

## Taxonomy Delegated Draft Act

18 December 2020

EREF remains in strong support of the Taxonomy Regulation as such. For the validity and credibility of the Taxonomy to be applied in the future, it is crucial that the classification is based on a transparent and scientific approach, without enabling greenwashing by including extra rules for particular interests. However, the taxonomy process so far has shown some critical issues. Given that energy production and its technical screening criteria are extremely relevant categories of this Delegated Act (DA), it is not acceptable that no Renewable Energy Stakeholders were included in the Sustainable Finance Platform.

### Classification of activities

EREF regrets that the TEG suggestion to include a risk category for polluting activities was not implemented in the DA. Such a classification would be in line with the classic risk assessment approach, for example in the context of the MiFID II compliance risk assessment by the companies and vice versa, their review by the supervisory authorities. Furthermore, given that each activity is assessed individually, such a category would prevent situations in which a sustainable activity is used as a fig leaf for harmful activities that are ignored even though they have direct relevance for climate protection.

In our view, the technology assessment approach as outlined in the Annexes fails to take into consideration the necessary integrated view of the energy system. It is not sufficient to assess individual technologies without an integrated view of sustainability and on how those technologies depend on each other, e.g. with regard to the need for system flexibility and storage for high shares of variable renewable energy (VRE) like wind and solar power. Correspondingly, all electricity storage technologies should also be categorized as economic activities, making a substantial contribution based on their own performance, and not only as enabling activities.

Likewise, EREF strongly urges the Commission to refrain from creating a special category for nuclear energy as a “climate neutral technology” as envisaged in Recital 16 of the DA. This technology can only survive in heavily distorted markets with heavy subsidies and without properly taking into account the sourcing of uranium, the future costs of decommissioning, the danger of accidents and the unsolved problem of nuclear waste disposal as well as an incomplete and highly insufficient liability regime and lack of full risk insurance. Despite 70 years of operation and research, the nuclear industry has yet to provide any proof that radioactive waste can be handled properly and without dangerous impacts on health and environment. It is scientifically incomprehensible as to why and how the JRC could come to a different assessment.

## **Fossil fuels**

EREF welcomes the explicit exclusion of fossil fuels. In this regard, it is of the utmost importance to ensure there will be no unwanted cross-subsidization of fossil gas by the gas network measures outlined in the Annex. EREF therefore calls on the Commission to frequently and regularly review the Technical Screening Criteria and their practical application for gas network measures.

## **Renewable Hydrogen production**

The production of hydrogen or derivatives from hydrogen is considered as an activity contributing to the mitigation of climate change on the condition that it is produced from renewable energy – either by means of electrolysis using renewable electricity or by means of pyrolysis based on biogas.

## **Geothermal Energy**

The same treatment as other renewable energies should be applied. Energy from geothermal energy (production of electricity, heat and cold) is considered an activity contributing to the mitigation of climate change. In the same way as for hydroelectricity, this obligation should be removed in order to treat geothermal energy on an equal footing with other sectors.

## **Bioenergy**

The criteria for bioenergy must be aligned with Directive 2018/2001 (RED II). Annex 1 of the DA proposal outlines that activities related to bioenergy will be considered as transitional activities. However, Article 10.1 (a) of the Taxonomy Regulation clearly states that the production, transport, storage and distribution or use of renewable energies as defined by RED II are considered to be sustainable environmental activities, contributing to the mitigation of climate change. Consequently, the use of bioenergy that meets the criteria of sustainability and reduction of greenhouse gas emissions as defined in the RED II must be considered as a sustainable activity and not as a transitional activity. It's especially relevant to the Nordic and Baltic countries which are more reliant on biomass as a source for heat and efficient combined heat and power systems and boiler houses via district heating networks. Moreover, the forested area in these countries is significant and has provided a foundation for a well-developed forestry industry, resulting in a wood residue flow best utilized in the energy sector, providing an alternative to fossil resources. While it is important for the forests to remain a carbon sink and a sanctuary for biodiversity, we should be careful of creating unnecessary restrictions on utilizing bioenergy as a means of switching from fossil fuels and disturbing a natural cascading of wooden resources within the industry.

