

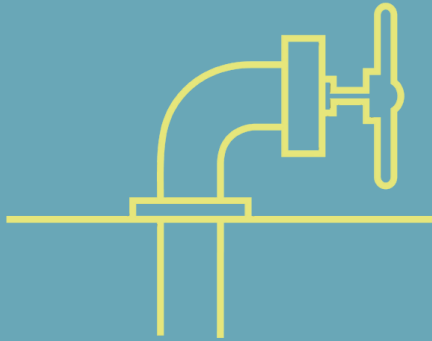
GAS STORAGE DENMARK

CREATING VALUE THROUGH
HYDROGEN STORAGE

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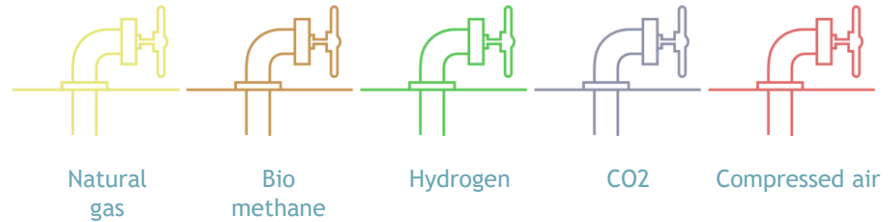
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SINGLE-COMMODITY NATURAL GAS STORAGE

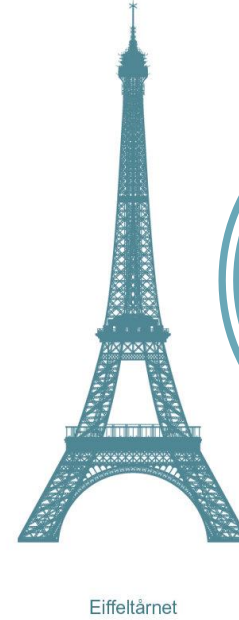
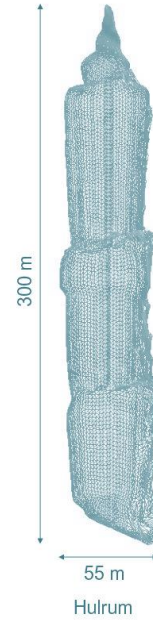


Economy-of-scale

MULTI-COMMODITY ENERGY STORAGE



Economy-of-scope



Storage Enables the value chain

Production of green hydrogen driven by renewable energy

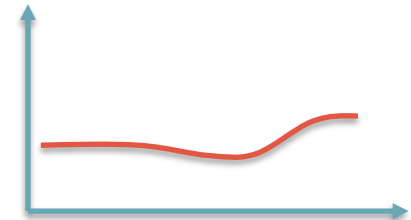
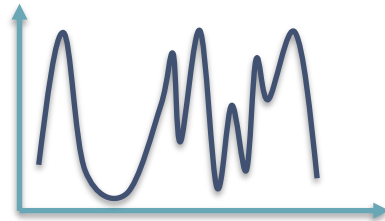
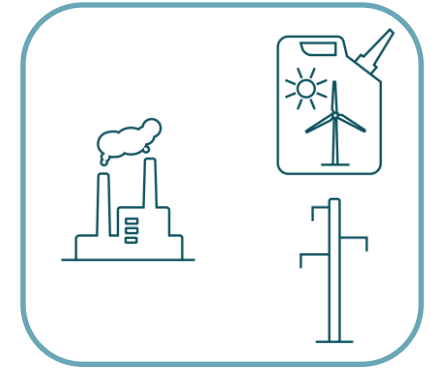
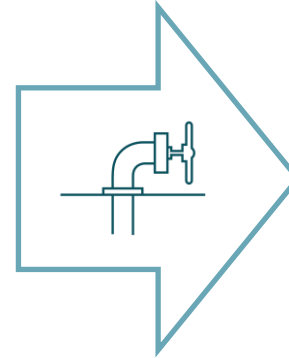
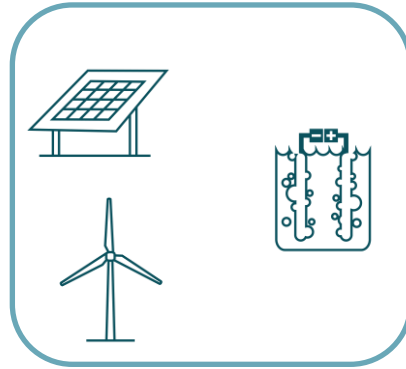
➤ Volatile and unpredictable

