

European Hydrogen Bank

Recommendations for the second auction

To lead, Europe must scale up renewable hydrogen (RH2) supply and demand, and bridge the full cost gap with fossil incumbent alternatives. And in the face of fierce competition from continent-size countries like the USA and China, a true European – not national – response is needed.

The European Hydrogen Bank (EHB) is a first-of-its-kind, highly promising, response that should become Europe’s primary financing tool to deploy industrial-scale projects with speed and simplicity, unlock the entire value chain, deliver economies of scale, and help us reach our targets.

132 projects bid under EHB’s 1st pilot auction. The variety of submitted projects, and the competitive bid levels are a testament to the industry’s readiness. But the vast majority of these projects could not be supported. At the same time, other parts of the world are catching up. Time is running out. Europe risks losing the race for future-proof jobs, industries and cleantech. The Renewable Hydrogen Coalition (RHC) recommends the following to make the next EHB auction a success:

1. EHB scope should remain renewable hydrogen

EHB must remain focused on the domestic production of RH2 and its derivatives. RH2 is the most compatible option with the EU’s climate neutrality and energy security goals, and a natural complement to a highly renewable-based electrified energy system. We now have clarity on production rules and ambitious binding targets for renewable hydrogen for this decade. Making RH2 cost-competitive and achieving targets should be Europe’s priority, and this requires a dedicated implementation instrument.

2. Budget so far is too small and will fall short of delivering the required impact

The announced EUR 2.2bn budget for the second auction is positive but not sufficient to kick-start EU domestic production and consumption of RH2 and meet the EU RFNBO targets. **De-risking projects and closing the producer-offtaker cost gap remains the number one challenge. So long as this cost gap is not mostly filled, hard-to-electrify sectors will not invest and the large-scale deployment needed to meet our climate and energy goals will not happen.**

A true budget is needed. Investors need visibility on the budget and timing of auctions over the next couple of years to unlock investments. The sooner the production of RH2 scales up, the smaller the total green premium for RH2 will be and the more Europe will enable itself to deliver its targets and strengthen its energy independence. A true budget is also crucial if Europe is serious about maintaining and reinforcing its own renewable hydrogen value chain by supporting project developers in sourcing their equipment in Europe.

Shifting half of today’s hydrogen demand in industry (about 8 Mt/year) would require at least EUR 12bn/year, applying an IRA-like support of 3€/kg of RH2 produced.

3. Allow cumulation under conditions due to the limited EHB budget

For the domestic leg of EHB, RHC supports the Commission's principle to cover 100% of the funding gap between RH2's production cost and offtake price. In addition, **ensuring a level playing field between EU member states and projects** in accessing EHB's budget is essential.

Policymakers need to face reality. Projects are being delayed or cancelled due to:

- **Changing and more challenging economic conditions that raised the cost of capital**, inflated costs and hindered the business case of projects.
- **Too slow access to public funding**, with in some cases projects risking losing awarded national public funds (e.g. IPCEI).
- **Too limited public funding in this early market phase** – including the EHB budget (€3bn may fund 1 million tonnes). See above point 2.

Europe is at serious risk of losing its first mover advantage. The EHB's primary goal should be to accelerate the deployment of RH2 projects already in the pipeline, i.e., get existing mature projects to take Final Investment Decisions (FIDs) as soon as possible. And these projects that have already applied for national aid should not be excluded from EHB. This would strengthen the probability that winning projects will be realised and that the decarbonisation of hard-to-electrified sectors is not further delayed.

For these reasons, RHC would support the cumulation of funding in EHB, if the following conditions were met:

- **Temporary:** cumulation should be allowed until the end of 2025.
- **Mature projects:** bidders cumulating funding commit to enter operation no more than three years after the signature of the grant agreement.
- **Aid that is cumulated must have been awarded after scrutiny of the project by a public authority.** This aid can be awarded under a competitive scheme or granted under CEAAG section 4.11 to reduce/eliminate taxes and levies on electricity. This will ensure that public funds are awarded to projects that are recognised for their quality before applying.

In any case, the European Commission must avoid overcompensation of cost gaps, as per article 107 TFEU.

4. Pre-qualification should support European value creation

In an increasingly challenging global context, one should make sure that we do not replace an energy dependency by (or add to it) a technology dependency. Europe must reinforce its industrial autonomy in strategic clean technologies, notably electrolyser manufacturing. **Public funding must award projects that will maintain and reinforce the resilience of Europe's renewable hydrogen supply chain and allow the European industry to scale and reduce costs.**

With more than **20 electrolyser manufacturers** represented in the EU's Electrolyser Partnership, we can develop a competitive electrolyser market in Europe. These companies are **committed to expand their manufacturing capacity to meet the demand driven by the Fit-for-55 targets**¹.

However, they will only be able to scale up with a true global level-playing field where industrial players comply with all relevant EU laws and respect the EU's values and principles. While the

¹ [\(5 May 2022\) European Electrolyser Summit – Joint Declaration](#)

EU continues to champion the rules of free trade on its single market, the Chinese market is closed to European manufacturers. As pointed out in a recent TNO study², Chinese manufacturers have access to low-cost labour and raw materials, especially steel and nickel. And investments in new factories are supported via zero interest government loans, free land and building provisions.

