

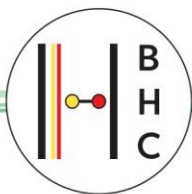


Belgian Hydrogen Council

Reaction to the public consultation in the context of the network development plans from Elia and Fluxys



12 09 2025



General

As Belgian Hydrogen Council, we have been informed about this public consultation but we were not involved as organisation in the preparative stakeholder workshops. However, many of our member companies participated in the different workshops. As such, we assume that most suggestions have been provided during the workshops and we limit our comments to a few specific remarks.

In general, as BHC, we are positive about the initiative as such, i.e. the intention to align the infrastructure for electricity and hydrogen and long term scenarios being established.

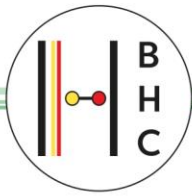
We would appreciate to be kept in the loop as BHC organisation regarding further deployment of the scenarios described in this paper.

Comments on the proposed scenarios and assumptions

In general we agree with most data regarding demand of hydrogen and derived molecules.

We have some remarks on certain categories.

- In general, it is a shortcoming that there are no 2050 estimates. Especially for the renewable molecules, the time horizon of 2040 is rather limited. This way, the crucial role of e.g. green ammonia is underestimated resulting in a distorted picture for 2050.
- The 0,6-1-1,4 TWh of hydrogen as published in the data table for refineries is too low. The implementation of the REDIII transport target will be mostly realised through the use of hydrogen in refineries.
The current ambitions of the sector – to be confirmed in the specific targets for refineries- are to consume 70-100 kton of H₂ in refineries by 2030, which is 3-4 TWh and this can increase to 200 kton later on.
Also related to the use of hydrogen in refineries, we don't understand the red cross in the column of process industry p. 127. Use of decarbonised molecules in refineries is an important pathway.
- What about the use of H₂ in steel (DRI)? It is assumed that this will happen not earlier than 2050, but in the same table of p. 127 this should have its place in the process industry column.
- For shipping we think that the categories are not well defined : All the mentioned fuels (e.g., methane, ammonia) are used in liquid form onboard. It may be helpful to either introduce a new aggregated fuel category or explicitly list each fuel type. The term "carbo liquids" used in the Excel file remains ambiguous: LNG, methanol, biofuels, and even captured CO₂ could fall under this label. Could you clarify which liquids are included? Is it primarily biofuels?
- The international shipping sector, under IMO, have stated they will be net-zero in or near 2050. With the Net-Zero Framework the IMO aims to create the right policy based incentive to start with this decarbonisation trajectory, punishing the use of fossil fuels



and promoting net and near zero technology and fuels consumption. It is not clear if the proposed scenario and fuel mix is in line with this ambition (depends on what is meant by 'liquids').

- **Onboard carbon capture:** There seems to be growing interest in onboard carbon capture within the shipping sector, especially as infrastructure for both temporary and permanent storage continues to mature. Is this development reflected in any of the scenarios?
- **Fuel mix and ammonia adoption:** In many studies and scenarios that are being delivered worldwide, ammonia is highlighted as a promising maritime fuel due to its scalability and lower projected costs compared to other alternatives. The 17% share mentioned in the slide seems conservative, as most sources suggest a significantly higher adoption rate, around 40-50% of the fuel mix by 2050.
- **RED III considerations for 2030 targets:** Are the transport and shipping ambitions outlined in RED III, including sub-targets and associated fuel volumes for 2030, integrated into the scenario development?
- **Scenario differentiation:** In the Excel file, there appears to be no distinction between the BASE, ELEC, and MOL scenarios. These should ideally yield different outcomes, reflecting varying market dynamics and broader infrastructural shifts occurring across sectors.

A concluding remark :

Since electrolysis is only estimated to play a limited role in Belgium (238MW in 2040) there is no interaction between the electricity and hydrogen flows as such. There is no role for H₂ assumed in this paper to stabilize the grid or avoid congestion or provide long term storage through H₂.

The question is whether that is justified, given the increase of renewable energy in the electricity mix.