



GASCADE



HYDROGEN TRANSPORT INFRASTRUCTURE

A PAN-EUROPEAN APPROACH

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WE SUPPLY
GERMANY.
AND CONNECT
EUROPE.

Agenda

- I. German H₂ Core Network and GASCADE's projects in the Core Network
- II. Northern H₂ import corridors
 - I. H2-Corridor UK-GER (incl. AquaDuctus)
 - II. Baltic Sea Hydrogen Collector



I. German H₂ Core Network & GASCADE'S projects

I. German H2 Core Network

Core Network Design



LARGEST hydrogen grid in Europe:
~ 9,000 km until 2032 / **EUR 19 billion** investment



EUROPEAN
interconnection points to 8 German neighbouring countries

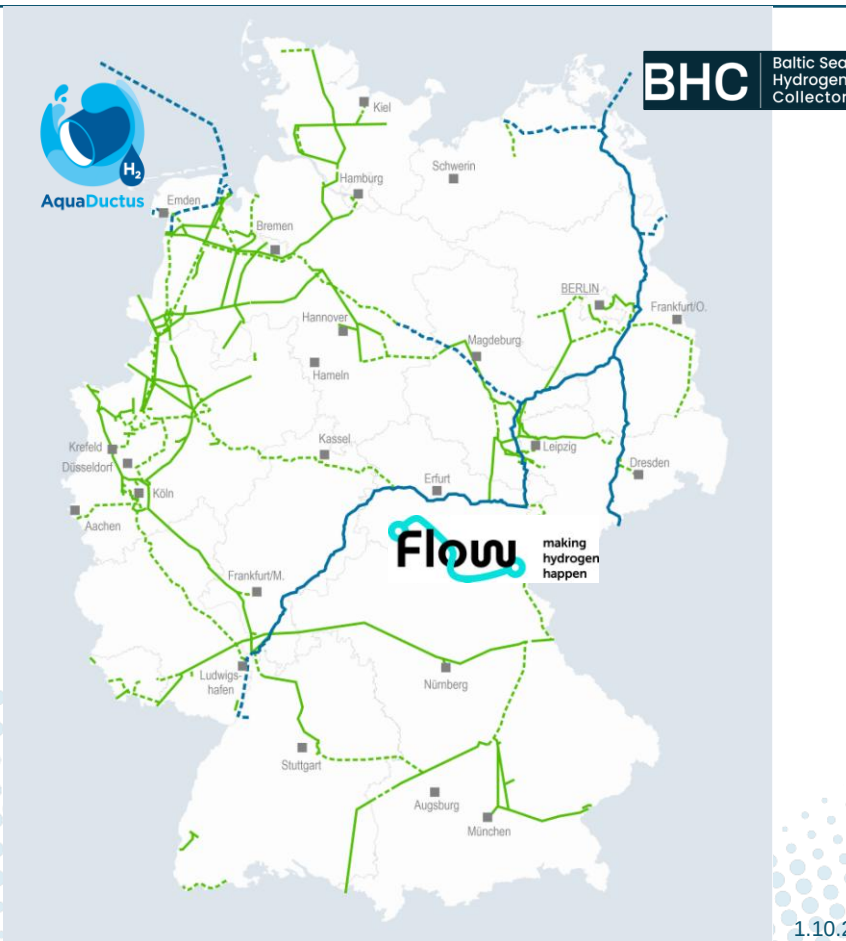


SUSTAINABLE
around **60%** of the core network consists of **repurposed pipelines**



FAST
The first pipelines are being put into operation in **2025**





I. GASCADE's projects in the German H2 core grid

- **FLOW – making hydrogen happen**
 - 1.107 km onshore repurposed
 - 494 km onshore new-built
 - Partner: GASCADE, ONTRAS, terranets bw
- **AquaDuctus (section 1)**
 - 200 km offshore new-built
 - 100 km onshore new-built
- **Baltic Sea Hydrogen Collector (BHC)**
 - 56 km offshore new-built
 - Partner: Gasgrid Finland, Nordion Energi, Copenhagen Infrastructure Partners