The DA further proposes that the use of biomass leads to an 80% reduction in GHG emissions, which, again, is not consistent with the objectives set by the RED II. The DA must provide for criteria aligned with those of the REDII, i.e. 70% GHG reductions for installations producing

electricity, heat or cold put into service between 1 January 2021 and December 31, 2025, and 80% for installations commissioned from January 1, 2026.

## Hydropower

EREF welcomes the classification of hydropower as sustainable. Hydropower and the system services it can provide play a major role in allowing an energy system fully based on renewable energy and energy efficiency in Europe. It is a reliable, storable and a domestic energy source that supports a more decentralised energy system. For the integration of fluctuating renewable energy such as solar and wind it greatly reduces the necessity of grid enhancement or upgrading. Hydropower is an important pillar for regional and decentralized supply areas. Electricity from hydroelectric power is CO<sub>2</sub> neutral, steadily available and fully controllable. Thus, small-scale hydropower in particular will take on system-stabilising tasks at the low and medium-voltage level in a future decentralised European energy supply system, besides simple electricity production.

In this regard, EREF strongly opposes the approach taken for the Technology Screening Criteria for hydropower. It is the only technology for which a detailed criteria set has been outlined, which entails an unfounded special treatment compared to other technologies. This is despite the fact that there is already extensive environmental EU legislation ensuring that hydropower plants are built and operated in a way that does not significantly harm environmental goals such as the protection of water resources. The proposed criteria go far beyond the Water Framework Directive (WFD) and would make new constructions and modernization of existing SHP uneconomical. There is no acceptable reason as to why new criteria should be introduced by way of the DA, because there is an existing and regularly reviewed regulatory framework. The objective of the WFD is good ecological status. Ecological continuity is just one of many ways to achieve it. Eutrophication, like temperature, is just one parameter among many. The criteria in the DA are a systematic discontinuity of the existing legal framework and therefore they result in legal uncertainty. From a legal system point of view, it is extremely critical to see this happen through a delegated act. As a reminder, DAs may only substantiate or supplement non-essential elements of legislative acts, whereas the essential elements must not be subject to a delegation of power. The current proposal DA however creates differing conditions for access to sustainable investment financing dependent on ecological continuity, eutrophication or temperature, which would be an essential element.

EREF welcomes that the Commission follows the TEG recommendation to exclude the need for life cycle evaluation for at least some of the technologies that have already demonstrated a very low carbon footprint. However, it remains unacceptable that the same principle is not applied to small hydropower which has also demonstrated a very low carbon footprint. As hydropower emissions are on levels very close to offshore wind or solar power, the need to prove that the emissions are less than 100gCO<sub>2</sub>e/kWh constitutes an unnecessary and

discriminatory administrative burden. The alternative criteria for hydropower, the power density, fails to take into account that the power density is site specific and the impact on the environment differs depending on geographical factors. The use of cold water on Nordic Mountains for example has other greenhouse gas implications than the use of "hot" water basins with organic surroundings like tropical areas. The criterion of energy density at 5W/m<sup>2</sup>, in addition to its unclear definition, is irrelevant. This criterion has no proven impact on the safety with respect to the sustainable use and protection of aquatic and marine resources. It aims in a discriminatory way to exclude small power plants or even mills on the existing diversion bays, which are often very long standing. Only the Member States are judges of the energy interest of a project. The European framework only concerns the obligation to respect the current environmental policy framework, in particular the WFD.

