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# For living, climate-fit rivers in Europe

## WWF Austria response to the consultation on the draft revised Climate, Energy and Environmental Aid Guidelines (CEEAG) - focused on hydropower

WWF welcomes the opportunity to provide feedback on the revised Climate, Energy and Environmental Aid Guidelines (CEEAG), as a follow up of the [fitness check evaluation of the State aid modernisation package](#) concluded in 2020. This feedback focuses on state aid to hydropower, while the guidelines have a much broader scope.

Although we urgently need to transition to a fully renewable energy system, the contribution which new hydropower can make is trivial but its environmental impacts are massive. According to the EEB/CAN Europe [Paris Agreement Compatible Energy scenario](#), the absolute hydropower electricity generation will start decreasing from 2020 onwards, and the share of hydropower in Europe's electricity generation will decrease from the current 10% to reach 6% in 2035, partly as a result of the impacts of climate change, partly because of the obligations imposed by the environmental legislation.

**Hydropower plants have dramatic impacts on freshwater biodiversity as they hamper fish migration and breeding, disturb ecological flow, damage habitats, and alter sediment transport.** Measures to mitigate the negative impacts of hydropower plants on biodiversity only have limited efficiency, so investing in this type of measures can only marginally reduce adverse impacts on ecosystems. Still, most EU Member States (with the exception of Cyprus, Malta, Lithuania and more recently Finland) give state aid to hydropower. In Austria, for example, the new Renewable Expansion Act<sup>1</sup> aims to expand and promote further 5 TWh expansion of hydropower, with already more than 40 TWh of installed capacity. Despite some new criteria certain hydropower plants in protected areas are still eligible for funding, as are projects that can only be approved on the basis of an exemption from the Water Framework Directive's ban on deterioration. Small-scale plants with a capacity of less than 2 MW, which destroy large amount of nature in relation for very little renewable energy, continue to be subsidised with public money.

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<sup>1</sup> [https://www.parlament.gv.at/PAKT/VHG/XXVII/ME/ME\\_00058/index.shtml](https://www.parlament.gv.at/PAKT/VHG/XXVII/ME/ME_00058/index.shtml)



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In total, 4.3 billion euros of state aid went to hydropower in the EU and Norway in 2016-2017, under the form of feed-in tariffs, feed-in premiums, green certificates and investment grants (CEER, 2018). More than 150 NGOs have signed [a manifesto](#) calling on the EU institutions to phase out all public finance for new hydropower development projects.

**WWF welcomes that the revised CEEAG aim at ensuring alignment and coherence with relevant EU legislation in the environmental and energy fields, but this requires going beyond the draft provisions in four key aspects:**

1. **New hydropower facilities should not be eligible to state aid.** Building new hydropower plants runs directly counter to the commitments expressed in the EU Biodiversity Strategy's proposal to restore at least 25,000 km of free-flowing rivers, and is incompatible with the achievement of a good status of water bodies by 2027 as required under the Water Framework Directive (WFD).
2. **State aid to existing hydropower facilities should be limited** either to their refurbishment if plants have a capacity above 10 MW and are already in line with the minimum ecological requirements imposed by the environmental legislation, or to their dismantling, when it is demonstrated that the refurbishment or dismantling contribute to the achievement of a good water status, and only if state aid complements the contribution of an identified operator, in line with the polluter-pays principle.
3. **There should be no feed-in tariffs for existing micro-hydropower plants.** The continuous development of many small hydropower plants has been facilitated among other things by the derogations applicable to installations below 0.5 MW, exempted from the obligation to receive aid as a market premium.
4. **Environmental legislation and nature protection should be more streamlined into the CEEAG.** As shown by a recent IPBES report, biodiversity loss and climate change won't "be successfully resolved unless both are tackled together", so the nature protection dimension should be on the same footing as climate mitigation in the CEEAG.

#### Explanation

##### **1. New hydropower facilities should not be eligible to state aid.**

With freshwater migratory fish populations having collapsed by 93% since 1970 in Europe, and river barriers being one of the main drivers, building new hydropower plants is not compatible with the principle of environmental protection defined in the CEEAG. Building new hydropower plants runs counter to the commitments expressed in the EU Biodiversity Strategy's proposal to restore at least 25,000 km of free-flowing rivers, and to the achievement of the WFD target of good status of water bodies by 2027 (hydromorphological pressures being one of the main reasons why WFD objectives are not achieved).

