VÄTGAS SVERIGE

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POSITION PAPER

Hydrogen Sweden (Vätgas Sverige): position on a renewed EU hydrogen strategy

Response to the call for evidence on initiative 18695, Ares(2026)10035347

Hydrogen Sweden is the Swedish association for hydrogen and hydrogen-based fuels. Our members include producers, industrial users, infrastructure and technology companies, regions and research organisations across the Swedish value chain.

Summary

We share the Commission's diagnosis: the cost gap to fossil hydrogen and weak offtake explain the slow uptake, and production support alone has not changed that. Our main asks:

1. Build on the framework already in place and safeguard investments made under it.
2. Keep the binding RFNBO targets for industry and transport, extend them towards 2040 and make sure they are transposed.
3. Conclude the targeted review of the RFNBO delegated act, recognise low-emission grids, protect early movers, then keep the rules stable.
4. Support demand where the price gap appears, with risk-sharing instruments alongside investment grants.
5. Integrate electrolysers in the power system and allow state aid for the full chain back to electricity.
6. Plan infrastructure across borders and spread its cost over time.
7. Use Sweden's biogenic CO2 for e-fuels.
8. Build refuelling infrastructure for heavy transport ahead of demand.
9. Recognise hydrogen as part of Europe's preparedness and security of supply.
10. Prioritise domestic production and diversify imports.
11. Close the funding gap between demonstration and industrial scale.
12. End the strategy with an implementation plan and measurable indicators.

1. Build on the framework already in place

Since 2020 the EU has built a framework for hydrogen: consumption targets in RED III, FuelEU Maritime, ReFuelEU Aviation, the hydrogen and decarbonised gas package and the European Hydrogen Bank. Swedish projects have taken, or are about to take, investment decisions on that basis. The renewed strategy should adjust instruments where uptake has been slower than expected and safeguard the investments already made, as the call for evidence proposes. Redesigning the target structure now would reset the investment clock for projects close to final investment decision.

2. Keep binding sector targets and make sure they are transposed

The binding RFNBO targets (42% of industrial hydrogen in 2030 and 60% in 2035, at least 1% RFNBO in transport in 2030) are in practice the only demand signal that carries investment decisions in electrolysis

and e-fuels. Replacing them with indicative goals would shift the full volume risk to project owners. Where the targets are hard to meet, the remedy is simpler rules and better support.

We ask the Commission to:

- keep the binding targets and set gradually tightened targets towards 2040, for transport after 2030 and for industry after 2035, decided early enough to guide investment;
- encourage penalties that make compliance cheaper than non-compliance, combined with long national time frames, as several Member States have done by setting mandates to 2040;
- monitor transposition actively, since slow transposition, particularly for industry, already creates demand uncertainty;
- build lead markets through public procurement and requirements for low-emission products, for example steel, fertilisers and hydrogen-based fuels for shipping, aviation and heavy transport.

3. Conclude the RFNBO review, then keep the rules stable

In grids that are already close to fossil-free, the RFNBO production criteria add cost without a measurable emission benefit. In the southern Swedish bidding zones (SE3–SE4) grid emission intensity is very low, yet projects must still sign renewable PPAs and meet temporal and geographic correlation. In the northern bidding zones (SE1–SE2) the exemption for bidding zones with above 90% renewable electricity depends on each year's renewable share and on the ongoing review of the Swedish bidding zones, which makes it uncertain how to finance projects.

We ask the Commission to conclude the targeted review of Delegated Regulation (EU) 2023/1184, recognise low-emission grids, and then commit to no further changes before 2035. The criteria must be applied uniformly across the EU, with clear guidance to certification schemes and national authorities. The revised act should include a grandfathering clause so that projects already built or at final investment decision are not affected by later changes to the criteria.

4. Support demand where the price gap appears

Investment grants lower the cost of building a plant, but they do not close the gap between production cost and what users can pay. The producer cannot finance a plant without a long-term buyer, and the buyer will not sign a 10–15 year contract before price and delivery are secure. Projects stall on both sides.

- Pair production support from the European Hydrogen Bank with Carbon Contracts for Difference for industrial users and offtake support of the H2Global type, and allow support to be stacked across production, infrastructure and use.
- Add revenue guarantees that cover part of the gap between production cost and sales price, and EU-backed guarantees that reduce counterparty risk in long-term offtake agreements.
- Weigh project maturity, grid access and secured offtake in allocation. Price-only auctions have selected projects that later withdrew.
- Open calls on a regular and predictable schedule, whatever the allocation method. The Industrial Decarbonisation Bank and its Investment Booster should include windows for hydrogen.
- Allow Member States to fund projects that scored well in EU calls but missed out on budget, without a new assessment, and to use EU auctions for national support.

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5. Integrate electrolysers in the power system

Grid connection and permitting now set the pace for Swedish electrolysis. Projects face multi-year queues and uncertainty about connection dates and costs.

- Recognise electrolysers, hydrogen storage and storage of derivatives such as ammonia and methanol as flexibility resources, both grid-connected and behind the meter. Connection rules and network tariffs should reward electrolysers that reduce load when the system is stressed, and flexible connection agreements should be possible while reinforcements are built.
- Allow electrolysers to earn revenue in flexibility and system service markets, supported by Commission guidance and working models.
- Let state aid rules cover the full chain from electricity to hydrogen, storage and back to electricity when the system needs it. Article 41 of the General Block Exemption Regulation currently excludes electricity generation from aid for renewable hydrogen. That exclusion should be removed.
- Extend the accelerated permitting already applied to renewables to hydrogen production. Member States should provide one-stop shops with a clear role towards local authorities. Maximum processing times should come with an analysis of bottlenecks and resources for the authorities that must meet them.