Therefore, EREF calls on the Commission to significantly reduce the new criteria as outlined in the current DA and instead reference existing environmental legislation like the WFD. This would also concern established exemptions of the WFD for existing hydropower plants, such as Art. 4.3, 4.5 and 4.7 WFD, which must be clearly referred to, in order to provide clarity and make sure that there is a uniform regulatory approach. For existing installations, the principle of "undisturbed continuity" of the body of water to which the installation belongs must be removed or qualified. WFD aimed at ensuring the ecological continuity of watercourses and not "undisturbed continuity" because "undisturbed continuity" is never the case even in nature. Likewise, the criterion related to eutrophication, which does not depend only on the hydropower plant itself, should be removed. As ecological continuity is cited in the WFD, it cannot be justified for a delegated act to introduce the notion of "undisturbed" continuity, as this notion essentially modifies the concept of ecological continuity. For new installations, the obligation to respect a given temperature level must be removed or replaced by an obligation to monitor the temperature because temperature is depending of upstream conditions.

In this regard, the reference to national renewable energy strategies should be removed as they are not mentioned in the WFD – again, this threatens to interfere with the existing framework without apparent reason.

Pumped storage connected to river bodies from the classification must be included. Pumped storage is a mature and competitive technology that plays an essential role in the energy system, facilitating the deployment of all renewables. This differentiation is not based on any scientific justification as to the residual impact of such a connection on the ecological state of the watercourse or its habitats. This is a discriminatory criterion to the detriment of pumped storage technology.

At the very least, the criteria should be amended as follows:

## **4.5 Electricity generation from hydropower**

### *Description of the activity*

# EREF

European Renewable Energies Federation

Construction or operation of electricity generation facilities that produce electricity from hydropower, including mixed pumped hydropower storage.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

## Technical screening criteria

Substantial contribution to climate change mitigation

~~The activity complies with either of the following criteria:~~

~~(a) the life cycle GHG emissions from the generation of electricity from hydropower, including mixed pumped hydropower storage connected to a free-flowing water source are lower than 100gCO<sub>2e</sub>/kWh.~~

~~The life cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018, ISO 14064-1:2018 or the G-res tool 2.50. Quantified life cycle GHG emissions are verified by an independent third party.~~

~~(b) the power density of the electricity generation facility is above 5 W/m<sup>2</sup>.~~

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	<p>1. Operation of existing hydropower plants, including refurbishment activities to enhance renewable energy or energy storage potential.</p> <p>All technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water.</p> <p>The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body.</p> <p>The operation of the hydropower plant fully complies with that authorisation or permit issued by the competent authority, and sets out all relevant mitigation measures necessary to:</p> <p>(a) ensure conditions as close as possible to <del>undisturbed</del> continuity in the specific water body the plant relates to, including state-of-the-art and fully functional fish passes and devices preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant;</p>

	<p>(b) reduce the impact of hydropeaking;</p> <p>(c) protect or enhance habitats for aquatic species;</p> <p>(d) reduce adverse impacts of eutrophication;</p> <p>(e) considering WFD article 4.3 (HMWB) and 4.5 (less stringent environmental objectives)</p> <p>2. Construction of new hydropower plants The plants are conceived, by design and location and by mitigation measures, so that they comply with one of the following:</p> <p>(a) the plants do not entail any deterioration nor compromise the achievement of good status or potential of the specific water body they relate to, as demonstrated by a cumulative impact assessment referred to in this Section;</p> <p>(b) the plants do neither significantly deteriorate nor compromise the achievement of good status/potential of the specific water body they relate to and are justified by overriding reasons in the public interest.</p> <p>The plants are conceived, by design and location and by mitigation measures, so that they do not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district.</p> <p>A cumulative impact assessment has been performed that identifies and addresses any significant regional or basin-level environmental impacts. The assessment:</p> <p>(a) addresses all potential impacts on water bodies, as well as on protected habitats and species directly dependent on water, considering in particular:</p> <ul style="list-style-type: none"><li>(i) migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions;</li><li>(ii) all impacts of existing and of already authorised and planned infrastructure developments in the basin, for example as part of a hydropower cascade or of other activities (for example agriculture, transport etc.);</li></ul> <p>(b) is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydrological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one.</p>
--	---

