



## SolarPower Europe

# Response to the European Commission's roadmap on the Hydrogen and Gas markets Decarbonization Package

### Solar Power Europe's key recommendations to the European Commission to scale up the market uptake of renewable hydrogen:

- Prioritize direct electrification with renewables as the most cost-effective way to reach climate neutrality by 2050 and foster the deployment of renewable hydrogen to decarbonize end uses that currently rely on unabated hydrogen and have their own hydrogen networks.
- Develop a well-functioning framework for renewable hydrogen that ensures traceability, transparency, and consumer rights, issuing guarantees of origin for renewable hydrogen.
- Prioritize the deployment of climate-resilient infrastructure compliant with EU's climate and energy targets while carefully assessing the infrastructure needs to optimize investments and avoid lock-in effects.
- Adopt a holistic infrastructure planning that optimizes the deployment of flexibility sources and digitalization of the grid for a more efficient operation of the energy system.

SolarPower Europe welcomes the initiative by the European Commission for a combined Roadmap and Inception Impact Assessment on the Hydrogen and Gas markets Decarbonisation Package. The European Union has a unique opportunity to take decisive steps towards carbon neutrality by 2050. Renewable-based electrification is the most cost-effective and energy-efficient decarbonisation option to decarbonise most sectors of the economy. Renewable hydrogen, produced from 100% renewable electricity sources, can play a strategic role to decarbonise sectors that cannot be electrified for cost or technical reasons. Together with the massive deployment of renewable energy installations, renewable hydrogen will help to deliver the goals in the Green Deal, stimulate a green recovery, and place the European renewable hydrogen value chain at the core of Europe's growth and jobs strategy for the generations to come.

In this light, SolarPower Europe provides the following recommendations to scale up the market uptake of renewable hydrogen, building on the priorities provided to the EU Hydrogen Strategy, EU Strategy on Energy Sector Integration, and the revision of the TEN-E Regulation:

### 1. Foster targeted deployment of renewable hydrogen in hard-to-abate sectors, where direct electrification is not cost-efficient or technically viable.

Prioritize direct renewable-based electrification as the most cost-effective way to reach climate neutrality by 2050. Deployment of renewable hydrogen is likely to happen in the first stage on a more targeted basis to decarbonize end uses that currently rely on unabated hydrogen and have their own hydrogen networks. Such development reduces the investments needs associated to longer-distance transport of hydrogen and enables the creation of job and business opportunities locally. Policy measures should incentivize the market uptake of renewable hydrogen in a more decentralised approach leveraging local production; for example, decentralised renewable hydrogen filling stations with their own renewable hydrogen production to reduce the need to build a distribution pipeline for the renewable gas. In the medium and longer-term, such clusters could be connected through hydrogen infrastructure and cross-border pipelines might be needed to export hydrogen from countries with high renewable energy potential to other countries with lower domestic production. If needed, such developments should be enabled, and planning should start already today.

### 2. Develop a well-functioning regulatory framework for renewable hydrogen that ensures traceability, transparency, and consumer rights.



Establish a clear, consistent, and transparent EU-wide definition of renewable hydrogen and other renewable gases and liquids. It should be clear that renewable hydrogen is produced using 100% renewable electricity. This definition should apply consistently across EU legislation and end-use sectors to ensure traceability, provide investors with clarity, enable the development of support mechanisms, and build a harmonised EU market for renewable hydrogen. Issue guarantees of origin (GOs) both for renewable electricity and renewable hydrogen to guarantee that consumers can make informed choices and minimize the risk of stranded assets.

**3. Prioritize the deployment of climate-resilient infrastructure, subject to technical feasibility, safety, and sustainability assessments, and compliant with the EU's 2030 climate and energy targets and the EU Climate Law.**

Prioritize the development of power infrastructure for renewable energy sources as a no regret option. Then, for Europe to have the most climate-resilient hydrogen infrastructure, prioritize investments in renewable hydrogen infrastructure building on Europe's existing network as far as possible, as conversion of gas networks for the transport of pure renewable hydrogen is a more cost-efficient option than building new pipelines. Blending renewable hydrogen with natural gas into the gas network should be approached with caution and analyzed in detail, guaranteeing that it minimizes stranded infrastructure and avoids carbon lock-in effects.

**4. Adopt a holistic infrastructure planning that optimizes the deployment of flexibility sources and digitalization of the grid for a more efficient operation of the energy system.**

Adopt a holistic infrastructure planning by integrating flexibility sources such as storage, power-to-gas, demand-side response, smart grids, and electro mobility into the energy system wide cost-benefit analysis, to maximize energy savings, efficiency, and cost-cutting potential. Maximize the use of digitalization and non-infrastructure flexibility sources that can support the grid integration of renewables, while optimizing the power and hydrogen infrastructure investment needs.