



**Hydrogen Europe**  
**Research**

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# **Policy Working Group**

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***16 September 2022***

# Agenda

1. Welcome & Approval of the agenda
2. Updates on activities
  - CountEU Emissions consultation and supporting paper
3. Latest updates on EU institutions' activities
  - Speech on the State of the Union
  - EU Energy situation
  - RED II Revision
  - Gas Package
4. Reports and Studies



# Updates on

- ▶ activities

# Answer to the CountEU Emissions consultation

Consultation on the upcoming legislative initiative - Count your transport emissions.

This initiative has two main goals:

- Provide a common framework for calculating and sharing GHG emissions of transport operations
- Tackle the limited uptake of emissions accounting in everyday business practice

HER actions:

- Answer to the consultation
- Uploading of a supporting position paper to the consultation highlighting our key points

Timeline:

- 16/09: Discussion in the policy WG
- 19/09: Send updated answer to the consultation and position paper to the policy WG
- 26/09: Deadline for comments
- 28/09: Updated version sent to the Board for approval and to the WG
- 12/10: Documents submitted online

# Answer to the CountEU Emissions consultation

**On the existence of various GHG accounting methods and calculators leading to the provision of incomparable GHG emissions data by transport service providers**

15.a. Do you consider it a problem for your private or professional activities?

Emissions from transports can represent an important share of the total emissions of a product. In the case of green hydrogen imported to Europe, the transport would be the main source of emissions for this product. Therefore, it is necessary to have information on GHG emissions of transport available and accounted for in a common methodology to ensure the comparability of the data.

# Answer to the CountEU Emissions consultation

16. **How significant** is the lack of data, insufficient or incomparable data on GHG emissions in preventing users from making informed choices on transport services, travel options and deliveries?

Providing data on the GHG emissions of different transport means would encourage the uptake of greener practices. When looking at freight, new technologies are in development for road transport and maritime alternatives. The sensibilization of stakeholders and consumers to the emissions produced from the transport of products is a needed push to decarbonise their supply chain and habits.



# Answer to the CountEU Emissions consultation

20. To what extent do you agree that the common methodology for calculating GHG emissions for transport services, journeys and deliveries should:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Do not know
allow for a fair and accurate comparison of the GHG emissions performance of different transport services, journeys and product delivery options?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>
provide clarity on how the GHG emissions are measured?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>
be user-friendly and allow for a uniform application across the transport sector?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>
enable GHG emission data for different transport services, journeys and product delivery options to be presented in a consistent way?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>
be based on a globally accepted standard reflecting the international nature of much transport?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>
be 'modular', catering for the needs of companies of different sizes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>
not lead to substantial increase in costs and administrative burdens for companies and individuals?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>

# Answer to the CountEU Emissions consultation

22. Considering the effort required and data availability but also the need for accuracy and comprehensiveness, what should be the boundaries of the common methodology as the basis for measuring emissions?

- Tailpipe emissions – direct energy used by vehicles, vessels and aircrafts (tank-to-wheel)
- Energy lifecycle, including tailpipe emissions but also emissions from energy production and use (well-to-wheel)

Full product lifecycle (from cradle to grave), including emissions stemming from transport operations, energy production and use, and production and recycling of all means of transport (e.g. a train, ship, road vehicle, airplane, and their specific components and parts) used for a transport service

- Do not know
- Other (Please specify)

23. Would you like to comment on or raise any other issues relating to a common methodology for measuring GHG emissions in transport?

*1500 character(s) maximum*

# Answer to the CountEU Emissions consultation

26. Once a common methodology has been devised for calculating GHG emissions, should its use be compulsory or voluntary?

- It should be voluntary, the users can pick this or any other methodology.
- It should be voluntary, but if GHG data are to be published or shared then only this common framework should be used to ensure that the users can compare fairly.
- It could be mandatory in some circumstances or for some services (e.g. for public services, for e-commerce deliveries, for large companies etc.).
- It should be mandatory for all transport service providers.



# Latest updates on ▶ EU institutions' activities

# Speech on the State of the Union

Yearly exercise for the president of the European Commission, Ursula von der Leyen, the speech took place in front the European Parliament in Strasbourg, on 14 September.

Announcements of interes:

- Measures to answer the energy crisis in Europe (detailed on the next slides)
- Creation of a European Hydrogen Bank to guarantee the purchase of hydrogen through a €3 billion investment budget from the Innovation Fund.
- Creation of a European critical raw materials Act



"Hydrogen can change the situation completely in Europe. We have to move from a niche market to a mass market for hydrogen. We've double our objectives in RePowerEU. To achieve the objectives we need to create a new hydrogen market to fill the investment gap and match supply and demand for the future."