In this early stage, price-only competition will lead to a race to the bottom, and many European companies will likely not survive. The next 2-3 years are critical to avoid this.

Therefore, **the Bank's second auction should include a resilience pre-qualification criterion as part of the electrolyser procurement strategy. Entering the auction would require that all three critical production steps of the electrolyser listed below are carried out within countries that are signatories of the WTO Government Procurement Agreement (GPA):**

- a) **Cell unit assembly:** the process of integrating the core components (separators and electrocatalysts) of individual electrolysis cells to create functional units capable of carrying out the water electrolysis reaction.
- b) **Stack assembly:** the process of stacking individual electrolysis cells into a cohesive unit, the stack.
- c) **Surface treatment:** the application of a coating to the stack cell, including galvanizing and etching.

The resilience requirements should:

- a) be **easily implementable** as prequalification (pass/fail test).
- b) be **applicable to all electrolysis technologies**.
- c) be **applicable at time of commissioning** (or right before), not at bid submission, allowing any company, whichever its origin and actual location, to consider moving/investing in Europe for manufacturing to benefit from European public funds.
- d) **should not lead to dependency** on a very limited number of suppliers, as this could raise the price of equipment and lead to more vulnerable value chains.
- e) **apply temporarily**, to allow OEMs based in GPA countries, and especially in Europe, to scale up in the critical next years of market consolidation, further de-risk the technology, and bring costs down.
- f) **be demonstrated by OEMs** via a template provided by CINEA, for use by project developers in their electrolyser procurement strategy.

In view of substantiating the adopted Net-Zero Industry Act (NZIA), this resilience criterion could be complemented with further criteria, such as cybersecurity, performance, safety, sustainability and social requirements that are in line with EU values.

Other prequalification criteria:

- **Stronger hydrogen offtake commitment needed to scale the market:** bids should feature "Head of Terms" covering at least 65% of expected RFNBO volumes in the bid.
- **Electricity sourcing:** the flexibility of asking developers to provide their own sourcing strategy in compliance with RFNBO certification schemes is appreciated and should remain.
- **Environmental and grid connection permits:** we welcome the flexibility of asking developers to provide documents showing evidence of ongoing requests.
- **Completion guarantee should be set at 10%** to increase the quality of bidding projects and ensure that winning bids will become projects that are realised.

² [TNO \(2024\), The EU's China challenge Rethinking offshore wind and electrolysis strategy.](#)

5. Building a true European support scheme to scale up

Since the announced EU funding is far from enough to cover the cost gap of projects in the pipeline, **RHC calls on the EU Member States to use the “Auction as a Service”**. This allows Member States to join a highly effective support mechanism that makes efficient use of public money and accelerates state aid approval, as seen in the pilot auction with the EUR 350 million German state aid.

Member states must avoid creating a patchwork of different support schemes across Europe. EHB, supplemented with Auction as a Service, has the potential to simplify, harmonise and accelerate access to public funding, enabling Europe to scale and reach its common goal. The Auction as a Service will also help ensure some balance in the geographic distribution of projects across the EU.

6. Sector prioritisation

RHC supports the inclusion of a dedicated basket for the maritime sector in the second auction. For subsequent auctions, **EHB should focus support to hard-to-electrify sectors to help reach the binding RFNBO targets** adopted in the revised Renewable Energy Directive, ReFuelEU Aviation and FuelEU Maritime, and to maximise GHG abatement potential.

Bids that feature, as their main objective, the production of RFNBO for blending into the natural gas grid, the manufacturing of conventional fuels, refuelling of light passenger cars, residential heating or low-heat industrial processes (<400°C) should be excluded.

7. Auction design

- For projects that pass the pre-qualification criteria, RHC supports price-only ranking to make the process simple, fast and transparent for market players. The lowest bids should win.
- **Support should be indexed** to reflect inflation of energy, materials and labour costs. This will secure projects' economic viability over time and de-risk investment.
- **Realisation time:** Developers should be given **at least four years** between the grant agreement and commercial operation date. It is however key to consider the reality of realising projects. While smaller projects can be realised faster, longer realisation time can be needed for larger projects, e.g. those surpassing 50MW. For projects of more than 200MW, even five years would be necessary for administrative and construction processes, given the novel nature of such projects.
- **Ceiling price should not be lower than 4.50€/kg of hydrogen produced.** While winning bids from the pilot auction were very low, notably for industrial projects, covering most (if not all) of this cost gap remains crucial for offtakers to invest and to scale up faster. It therefore seems more prudent not to lower the ceiling.
- **Semi-annual payment** after entry into operation should remain.
- **Production flexibility** rules should remain. Semi-annual production cannot fall below 30% of the expected yearly average volume stated in the bid (over a rolling 3-year period) and cannot go beyond 140%.

8. Bidding process

- The bidding process of the first pilot auction was made easy and should be replicated for further rounds.
- All required documents should be listed in the funding portal to give early clarity to developers.

- **Template for documents** should be provided detailing what and how bidders should submit information, including the electrolyser procurement strategy. Standardised documents will help streamline processes and make information more easily comparable.
- The European Commission should announce the results and sign grant agreements faster for the second round. Assumptions for projects change within months, and early visibility on funding is crucial.