	<p>The cumulative impact assessment demonstrates that the project does not permanently exclude the achievement of the objectives of good status/potential in other water bodies or connected ecosystems within the same river basin district.</p> <p>Where the cumulative impact assessment demonstrates that the envisaged project neither deteriorates nor compromises the achievement of good status/potential of the specific water body, as a result of site-specific conditions or the use of state-of-the-art technology, the operation of the new hydropower plant fully complies with its authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The plant respects appropriate environmental standards in terms of flow management and flood regime (magnitude, frequency, duration, timing and rate of change) and of mitigation measures, including controlled releases, state of the art and fully functional fish passages, state of the art turbines preventing fish kill, controlled temperature, appropriate ecological flow, sediment flow, timing of operation of turbines.</p> <p>Where the cumulative impact assessment demonstrates that the envisaged project could deteriorate or compromise the achievement of good status/potential of the specific water body it relates to, a further in-depth cost-benefit assessment is performed. That in-depth cost-benefit assessment demonstrates that such deterioration will not be significant and will comply with all of the following criteria:</p> <p>(a) Depending on the nature of the new modification, alteration or new sustainable human development activity, consideration of relevant sector policies is crucial in this context, including for instance the Renewable Energy Action Plans, TEN-T Programme, Flood Risk Management Plans, Rural Development Programmes, etc.</p> <p>(b) the beneficial objectives served by the planned hydropower plant in terms of renewable energy generation and energy storage cannot, for reasons of technical feasibility or disproportionate cost, be achieved by alternative means that would lead to a better environmental outcome (alternative location, rehabilitation/refurbishment of existing hydropower plants or infrastructures, use of technologies not disrupting river continuity, where relevant, consideration of other potential sources of electricity, which may offer in the particular case a better environmental alternative; the beneficial objectives served by the planned hydropower plant are justified by overriding reasons in the public interest;</p>
--	---

	<p>(c) Alternatives should be assessed in the early stages of development and at the appropriate geographical level (e.g. EU, national, RBD) against a clear view of the beneficial objectives provided by the modification.</p> <p>(d) the benefits expected from the planned hydropower plant outweigh the costs from deteriorating the status of water that are accruing to the environment and to society. The in-depth cost-benefits analysis considers the following aspects:</p> <ul style="list-style-type: none"><li><del>(i) the marginal quantity of energy generated and its contribution to increasing the share of renewable energy in the energy mix, in accordance with the national renewable energy strategy when relevant;</del></li><li>(ii) impacts on water status or potential upstream and downstream;</li><li>(iii) impacts on biodiversity, in particular on Protected Areas (such as Natura 2000 sites in the Union, areas relied upon for drinking water, areas with bathing water);</li><li>(iv) the benefits of ecosystem services (quantitatively where possible);</li></ul> <p>(c) all technically feasible and ecologically relevant mitigation measures are included in the permit or authorisation and are implemented to reduce the adverse impacts on the status of the water body the planned hydropower plant relates to. Those measures:</p> <ul style="list-style-type: none"><li>(i) ensure conditions as close as possible to <del>undisturbed</del> continuity (including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant);</li><li>(ii) reduce the impact of hydropeaking;</li><li>(iii) protect or enhance habitats for aquatic species;</li><li>(iv) reduce adverse impacts of eutrophication;</li></ul> <p>(d) in addition to the mitigation measures referred to in point (d) and where relevant, compensatory measures are implemented to ensure that the project does not increase the fragmentation of water bodies in the same river basin district. This is achieved by restoring continuity within the same river basin district to an extent that compensates the disruption of continuity, which the planned hydropower plant may cause. Compensation starts prior to the execution of the project.</p>
--	--

# EREF

European Renewable Energies Federation

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented.</p>