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## Hydrogen Denmark's response to the public consultation on the revised Climate, Energy and Environmental Aid Guidelines (CEEAG).

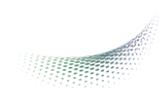
Hydrogen Denmark (Brintbranchen) would like to thank the Commission for the opportunity to provide comments on the revised CEEAG. Hydrogen has a critical role in the green economy, and at the same time hydrogen production via electrolysis contributes to optimizing the energy system of the future. We therefore welcome the new draft, which for the first time introduces clear guidance in relation to hydrogen and hydrogen-based products.

Our comments are for the most part regarding clarifications in relation to support for renewable hydrogen. Specifically, regarding support in the form of operating aid and how support for the long value chain of Power-to-X should not be assumed to constitute overcompensation. But first we dive into the role of fossil fuels under the new rules.

### Support for fossil fuels should be significantly restricted.

Fossil fuels still have a significant role in the State Aid guidelines, which might be justified in specific cases, but in many others is in direct conflict with EU (and Danish) climate goals.

For example, under point 162, support for the acquisition or leasing of CNG and LNG vehicles may be acceptable if there are no cleaner alternatives readily available in the market, or if 20% biogas or Renewable Fuels of Non-Biological Origin (RFNBOs) is blended in. It is rather unclear to us, in which situations there would not be cleaner alternatives in the market, but it would still be better for the climate to invest in fossil vehicles rather than encourage investment in green vehicles in other segments. Similarly, we also wonder in which circumstances it would be better for the climate to invest in CNG and LNG vehicles that blend 20% RFNBOs, rather than investing in vehicles that run entirely on RFNBOs. We therefore call on the Commission to specify further the set of circumstances in which aid for the acquisition or leasing of CNG and LNG would not be regarded as displacing investments in cleaner technologies.



Another example is point 339 (c). Under this paragraph, natural gas infrastructure can be supported if it is fit for use for hydrogen and other RFNBOs. We note that there is no requirement that the infrastructure actually carries any blend of RFNBOs, it suffices with it being fit to do so, on a theoretical level. This risks not only that fossil-based infrastructure is supported, but also that it is supported in a way that is more expensive than it would otherwise be, as it needs to be developed in a way that it can carry hydrogen, even if it never does. It is critical that these investments guarantee that renewable fuels are at least part of the energy that finally ends up flowing through this infrastructure.

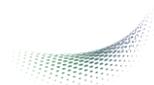
### **State aid for hydrogen production needs to fit the cost structure of hydrogen production, and there needs to be space for supporting energy conversion along the entire value chain.**

According to point 103, “Aid which covers costs mostly linked to operation rather than investment should only be used where the Member State clearly demonstrates that this results in more environmentally friendly operating decisions.” In electrolysis, often 80-90% of the costs are OPEX-related. If operational costs were not supported, electrolysers would have to limit their operation to only the (few) cheapest electricity-hours of the day, which would result in less renewable hydrogen production. Given this, there is no doubt that aid covering operation costs of electrolysis result in more environmental-friendly operation patterns, and overall, more renewable hydrogen produced. We therefore encourage the Commission to clarify in the guidelines that in the case of hydrogen production, coverage of operational costs is assumed to result in environmental-friendly operation.

In connection with this, it is also extremely important to underline that a combination of different sources of state aid for the different parts of the Power-to-X value chain should not be understood as constituting overcompensation. In the old guidelines, the focus was on primary production of energy. We now move into more complex value chains, e.g., from renewable electricity to hydrogen and to hydrogen-based fuels (after an additional synthesis process). This means that the same energy unit can take multiple forms over time (from electrons to different molecules), and in each step of the way new, additional costs come up. Hence, it should be completely clear in the rules that supporting the same energy unit does not constitute overcompensation if this energy changes form/composition.

### **Aid in the form of reductions from electricity levies for energy-intensive users should not exclude competition from standalone electrolysers.**

Annex 1 shows which energy-intensive activities are entitled to reduced electricity levies, some of which use (or could use) renewable hydrogen in their processes. However, electrolysis in itself not being entitled to receive aid in the form of reduced electricity levies could result in a situation in which beneficiaries of this type of aid could produce hydrogen via electrolysis for self-consumption (as part of their



processes) at a lower cost than standalone electrolyzers. It is important to include electrolysis in Annex 1 to avoid fragmentation of the renewable hydrogen market between those that produce hydrogen for self-consumption (captive hydrogen production) vs. those that produce on a merchant basis.

Hydrogen Denmark is of course at your disposal for further dialogue on the above-described issues, should they raise any questions.

