

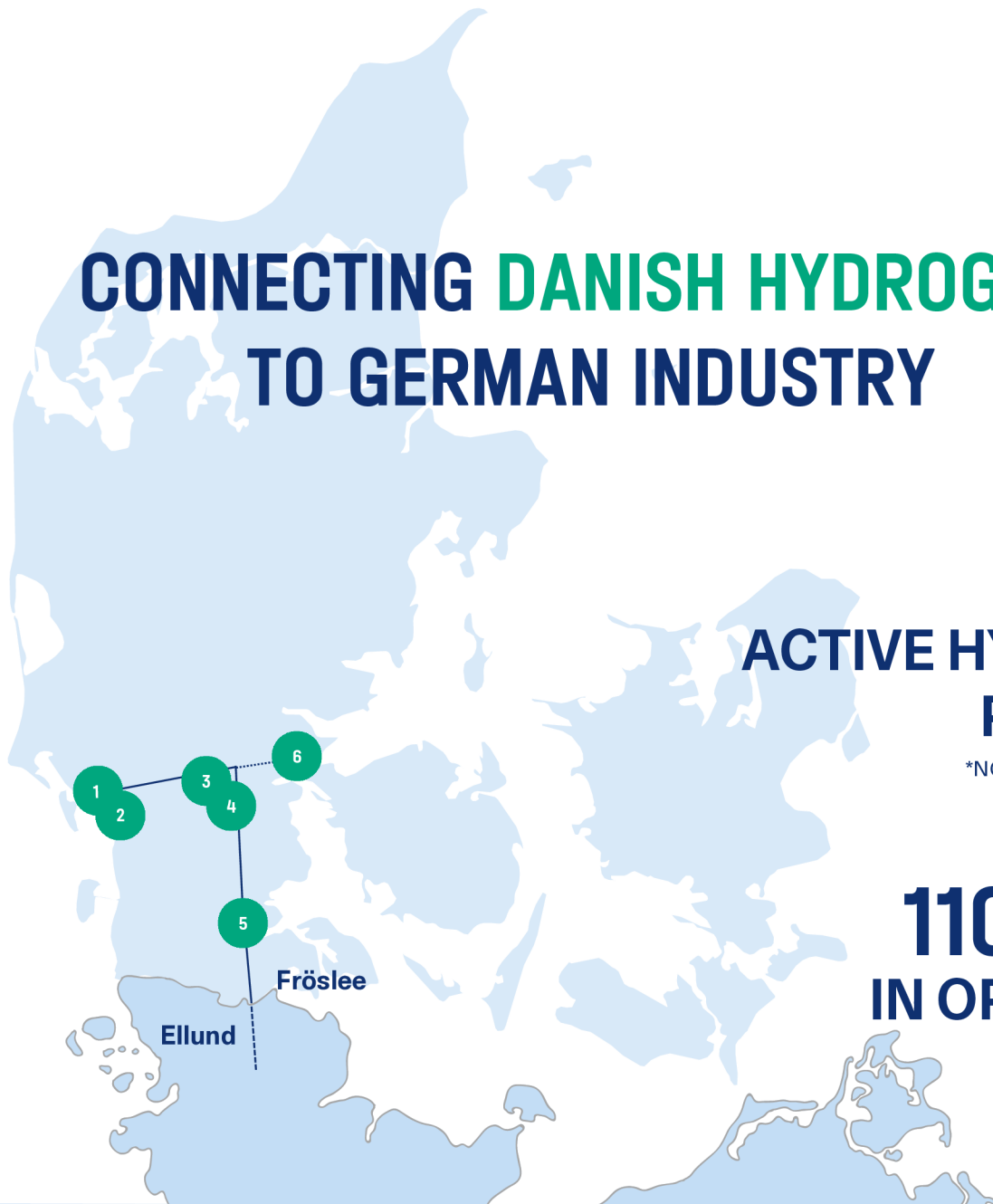
CONNECTING DANISH HYDROGEN TO GERMAN INDUSTRY

