

Horisont Energi | Company presentation

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Mission Statement

ACCELERATING THE TRANSITION TO CARBON NEUTRALITY THROUGH PIONEERING PROJECTS

Vision A NEW STANDARD FOR OTHERS TO FOLLOW

Overarching Goals

PREFERRED

PROFITABLE



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IPCEI Hydrogen project

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Europe's first world-scale clean ammonia plant



PROJECT BARENTS BLUE

Developing the most carbon and energy-efficient ammonia plant in the world

- Zero emissions and environmentally-friendly plant
- Mostly **self-sufficient on power**, limited renewable electricity from the grid
- Focus on **sustainable solutions and circular practices** in design and in selection of consumables
- Focus on avoidance of sound and light pollution
- Compliance with the EU Taxonomy
 Provide the second secon

- Start-up year: 2025
- Overall CO₂ capture rate: **above 99%**
- Daily input pr train (gas): 2.8-8.4 million Sm3/d (train 1-3)
- Annual output (NH3) by 2030: 1-3 million ton/yr (train 1-3)
- CO₂ injection: 2-6 million ton/yr (train 1-3)
- A recognized clean ammonia product



POLARIS CARBON STORAGE PROJECT



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Developing a fit for purpose cost efficient carbon storage asset

- Focus on sustainable and inherently safe solutions in design
- Development of a simplified CO₂ injection subsea system
- License application filed 8 December 2021

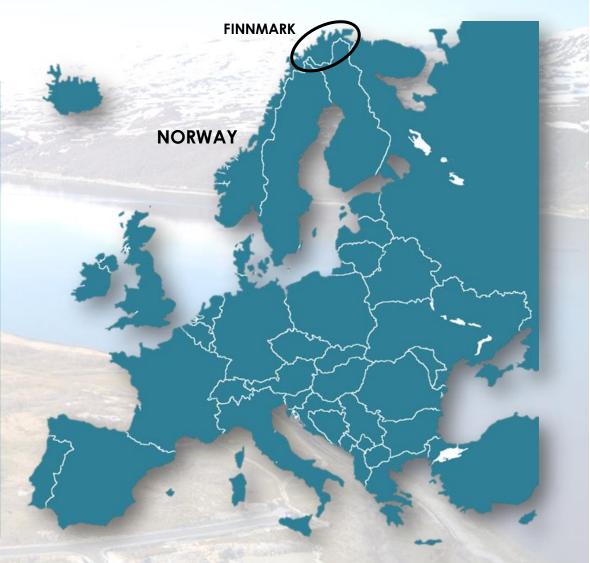
- Start-up year: **2025/26**
- Annual injection of CO₂: 2 million ton/yr (per train)
- Plan for 4 million tons annual injection capacity
- Safe and long-term sequestration of CO₂





WHY CLEAN AMMONIA IN FINNMARK?

- The best region for production of clean ammonia in Europe
 - A **climate optimal for cooling** without affecting seaborne transport
 - Among the lowest power prices in Europe with only renewable energy
 - A lot of **gas that can be decarbonised** a climate measure, where the gas has a low carbon footprint
 - **Good marine conditions** in many areas with limited need for winterisation and high reliability
 - Short transport route to the worlds next largest port for marine bunkering Rotterdam





FROM FINNMARK TO ROTTERDAM

- Europe's biggest port and the world's second largest within trade of marine fuels
- Cooperation with Rotterdam Port in order to establish a transport corridor from Finnmark to Rotterdam
- Cooperation with Koole Terminals in order to establish a **new ammonia terminal**
- In close contact with **clean ammonia market players**, requests for entire production volume





482 MNOK GRANT FROM ENOVA

- The Barents Blue project received a grant of 482 million NOK from Enova in December 2021
- IPCEI Hydrogen is the implementation of EU's Hydrogen strategy
- Norway formally joined the IPCEI Hydrogen project in December 2021 with the **Barents Blue project as one of two Norwegian projects**
- The Barents Blue project needs to be formally approved by ESA as an
 IPCEI project, expected early 2022



- Barents Blue can become a flagship project that is of great importance to Norway and Europe, says CEO of Enova Nils Kristian Nakstad



HORISONT ENERGI AND E.ON ENTER COOPERATION AGREEMENT

- with E.ON acquiring 25% stake in Horisont Energi
- E.ON and Horisont Energi enter long-term strategic cooperation agreement
- Agreement solidified by E.ON taking 25 percent ownership stake
- The partnership will focus on
 - Development and commercialization of carbon dioxide removal
 - Development of full-scale end-to-end CCS as-a-service for European industry
 - Development of clean ammonia value chains

Enables E.ON and Horisont Energi to play a decisive role in decarbonisation of industrial sectors in Europe, whilst scaling up and commercialising CCS and clean ammonia





END-TO-END CARBON STORAGE BUSINESS

Planning new pureplay

carbon storage asset

We are building a value chain for carbon storage to meet the European demand

Capture and liquify CO₂

Carbon prices gradually growing, closing on 90 EUR/ton limit

Sequester the CO₂ in geological reservoirs

Transport it to a CO₂ injection system

Economy of scale in every part of the value chain

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Multiconsult

A LEADING EUROPEAN CCS OFFERING

- Basis for growth is being established through development of carbon storage assets and value chains
- Planning new pureplay third party carbon storage project
- Simplified and fit for purpose offshore solutions to keep costs down
- Strong partnerships in the value chain, including Baker Hughes, TGS, Knutsen OAS Shipping and E.ON
- Economies of scale will be ensured through flexible and a expandable solutions





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GREEN AMMONIA PROJECT IN FINNMARK

- Green ammonia project in Finnmark to be developed jointly with St1 Nordic
- Pre-studies/project shaping ongoing to be completed in Q2 2022
- Development of hybrid plant based upon renewable energy
- Further reinforces the clean ammonia position in Finnmark

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INVESTMENT HIGHLIGHTS

Early mover in worldscale clean ammonia production

Early mover in CCS establishing a leading offering in Europe

Highly attractive economies of scale

Strategic partners in place for rapid development

Experienced and committed team





THANK YOU

ACCELERATING THE TRANSITION TO CARBON NEUTRALITY THROUGH PIONEERING PROJECTS