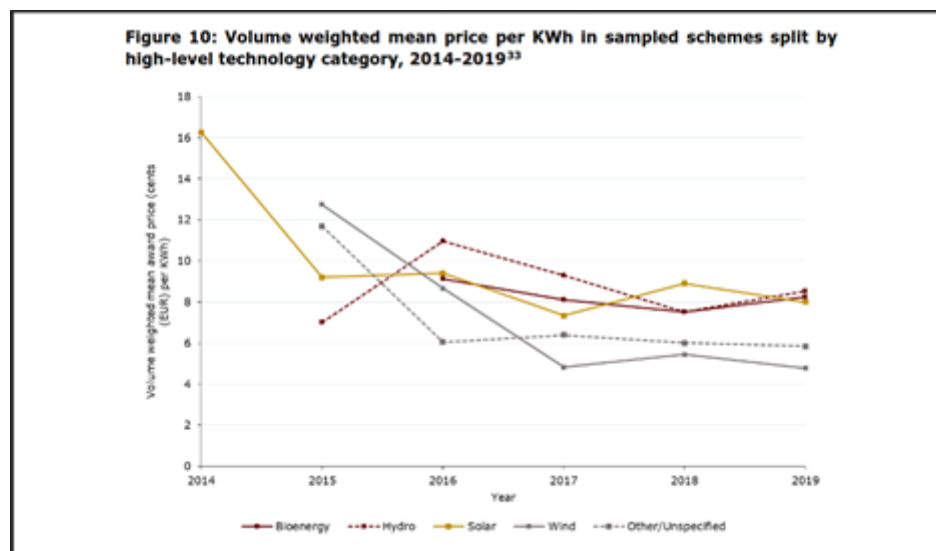
The reference to the Water Framework Directive (WFD) in the 2014-2020 EEAG (paragraph 117) has not been sufficient to ensure that hydropower installations do not induce deterioration of the water status, and do not jeopardise existing river restoration efforts. In many cases efforts of plant operators to comply with the WFD is limited to the installation of basic fish passes that have extremely limited efficiency and do not significantly reduce fish mortality, let alone limit the



destruction of habitats, sediment and ecological flows. Cases of hydropower plants receiving tariffs or premiums without evaluation being conducted to assess whether the project will lead to a deterioration of the water status, as required under Art 4.7 of the WFD, have been reported. In other cases, the construction of hydropower plants contradicts existing policies and actions in place for the conservation of freshwater species and habitats.

In addition to environmental impacts, the contribution that new hydropower can make to climate protection is negligible. Most of the hydropower plants currently built are small hydropower plants of a capacity below 10 MW, or even less. Very small hydropower plants of a capacity below 1 MW only contribute for a 0.5% share to the national electricity production in Germany, and for a 3.1% share in Romania. In addition, recent research shows that hydropower plants with reservoirs located in Europe emit greenhouse gases and in particular methane (whose effect on global warming is much greater than carbon dioxide) in quantities that are comparable to emissions reported in tropical latitudes, due to reservoir nutrient loading and associated eutrophication. Reservoirs in the river Saar (Germany) are actually found to release 80 times more methane than free-flowing river stretches<sup>6</sup>.

Despite the expectation that state aid to established renewable energy sources would become grid competitive, and the [fitness check evaluation of the State aid modernisation package](#)'s general conclusion that the 2014-2020 EEAG have been effective for the deployment of renewable energy sources at lower costs in Europe, mean awarded prices for hydropower have increased between 2015 and 2019, contrary to solar and wind. Therefore, supporting the development of hydropower with state aid while it is an already mature technology does not appear as cost-effective.



**Recommendation:** WWF recommends adding to the CEEAG two new paragraphs 71(a) and 110(a), aimed at making sure that support to new hydropower plants is excluded as a result of the balancing exercise conducted by the Commission to weigh the positive effects of the aid against the negative effects on competition and trade.



