



**Hydrogen Europe
Research**

Policy Working Group

18 March 2022

Agenda

1. Welcome & Approval of the agenda
2. Updates on activities
 - *Internal papers on policy topics*
3. Latest updates on EU institutions' activities
 - *REPowerEU and the Hydrogen Accelerator*
 - *Fit for 55 - update*
 - *Taxonomy*
4. EU Funding and Opportunities
 - *Call for nomination for the ERC Scientific Council*
 - *Steering Group of the European Partnership on Metrology*
5. Reports and Studies
 - *Study from the EC on Europe's strategic dependencies*



Updates on
▶ activities

Internal papers on policy topics

It was proposed with the Board to develop some basic internal papers on policy files of interest for Hydrogen Europe Research.

Why?

- For the use of members if needed at national/EU levels (the content will be available on the intranet)
- To be able to react and position ourself quickly in future policy discussions related to these files or building on similar discussions

Content:

- Background for the proposal
- Sum up of the impact of the proposal on hydrogen development and on research
- HER's position in key bullet points

Topics to be covered: CBAM, RED II Revision, RED II Delegated Act, AFIR, Refuel Aviation. Others?



Latest updates on ▶ EU institutions' activities

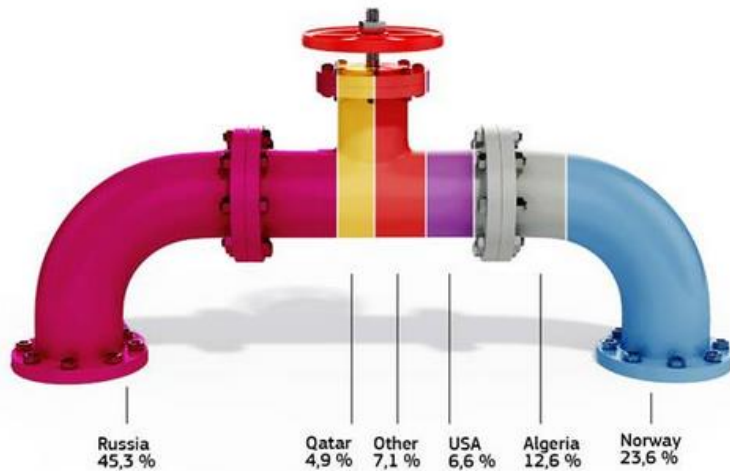
Energy dependency - REPowerEU

On 8 March, the European Commission proposed an outline of a plan to make Europe independent from Russian fossil fuels well before 2030, the plan is entitled REPowerEU.

Measures to:

- respond to rising energy prices in Europe
- replenish gas stocks for next winter

Share in EU natural gas imports, 2021



Source: European Commission

REPowerEU will seek to diversify gas supplies, speed up the roll-out of renewable gases and replace gas in heating and power generation.



**2/3rd reduction EU
demand for Russian gas
within a year**

Energy dependency - REPowerEU

Several mitigations measures such as:

- A legislative proposal requiring underground **gas storage across the EU to be filled up to at least 90%** of its capacity by 1 October each year
- **A New State aid Temporary Crisis Framework** to grant aid to companies affected by the crisis
- Investigate options for emergency measures to limit the contagion effect of gas prices in electricity prices, such as temporary price limits.
- **Assess options to optimise the electricity market design** (*based on the ACER work, considering benefits and drawbacks of alternative pricing mechanisms to keep electricity affordable*)



"The quicker we switch to renewables and hydrogen, combined with more energy efficiency, the quicker we will be truly independent and master our energy system." 08/03/2022, Press release REPower EU

"(...) in the long run, it is our switch to renewables and hydrogen that will make us truly independent." 01/03/2022, Speech by President von der Leyen at the European Parliament Plenary on the Russian aggression against Ukraine

Energy dependency - REPowerEU



REPowerEU plan based on diversifying gas supplied and reducing the use of fossil fuels. It includes a Hydrogen Accelerator.

Possibility to boost the Fit for 55 proposals with higher or earlier targets.

Renewable gas:

- Additional 15 million tonnes of renewable H₂ to be produced (on top of 5.6 mt foreseen in Fit for 55 by 2030). It includes nuclear based H₂. Estimated that it could replace 25 to 50 billion m³ of Russian gas
- New infrastructures should be hydrogen compatible.
- Commitment to assess the IPCEI on hydrogen within 6 weeks after submission.
- Support pilot projects on renewable hydrogen production and transport in the EU neighbourhood (Mediterranean Green Hydrogen Partnership and a Global European Hydrogen Facility).

