Annual report 2023







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Annual report 2023

Introduction



Chair's message



Dear CCS stakeholder,

I am proud to reflect on a year marked by strong progress in the development of the Northern Lights carbon transport and storage infrastructure and the carbon capture and storage industry.

Increased political support and demand for carbon management services has contributed to the commercialisation of CCS and the development of a competitive market. With signed agreements to store CO_2 from the Netherlands and Denmark, Northern Lights is spearheading the commercial market for CCS services in Europe. Recently, the European Commission announced its strategy for industrial carbon management, highlighting the importance of CCS in reaching climate neutrality in 2050. The Commission is clear in its ambition to establish a European carbon market. Norway and Northern Lights, with its technical experience and geological storage capability, can offer safe and necessary carbon storage capacity and play a key role for reaching European decarbonisation ambitions for industrial sectors where other options are limited. Introduction



"With the Northern Lights facilities ready to receive CO_2 by the end of 2024, CCS is rapidly becoming a reality." With the Northern Lights facilities ready to receive CO_2 by the end of 2024, CCS is rapidly becoming a reality. This past year, CO_2 transport capabilities were strengthened by the fleet expansion from two to four dedicated CO_2 ships, and the physical construction of the offshore and onshore facilities is getting towards completion.

In 2024, we will focus on delivering on our commitments, completing the Northern Lights CO_2 transport and storage value chain. With the support of the Norwegian government, Northern Lights' first phase development is an integral part of the Longship project. I am pleased to see that this development has progressed according to plan and budget.

Our strategic direction remains clear. We are confident that Northern Lights phase 1 will be a success and we have communicated growth plans to expand our storage capacity to minimum 5 million tonnes per year. While facing a challenging market, we are prepared to embrace the challenges and opportunities ahead, reinforcing our commitment to being a pioneer in decarbonisation and supporting Europe's climate ambitions.

I extend my gratitude to everyone who is continuously working to realise Northern Lights, with the Northern Lights organisation, our service providers; Equinor which has built the Øygarden facilities and Shell and Total Energies who are supervising the shipping construction, as well as the suppliers. Your collective efforts have not only progressed us forward but have also paved the way for others in the CCS industry.

Svein Skeie

Chair, Northern Lights Company Meeting

Annual report 2023

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Managing Director's message



For thousands of years, humans have been captivated by the northern lights. Its rays across the sky have been a source of wonder, inspiration, and myth. Inspired by this captivating natural phenomenon, the Northern Lights Joint Venture has emerged. Delivering CO_2 transport and storage services across Europe, we are for the first time offering the industry the opportunity to reduce or remove emissions from its activities.

As we today understand the science behind the northern lights, we also understand the science and technology for CCS expertise. Carbon capture and storage is a proven technology developed through technical and operational experience of CO_2 injection over nearly 30 years on the Norwegian Continental Shelf. CCS is an industrial solution to an industrial problem.

CCS provides an efficient and safe climate solution that contributes to net reduction or removal of greenhouse gas emissions. An analysis of the carbon footprint of the CO_2 transport and storage value chain throughout all phases of its lifecycle, finds that Northern Lights will have a net abatement of 97.4% of the stored CO_2 .

2023 was a significant year for CCS and for Northern Lights and we have made remarkable progress. Turning our vision into tangible achievements, we are demonstrating that CCS is an effective climate solution and a viable business. Last year, we announced the pioneering commercial agreements with Yara and Ørsted to transport and store CO_2 from the Netherlands and Denmark. The first of their kind.

Northern Lights is on schedule to complete the construction of our transport and storage infrastructure and get ready to receive CO_2 from the end of 2024. Our terminal in Øygarden and the offshore developments are now more than 90% completed and our first two ships are also on track to be completed this year.

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We have managed to deliver these projects with a world class HSSE performance, we are on budget, and we are on plan – as we promised the Norwegian authorities and our owners.

With the support of our owners and the Norwegian government, Northern Lights is demonstrating that the development of a CCS value chain is feasible. Based on our technical experience and the geological qualifications of the Norwegian Continental Shelf, we believe that Norway and Northern Lights can play an important part in offering safe and permanent CO_2 storage to Europe.

There is great momentum for CCS as a climate solution. During COP28 last year, the role of carbon management to advance Paris Agreement goals was reaffirmed, making Northern Lights' mission in CO_2 transport and storage more relevant than ever. The European Commission recently announced its industrial carbon management ambitions to develop and scale carbon capture up to 280 million tonnes by 2040 and 450 million tonnes by 2050.