6. Plan infrastructure across borders and spread its cost over time

- Nordic-Baltic corridors and cross-border regions such as Öresund–Kattegat–Skagerrak need joint demand mapping and coordinated planning before routing decisions are made. In our Interreg project NOVA, Swedish, Danish and Norwegian partners map cross-border supply and demand for this purpose. National plans alone leave gaps at the borders.
- Build infrastructure in stages around anchor off-takers in industrial clusters and ports. Early users should not carry the cost of capacity dimensioned for a future, larger market. State guarantees for anticipatory investment and cost allocation over time are needed.
- Adapt network rules to the start-up phase: exemptions for industrial clusters, ports and energy parks, unbundling as a temporary measure, stepwise certification of network operators, and revenue cap regulation only once the market is established.
- Assess the energy system as a whole when choosing between grid reinforcement and hydrogen pipelines.
- Until networks exist, make RED III mass balance rules work for hydrogen delivered by truck, through local pipelines or via shared storage outside gas grids. Certification, the Union Database and national systems should be coordinated so that data follows the gas without double reporting.

7. Treat biogenic CO2 as an asset

Sweden has large biogenic CO2 point sources in pulp and paper and in combined heat and power. Combined with renewable hydrogen they offer a scalable route to e-methanol and e-SAF for FuelEU Maritime and ReFuelEU Aviation. The strategy should address access to, and accounting of, biogenic carbon for hydrogen derivatives, and coordinate production, port infrastructure and bunkering for shipping. The RFNBO multiplier in FuelEU Maritime should be extended beyond 2033.

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8. Build refuelling infrastructure for heavy transport

- Treat the station numbers and capacity in AFIR as a minimum. Extend the maximum distance requirements from the core to the comprehensive TEN-T network. For a country with long distances, the core network alone leaves large regions without stations, and the 200 km distance may need to be shortened. Sweden has 18 public hydrogen refuelling stations in operation and around 40 with investment support.
- Offer vehicles and infrastructure at the same time. Assess operating support for stations and phase it out as the fleet grows.
- Let support cover fuel cell and hydrogen combustion vehicles alike, and let taxation follow the emission reduction. Today the Energy Taxation Directive treats the same hydrogen differently depending on whether it is used in a fuel cell or a combustion engine.
- Help public buyers plan demand across procurements. A single municipal tender rarely covers enough vehicles to justify a refuelling station, even when the same authority will buy more hydrogen vehicles in the coming years. The Commission should issue guidance on how contracting authorities can pool demand through joint procurement, framework agreements and life-cycle costing, so that public fleets can anchor stations in the same way the Clean Vehicles Directive sets targets over time rather than per tender.

9. Recognise hydrogen as part of Europe's preparedness

Sweden has no domestic oil or gas production and imports all of its fossil fuels. Recent disruptions in global fuel supply show the cost of that dependence. Hydrogen and e-fuels from Nordic fossil-free electricity can supply industry, transport and agriculture, including fertiliser production, during a crisis.

As a NATO member rebuilding its total defence, Sweden has a direct interest in production that serves civilian needs in peacetime and defence needs in crisis and war, for example synthetic drop-in fuels. The strategy should link energy policy with EU defence initiatives so that such dual-use capacity is built in peacetime, and set out the measures needed to secure supply to industry and critical services in a crisis. The revision of the Oil Stocks Directive should allow hydrogen-derived fuels such as eSAF to count towards emergency stocks, phased in as the market matures.

10. Prioritise domestic production and diversify imports

Imports will complement EU production but cannot replace it. Clear targets for domestic production, together with risk-sharing, help coordinate investment in production, pipelines, storage and terminals.

- Apply the same certification and greenhouse gas rules to imports as to EU production.
- Design the international pillar of the European Hydrogen Bank so that it does not crowd out EU projects close to final investment decision.
- Coordinate import corridors with EEA partners such as Norway, and spread supply across several countries and routes to avoid new dependencies.
- Where union-origin requirements are used, limit them to strategic components such as electrolyser and fuel cell stacks, and apply them across the EEA.

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11. Close the gap between demonstration and scale-up

The largest gap in EU funding lies between first demonstration at TRL 6–7 and industrial scale-up at TRL 8–9. The next Multiannual Financial Framework should keep a dedicated and adequately funded hydrogen programme that succeeds the Clean Hydrogen Joint Undertaking. It should combine Horizon Europe with the European Competitiveness Fund to give projects a clear path across that gap, and continue support for hydrogen valleys.

12. End with an implementation plan

The strategy should end with an implementation plan that names priority actions, responsible actors and follow-up dates, and states in which parallel reviews remaining regulatory barriers will be handled, for example the state aid rules and the Energy Taxation Directive. Progress should be measured in investment decisions, plants in operation, signed long-term offtake agreements and the development of the cost gap, alongside the indicators proposed in the call for evidence: the shares of renewable and low-carbon hydrogen and of domestic and imported supply.

Hydrogen Sweden is available to contribute experience from the Swedish and Nordic market.

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