

The German-Danish Offtake Declaration on green hydrogen

Joint statement on the industry cooperation between Danish producers and suppliers of green hydrogen, and the German industrial offtake market

The German-Danish Green Hydrogen Summit
November 27th, 2023



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World leading green hydrogen market based on German offtake and Danish production

We, the Danish and German signatories, are committed to developing a world-leading green hydrogen market. We strongly believe that green hydrogen and its derivatives have the potential to play a significant role towards a net-zero emission economy. Combined, Denmark and Germany have all the necessary capabilities to provide electrolysis, develop production, transportation, and use of large-scale green hydrogen before 2030. We recognize the urgent need for developing hydrogen offtake and infrastructure to facilitate the development of green hydrogen from e.g., offshore wind in the North Sea and land-based wind and solar.

The Danish and German industries are ready to deliver on both EU and national green hydrogen targets. The availability of competitive green hydrogen, at scale, in time, is key in fueling the transition. Future access to sufficient and affordable green hydrogen is crucial to the green transition, maintaining competitiveness, securing green industry jobs and security of supply in Europe.

The surrounding waters to Denmark and Germany hold a massive potential for offshore wind, and according to the Esbjerg and Ostend Declarations, thus turning our countries into a green European power plant, supplying green hydrogen to German and European industries. We believe our combined capabilities from developing and integrating green energy can be replicated on a large scale with renewable energy- and electrolysis technology.

European 2030-visions for green hydrogen need strong leadership now

The European target on renewable hydrogen production in REPowerEU is 10 million tons (330 TWh hydrogen) in 2030. The existing German industrial hydrogen demand is the largest in any European country (55 TWh yearly), and the long-term German hydrogen demand is projected to increase significantly towards 2050. The German national hydrogen strategy states a demand for imports of 45-90 TWh hydrogen by 2030, and 1 million tons (30 TWh) nationally produced hydrogen. Hence, the industrial users in Germany hold a unique opportunity to lead the way towards a large-scale green hydrogen market with associated significant CO₂ reductions.

The Danish-German region around the North Sea can become a European hotspot for green hydrogen, as all prerequisites are in place in the form of great renewable energy potential, especially offshore wind in the North Sea, electrolyser manufacturing capacity and technological know-how on hydrogen and its derivatives, and existing and new hydrogen demand. On the Danish side, the grid adjacent to the North Sea is expected to be 90% renewable from 2028 and onwards, thus being capable of delivering certified green hydrogen.

If Europe wants to deliver on the common EU climate targets and promote European energy security and sustain our industry position by meeting the targets of the REPowerEU plan and the Net Zero Industry Act, national governments must help to kickstart the green hydrogen offtake market. The demand pull will then drive the development of innovative technologies and reduce costs within e.g., electrolysis – an area where both Germany and Denmark are well placed.

Call for a Danish-German hydrogen infrastructure in 2028, ramping-up of electrolyser capacity, and additional funding to accelerate market offtake

To realise these potentials, deliver on the EU and national targets, and sustain Northern Europe as an industrial hot spot for green energy transition, we call for the German and Danish governments to advance the intended hydrogen infrastructure and the MoU, connecting our two countries' supply and demand side by 2028. The final investment decision of the cross-border hydrogen infrastructure must be taken in the middle of 2024 to realise the deployment of the announced hydrogen infrastructure capacity between Germany and Denmark by 2028.

Further, the industry calls for a structured roadmap of increased EU and national funding to help close the price gap on green hydrogen in the immature market. The financial support should reflect the remaining volume needed to reach the EU target of 10 million tons hydrogen production by 2030 considering already assigned national aid for green hydrogen.

This entails support for industry to install the necessary electrolyser capacity of currently estimated 100 GW as well as sustainably build a stable and reliable value chain. Further, additional support should open opportunities for cross-border projects to participate and facilitate intra-European trade of green hydrogen and its derivatives and promote the need of a European Hydrogen backbone.

