

## ZEP comments on the European Taxonomy for Sustainable Finance delegated act

Since the establishment of the technical expert group on sustainable finance (TEG), ZEP has provided advice to the TEG's technical report and has given input and submitted consultation responses to the European Commission on the regulation on the delegated acts on climate change mitigation and adaptation.

The European Taxonomy for Sustainable Activities (Taxonomy) can be a real driver for sustainable investments with a view to reaching the European Union's (EU) objective of climate neutrality by 2050 – defining activities that contribute substantially to climate change mitigation and adaptation – and can be a central piece of legislation for all initiatives related to the European Green Deal.

With the negotiations on the European Climate Law now finalised, the EU is preparing for the announcement of the 'Fit for 55' package, which will touch upon several key pieces of legislation regarding the EU's energy and climate policies. Upcoming revisions – including the regulation on Trans-European Networks for Energy (TEN-E) and the EU Emissions Trading System (ETS) directive – should be coherent with the Taxonomy's delegated acts in order to provide a long-term and stable framework for investments.

By privileging a science-based approach and a technology-neutral focus, the Taxonomy can guide the EU according to the best available science and enable well-informed decisions as to which pathways and low-carbon technologies will deliver on the objective of climate neutrality by 2050.

ZEP believes that the possibilities to adjust criteria over time will be important and is pleased to see that that “The criteria are dynamic and will be subject to regular review.”.

### The recognition of Carbon Capture and Storage

Carbon Capture and Storage (CCS) can be applied to economic activities to enable them to meet the Taxonomy's screening criteria and thus be defined as sustainable. In the TEG report of March 2020, it was clearly stated that “CCS can be eligible in any sector/activity if it enables that primary activity to operate in compliance with the threshold – for example, steel, cement or electricity production”. In order to send a clear message to the industry, investors and the finance community, ZEP seeks clarification and would like it to be clarified that CCS application refers to “any sector/activity if it enables that primary activity to operate in compliance with the threshold”.

ZEP is pleased that the delegated act includes the transport of captured CO<sub>2</sub> via all modes – ship, train, truck, barge, as well as the construction and operation of CO<sub>2</sub> pipelines and retrofit of gas networks, and permanent underground geological CO<sub>2</sub> storage in compliance with the Directive on the geological storage of CO<sub>2</sub>. The inclusion of CO<sub>2</sub> transport via all modes is a crucial basis for a just, European industrial transition

– contributing strongly to equitable access for all member states, enabling emitters across Europe to capture their CO<sub>2</sub> and access storage sites, thus achieving cost-efficient decarbonisation, whilst maintaining industrial activity and preserving existing jobs.

For the development and deployment of CCS and to receive positive investment decisions for the many upcoming and planned CCS projects in Europe, it is crucial that CCS is also recognised in the same way in other relevant EU legislations, such as the TEN-E regulation and the EU ETS Directive (including MRR regulation).

The inclusion of development and innovation in direct air capture of CO<sub>2</sub> from the atmosphere with CCS for technologies as a new area for research is also positive.

### Technology neutrality and science-based approach

It is crucial to let technology-neutral and science-based principles guide the developments of the Taxonomy. The climate footprint of all technologies and sources for energy generation must be determined in a consistent way – by applying robust life-cycle analysis and accurate carbon accounting – including for renewable energy sources, which is not the case in the published delegated act. Clear and transparent methodologies for LCA should be put in place for all technologies.

In the screening criteria for the generation of power, combined heat and power (CHP), and heating and cooling from gaseous and liquid fuels, a change was made to the draft delegated acts seen in November 2020. The denomination “renewable non-fossil” has been included in the description of “gaseous and liquid fuels”. This is inconsistent with the inclusion of low-carbon hydrogen manufacturing and the Taxonomy’s own technology-neutral approach – to let the carbon footprint and not the use of a specific technology determine the sustainability.

ZEP emphasises that the use of low-carbon hydrogen is important in these areas, especially regarding CHP and heat. The complementary delegated act planned for the autumn this year must take into account the role of low-carbon hydrogen for energy generation and make it Taxonomy compliant. It will also be important to include a definition of ‘low-carbon gasses’ (comprising low-carbon hydrogen) in this complementary delegated act.

### Additionality is crucial to enable grid-connected hydrogen

Compared to the draft delegated acts published in November 2020, the new proposed threshold for manufacturing of hydrogen is set to 3tCO<sub>2</sub>eq/tH<sub>2</sub>. The new threshold should be sufficient for the production of electricity grid-connected low-carbon hydrogen to be eligible under the Taxonomy and thus, be labelled as sustainable.

At the same time, ZEP notes that the proposed threshold will make it difficult for grid-connected electrolysis-based hydrogen to be compliant with the Taxonomy. When the electricity grid carbon intensity is taken into account, there is a risk that the production



of grid-connected electrolysis-based hydrogen in some European countries may result in an increase of GHG emissions – rather than a reduction.

This key point is also highlighted in a recent report by environmental NGO Bellona, which states that *'the climate impact of hydrogen from renewable electrolysis depends [...] the carbon intensity of electricity and second, the efficiency of converting that electricity into hydrogen'*<sup>1</sup>. The carbon intensity of the electricity grid is thus a key factor in determining the carbon intensity of hydrogen, which is especially the case for electricity grid-connected electrolyzers.

To ensure that the production of grid-connected hydrogen complies with the Taxonomy, ZEP proposes a set-up that takes into account additionality by using power purchase agreements (PPA) where geographical and temporal correlation between the production and use of the electricity are in place.

Low-carbon hydrogen will be crucial to kick-start a clean hydrogen economy and pave the way for renewable hydrogen. Without its contribution, the EU will not be able to meet the objectives of the European Hydrogen Strategy.

### **About the Zero Emissions Platform**

*The Zero Emissions Platform (ZEP) is a European Technology and Innovation Platform (ETIP) under the European Commission's (EC) Strategic Energy Technology Plan (SET-Plan), and acts as the EU's technical adviser on the deployment of Carbon Capture and Storage (CCS), and Carbon Capture and Utilisation (CCU) under Horizon2020 R&I programme (grant agreement 826051).*

*ZEP supports the European Union's commitment to reach climate neutrality by 2050, defined as net-zero greenhouse gas (GHG) emissions by 2050. To this end, CCS and CCU technologies play a crucial role.*

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<sup>1</sup> Bellona report, 2021, <https://network.bellona.org/content/uploads/sites/3/2021/04/Electrolysis-Hydrogen-Production-In-Europe-5.pdf>