
Key points

• Green Hydrogen is essential for decarbonising high-emitting sectors where direct electrification is not a solution. The REPowerEU plan demonstrates global leadership on green hydrogen.

• However, the proposed requirements on additionality and state aid risk undermining global green hydrogen ambitions. The implications for RFNBOs produced through grid connected projects outside the EU needs to consider a different set of risks and opportunities, especially in developing countries and emerging economies, where grid connectivity is critical to ensure a positive impact on local energy capacity, reliability and affordability.

• Recognising the need for consistency and equivalence, we encourage the Commission to consider standards and definitions such as the Green Hydrogen Standard, which provides an opportunity to safeguard close-to-zero emissions, best practice ESG performance, and equitable development opportunities aligned with the Sustainable Development Goals, the Renewable Energy Directive and REPowerEU. The revisions to the Renewable Energy Directive (RED III) which are currently being debated also offer a further opportunity to ensure renewable green hydrogen can scale up to the level needed to address climate change and improve energy security.

1. The Green Hydrogen Organisation (GH2) welcomes the EU's ambitious plans for green hydrogen as part of the REPowerEU plan. The green hydrogen industry is dedicated to reducing emissions and reducing our dependence on fossil fuels. GH2 recently launched a campaign calling for 100 million tonnes of green hydrogen production by 2030. The EU's target of 10 million tonnes of domestic renewable hydrogen production and 10 million tonnes of imports by 2030 is highly commendable and crucial if we are to decarbonise hard to abate industries like steel, cement, fertilisers, shipping and aviation that have so far made limited progress reducing their emissions. The opportunity to export to the EU will attract investment that will contribute to expanding renewable capacity and grid-greening.

2. GH2 welcomes the publication of the draft delegated acts on "the production of renewable transport fuels – share of renewable electricity" and "the method for assessing greenhouse gas emission savings for certain fuels". Clarity on the legal requirements for determining what qualifies as green (renewable) hydrogen is crucial in catalysing large scale investment in renewable electricity and hydrogen production that is needed to reach our climate goals and energy security needs. These delegated acts will also play an important role in shaping global norms for the renewable energy and green hydrogen industry. This submission focuses on the draft delegated act on "the production of renewable transport fuels – share of renewable electricity".

3. GH2 is concerned that the proposed conditions for hydrogen produced from electrolysis to be considered renewable will delay the development of the green hydrogen industry and increase the cost of producing green hydrogen and its derivatives.

4. New regulations limiting green hydrogen production to new renewable electricity supply could hobble the industry at a vital moment, perversely locking in dependence on fossil fuels. We are particularly concerned about the impact of the draft delegated act on the ability of non-EU countries to supply the European market. GH2 has briefed and consulted our partners in countries outside the EU. We have encouraged them to submit comments directly to the Commission and have reflected their feedback in our comments below.

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1. https://gh2.org/100by2030
4. These include government and industry stakeholders in Argentina, Australia, Brazil, Chile, Colombia, Egypt, India, Oman, Mauritania, Morocco, Namibia and South Africa.
5. The Delegated Act has been drafted to reflect the structure and characteristics of the EU’s power markets. However, Article 6 of the Delegated Act also clearly states that it applies to the production of RFNBOs outside the EU. Power markets outside the EU often have different characteristics. While there are a number of “off grid” projects that would not be impacted by the requirements in the Delegated Act, there are also a large number of grid-connected projects where the proposed requirements would present significant challenges.

6. Several countries outside the EU are pursuing grid connected green hydrogen projects because these have the potential to strengthen their energy systems and reduce greenhouse gas emissions. The integration of green hydrogen projects into national energy grids can catalyse additional investment in renewable energy generation and transmission, increase access to modern energy, enhance energy market stability and flexibility, and improve the efficiency of green hydrogen production. The proposed rules will make some projects uneconomic, delay project development, and increase the cost of green hydrogen. We are particularly concerned that the proposed rules for connected green hydrogen production will undermine projects in developing countries and emerging economies, where connectivity is critical to ensure a positive impact on local energy reliability, capacity and affordability.

7. Projects that are connected to the grid will have to prove that the power produced is not only from a renewable source but also used or stored within the hour it was produced. The Delegated Act does not envisage the use of existing underutilised renewable generation capacity either for bulk production of green hydrogen or to firm up intermittent additional renewable generation for green hydrogen production unless the average proportion of renewable electricity in the system mix exceeds 90% in the previous calendar year. This is a mistake. Although well-intentioned, these restrictions will perversely restrict investment by lowering the capacity factor of the electrolysers, potentially doubling the cost of production.

8. In addition, article 4 paragraph 2 (b) requires that the installation generating electricity has not received support in the form of operating aid or investment aid. Given the massive worldwide demand for additional renewable energy and the incentives that governments are setting up to enable this, much greater clarity is required on what this means in practice for non-EU member countries, especially given the temporal restrictions above.

9. Recognising the need for consistency and equivalence, we encourage the Commission to build on standards and definitions such as the Green Hydrogen Standard, developed following extensive consultation with government, industry and civil society stakeholders. It sets a high standard on greenhouse gas emissions, requiring that green hydrogen producers operate at <=1 kg CO2e per kg H2 (taken as an average over a 12-month period). The Green Hydrogen Standard requires that the environmental, social and governance consequences of green hydrogen production are addressed. It is essential that the industry manages water, land and human rights issues responsibly. With respect to additionality, the Standard promotes a comprehensive approach that addresses the direct impact of green hydrogen projects, the cumulative impact of the green hydrogen industry, and the wider enabling environment for renewable electrification. Where countries have established additionality requirements, these must be respected. If green hydrogen producers can satisfy these requirements, such production should qualify under the Delegated Act.

10. We would welcome further discussions with the Commission as it undertakes further work to implement the REPowerEU plan and finalise the Delegated Acts.

About GH2

The Green Hydrogen Organisation (GH2) is a not profit foundation under Swiss law. In addition to its office in Geneva it is present in London, Perth, and Sydney. The mission of GH2 is to dramatically accelerate the production and utilisation of green hydrogen across a range of sectors globally. www.gh2.org