# EU energy situation

- Prices of energy are soaring - in France overpassed 1000€/MWh on peak times (85€/MWh one year ago)
- The EU gas reserves are filled to **78,05% of their capacity (25/08)**, the objective is 80% minimum by 1/11 and 85% collectively

The EU institutions are discussing how to address the situation and both short term and long term measures are foreseen. An extraordinary council meeting was held on 9 September, and a next one is planned for 30 September to adopt some of the emergency measures put forward by the European Commission:

- Cap the revenues of electricity producers with a cost below the wholesale market price ('inframarginal producers') > €180/MWh excl. technologies with a break even point above the level of the cap;
- Introduce a “*temporary solidarity contribution*” to redistribute part of the windfall profits of certain fossil fuel companies;
- Set targets for reducing electricity demand (binding 5% during peak hours)

# EU energy situation

*Not included in the Commission proposals at this stage:*

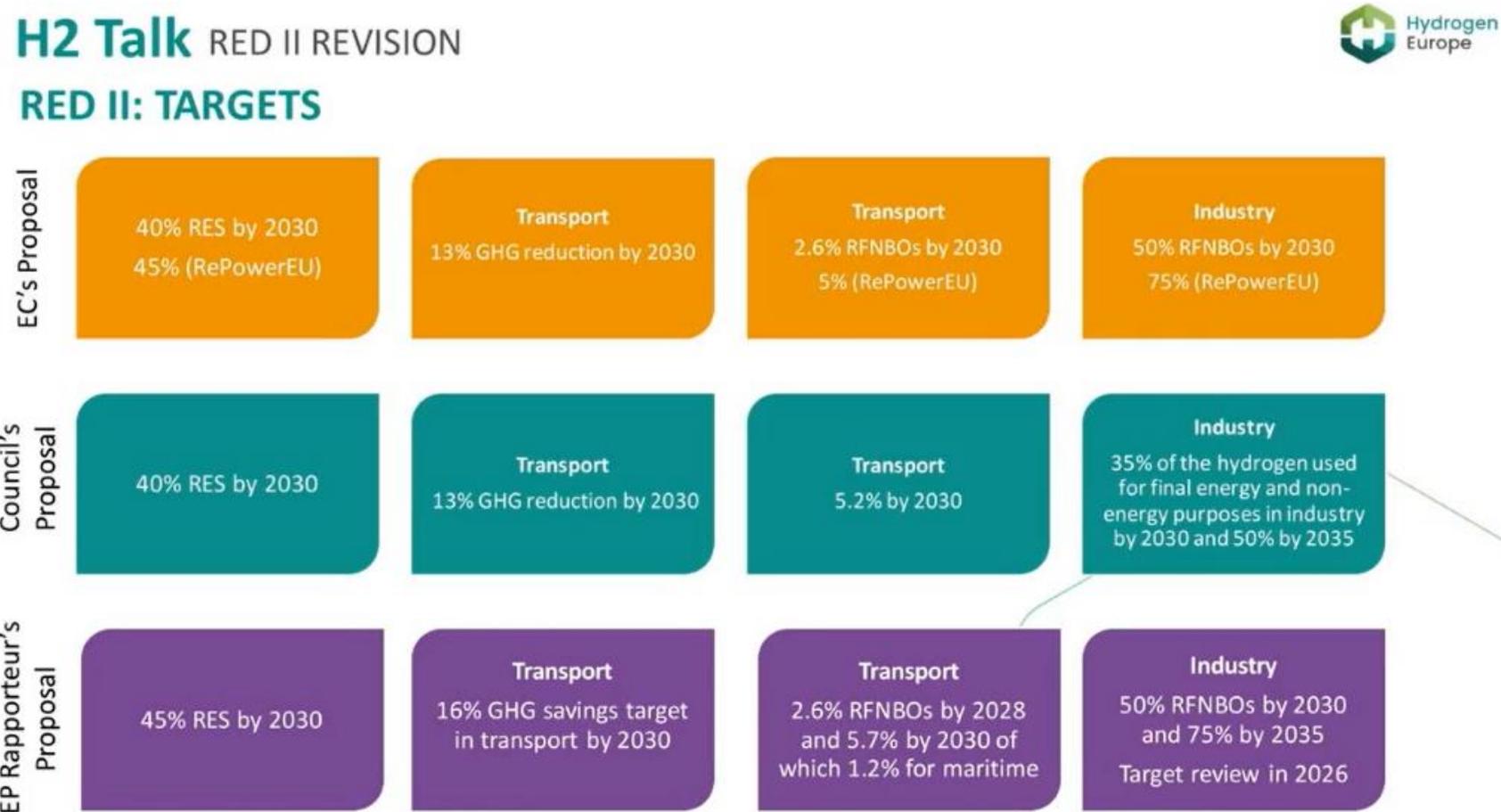
- Develop emergency liquidity instruments (regulated prices for SMEs during the crisis)
- Propose emergency and temporary interventions, including **gas price caps**; (discussion on the geographic scope - Russian gas or all, EC not in favour)