To achieve these goals, significant infrastructure investments are needed. However, facing a heated market with inflation and rising cost combined with an uncertain regulatory landscape, investor confidence is challenged.

Currently, the cost of CCS exceeds the cost of emitting CO_2 into the atmosphere. It is imperative that the regulators develop sufficient incentives to unlock public and private capital for the development and deployment of CCS, at scale and in time, to meet European climate goals. The balance of managing rising costs while capitalising on this demand is a tightrope walk, but one which we are prepared to navigate.

Without CCS, we will not be able to reach climate goals. In Northern Lights we remain committed to deliver CO_2 transport and storage services for Norwegian and European industry and to develop a commercial CCS market. Like the natural phenomenon, Northern Lights will continue to shine bright and inspire action against our shared commitments and goals, enabling carbon capture and storage and bringing carbon back to where it belongs.

Now, my time as Managing Director of Northern Lights since its inception in 2021 is coming to an end, following the end of the planned threeyear term of the role. I cannot imagine a more meaningful role and I wish my successor all the best in continuing our work and bringing the "CCS is an industrial solution to an industrial problem."

company to the next phase. I'm extremely proud of how far we have come towards realising CCS in Northern Lights and I would personally like to thank my team, our owners and everyone that has supported Northern Lights and CCS. It has been a pleasure.

Harald Børre Jacobsen Managing Director, Northern Lights JV

Company Meeting report







Company Meeting report 2023

The Company Meeting report is prepared on a voluntary basis, based on the Norwegian Accounting Act § 3-3 a.

Northern Lights JV DA delivers CO_2 transport and storage services for industrial emitters in Europe, accelerating the decarbonisation of Norwegian and European industries, and contributing to CO_2 removal to reach net zero emissions.

The first phase of the Northern Lights development is part of the Longship project. Longship includes CO_2 capture from the Heidelberg Materials cement factory (Brevik CCS) and the Hafslund Oslo Celsio (Celsio) waste-to-energy plant, and CO_2 transport and storage by Northern Lights. The project reflects the Norwegian government's ambition to develop a full-scale CCS value chain in Norway, demonstrating the potential of this decarbonisation approach to Europe and the world.

Once the CO_2 is captured from industrial sources, it will be transported by ship to the Northern Lights onshore receiving terminal in Øygarden Municipality for intermediate storage before the liquefied CO_2 will be transported by pipeline and injected into the Aurora storage license (EL001) in the North Sea, for permanent storage. The construction of the receiving facilities and offshore infrastructure has made great progress in 2023 and is on track to be ready to receive CO_2 by end of 2024.

Northern Lights JV was incorporated on 5 February 2021. On 7 June 2021 it became the operator of Exploitation License 001 (Aurora) on the Norwegian Continental Shelf (EL001). The company's head office is at Byfjordparken 15, Stavanger, Norway. The company was originally staffed by secondees from the owners, providing expertise and flexibility in the scale up of the company. By the end of 2023, Northern Lights is counting 53 employees of which 18 have been recruited externally into the company. Northern Lights JV is an unlimited liability partnership subject to the Norwegian Company Act. The owners have unlimited liability for their respective shares of the total liabilities. Northern Lights JV's owners are Equinor Refining Norway AS, TotalEnergies EP Norge AS and A/S Norske Shell, all holding equal ownership of 33.3%.

Financial performance

Northern Lights presents its financial statements in accordance with simplified application of international accounting standards according to section 3-9 of the Norwegian Accounting Act.

Northern Lights reported a net loss of NOK 357,7 million in 2023. The loss relates mainly to company administration and project maturation of the phase 2 expansion of the receiving terminal and storage capacity to allow Northern Lights JV to transport and store at least 5 million tonnes of CO_2 annually.

The project activities to store and receive 1.5 million tonnes per annum is by year end almost 90% finalised and Northern Lights will be able to receive CO_2 by end of 2024. Capital investment in 2023 amounted to NOK 1,712 million, related to establishment of the onshore and offshore facilities in Øygarden and ship construction.

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The first phase development as well as the first 10 years of operation is supported by the Norwegian State through a State Support Agreement that came in effect when Northern Lights JV became the operator of EL001. In total, Northern Lights JV received NOK 1,505 million in state support in 2023.

Total Assets at the end of 2023 equals NOK 7,988 million.