- GASCADE repurposed
- - - GASCADE new-built

Projects of other German TSOs:

- Repurposed
- - - New-built

II. H₂ import corridors



BHC

Baltic Sea
Hydrogen
Collector

II. Hydrogen import corridors

GASCADE focuses on developing the northern offshore H₂-import corridors

1. North Sea

A: H₂-imports from UK

Cooperation project with National Gas

B: Offshore H₂-production in the North Sea

Supporting development of offshore H₂-production

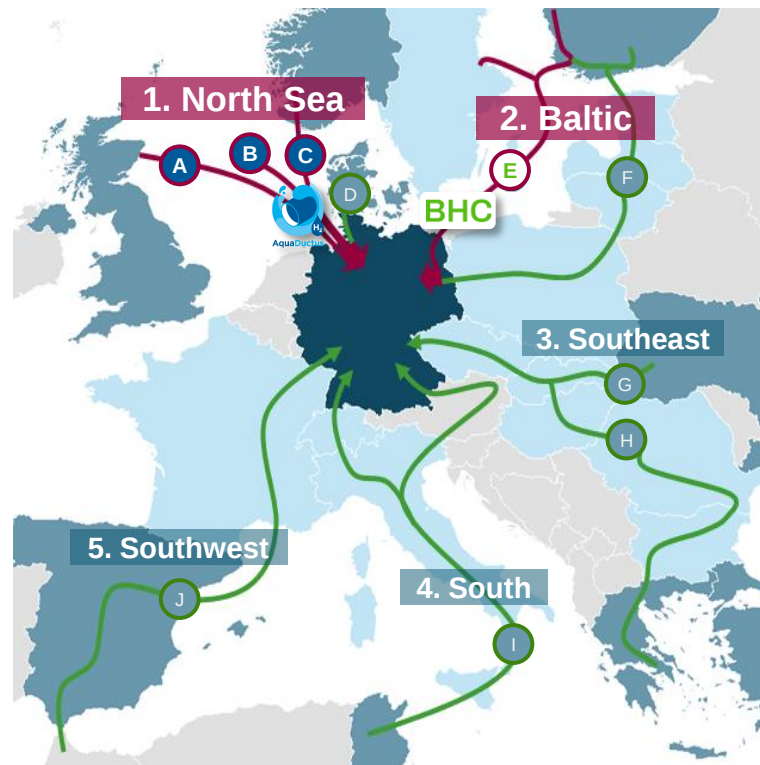
C: H₂-imports from Norway

currently on hold

2. Baltic Sea

E: H₂-imports from Finland

Baltic Sea Hydrogen Collector (BHC)



II. Hydrogen import corridors

H2-Corridor UK-GER

- **May 2025: MoU signed between GASCADE and National Gas**
- **Objective:** Deliver green and low-carbon hydrogen produced in the UK to the German and EU hydrogen markets
- The H2-Corridor UK-GER shall be implemented via an **offshore hydrogen pipeline** between UK and GER.
 - Section 1: UK mainland till end of UK EEZ
 - Section 2: GASCADE's AquaDuctus project
- Approx. 600-800 km Offshore pipeline with capacity for up to 20 GW of H2
- Planned bidirectionality
- TYNDP 2026 application in preparation, PMI status to be applied for in 2026



III. Hydrogen import corridors H2-Corridor UK-GER



AQUADUCTUS – PROJECT OVERVIEW

Pipeline Capacity: up to 20 GW (48 inch pipe)

Planned COD: 2030



AquaDuctus Section 1

- 200 km Offshore new-built till SEN-1 wind park (1 GW)
- 100 km Onshore new-built till GER-NL border
- Approval as part of German core grid in 10/2024
- IPCEI-funding (65%) received in 12/2024
- PCI-Status (CEF-Funding eligible) 2023-2025

