

### Hydrogen Ramp-Up in the EU - Reality Check

**SEFE's input to the questionnaire by Prof. Dr. Andrea Wechsler, Member of European Parliament**

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For **SEFE**, Hydrogen will play an important role in the **energy system of the future** – particularly in industries that are difficult to decarbonise, such as steel, chemicals, cement or refineries. Therefore, Hydrogen is a **key component of SEFE's strategy to drive the transition to green energy sources**, as it is an essential element across all sectors on the path to a climate-neutral energy supply. With our **long-standing customer relationships** and our **strong positioning** in the areas of transport and storage, we at SEFE are **focusing on the hydrogen value chain with a long-term business model**. Our goal is to ensure a secure supply of **competitive, climate-friendly hydrogen for our customers**.

🔗 What regulatory requirements need to be simplified to facilitate the faster adoption of hydrogen technologies?

- **Clear and coherent regulation is key** to ensure that new business areas follow a sustainable pathway towards decarbonisation by mid-century. While written with good intentions, the *EU Delegated Regulations 2023/1184 and 2023/1185 for RFNBOs* (renewable fuels of non-biological origin) have severely impaired the market ramp up. Especially strict rules regarding renewable electricity procurement (additionality, geographical and temporal correlation) increase **unnecessarily cost by some 2-3 €/kg** in various jurisdictions.
- Ideally, the transitional phases for additionality and hourly correlation are postponed to 2035 and the rules grandfathered for first movers to combat the negative impact on cost. Moreover, the principle of mass balanced supply chain GHG emissions tracing impacts negatively **the global procurement of renewable and low-carbon molecules**. We understand the rationale, but putting the task of decarbonising global trade of liquids and gases on new commodities impairs a quick ramp up and thus **decelerates decarbonisation**. It also jeopardizes global trade and standardisation, putting deliveries to EU at risk and favouring simpler, but not less ambitious countries such as Japan and Korea.
- We have reason to believe that the draft Delegated Regulation for LCF (low carbon fuels) follows a similar pattern which will lead to **increased cost, less competitiveness of the European industry, and ultimately a delay of decarbonisation**.

🔗 How can bureaucracy be reduced, and efficiency of hydrogen projects ensured?

- Two measures are of high importance: (i) **Accelerated permitting and approvals as well as (ii) simplified funding systems**.
- Regarding the first (i), **hydrogen acceleration areas** could sponsor reduced bureaucracy for all hydrogen projects. These could be developed equally to renewable acceleration areas (see *EU 2023/2413*). However, this should be accompanied by providing digital platforms for Member States and especially local authorities in the respective regions. Ultimately, they are the ones on the ground that need to be trained and empowered to enable faster processes.
- On the second (ii), we appreciate the variety of **funding instruments** across the EU and its Member States, but question whether such a diverse set facilitates the ramp up at **the lowest system cost and with the necessary swiftness**. We see that both industry and consulting are dramatically expanding their funding departments to first understand the funding guidelines and then bid on tenders. These tenders are usually drastically **oversubscribed** leaving a small number of winners and lots of “losers”, thereby artificially

suppressing the market ramp up. We believe this can be **streamlined** and simplified by less but **more powerful and long-term support systems**.

? How can the scaling of both demand and supply in the hydrogen sector be ensured?

- Over the last years and still to this date, it is envisioned that industrial customers will conclude contracts directly with potential suppliers. However, this **dramatically oversimplifies** commodity markets and the associated risks along the value chain. The results are a lot of **captive projects** where demand and supply are co-located, which is usually the case in refineries. Such approaches will likely not help the development of infrastructures, value chains, and the liquid market.
- Thus, **it is critical to empower midstreamers**. They act as **aggregators on the demand side** for end-customers and imports, and on the supply side, the midstreamer **ensures security of supply through a diversified procurement portfolio**. Operationally, the midstreamer takes care of the physical handling of imported goods from the source to the customer, stockpiling, balancing of supply and demand, as well as quality control for molecule procurement and certification. All the above is particularly relevant for **bringing large quantities of hydrogen and derivatives to the market at speed and competitive cost**.

? How can Europe maintain its global competitiveness?

- The EU should renew its focus on the task at hand: **speed to decarbonisation**. Thereby, **pragmatism to reduce GHG emissions as quickly and economically efficient as possible is required**. The transition of the EU economies must set an example for others to follow if the challenge of global climate change is to be tackled successfully. This must include more pragmatic and usable Delegated Regulations for RFNBOs and LCF, accelerated permitting and approvals, as well as a simplified but more powerful funding landscape. Moreover, this can also include a **“Clean Energy Directive”** instead of a Renewable Directive IV, which unites previous, dispersed regulation pieces under **one framework** with one clear target: speed to decarbonisation, but as cost efficient as possible.

? How can Europe ensure investment certainty in the hydrogen market?

We put forward the following three measures to **ensure investment certainty** in the hydrogen market:

- i. A **clear and coherent regulatory framework** that empowers and allows all hydrogen-based decarbonisation options equally and complements the target setting of the EU and its member states;
- ii. This simple framework must then be complemented by **long-term (>10 years) and simple financial support systems**. These systems do not necessarily provide only “hard cash” but can also include government-backed guarantees and lower-interest rate financing for clean hydrogen projects;
- iii. And lastly, a **shifting mindset** from policy makers and society to **master the clean industrialisation** of Europe. This will require strong signals of support from all levels of policy making. Instead of discussions regarding the relocation of critical energy intensive industries and other branches of high-value industry to extra-EU territory, we should jointly **discuss how we support the decarbonisation of existing industry** while at the same time **attractive new opportunities**.

? What is the business case for hydrogen, and how can it be economically viable?

- Ideally, **renewable and low carbon hydrogen can replace existing use cases of fossil-based hydrogen** in refineries and chemicals while also expanding into **new use cases** such as steel, maritime, aviation, heavy duty transport, and long-term energy storage. The idea is to create **green lead markets and product benchmarks** in order to **incentivize the use of clean energy** for consumers such as the automobile industry or agriculture.
- However, given the described complex and restrictive regulatory framework, viable business cases for renewable and low carbon hydrogen are scarce in 2024. This is mainly due to the large difference in cost to supply the molecules and the willingness to pay from end-customers.
- **The good news is, that some of this is created artificially by policy and can thus be improved at low cost.** Simplified, economic viability can be enabled by **adequate carbon pricing** that is supported by a simpler funding system that facilitates the midstreamers' role as **"market makers" for large and cost competitive volumes.**

SEFE is happy to provide additional input and develop new ideas to foster the ramp-up of the European hydrogen market promoting the decarbonisation of a cost-competitive European industry.

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**SEFE, an international energy company, ensures the security of supply and drives the decarbonization of its customers.** SEFE's activities span the energy value chain, from origination and trading to sales, transport and storage. Through its decades-long expertise in trading and the development of its LNG business, SEFE has become one of the most important suppliers to industrial customers in Europe, with an annual sales volume of 200 TWh of gas and power. Its 50 000 customers range from small businesses to municipalities and multinational organisations. By investing in clean energies and especially in the hydrogen ecosystem, SEFE is contributing to the energy transition. The company employs around 2 000 people globally and is owned by the Federal Government of Germany.