AquaVentus Förderverein e.V.
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Position

German-British Hydrogen Partnership – A European impetus for energy sovereignty and industrial transformation

The UK is a natural partner in Germany's energy transition

With the Hydrogen Acceleration Act, the new federal government is making a clear commitment not only to want the market ramp-up, but also to make it possible. In this way, Germany is living up to its natural role of becoming a global pioneer in the use of hydrogen – as it is also enshrined in the National Hydrogen Strategy. The previous governments have already set the course for this, such as the development of a hydrogen core network.

This paper aims to address the possibilities of international cooperation, especially cooperation with the windy United Kingdom.

As part of the German-British Hydrogen Partnership, the German Federal Ministry for Economic Affairs and Energy (formerly BMWK, now BMWE) and the British Department of Energy Security and Net Zero (DESNZ) recently presented the results of the joint planned feasibility study on hydrogen trading. This study underlines the potential of cross-border hydrogen trade between Germany and the United Kingdom and lays the foundation for deeper European cooperation in the hydrogen sector.

AquaVentus and its members see this partnership as a unique opportunity to advance the energy transition, strengthen the energy sovereignty of both countries and transform the European continent economically. The following position paper shows why this path must be pursued further.

Summary

The German-British cooperation offers unique opportunities for the energy transition, the energy resilience of both countries and the European continent. Based on the comprehensive feasibility study presented, we are in favour of intensified European cooperation.

Thinking about the hydrogen market ramp-up in a European way: The production and use of hydrogen must be thought of in a European way. The networking of producers and buyers across national borders is essential for a successful market ramp-up.

Consistently continue sector coupling: Hybrid connection concepts that integrate both electricity and hydrogen grids create the necessary flexibility for future energy requirements and enable the efficient use of renewable energies as well as cost-effective grid expansion.

From the national core network to the European hydrogen backbone: Projects such as AquaDuctus serve as the nucleus for a pan-European hydrogen network that will have a lasting impact on Europe's energy infrastructure.

Political rapprochement for common energy security: Close cooperation between Germany and the United Kingdom in the hydrogen sector strengthens political and economic ties and promotes European energy security and independence.

Through joint hydrogen production and infrastructure projects, we can leverage the UK's significant renewable resources and Germany's strategic hydrogen storage and consumption capabilities, diversify energy imports for de-risking, and strengthen Europe's energy security.

AquaVentus expressly welcomes the openness of the German government not only to seek alternative sources for the procurement of hydrogen in support of the ramp-up of the hydrogen market, but also to think about a viable infrastructure for transport. In particular, the partnerships in the North Sea region are supported by AquaVentus and its more than 100 members and jointly share the vision of the "Green Power Plant North Sea".

Germany's central role as the continent's largest industrial nation and central hub for the transfer of gaseous energy sources must be to drive forward the decarbonisation of key industries: economically, Europeanly, technologically feasible.

As an initiative dedicated to the guiding values of energy, value creation, security of supply, climate protection and, last but not least, affordable energy prices, we see the following points as central levers.