Power sector:

- Additional capacities of 80GW by 2030 to accommodate for higher production of renewable hydrogen.

Energy intensive industries:

- Extend the scope to carbon contracts for difference.
- Enhance the EU's manufacturing capabilities for innovative zero and low carbon equipment, such as electrolyzers, next generation solar/wind, and other technologies (using the Innovation Fund).

According to you, what could be the potential impact of the crisis in Ukraine on your job and on the development of the hydrogen market?

What do you think of the measures proposed by the European Commission via REPowerEU?



Other reactions to break out from dependency



The **Greens/EFA group in the European Parliament** called on the Commission to develop an emergency strategy to invest and develop a 100% renewable-based economy. Refusal to rely on LNG which would create new dependencies, including to Russia. Opposed to biogas which is only available in small quantities if sustainable.

They detail a plan with 6 areas in which hydrogen is mentioned for:

- Green hydrogen to replace industrial gas
- Green hydrogen transportation modes where electrification is not possible



To see the entire letter: <https://www.greens-efa.eu/en/article/document/letter-on-actions-for-the-eu-energy-transition-following-the-russian-aggression>

The **International Energy Agency** published a 10-Point Plan to Reduce the EU's Reliance on Russian Natural Gas. [slides at the end of the ppt]

More info: <https://www.iea.org/reports/a-10-point-plan-to-reduce-the-european-unions-reliance-on-russian-natural-gas>

FIT for 55 - update

Alternative Fuels Infrastructures - sum up of key points in parliamentary discussions

- Critics made to the rapporteur that would focus on electric and not enough on LNG and hydrogen.
- Attention to be paid to the payment method at recharging infrastructures, to promote compatibility.

ReFuelEU Aviation - sum up of key points in parliamentary discussions

- Discussions on the definition of alternative fuels for aviation (based on the maturity of available technologies vs. large definition to include tomorrow's technologies)
- Question of the inclusion of synthetic fuels and direct air capture.
- The availability of sustainable fuels - will the production be at the level of ambitions in due time? If not, actors that can't get the required fuel / technology should not be sanctioned for it.
- Issue of tankering - transporting fuels from countries where the legislation would be less strict.
- Delays foreseen for incorporating sustainable fuels in the fuel mix of aeronefs, in relation with the competitiveness of the sector.

FIT for 55 - update

RED II Revision

Council - new compromise from the French presidency (9/03)

- Industry: proposal to lower the threshold proposed by the EC to 40% rather than 50% of the share of renewable energy used in hydrogen for industry by 2030. It will be up to Member States to reach the 50% higher target.
- Heating and cooling: lowering the objectives from the EC (1,1 point of percentage/year to 0,8)
- Transports: lowering the objective of non biologic renewable fuel in the sector
- Biomasse: reminder of the waterfall principle (first to be used for its material usage then for its energy)

Letter from 25 stakeholders to limit RED to renewables (11/03)

- Reaction to the proposal of the rapporteur (Markus Pieper PPE, DE) to introduce low carbon hydrogen in the scope of the Directive.
- Only renewable hydrogen should be included for the signatories.

Taxonomy - where do we stand?

Proposed on 2 February by the European Commission, the delegated act of the taxonomy would include gas and nuclear energy.

Scenarios considered at the European Parliament to object to the additional delegated act

- MEPs are considering objecting to project of delegated act planning on including gas and nuclear energy in the EU taxonomy
- The ENVI & the ECON committee would have to vote on a resolution project which would then go through the plenary session in July.
- This idea has become more important with the situation in Ukraine - refusal to fund Russian gas.

On 15 March 102 MEPs addressed a letter to the EC asking to withdraw its proposed delegated act.

Proposal from the Sustainable Finance Platform

- 50 stakeholders advising the EC on the EU taxonomy
- Had given a negative feedback on integrating gas and nuclear energy in the taxonomy - it considers as green activities that are not green and could become green in the future only
- Proposal of the platform to publish a report on an extended taxonomy by the end of March, proposing an intermediate category (amber)



EU Funding and ▶ Opportunities

Commission seeks candidates for the ERC Scientific Council

The **Scientific Council** is the independent governing body of the ERC. It defines the ERC's scientific funding strategy and methodologies.

