

May 16, 2024  
 Uta Kull  
 Phone: +49 561 934-3636  
 Fax: +49 561 934-1208  
 presse@gascade.de

## ■ PRESS RELEASE

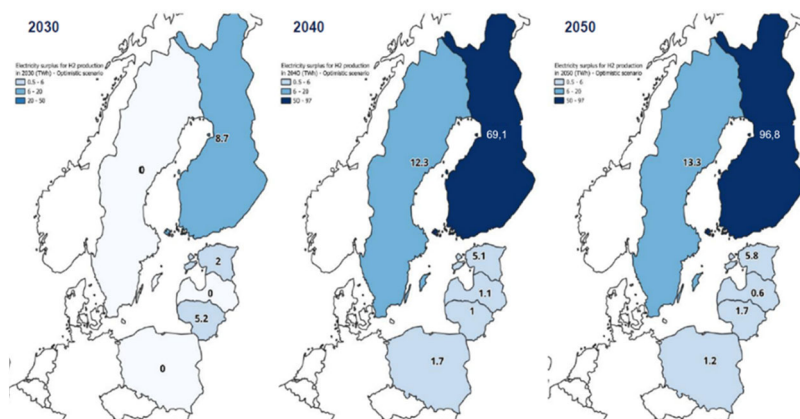
### DNV study: High potential for hydrogen in the northern Baltic Sea region

*Finland could become an important hydrogen supplier for Germany - a combination of offshore and onshore pipeline as optimal transport infrastructure*

**Kassel.** Not only the North Sea, but also the Baltic Sea region holds considerable potential to produce cheap, green hydrogen, which could be a significant contribution to the diversification of sources and energy independence in Europe. This is the conclusion of the new DNV study "Potential for a Baltic Hydrogen Offshore Backbone".

The EU estimates the demand for climate-neutral hydrogen in 2050 at up to 2,000 terawatt hours (TWh). Part of this hydrogen could come from onshore wind farms in the Baltic Sea region. While the DNV Study saw high potential for offshore production [\[LINK\]](#) of hydrogen in the North Sea (especially in areas more than 100 km from the coast), onshore hydrogen production in the Baltic Sea region is more favorable in neighboring countries.

Finland in particular could become an important hydrogen supplier: The export potential is 70 TWh of hydrogen per year in 2050, which corresponds to around 2.1 million tons of hydrogen. Due to its high proportion of renewable electricity in the power grid (compliance with RED III criteria), production costs (LCOH = levelized cost of hydrogen) of around €2.5/kg H<sub>2</sub> can be achieved in Finland. In combination with favorable pipeline transport through the Baltic Sea, the system costs for green hydrogen are around €3/kg H<sub>2</sub>.



According to GASCADE analyses, this would be half the cost assumed for hydrogen derivatives such as ammonia. Transported to Germany by ship, estimates here assume approx. 6 €/kg H<sub>2</sub>.

**Graphic:** Surplus calculation for the Baltic region: Determination of the electricity (in TWh<sub>el</sub>) that would be available for the production of H<sub>2</sub> for export in the respective country.

The study sees less production and export potential in Sweden, based on the current relatively low expansion targets for renewable energies in an already largely decarbonized environment.

The Baltic Sea region is favorable as a stable source not only from a geopolitical point of view: "If we know about such a large and comparatively inexpensive potential right on our doorstep, it would be criminal not to exploit it," emphasises GASCADE Managing Director Ulrich Benterbusch regarding to the need for energy supply security in the emerging hydrogen market.



An offshore pipeline connection between the production sources and Germany presents itself as a comparatively inexpensive alternative for transportation:

In view of the transport infrastructure and the expected volumes, the study recommends a combination of offshore and onshore pipelines to diversify the connection. An offshore pipeline starting in Finland can not only transport quantities of the green hydrogen produced there. It can also potentially collect the produced energy carrier along the route, for example on the Åland Islands, Gotland and Bornholm. The onshore route runs via the Baltic states and Poland.

The construction of such a combined transport infrastructure requires investment costs of around €12 billion.

*Graphic: Combined hydrogen infrastructure in the Baltic Sea region*

Quantities from this import corridor could be transported in Germany via the hydrogen project **Flow - making hydrogen happen**. It is part of the German hydrogen core network and is set to go into operation in a first step in 2025.

## About GASCADE

GASCADE Gastransport GmbH operates a gas pipeline network throughout Germany. The Kassel-based transmission system operator offers its customers modern and competitive transport services for natural gas and, in future, other gases in the heart of Europe via its own high-pressure pipeline network, which is around 3,700 kilometres long. GASCADE is pursuing the goal of successively converting its pipeline network to transport hydrogen and is therefore active in several onshore and offshore hydrogen projects.

## About DNV

DNV is the independent expert in risk management and assurance, operating in more than 100 countries. Through its broad experience and deep expertise DNV advances safety and sustainable performance, sets industry benchmarks, and inspires and invents solutions.

Whether assessing a new ship design, optimizing the performance of a wind farm, analyzing sensor data from a gas pipeline or certifying a food company's supply chain, DNV enables its customers and their stakeholders to make critical decisions with confidence.

■ Driven by its purpose, to safeguard life, property, and the environment, DNV helps tackle the challenges and global transformations facing its customers and the world today and is a trusted voice for many of the world's most successful and forward-thinking companies.

## In the energy industry

■ DNV provides assurance to the entire energy value chain through its advisory, monitoring, verification, and certification services. As the world's leading resource of independent energy experts and technical advisors, the assurance provider helps industries and governments to navigate the many complex, interrelated transitions taking place globally and regionally, in the energy industry. DNV is committed to realizing the goals of the Paris Agreement and supports customers to transition faster to a deeply decarbonized energy system.

Learn more at [www.dnv.com](https://www.dnv.com)