39
**ACTIVE HYDROGEN
PROJECTS**

*NOT ALL PIPELINE RELATED

110.1 MW
IN OPERATION

*AS OF APRIL 2026

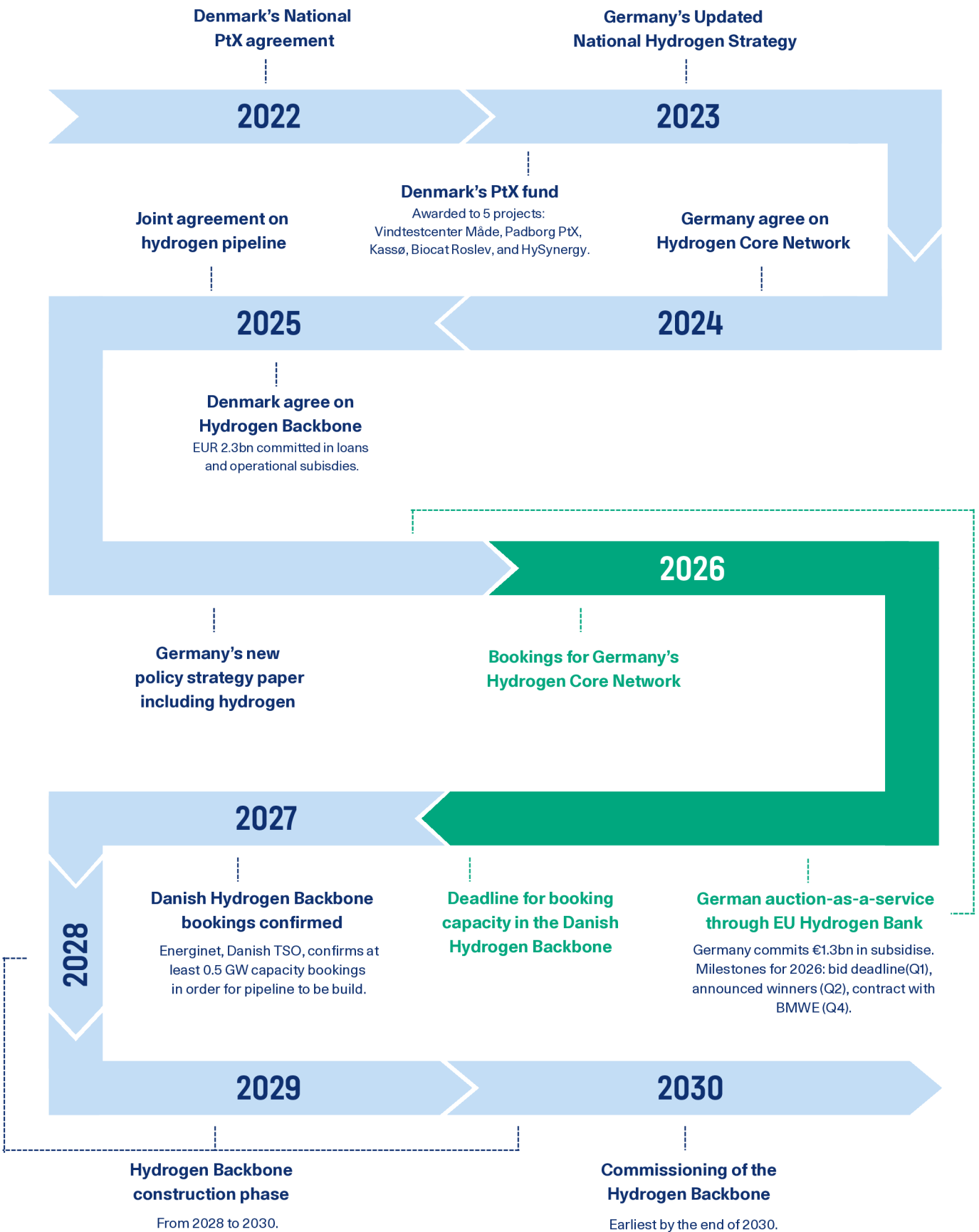


SELECTED PROJECTS

- 1** **Høst PtX Esbjerg**
Planned capacity: ~1 GW MW
Project Owner: CIP
 Set to produce green hydrogen, potentially also ammonia. Majority to be exported via pipeline.
- 2** **Njordkraft**
Planned capacity: 1 GW
Project Owner: MorGen Energy
 Production of green hydrogen from wind and solar. Dependent on hydrogen pipeline.
- 3** **Vidar**
Planned capacity: 200 MW
Project Owner: RWE
 Production of green hydrogen, especially for German industry via pipeline.

- 4** **Frigg**
Planned capacity: ~2 GW
Project Owner: Everfuel
 Production of green hydrogen, especially for German industry via pipeline.
- 5** **Kassø**
Planned capacity: +200 MW
Project Owner: European Energy
 First large-scale commercial e-methanol plant. Supplying 52 MW e-fuel to shipping and industry. Plans to scale, depends on pipeline.
- 6** **HySynergy**
Planned capacity: 300 MW
Project Owner: Everfuel
 Green hydrogen for nearby refinery. Plans to scale, depends on pipeline.

DENMARK-GERMANY HYDROGEN MILESTONES



WHY YOU SHOULD JOIN IN ON THE DANISH-GERMAN HYDROGEN BACKBONE NOW

As Europe navigates increasing geopolitical uncertainty and volatile energy markets, securing stable and affordable energy supply is becoming a priority for refineries and other heavy industries. At the same time, CO₂ taxes and stricter regulations are accelerating the need to decarbonise.

For many industrial applications, green hydrogen is not only a pathway to decarbonisation, but a way to reduce its dependency on imported fossil fuels and strengthen long-term security of supply.

Denmark has extensive pipeline infrastructure ready for retrofitting, a power grid based on approx. 90 percent renewables, and several mature power-to-x projects. Together, this positions Denmark as the most credible supplier of green hydrogen to Northern Germany, offering a unique opportunity to secure a reliable source of RFNBO-compliant fuels by 2030-2033.