Candidates are accepted on a **nomination basis**. The Committee is now contacting the representative organisations of the European research community with the request to nominate excellent candidates. The Committee also welcomes nominations from other research institutions representing European research.

Almost a quarter of the 22 members must be replaced as their mandate come to an end.

- 4 year term of office renewable once
- Nominations are accepted until 6 May 2022, 12:00 noon CET.

For more information: https://ec.europa.eu/info/news/commission-seeks-candidates-erc-scientific-council-2022-mar-11_en

Steering Group of the European Partnership on Metrology



Call for interest for experts to be appointed as members of the "Steering Group" of the European Partnership on Metrology.

8 members to be appointed:

- 4 representatives should come from different European Partnerships
- 4 representatives from the European scientific community

Deadline to apply: 20 April 2022

For more information: https://ec.europa.eu/info/news/call-expressions-interest-experts-be-appointed-members-steering-group-european-partnership-metrology-2022-mar-16_en



▶ Reports and studies

Commission presents an updated in-depth review of Europe's strategic dependencies

➤ Second in-depth analysis of Europe's strategic dependencies.

The first report (May 2021) has a dedicated section on hydrogen. The review looks at five areas:

- Rare earths and magnesium
- Chemicals
- Solar panels
- Cybersecurity
- IT software

Assessment for hydrogen

The report finds that **significant progress has been achieved, including investment pipelines through existing industrial alliances on raw materials, batteries and hydrogen as well as recently launched alliances on semiconductors and cloud services; adoption of Commission regulatory proposals on batteries, hydrogen and semiconductors; and new international partnerships, such as in the area of raw materials. The report also highlights the role of Important Projects of Common European Interest to deliver breakthrough innovation in, e.g. semiconductors and cloud services.**



Hydrogen Europe Research

Thank you for your participation!

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Energy dependency - IEA 10 points plan



A 10-Point Plan to Reduce the EU's Reliance on Russian Natural Gas

Action 1



No new gas supply contracts with Russia

Impact: Taking advantage of expiring long-term contracts with Russia will reduce the contractual minimum take-or-pay levels for Russian imports and enable greater diversity of supply.

Action 2



Replace Russian supplies with gas from alternative sources

Impact: Around 30 bcm in additional gas supply from non-Russian sources.

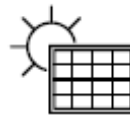
Action 3



Introduce minimum gas storage obligations to enhance market resilience

Impact: Enhances the resilience of the gas system, although higher injection requirements to refill storage in 2022 will add to gas demand and prop up gas prices.

Action 4



Accelerate the deployment of new wind and solar projects

Impact: An additional 35 TWh of generation from new renewable projects over the next year, over and above the already anticipated growth from these sources, bringing down gas use by 6 bcm.

Action 5



Maximise generation from existing dispatchable low-emissions sources: bioenergy and nuclear

Impact: An additional 70 TWh of power generation from existing dispatchable low emissions sources, reducing gas use for electricity by 13 bcm.

Action 6



Enact short-term measures to shelter vulnerable electricity consumers from high prices

Impact: Brings down energy bills for consumers even when natural gas prices remain high, making available up to EUR 200 billion to cushion impacts on vulnerable groups.

IEA - 10-Point Plan



A 10-Point Plan to Reduce the EU's Reliance on Russian Natural Gas

Action 7



Speed up the replacement of gas boilers with heat pumps

Impact: Reduces gas use for heating by an additional 2 bcm in one year.

Action 8



Accelerate energy efficiency improvements in buildings and industry

Impact: Reduces gas consumption for heat by close to an additional 2 bcm within a year, lowering energy bills, enhancing comfort and boosting industrial competitiveness.

Action 9



Encourage a temporary thermostat adjustment by consumers

Impact: Turning down the thermostat for buildings' heating by 1°C would reduce gas demand by some 10 bcm a year.

Action 10



Step up efforts to diversify and decarbonise sources of power system flexibility

Impact: A major near-term push on innovation can, over time, loosen the strong links between natural gas supply and Europe's electricity security. Real-time electricity price signals can unlock more flexible demand, in turn reducing expensive and gas-intensive peak supply needs.