LONG TERM:

- A legislative proposal to overhaul the EU's electricity market will take place in early 2023, to change the "order of merit" (price determined by the marginal unit of production) a deep and structural reform of the energy market is foreseen in early 2023.

# Renewable Energy Directive

On 14 September, the European Parliament was voting on the revision of the RED II Directive. Below you find a comparative analysis of EU institutions positions, made by Hydrogen Europe:



# Renewable Energy Directive



As part of this vote, an amendment (from the EPP group) was approved (+314, -310, abst. 20). It plans to introduce the criteria for renewable hydrogen production in the RED directive, rather than waiting for the adoption of the 2 Commission delegated acts (additionality and GHG methodology), in which the European Parliament has no say.

The Parliament's definition of as renewable fuel of non-biological origin (RFNBOs), and renewable hydrogen differs from the Commission's proposal - it is more "relaxed":

- scraps the additionality principle
- defines temporal correlation on a quarterly basis
- no rules for the imported renewable hydrogen

Next steps:

- RED II will go in trialogue
- Negotiations on the DAs are expected to be frozen until the outcome of the trialogues

# Gas Package

1st draft compromise from the Czech presidency.

Main update on the addition of an article on the certification of underground gas storage sites as of a certain size (more than 3,5TWh)



▶ Reports and studies

# Hydrogen Global Warming Potential

- Following the workshop organised by the Programme Office of the Clean Hydrogen Partnership on the 31<sup>st</sup> of March and 1<sup>st</sup> of April, the JRC published a technical report on [Hydrogen emissions from a hydrogen economy and their potential global warming impact](#) summarising the outcomes of the discussions.
  
- Main conclusions:
  - **Hydrogen emissions to the atmosphere impact the lifetime of other greenhouse gases**, namely methane, ozone, and water vapour, indirectly increasing the Earth's surface temperature. Current best estimates for the Global Warming Potential of hydrogen emissions are  $5\pm 1$  and  $12\pm 5$  kg CO<sub>2</sub>e/kg H<sub>2</sub> over a 100-year time horizon (GWP100), and 12-33 kg CO<sub>2</sub>e/kg H<sub>2</sub> over 20 years (GWP20).
  - Hydrogen emissions to the atmosphere from the hydrogen value chain are expected from gas providers to be in the range of **1-5% of the hydrogen delivered, with an average value of 2%** by 2050.
  - Although it will not be climate neutral, **a low-carbon and, in particular, a renewable hydrogen economy would significantly reduce the global warming impact compared to a fossil fuel economy**. However, **estimates of industrial hydrogen emissions and their global warming impact are subject to a high level of uncertainty**.
  - The physical characteristics of hydrogen (highly buoyant, colourless, odourless, tasteless, nonirritating and IR inactive) make it difficult to detect & The optical detection of hydrogen is challenging as it does not present common optical signatures for its monitoring such as infrared absorption bands.

# Stakeholders News & Reports

- **NEW RECORD OF GHG CONCENTRATIONS IN ATMOSPHERE IN 2021** according to the American Metrological Society.
- The European Commission awarded the **FIRST LIST OF CROSS BORDER RENEWABLE ENERGY PROJECTS** ([3 projects under the CEF](#)) including a renewable electricity project in Italy, Spain and Germany for the conversion, transport and use of 'green' hydrogen in the Netherlands and Germany.
- The European Environment Agency published an analysis note showing a that **GHG EMISSIONS FROM TRUCKS, BUSES AND COACHES ROSE BY 29% BETWEEN 1990 AND 2019** ([more information](#)).
- **RECORD SOLAR POWER PRODUCTION OVER THE SUMMER 2022** (May to August), 18 of the 27 EU countries set new records for solar electricity production with 99,4 TWh (compared to 77,7TWh on the same period last year). More information [here](#).
- On 9 September, the **NEGOTIATIONS ON CANADA AND NEW ZEALAND'S PARTICIPATION TO HORIZON EUROPE** were opened.



# Hydrogen Europe Research

## Thank you for your participation!

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