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**2. State aid to existing hydropower facilities should be limited either to their refurbishment, if plants have a capacity above 10 MW and are already in line with the minimum ecological requirements imposed by the environmental legislation, or to their dismantling, when it is demonstrated that the refurbishment or dismantling contribute to the achievement of a good water status, and only if state aid complements the contribution of an identified operator, in line with the polluter-pays principle.** This is to ensure that the aid has a sufficient incentive effect and encourages operators to adopt substantial measures aimed at mitigating environmental impact while minimising market distortions. In line with the cost-recovery and polluter pays principles, the responsibility to mitigate any deterioration to the water body should be borne primarily by hydropower companies, and state aid should be limited to complementing the efforts required from the operator to achieve the environmental goals.

Indeed, from the hydropower plants in Germany that started to receive state aid ("EEG-Förderung") between August 2014 and January 2019 due to repowering (for plants built before 2009, repowering is a necessary condition to be eligible for state aid), 53 % are not passable for fish, 6 % are insufficiently passable, 20 % are restrictedly passable and 20 % are freely passable. Even though measures to comply with WFD objectives need to be implemented when repowering the plant, only in 6 cases out of 1217 the description of measures contains "passability".

Even when measures to mitigate the negative impacts of hydropower plants on biodiversity are implemented, they often have limited efficiency so investing in this type of measures only marginally reduces adverse impacts on ecosystems. Mitigation measures are also costly, and their cost should be weighed against their benefits in terms of renewable energy production. For the smallest hydropower plants, this balance is usually negative and such a trade-off might rather be in favour of dismantling at the end of the investment cycle. Dismantling might also be the best option to consider for plants located in protected areas. 18% of existing hydropower plants in the EU are located in protected areas.

***Recommendation:** WWF recommends adding to the CEEAG a new paragraph 76(a) stating conditions at which support for hydropower facilities built before the entry into force of those guidelines can be approved.*

### **3. There should be no feed-in tariffs for existing micro-hydropower plants.**

The continuous development of many small hydropower plants has been facilitated among other things by the derogations applicable to installations below 0.5 MW in the 2014-2020 EEAG, exempted from the obligation to receive aid as a market premium. This derogation is maintained under the CEEAG, although it is restricted to hydropower plants with an installed electricity capacity of less than 400 kW or, for facilities commissioned from 1 January 2026, with an installed electricity capacity of less than 200 kW.

In Austria there are more than 5.200 hydropower plants in place, more than 5.000 of them are small or very small hydropower plants, that contribute less than 10 percent of energy production from hydropower. The result is an increasing fragmentation of rivers and habitat loss, hundreds of new small hydropower plants are planned to be built until 2030. Small hydropower plants in particular are ecologically problematic and provide a negligible contribution to electricity generation; therefore, they should not benefit from any derogation allowing them to benefit from more lenient support schemes.



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*Recommendation: WWF recommends amending CEEAG paragraph 104, footnote 62 to remove the derogation allowing small hydropower plants of a capacity below 0.2 or 0.4 MW to benefit from direct price support.*

#### **4. Environmental legislation and nature protection should be more streamlined into the CEEAG.**

Although WWF welcomes that the draft CEEAG reflect on the European Green Deal, environmental issues need to be given a much more prominent role in the draft. As shown by a recent IPBES [report](#), biodiversity loss and climate change won't "be successfully resolved unless both are tackled together", so the nature protection dimension should be on the same footing as climate mitigation in the CEEAG. Overall, the draft CEEAG document refers much more to the objective of climate protection than to the objective of biodiversity protection, but these twin emergencies need to be tackled together and should be equally important in the CEEAG.

Any reference to 'environmental protection' in the draft CEEAG should be understood primarily as protection of natural resources, with climate protection being a connected, yet distinct concept. In particular, the use of renewable energy is not by itself qualifying as environmental protection, or contributing to more efficient use of natural resources.

The reference to the DNSH principle in the CEEAG should be avoided as this principle, which stems from the EU Taxonomy regulation, suggests that complying with EU legislation is sufficient to prevent harmful impacts to environmental objectives, although this might not be the case.

*Recommendations: WWF supports amending paragraphs 1 and 3 (references to the European Green Deal), paragraph 7 (content of the guidelines), paragraph 18 (definitions), paragraph 32 (violation of Union law), and paragraph 69 (DNSH princip*

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