June **2022**

UFE's reply to the public consultation on the draft delegated act setting out a methodology for assessing GHG emissions savings from RFNBO and recycled carbon fuels

UFE thanks the Commission for the possibility to share its analysis on the proposed draft delegated act defining a methodology for assessing GHG emissions savings from RFNBO and recycled carbon fuels. This delegated act will be crucial for the deployment of the renewable hydrogen industry in the EU: although it is currently limited to RFNBO used in the transport sector, it will probably be extended to RFNBO used in all end-use sectors after the revision of the Renewables Directive (RED II). The proposed methodology is also expected to serve as a basis for the upcoming methodology for assessing GHG emissions savings from low-carbon fuels (especially low-carbon hydrogen) under the upcoming revised Gas Package. Therefore, **it is key to ensure that it relies on sound scientific knowledge and sets appropriate rules for the calculation of GHG emissions savings**.

1. UFE's major concern on this draft relates to the emission intensity of the electricity produced in France set out in part C of the annex (Table A).

The proposed value of 20gCO2e/MJ (equivalent to 72gCO2e/kWh) is very high and does not reflect the actual carbon intensity of the French electricity mix. Besides, the source used to complete Table A is not mentioned.

- **To better reflect the national specificities of Member States, UFE recommends using European data to complete Table A**, such as data displayed by the European Environment Agency (EEA). This would be in line with the recommendation of the Commission to use Eurostat data, considering their more detailed nature. The EEA evaluates the emission intensity of the French production mix to 58gCO2e/kWh, which is more accurate[1].
- **As an alternative to the values set out in Table A, Member States should be allowed to use verified national data** to prove the emission intensity of their production mix as accurately as possible. **Data published by TSOs or national public bodies should be eligible.**

[1] By way of comparison and keeping in mind that methodologies may vary from one entity to another, the emission intensity of the French mix is estimated to 37gCO2e/kWh based on data from the French TSO RTE (focusing on direct emissions only, not considering upstream emissions).

In addition, the figure of 1.4 gCO2e/MJ provided in table 3 for the upstream emission factor for nuclear electricity seems largely overestimated, and results in a high carbon intensity for electricity from the French grid.

- **UFE recommends using data from the JRC**. According to a recent JRC report[2]: "Lifecycle GHG emissions for the existing French nuclear reactor fleet in 2010, at that time using the gaseous diffusion process supplied by nuclear energy, was assessed to be 5.29 gCO2-eq/kWh [3.2-8]. (...) According to [3.2-8], nuclear power plants (including construction, operation and decommissioning) are responsible for 40% of the lifecycle GHG emissions, uranium mining for 32% and enrichment 12%". **Therefore, more accurate figures of 0.88 gCO2e/MJ expressed for final electricity produced or 0.29 gCO2e/MJ for primary heat produced should be used**.

2. **UFE recommends introducing a fifth alternative methodology for assessing GHG emissions savings, based on the hourly average carbon content of the national electricity mix of the country where the electrolyser is located.**

To provide consistency with the delegated act setting out the rules for the production of RFNBOs (which foresees an hourly temporal correlation for RFNBO production proved renewable via PPA by 2027), and to reflect more accurately the physical flows of electricity:

- **The hourly average carbon content of the national electricity mix where the electrolyser is located could be used, if the information is publicly available from a reliable source**.

Some TSOs, such as the French TSO RTE, already disclose data on the carbon content and renewable share of electricity produced in time interval of 1h. In the long run, this data disclosure could be generalised through the proposed new art.20a of RED II, currently under revision, and usefully serve as a basis for the GHG emissions savings assessment.

3. **The carbon intensity of electricity from all energy sources should be calculated using a harmonised methodology.**

According to part C of the annex, the upstream emissions of electricity production from renewables are considered to be equal to zero, by convention. Nevertheless, upstream emissions are taken into account for the calculation of the carbon intensity of other electricity sources, including nuclear.

- **UFE calls on the Commission to harmonise the methodology used to calculate the carbon intensity of electricity, regardless of its origin.** UFE recommends a methodology based on a **life-cycle assessment** encompassing the manufacture of the electricity production assets.

[2] JRC, Science for policy report, Technical assessment of nuclear energy with respect to the 'Do no significant harm' criteria of Regulation (EU) 2020/852 (Taxonomy Regulation), 2021.

4. Emissions taken into account to determine the total emissions of RFNBO production in part A of the annex should be clarified.

According to paragraph 1 of the annex, emissions from compression and distribution of hydrogen are excluded from the calculation of the total emissions of RFNBO production. However, this contradicts paragraph 16, which reads that emissions from storage and distribution of the finished fuels (e.g. hydrogen) shall be included.

- **The annex should clarify whether emissions from transmission, distribution and storage of hydrogen are included or excluded from the calculation of the total emissions of RFNBO production.**
- The **distinction made between transmission and distribution of hydrogen** should also be specified.

5. A grandfathering clause for the production of e-fuels using CO2 from industrial origin should be introduced.

According to paragraph 11(a) of the annex, the production of e-fuels using CO2 captured from industrial plants will only be allowed until 2036. **UFE questions the validity of such a provision on the use of CO2 captured from industrial plants in this delegated act**, while legislative proposals on the use of captured CO2 are expected in the coming months.

- As a minimum, to provide certainty to project developers, **a grandfathering clause should be introduced to ensure that projects in operation and under development - which have a lifespan of 15 to 20 years - won't be impacted by this provision.**
- UFE also recalls that **direct air capture technologies are energy-intensive and will remain limited in the coming years**. Therefore, there is no reason to favour them over CO2 from industrial origin in the short to medium term.

6. When using a marginal approach, data on emissions from several preceding years should be used.

Overall, UFE does not recommend using a marginal approach to GHG emissions and therefore does not support the approach based on the number of hours in which the marginal price of electricity was set by renewable or nuclear assets in the preceding calendar year.

- **If such an approach is maintained, UFE recommends using the data available over [2-4] preceding calendar years, for operational reasons**. This will limit the impact of exceptional events (e.g. the covid crisis) on the calculation.

7. As a final comment, the verification framework for the enforcement of the rules set out in this delegated act should be specified.