AquaDuctus Section 2

- 200 km Offshore new-built from SEN-1 till end of German EEZ (exclusive economic zone)
- Connection to further integrated (H2 + power) wind farms in the zones 4 and 5 of the EEZ
- Connection to adjacent offshore H2-pipelines
- PCI-Status (CEF-Funding eligible) 2023-2025

II. Hydrogen import corridors

Baltic Sea Hydrogen Collector (BHC)

The Baltic Sea Hydrogen Collector (BHC) is an **offshore hydrogen pipeline** connecting Finland and Sweden to central Europe



- Section A: **Finland to Germany (German-Danish EEZ boarder)**
- Section B: **Sweden to Finland**, as well as Åland and Gotland
- GASCADE's **Core grid project** (German landfall to EEZ boarder)



Potential to add connections to **Denmark, Poland** and the **Baltics**



~1,250 km pipeline system with an annual transport capacity of up to **150 TWh** or **4.5 - 5 million tons of hydrogen**



The pipeline system is planned to be **bi-directional**



PCI status & CEF funding support (15.3 MEUR) by the European Commission



One of the **most promising European hydrogen transport corridors**; directly connecting into Flow – making hydrogen happen





Thank you very much!

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[Website](#)

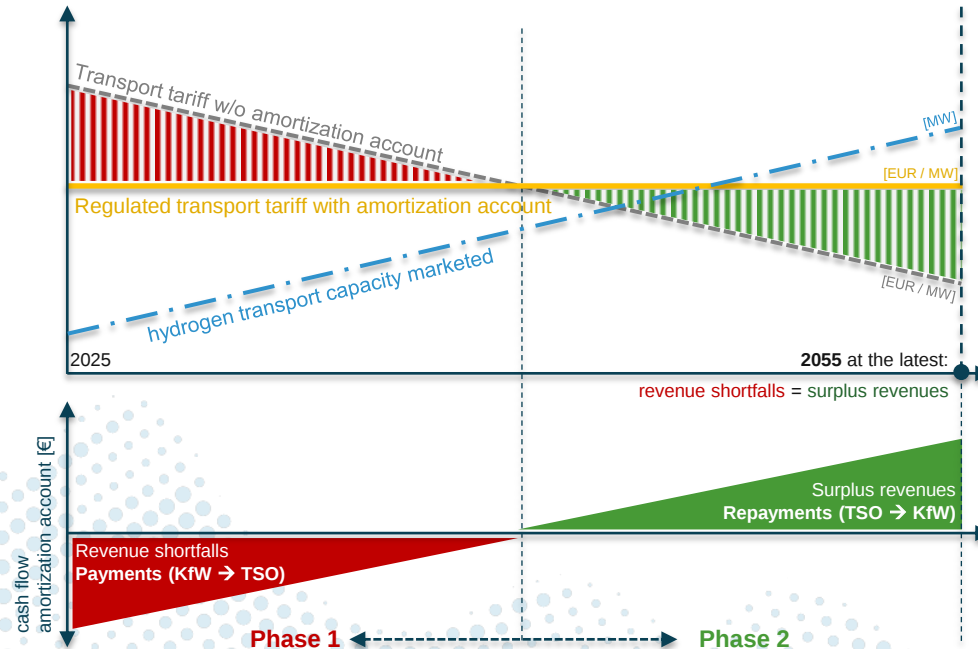


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Back-Up

I. European Hydrogen Backbone & German Core Network

Intertemporal cost allocation by establishing an amortization account



Schematic illustration based on EMI Impulse Paper: Green transformation needs investment [03/2024]

Private sector financing by TSO:
tariffs combined with a **state guarantee**

Compensation of initial revenue shortfalls by subsequent surpluses

Spreading the investment costs over 30 years to enable a **competitive transport tariff from the beginning** and during market ramp-up

Without this de-risking instrument, TSO would not be able to build up the H₂ pipeline network due to prohibitively high tariffs and a **lack of bankability**

Role model for de-risking European cross-boarder hydrogen infrastructure projects?