Energy resilience

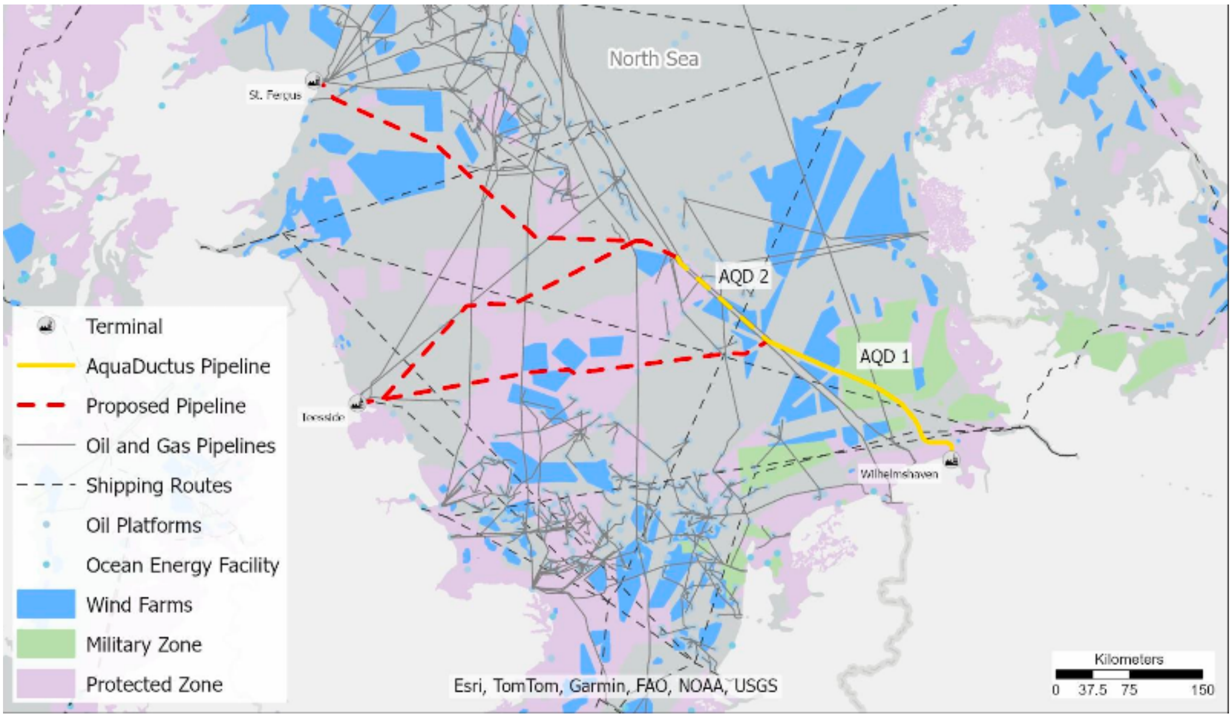
The current geopolitical situation shows the vulnerability of existing energy supply systems. Close German-British cooperation in the hydrogen sector can help reduce dependence on energy imports and increase the energy security of both countries. The development of a common hydrogen infrastructure can ensure security of supply and price stability.

Excursus from the study "UK-Germany Joint Feasibility Study on the Trade of Hydrogen" quoted from page 34 in the section "2.4 UK Export Opportunity":

„The UK has a significant opportunity to become a major exporter of low-carbon hydrogen in the future, driven by ambitious production targets and strong European demand. The UK's strategic geographic position and access to offshore wind resources further enhance its

potential as a key future hydrogen supplier to Europe. (…) This opportunity is further bolstered by the estimated competitive nature of the UK's Levelized Cost of Hydrogen (LCOH) (…) indicating that UK hydrogen production could be economically viable against other emerging hydrogen markets globally."
„Furthermore, the UK's geographical proximity to Europe enhances the cost-effectiveness of hydrogen transportation via pipeline, making its Levelised Cost of Transport (LCOT) competitive with that of other international markets, including those in the Americas, China, and Australia."

Security of supply: Germany's expected import dependence (50-70% of hydrogen demand) can be addressed by UK exports, stabilising supply.
Price stability: The geographical proximity and low LCOH/LCOT make British hydrogen a price-competitive option against global markets.



Source: Study „UK-Germany Joint Feasibility Study on the Trade of Hydrogen, Page 106

Common Infrastructure – Hydrogen Backbone

An efficient onshore and offshore pipeline infrastructure is the backbone of a functioning, cross-border hydrogen market between Germany and the UK. This is also a result of the feasibility study commissioned by BMWE and DESNZ [source, publication date].
Only through the rapid expansion and connection of British production sites to the continental European hydrogen network, specifically via the AquaDuctus pipeline, can the UK's potential as a reliable exporter of green hydrogen be exploited. The connection of both energy markets

via pipelines strengthens supply independence and security, increases system efficiency through cross-sectoral synergies and significantly supports the European goal of a decarbonised industry. Germany should therefore actively advocate for a joint energy dialogue and concrete infrastructure projects that enable the development of an integrated, resilient internal hydrogen market.

