

WEBINAR

Progress in Europe's hydrogen markets

Tuesday 9.12.2025 11:00 - 12:00 CET Online







Introductory remarks 11:00 - 11:05

Riccardo GALLETTA, Team Leader – Emerging Hydrogen Markets, ACER



Housekeeping rules

Please pose your questions using the Slido tool



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This meeting is being recorded

Questions from other participants can be 'liked' to increase their visibility





Slides and recording of this webinar will be uploaded to ACER website



Keep your microphone muted unless the chair gives you the floor

Substance-related questions will be addressed during the relevant Q&A session; although they can be posed at any point





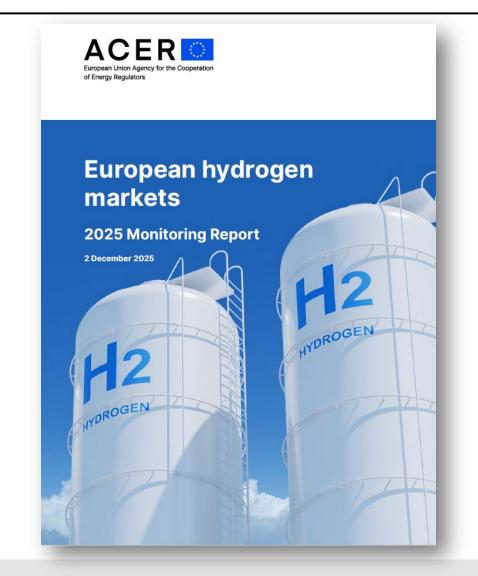


Time	Webinar items	
10:50 - 11:00	Webinar open for log-in	Starts promptly at 11:00
11:00 - 11:05	Introductory remarks Riccardo GALLETTA, ACER	
11:05 - 11:15	2025 Monitoring Report: Conclusions and recommendations Vasilis PAPANDREOU, ACER	
11:15 - 11:35	Panel discussion Moderator: Csilla BARTOK, ACER Panellists:	
	 Pierre DUVIEUSART, H2 MED Geert TJARKS, Clean Hydrogen Coastline Daina MEDDA, SHS-Stahl-Holding-Saar 	
11:35 - 11:55	Q&A	
11:55 - 12:00	Closing remarks Riccardo GALLETTA, ACER	





- Building Europe's hydrogen market from scratch presents significant technical, financial and infrastructural challenges.
- Focused coordination, targeted policy support, and continuous monitoring are essential, if EU is to accelerate deployment and achieve costcompetitive scale.
- Readiness to reassess policy, regulatory, and financial frameworks to ensure they effectively support the market's development is essential.





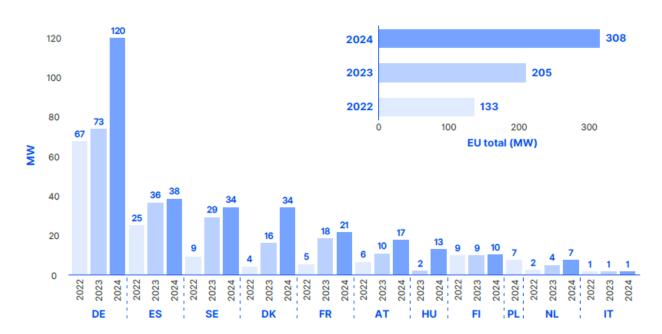
European Hydrogen Markets - 2025 Monitoring Report Conclusions and recommendations 11:05 - 11:15

Vasilis PAPANDREOU, Policy Officer - Hydrogen markets, ACER



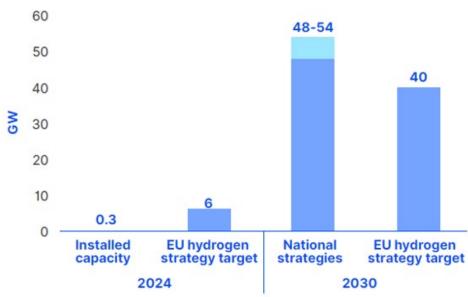
Despite electrolyser capacity growth, EU misses its targets

Installed electrolyser capacity in the EU, 2022-2024 (MW)



Note: The figure presents only Member States with electrolyser capacity over 1 MW.

Installed electrolyser capacity (2024) vs EU targets (GW)



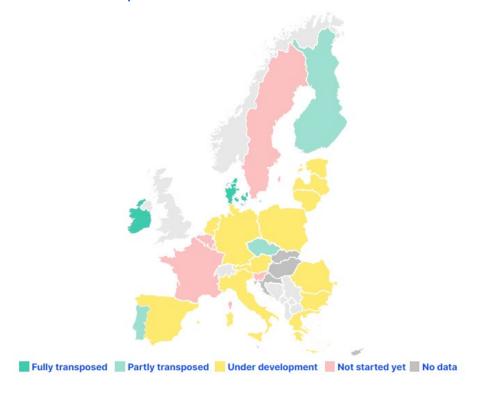
Note: Ranges (light blue) correspond to different assumptions or scenarios in the strategies.

An additional 104 MW of electrolyser capacity came online in 2024 bringing total installed capacity to 308 MW, doubling capacity compared with 2022. Another 1.8 GW is under construction, yet the EU targets remain largely out of reach.

