CO₂ reduction through storage beneath the North Sea
Launching CCS in the Netherlands

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Project overview

- Shareholders: EBN, Gasunie, Port of Rotterdam Authority
- Customers: Air Liquide, Air Products, ExxonMobil, Shell
- Capacity P18 fields: ~ 37 Mton
- Storage: ~ 2.5 Mton per year
- CAPEX: ~ € 450-500 million
- Planning: final investment decision in 2022, operational by 2024/2025
How will Porthos store CO₂?
Permanent storage
Public-private partnership for a successful project

State owned companies
Lead role, invest in infrastructure

Private companies
Invest in capture, pay for storage

Public authorities
Funding, mandate, responsibility
Commercial process

- Capture – transport/storage
- Alignment necessary
- SDE++ Dutch subsidy scheme
- Funnel approach
  - ✓ Expression of Interest
  - ✓ Joint Development Agreement 1
  - ✓ Joint Development Agreement 2
  - ✓ Transport and Storage contracts
SDE++ subsidy scheme

- Subsidy for companies and (non-profit) organisations that
  - (will) produce renewable energy or
  - apply CO₂ reducing techniques, e.g. CCS
- Grant duration 15 years for CCS
- Covers entire chain: amount for CCS limited to sum of capture, transport and storage costs as determined by PBL
- Subsidy related to ETS
- €4.5 billion SDE paid between 2008 and 2019; 42 Mton CO₂ reduced over this period
The European Commission has proposed awarding €102 million euros in funding to Porthos for the CCS project. The European Commission wants to financially support the construction of Porthos because the capture and sequestration of CO2 from an industrial plant for carbon capture and storage (CCS) is widely seen as a necessary measure to keep global warming below 2 degrees Celsius.

The precise amount of this fund is determined by the costs incurred by Porthos for the system’s construction and exploitation, including the energy costs for the pressure reduction of CO2 in the deeper subsea.
Porthos is ready for FID

Client contracts have been signed, subsidies have been granted

Air Liquide, Air Products, ExxonMobil, Shell

FEED engineering has been completed

Storage permits concept received from Ministry

Successful decommissioning of complex well
Awaiting conditions

1. Council of State ruling on environmental permits
2. Final storage permits (expected in July)
3. Shareholder approval FID

When fulfilled …

   start of construction works
   (2023-2024)
Development of CCS in NL

Image by courtesy of EBN.
Thank you for your attention!

For more information, please visit: www.porthosCO2.nl