Sector coupling / Common European Energy Market

The integration of hydrogen into various sectors – from industry to transport to heat supply – requires a close integration of electricity and gas infrastructures. Only through an overall systemic view can the energy from offshore wind be used efficiently and distributed across various infrastructures. Especially in connection with the British and Scottish offshore wind potential, it is crucial not only to consume wind power locally, but to convert it into usable forms of energy such as green hydrogen and feed it into a pan-European market.

Great Britain has excellent conditions for offshore wind – the North Sea acts as a common energy space here. To leverage this potential, a cross-border strategy is needed: The electricity from British wind farms can be converted into hydrogen by offshore electrolysis plants, which is then transported via a European pipeline infrastructure – for example along the AquaDuctus route – to industrial centres on the European mainland. For Germany in particular, this results in a new quality of security of supply and enables effective derisking: As a central customer region with energy-intensive industries – such as the steel, chemical or cement industries – a large, reliable customer market can be created if regulatory and infrastructural conditions are created.

This strategic orientation is fully in line with the paper "A renewed agenda for European Union – United Kingdom cooperation. Common Understanding" of May 2025, in which point 22 mentions "cross-border sector integration as the key to the economic scaling of the European hydrogen market". Article 20 of the German-British Treaty of Friendship (Kensington Treaty) of 17 July 2025 also emphasises the importance of the "mutual complementarity of generation capacities" and the need for the joint "development of infrastructure in the areas of offshore wind energy, electricity, hydrogen and carbon dioxide".
Linking the sectors across national borders not only increases system efficiency, but also opens up new economic opportunities: companies can transform production processes while at the same time achieving security of supply and climate protection – in a European way, economically sensible and technologically feasible.

Pan-European research

Research in the field of hydrogen must not stop at national borders. If Europe wants to play its role as a global technology leader in the field of renewable energies and the hydrogen economy, it needs a joint effort. The results of scientific work and technical developments should be brought together in a pan-European research pool, made openly accessible and jointly developed. This is the only way to leverage synergies, shorten innovation cycles and avoid unnecessary parallel developments.

This also includes a readjustment of the funding landscape: research and development funding should not be organised at national level, but should be coordinated throughout Europe. Projects that are carried out in close cooperation between several European partners must be given preferential treatment over national projects.

We are also committed to a central European coordination office – for example in the form of a European Hydrogen Representative. This body could strategically coordinate member states' activities, avoid duplication of structures and ensure that Europe moves forward together in key technologies such as electrolysis, storage, transport and use of hydrogen.

The common market, joint research and shared responsibility for the transformation of the energy system – all this makes European cooperation a prerequisite for success.

What we have to do in Germany

- **Deployment of the hydrogen core network:** The rapid implementation of the planned hydrogen core network is crucial for the integration of renewable energies and the development of a European hydrogen market.
- **Hybrid connection concepts in the WindSeeG:** The hybrid connection concepts agreed in the coalition agreement and the inclusion of cross-border hydrogen pipelines should be anchored in the Offshore Wind Energy Act (WindSeeG) as soon as possible in order to create a consistent legal framework.
- **European land development plan:** The planning of land for offshore wind and hydrogen projects should be coordinated at European level to ensure optimal use of resources and efficient infrastructure development.

AquaVentus and its member organisations stand ready to actively shape the German-British hydrogen partnership and drive forward the development of a sustainable, safe and competitive hydrogen economy in Europe. We invite all relevant stakeholders to work together on this vision and take the necessary steps for its successful implementation.

ABOUT AQUAVENTUS

The AquaVentus initiative aims to produce one million tonnes of green hydrogen per year from wind energy on the North Sea and transport it to land by pipeline. More than 100 companies, organisations and research institutes along the entire value chain have joined forces to create the framework conditions for the installation of 10 gigawatts of green hydrogen generation capacity from offshore wind energy in the North Sea across Europe and to build the necessary transport infrastructure. Due to its climate-neutral production and storability, green hydrogen is the key to decarbonizing energy-intensive industries that cannot be electrified – and thus an important factor for a green energy transition and the energy sovereignty of an entire continent.

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