Recent energy crises have demonstrated the risks of relying on global fossil fuel markets. A cross-border hydrogen backbone between Denmark and Germany is not just an infrastructure project, it is a strategic asset that strengthens European energy independence and industrial competitiveness.

By securing contracts today, companies can future-proof their operations against rising carbon costs. At the same time, companies can lock in long-term agreements that provide price stability and access to government-supported green hydrogen for decades.

REGULATIONS ARE RESHAPING INDUSTRIAL COMPETITIVENESS

Regulations are not only increasing the cost of carbon, they are reshaping the foundations of industrial competitiveness in Europe. With the gradual phase-in of EU regulations like the EU Carbon Border Adjustment Mechanism (CBAM) and the expanded EU Emissions Trading System (ETS 2), the cost of carbon will increase across energy-intensive sectors. Combined with the EU Renewable Energy Directive (RED III), binding requirements for the uptake of Renewable Fuels of Non-Biological Origin (RFNBOs) in industry and transport must be introduced by EU Member States.

At the national level, additional measures are coming into force, such as Germany's Treibhausgasminderungsquote (THG quota), which sets mandatory greenhouse gas reduction quotas for fuel suppliers.

These regulations will increasingly affect energy-intensive sectors such as refineries, steel, and heavy transport. These heavy industries are difficult to electrify, exposing them to rising carbon prices if they do not transition away from fossil fuels, with non-compliance carrying financial penalties within five years. While green hydrogen is expensive now, the cost of waiting will be higher, and there is no guarantee for similar government support in the future. One of the ways to secure this government support is through the 3rd Hydrogen Bank Auction.

FINANCIAL BACKING IS IN PLACE, MAKING IT THE TIME TO COMMIT

The German government has announced a EUR 1.3 billion fund earmarked to support the import of green hydrogen through the German-Danish hydrogen pipeline, making this a significant opportunity to secure financial backing for green hydrogen projects and bridge the price gap.

For projects to qualify for the auction, there must be an agreement between green hydrogen producers in Denmark and offtakers in Germany, along with a commitment to transport the hydrogen through the Denmark–Germany hydrogen pipeline. Securing contracts between producers and offtakes is crucial for green hydrogen's infrastructure development.

The funding will be managed by the European Hydrogen Bank, established by the European Commission, through the auction-as-a-service mechanism. The funds will be distributed over a period of ten years. However, the final contracts will be signed in the fall of 2026.

BACKING FOR LOW TARIFFS FOR HYDROGEN INFRASTRUCTURE

The Danish Government has committed EUR 925 million in loans and up to EUR 1.42 billion in state subsidies for the establishment of the Hydrogen Backbone 1. These funds will ensure that the financing is sound, and that tariffs for the first users of the pipeline will be kept at a competitive level.

The pipeline will transport green hydrogen produced in Denmark to the German border, ensuring a stable and efficient supply with much lower transport costs than other methods like trucks and ships.

The pipeline will offer a connection point for several active or upcoming green hydrogen producers, including Høst, Kassø, Njordkraft, Esbjerg Power-to-X, and HySynergy, anchoring the infrastructure in concrete and mature production.

Commitment of at least at least 500 MW is required by the end of 2026 to secure the cross-border pipeline with current government subsidies. When built, early movers will benefit from both state funding and a steady flow of RFNBO certifiable hydrogen from 2030.

THE TIME TO SECURE GREEN HYDROGEN IS NOW

With infrastructure underway and state support in place, the conditions for competitive and certified green hydrogen are secured now. Waiting will not only lead to higher carbon costs, but also greater exposure to price volatility and supply insecurity. At the same time, fewer funding opportunities will increase the risk of a more expensive market entry.

Carbon Border Adjustment Mechanism (CBAM)

CBAM applies carbon pricing to selected imports, including steel, cement, and hydrogen. It began in 2023, with full implementation from 2026.

EU Emissions Trading Systems 2 (EU ETS2)

The existing EU ETS is an emissions trading system covering CO₂ emissions from power generation and heavy industry. From 2027 it will extend to buildings and fuel suppliers for road transport.

Renewable Fuels of Non-Biological Origin (RFNBOs)

RFNBOs are fuels for transport and industry produced from renewable electricity, not biomass. Examples include green hydrogen, e-methanol, and e-ammonia.

Renewable Energy Directive (RED III)

RED III is the 2023 revision of the EU Renewable Energy Directive. It sets a binding target of a 42.5 percent share of renewables in the EU energy mix by 2030 and requires at least 42 percent of hydrogen used in industry to be RFNBO-based.

Treibhausgasminderungsquote (THG Quota)

The THG Quota is a German regulation requiring a 25 percent reduction in lifecycle emissions from fuels by 2030. Fuel suppliers must either reduce emissions or purchase credits from low- and zero-emission fuel producers, such as green hydrogen.