

ETIP Bioenergy supports “at least 5% innovative renewables” in Renewable Energy Directive revision

The European Parliament has made the good proposal that...

“In order to promote the production and use of renewable energy from innovative renewable energy technologies and to safeguard the Union’s industrial competitiveness, each Member State shall set an indicative target of at least 5 % of new installed renewable energy capacity between ... [entry into force of the directive] and 2030 as innovative renewable energy technology.” ([amendment to Article 3 of RED](#))

...defining an innovative renewable energy technology as one that

“improves in at least one way comparable state-of-the-art renewable energy technologies or makes exploitable a largely untapped renewable energy resource and involves a clear degree of risk, in technological, market or financial terms, which is higher than the risk generally associated with comparable non-innovative technologies or activities;” ([European Parliament’s definition of innovative RE technology as in amendment to Article 2 of RED](#))

Boost to EU bioenergy and biofuels industry

The European Parliament’s amendment would be a key asset to the European bioenergy and biofuels industry on a number of levels. Firstly, it would support local industry in the bioenergy and biofuels sector. Secondly, the amendment would maintain (and potentially advance) Europe’s role as a technological leader in this sector. Thirdly, this targeted aid for innovation will specifically assist those bioenergy technologies which are becoming mature but are not yet produced in sufficient quantities or at competitive prices – particularly when compared to dominant bioenergy technologies – even if innovative technologies offer a better long-term return.

For example, the commercialization of advanced biofuels needs to be strengthened as one of the key elements in decarbonizing transport for 2030 and beyond, next to options such as electrification, and further energy efficiency improvements. The deployment of biofuels can only be pursued if the research within the different areas and aspects of biofuels is linked and collaborated actions are implemented.

The European Parliament’s amendment could tie into the [Green Deal Industrial Plan](#), announced by European

“The REPowerEU strategy calls for a near doubling of biomethane production from 18 to 35 Bn m³/year. While this would still be less than 10% of 2020 natural gas consumption, the sector is ready for expansion. The versatility of biomethane and readiness of hydrocarbon-processing industries to invest in it offers immediate benefits.”¹

¹ See the report [Deployment of innovative renewable energy technologies to 2030](#) (Oct 2022, 1-Tech under contract to EUREC)

Commission President Ursula von der Leyen at the World Economic Forum in January 2023 as a way to “make Europe the home of clean tech and industrial innovation on the road to net zero”. Funding mechanisms are key to the clean energy transition – President von der Leyen referenced financial solutions to “boost the resources available for upstream research, innovation and strategic industrial projects key to reaching net zero”. With structured support and funding, innovative technologies as stipulated in the European Parliament’s 5% amendment will improve life-cycle costs (LCC), reduce material-use and emissions, add flexibility to the energy system, and strengthen manufacturing.

How?

The 5% indicative target for innovative renewables would impel Member States to enact measures to support innovative technologies in order to meet the target (which is equivalent to tens of GW across the EU²). Typical R&D funding programmes would not be suitable or necessary for this target; for instance, the typical intensity of such programmes (i.e. 30% of CAPEX) would incur too high costs. Instead, Member States should provide aid appropriate to technologies that are close to market – that is, aid at lower intensities to allow those technologies to begin claiming a market share from dominant technologies. Additionally, Member States should foster a beneficial regulatory environment, one that supports innovation as much as financial support does. This could be through simplified permitting procedures, open and fair trading policies, or even an exemption from changes in the EU’s electricity market design which could reduce the profits generated by relevant installations³.

The amendment would require all Member States to reach the non-binding 5% target for innovation on a separate, individual basis. This target is feasible – considering the large amount of innovative bioenergy and biofuels technologies emerging on the market.

A role for ETIP Bioenergy

Innovation implies continuous change and advancement; this means that as innovative technologies mature, they will no longer fall under the definition of “innovative” as defined by the European Parliament. ETIP Bioenergy is ready and willing to work with Member States to determine which bioenergy technologies meet the requirements of the 5% target or to give feedback on a preselected list of technologies. This task could be tied to the NECP 2024-2029 preparation process as well as the the SET Plan process.⁴ The SET Plan acts as a framework in which energy sectors cooperate with each other and with Member States to define priority technologies to develop in given timeframes, with the European Commission facilitating the discussion in working groups of experts. It therefore allows for clean energy technology research managers across the EU to discuss R&I priorities with both Member States and the European Commission, making it an ideal venue to determine innovative technologies.

² Idem

³ The discussed changes to the EU’s electricity market design aim to skim the “windfall” profits of energy firms. However, this would also see RE installations having its profits reduced in the same way as, for example, power plants using natural gas.

⁴ As recommended in [this report](#) three years is neither too frequent to be administratively burdensome nor too infrequent to allow the state-of-the-art to overtake initially ‘innovative’ technologies.