies the "additionality" principle for hydrogen set out in the Renewable Energy Directive, which aims to ensure that increased electricity demand for hydrogen production is met with additional renewable energy generation capacity. In this way renewable hydrogen generation encourages an increase in the volume of renewable energy available to the grid, allowing hydrogen to support decarbonisation and avoid putting pressure on power generation.

That Delegated Act sets out different methodologies for producers to demonstrate that renewable electricity used for hydrogen production complies with the principle of "additionality". It also introduces criteria to ensure that renewable hydrogen is only produced when and where sufficient renewable energy is available (i.e., temporal and geographical correlation).

The second Delegated Act establishes a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and specifies a methodology for assessing greenhouse gas emissions savings from RFNBOs and from recycled carbon fuels.

The methodology takes into account greenhouse gas emissions over the fuels' entire life cycle. The methodology also clarifies how to calculate greenhouse gas emissions from renewable hydrogen or its derivatives in case it is co-produced in a plant producing fossil-based fuels.

The European Parliament and the Council have 2 months to examine these Delegates Acts and to accept or reject the European Commission's proposals.

These acts will provide regulatory certainty for investors and are part of a broad EU regulatory framework for hydrogen that includes investments in energy infrastructure and legislative targets for renewable hydrogen for the industry and transport sectors.

The REPowerEU Plan aims for the EU to produce 10 million tonnes and import a further 10 million tonnes of renewable hydrogen by 2030.

For more information: https://ec.europa.eu/commission/presscorner/detail/pt/qanda_23_59 ^{CS'}