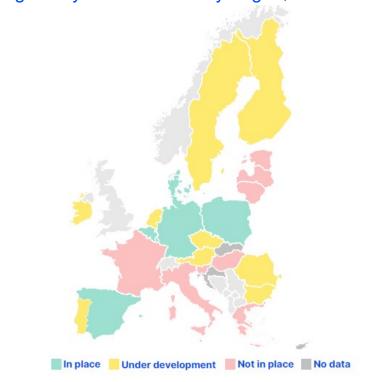


Implementation of the framework is crucial





Regulatory framework for hydrogen, October 2025



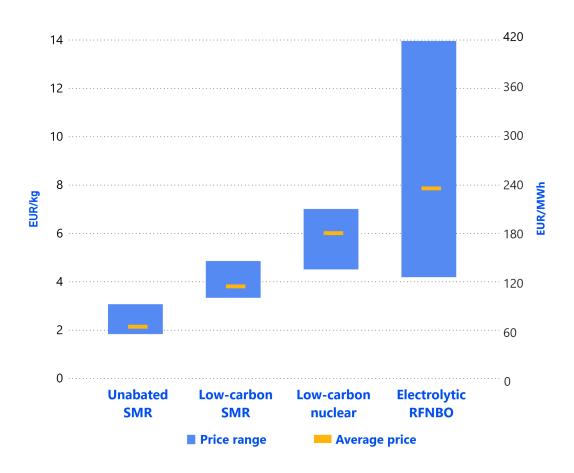
Only 2 Member States have reported the full transposition of the Renewable Energy Directive's (RED III) targets. In 5 Member States a market framework for hydrogen is in place. This level of transposition is insufficient to encourage investors to confidently develop the sector.



Renewable and low-carbon hydrogen is costly

- Cost of renewable hydrogen persistently high (~8 EUR/kg) but with great variations across the EU.
- Cost reduction prospects are uncertain: scaleup for capital cost reduction lagging; renewable electricity cost increases.
- Methane based low-carbon hydrogen comes at half the cost (~4 EUR/kg) but with great uncertainties.
- Cost of nuclear based electrolytic hydrogen can be high depending on electricity supply agreements.
- Near-term prospects of gas and CO₂ emission prices favour fossil hydrogen.

Levelised cost of hydrogen (EUR/kg and EUR/MWh)





Current low transportation costs may not persist

Hydrogen transportation tariffs compared with cost estimates of renewable hydrogen (EUR/kg and EUR/MWh)

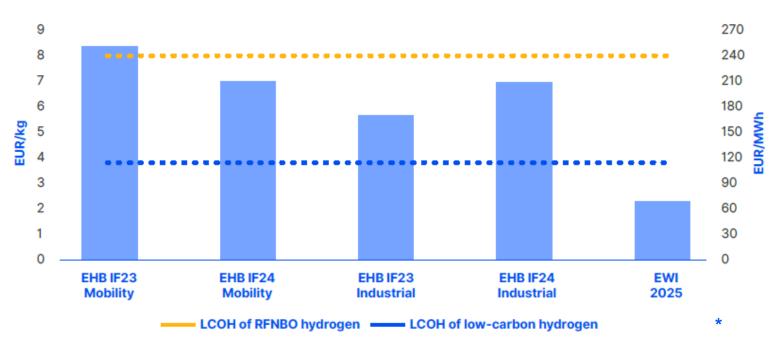


*Based on expected tariffs by the network operator

Current tariffs (in DK, DE, NL) imply that transmission network costs are small compared with the hydrogen production costs. Recent upward transportation costs reviews in NL and DE and future demand uncertainties raise concerns about the stability of the current tariff assumptions.

Some sectors are more ready to absorb costs

Willingness to pay for renewable hydrogen (EUR/kg and EUR/MWh)



EHB IF23: European Hydrogen Bank 2024 auction results EHB IF24: European Hydrogen Bank 2024 auction results

*Range based on the cost of fossil ammonia, methanol and kerosene

Evidence from the European Hydrogen Bank auctions indicates that in some sectors the willingness-to-pay for clean hydrogen is strong, suggesting that focal points for scale up are present.



Key recommendations



Regulatory certainty

Accelerate the transposition and implementation of the amended Renewable Energy Directive to ensure regulatory certainty and accelerate market development.



System decarbonisation

Speed up decarbonisation of the power sector to lower electricity costs and enhance electrolyser utilisation.



Implement legislation

Implement the hydrogen and gas decarbonisation package without delay to facilitate the deployment of infrastructure and a well-functioning hydrogen market.



Market optimisation

Enable flexibility in the electricity market, rethink electricity grid tariffs and grid incentives to optimise electrolyser location and performance.



Targeted investments

Prioritise and target funding toward projects in hard-to-abate sectors that are ready to transition to renewable and low-carbon hydrogen, to stimulate demand.



Risk assessment Assess the risks of low-carbon hydrogen pathways, including its underlying costs, infrastructure uncertainties and lock-in effects, before committing to large-scale deployment.



Infrastructure

Facilitate renewable hydrogen production through faster permitting and grid connection for both electrolysers and renewable electricity projects.



Market certainty

Align hydrogen network development with market realities to manage market uncertainties and reduce the risk of stranded assets.



Panel discussion

Speakers:

- Pierre DUVIEUSART, Deputy Managing Director, NaTran
- Geert TJARKS, Managing Director, EWE HYDROGEN GmbH
- Daina MEDDA, Senior Project Manager and Business Partner for Hydrogen at SHS-Stahl-Holding-Saar GmbH & Co

Moderator:

• Csilla BARTOK, Head of Gas, Hydrogen and Retail Department, ACER



Q&A session 11:35 - 11:55

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Csilla BARTOK, Head of Gas, Hydrogen and Retail Department, ACER





Closing remarks

Riccardo GALLETTA, Team Leader – Emerging Hydrogen Markets, ACER

Thank you for your attention.

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