Profile of hydrogen demand depends on setup and customers

➤ Continuous and predictable

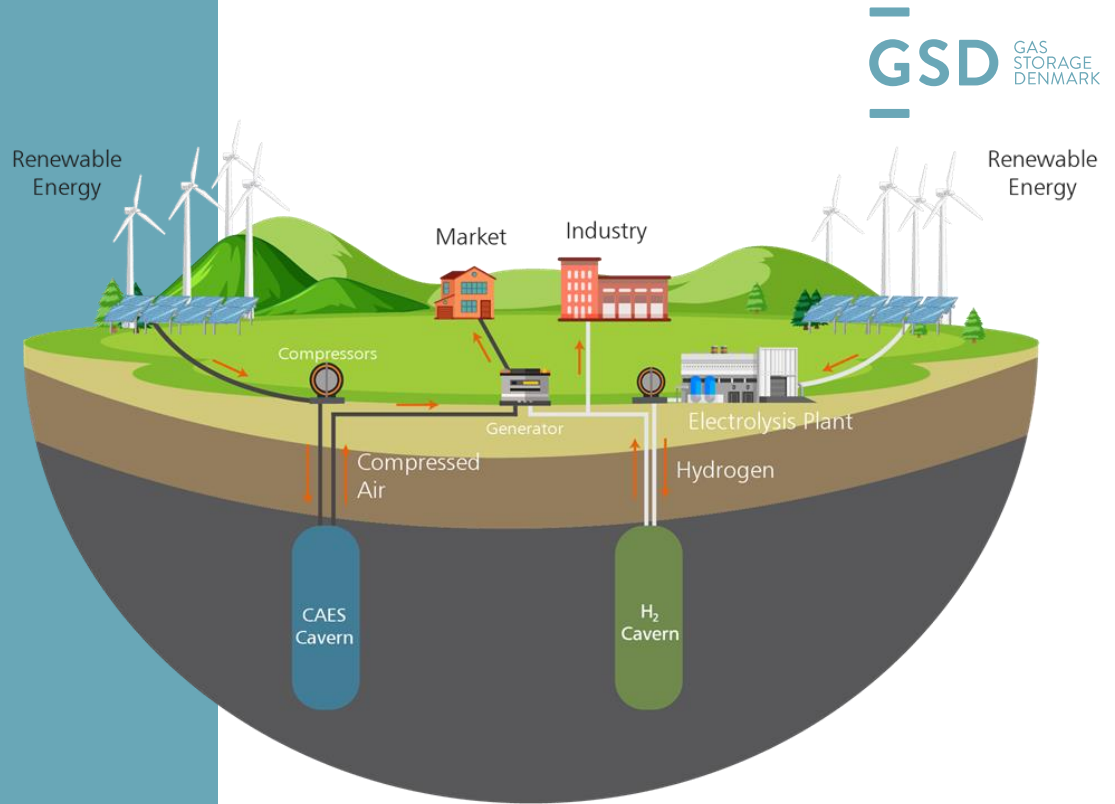
Storage balances the value chain

➤ high utilisation and security of supply

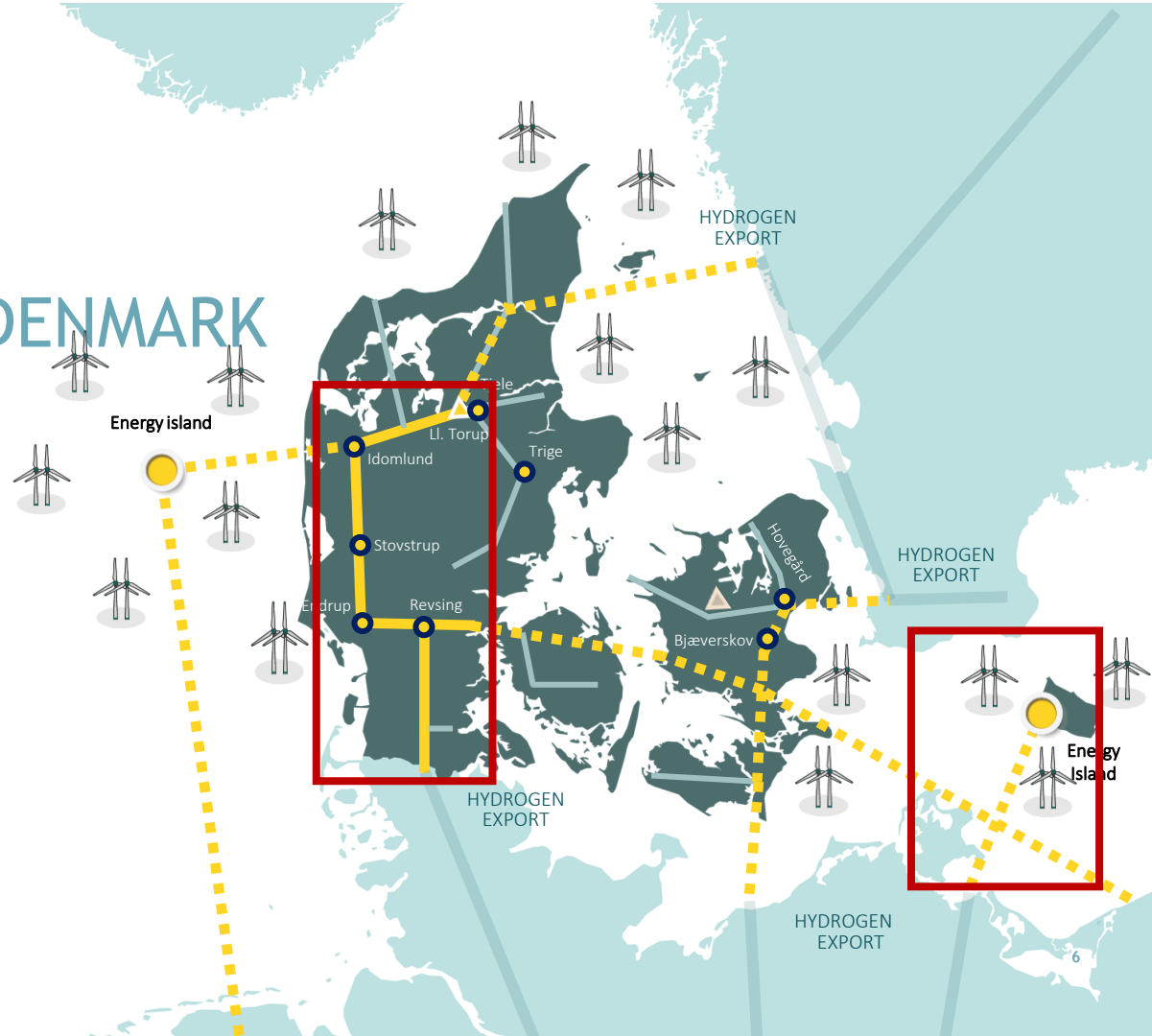
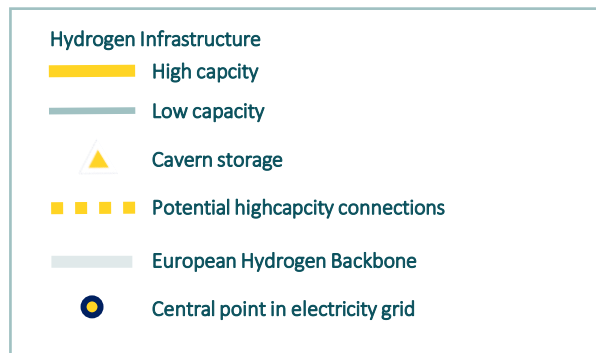


GREEN HYDROGEN HUB DENMARK

- First of its kind
- Power-2-X - Power-2-Power
- Public-Private innovation partnership
- Large-scale, long-duration renewable energy storage



POTENTIALS FOR HYDROGEN INFRASTRUCTRE DEVELOPMENT IN DENMARK



GAS STORAGE DENMARK

PLANS FOR ONSHORE

CO₂ STORAGE IN STENLILLE

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STENLILLE
UNDERGRUND



PHASE 1: ULTIMO 2025

Technical solution

- Conversion of an existing observation well into a CO₂-injection well
- Top site designed for truck delivery of CO₂ in liquid form

Purpose:

- Fast-track project with the aim to establish a knowledge-base through early experience and provide the basis for development of new CCS value chains
- Knowledge-sharing with the market
- Stepping stone for phase 2

Project details:

- Total volume capacity: +10 MT
- Yearly injection capacity: 0,2-0,3 MT

- 10-year capacity contracts expected

PHASE 2: 2027/2028

Technical solution:

- Establishment of two new CO₂-injection wells
- Top site designed for receipt of CO₂ through a combination of pipeline and truck

Purpose:

- Optimization of the usage of the Stenlille storage capacity
- Accumulation of knowledge to support development of large-scale CO₂ storage sites in Denmark on land

Project details:


- Total volume capacity: +10 MT (same as in phase 1)
- Yearly injection capacity: 0,5-1 MT

- Length of capacity contracts expected to vary

Onshore storage potential

- Estimated total Danish CO2 storage potential of between 12.3 and 24.6 billion tonnes of CO2.
- Storage licenses for 8 selected regions (see map) are expected to be assigned in early 2024 through a tender process.
- GSD has had ongoing dialogue with several commercial players who wish to collaborate with GSD on the development of other CO2 storage locations in Denmark.
- GSD is pursuing clarification with the Danish Ministry of Climate, Energy and Utilities about what role GSD can/should take in relation to the other Danish storage locations.

POTENTIELLE CO2 LAGRINGSOMRÅDER

 Område med mulighed for at finde egnede CO2-lagre (sandsten 800-3000 m)

 Udvalgte undersøgte områder (strukturer)

 Kortlagte ikke undersøgte områder (strukturer)

