



European
Commission

Project of common
interest:

12.4

PCI fiche

Northern lights project – a commercial CO₂ cross-border transport connection project between several European capture initiatives (United Kingdom, Ireland, Belgium, the Netherlands, France, Sweden) and transport the captured CO₂ by ship to a storage site on the Norwegian continental shelf

Cross-border carbon dioxide network

CATEGORY
Carbon Dioxide

CLUSTER
n/a: n/a

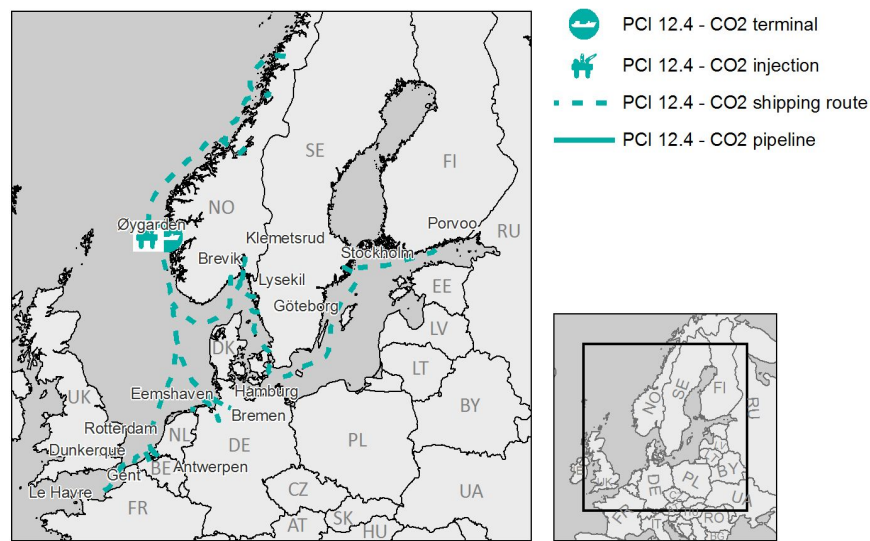
COUNTRIES CONCERNED
Finland(FI)
Netherlands(NL)
Norway(NO)
Belgium(BE)
France(FR)
Sweden(SE)
Germany(DE)

PROMOTERS
Northern Lights JV DA (NL)
AirLiquide Industries France (FR)
ArcelorMittal Belgium (BE)
ArcelorMittal GmbH Hamburg (DE)
ArcelorMittal GmbH Bremen (DE)
Esso Raffinage SAS (FR)
Fluxys Belgium SA/NV (BE)
Havenbedrijf Antwerpen (Antwerp Port Authority) (BE)
Neste Oyi (FI)
Norcem AS (NO)
Shell Global Solutions International B.V. (NL)
Total S.E. (FR/BE)
YARA France SAS (FR)
Air Liquide Industries Belgium (BE)
Preem (SE)
Stockholm Exergi (SE)
Havenbedrijf Antwerpen NV van publiek recht (BE)
Equinor ASA (NO)

PCI WEBSITE(S)
<https://northernlightsccs.com/>

LOCATION
Øygarden (NO)

COMMISSIONING DATE
2026



Source: PLATTS, GISCO, European Commission

Technical description

Commercial CO₂ transport connection project between several European capture initiatives and the storage site on the Norwegian Continental Shelf, as well as providing alternative storage to other CCS projects.

This PCI is located across Europe with promoters in Norway and several Member States (France, Belgium, Netherlands, Germany, Sweden, and Finland). The N-LITES storage site is located offshore Norway, and the CO₂ receiving terminal is at the Energy Park located in the Øygarden municipality, west of Bergen, Norway. The pipeline from the CO₂ receiving terminal to the storage site is about 100 km long. The design of the pipeline includes tie-in options to allow for connection to future wells or pipelines. The shipping routes for CO₂ from port-based facilities to the CO₂ receiving terminal need to be defined. The final shipping logistics will be determined on a per-emitter or emitting cluster basis dependent on buffer storage capacity, capture rate, geographic location and overall shipping optimisation.

The project is developed in two stages:

- Phase 1: Capacity to transport, inject and store up to 1.5 Mtpa CO₂, where ca. 800 ktpa reserved for the two capture projects in the Longship. Construction of both on- and offshore facilities commenced in 2021, and Phase 1 is planned to be operational in 2024.
- Phase 2: This phase will allow for expansion of the CO₂ receiving terminal to up to 5 Mtpa in line with the market development. Part of the Phase 1 infrastructure has already been designed at a 5 Mtpa capacity, this includes the offshore pipeline, and the umbilical to the offshore template.



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CEF funding

12.4-0010-BE-S-M-20: Awarded CEF co-funding: 3,187,500 EUR

https://ec.europa.eu/assets/cinea/project_fiches/cef/cef_energy/12.4-0010-BE-S-M-20.pdf

12.4-BE-S-M-22-GCH: Awarded CEF co-funding: 9,588,430 EUR

12.4-BE-W-M-22-Antwerp at C CO₂ Hub: Awarded CEF co-funding: 144,616,403.42 EUR

12.4-S-M-21-NL P2 studies: Awarded CEF co-funding: 4,252,340 EUR

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/projects-details/43251567/101069502/CEF2027>



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LAST UPDATE
March 2023

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Energy

Note: In line with the provisions of the TEN-E Regulation, the content of this document relies on information provided by the promoter(s) of the Project of Common Interest and CINEA does not guarantee its accuracy. The European Commission and CINEA accept no responsibility or liability whatsoever with regard to the information contained therein.