

Horisont Energi | Company presentation

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Bjørgulf Haukelidsæter Eidesen, CEO





Mission Statement

ACCELERATING THE TRANSITION TO CARBON NEUTRALITY THROUGH PIONEERING PROJECTS

Vision A NEW STANDARD FOR OTHERS TO FOLLOW

Overarching Goals

PREFERRED

PROFITABLE

PLURALISTIC

Who we are



Based in Norway and the UK

- Founded in 2019
- Strong investor line-up
- Offices in **Stavanger**, **Oslo** (opening soon), **Edinburgh**

We are focusing industrial scale, value and carbon neutrality

-P38-355

- Clean hydrogen and ammonia
- End-to-end carbon storage
- Development of strong projects, partnerships and positions

Team with extensive competence and experience from

- Offshore carbon facilities
 developments
- Onshore hydrogen and ammonia facilities development



OBJECTIVES

Top-tier European Clean Energy Company

First to market with world scale clean ammonia

DELIVER COST-COMPETITIVE CLEAN AMMONIA TO THE GLOBAL MARKET

BECOME THE PREFERRED SUPPLIER OF CLEAN AMMONIA IN NORTHERN EUROPE

2 The carbon storage cost leader



EUROPE'S LEADING CARBON STORAGE ASSET DEVELOPER





Why clean ammonia?

- Ammonia contain about 3 times higher energi density than hydrogen (MJ / L)
- Shipping of ammonia is ¼ the price of hydrogen (\$/T km)
- Ammonia can be stored at low costs in large quantities
- Substantial growth expected in traded market mainly in new sectors
- +400 million tonnes of new ammonia demand from marine fuel by 2050
- The Japanese power sector are driving development of ammonia use (+30 million tonnes)



Sources: Argusmedia.com: "The Hydrogen Economy: Going Green", May 2021. Notes: Power generation expected to grow beyond Japan only.





Norwegian IPCEI hydrogen candidate project

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

- Start-up year: 2025
- Annual output (NH3): 1 million ton/yr (train 1)
- Annual output (NH3) by 2030: 3 million ton/yr (train 1-3)
- CO₂ capture rate: above 99%
- CO_2 injection: 2 million ton/yr (train 1)



Why Finnmark?

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



A highly competitive set-up



1

Access to low-cost gas feedstock and power



30-45+ USD/ton cost reduction from access to low-cost gas feedstock

cost reduction from benefits of

scale and lower energy usage

+

30-40+ USD/ton

2

Economy of scale and innovation: Novel clean ammonia system of technologies at largescale, with additional upside in train 2 and 3



Proprietary carbon storage technology and concept at large-scale



10-25+ USD/ton cost reduction from proprietary, scaled down, subsurface CCS concept



Cost competitive value chain



Horisont Energi's technology and value chain will provide a total cost reduction sufficient to compete with grey ammonia

Source: Horisont Energi and Haldor Topsøe

Notes: (*) The cost to transport natural gas from Barents Sea to the European continent is estimated at USD 1.7-2.3 per MMBtu. (**) Net cost reduction after adding ammonia transport cost of 15-20 USD/ton

Horisont Energi's roles:

• Project development

Natural gas

CO₂

- Production (equity)
- o Transport
- o Marketing and sales



From Finnmark to Rotterdam

- Rotterdam port is Europe's biggest and the world's second largest port within trade of marine fuels
- Horisont Energi is cooperating with Rotterdam Port in order to establish a transport corridor from Finnmark to Rotterdam using three large-scale ammonia transport vessels
- Horisont Energi cooperates with Koole Terminals in order to establish a new ammonia terminal in Rotterdam port
- Horisont Energi is in close contact with key clean ammonia market players on the continent





Timeline Barents Blue





What's coming next

- Organisational growth and opening of new offices
- A new green ammonia plant in early stage development in Finnmark together with St1 Nordic
- A new pureplay carbon storage asset and value chain for third party CO₂ based upon several Lol's signed
- Finalise development of our carbon removal business
- Barents Blue train 2 development





Commercialization and Growth in Carbon Storage





Investment highlights

Early mover in worldscale clean ammonia production

Early mover in CCS establishing economies of scale in value chain

Highly attractive economics

Strategic partners in place for rapid development

Experienced and committed team





THANK YOU

ACCELERATING THE TRANSITION TO CARBON NEUTRALITY THROUGH PIONEERING PROJECTS