Asset removal obligations recorded by end-2023 equals 411 million and are related to future decommissioning of subsea templates and plugging and abandonment of exploitation wells, as well as onshore facilities at Øygarden.

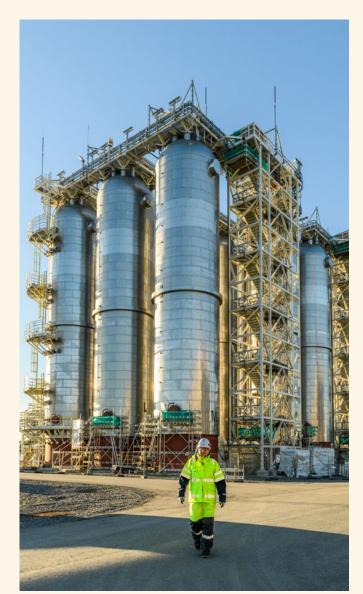
The owners of Northern Lights JV have provided the company with a capital injection of NOK 1,040 million in 2023.

Net cash flow from operating activities is negative at NOK 805.7 million. This is in all material aspects related to changes in short term service provider payables. Net cash flow used in investment activities is negative at NOK 193.8 million. This is related to assets under construction and state support received. Net cash flow from financing activities is NOK 1,036.5 million mainly resulting from capital contribution from owners.

Health, safety, security, environment, and quality (HSSEQ)

Work-related incidents are embedded in the Northern Lights HSSEQ statistics, including the Joint Venture, Technical Service Providers (TSPs) (Equinor and Shell International Trading and Shipping Company Ltd, STASCO) and the shipyard, Dalian Shipbuilding Offshore Co, performances. There has been 1 recordable incident. reported from the execution activities carried out within Equinor TSP scope of work: 1 Lost Time Injury (LTI) in Øygarden. The TRIF and LTIF at year end were around 0.5 which confirmed the good performances achieved in 2023. It is also worth to mention that 1 million working hours LTI free have been reached by the shipyard and STASCO and celebrated in November 2023. STASCO as a TSP is responsible for the ship construction supervision.

Northern Lights JV has a high focus on HSE within the entire organisation. An HSE day was



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organised in April 2023 bringing up information related to the safety at home, refreshers of first aid and firefighting trainings, sustainability in day-to-day lives and self-management. The environmental performance is also continuously tracked and recorded. There has not been any accidental reportable discharge to air or water during 2023.

For personnel involved in the Crisis Management Team, regular trainings with expert consultants and exercises have been conducted.

A session regarding ergonomics and individual workspace adjustment has been organised in November 2023.

The sick leave recorded for the direct hires in Northern Lights in 2023 was 1.3%. Sick leave related to seconded staff are managed by the responsible employer of the secondees.

Business development

In 2023, we have seen increasing momentum for CCS and the development of a more competitive market. Driven by increased political support and intensifying expectations to reduce emissions, CCS is rapidly becoming a reality. As demand for essential commodities such as energy, cement and chemicals rise, this translates into increasing demand for emission reduction services. CCS competes favourably as a decarbonisation opportunity where other options are limited. Signing two fully termed commercial agreements for CO_2 transport and storage, with Ørsted in May 2023 and Yara in November 2023, Northern Lights reached significant milestones, contributing to kick-starting a commercial CCS market. The customer development is progressing rapidly bringing additional commercial volumes for further expansion of the transport and storage capacity. However, the market is currently dominated by early movers and until further derisking and scale cost benefits are realised public funding and support will be required.

Risks & Opportunities and risk management

Risks and opportunities are continuously monitored, addressed, and documented. Emerging issues are shared with decision-makers and relevant stakeholders. Northern Lights' approach to risk management supports the company's efforts to keep the risks as low as reasonably practicable and to continuously improve operational practice and procedures.

Director and Officer's Liability Insurance will, due to the company structure (unlimited partnership/delt ansvar, DA), only be applicable for the Managing Director. A Director and Officer's Liability insurance for the Managing Director is in place, entered by the formal employer of the Managing Director, A/S Norske Shell.

Financial risk

In the development phase, Northern Lights is financed by a State grant and from capital provided by its owners. The company does not have any external financing. Through the State Support Agreement, entered by the Norwegian government and the owners of Northern Lights, the parties have agreed to develop the transport and storage facilities of Northern Lights and to operate the facilities for the first ten years of operation.

Northern Lights JV is and will be exposed to currency fluctuation. All State support is received in Norwegian Kroner (NOK), but the company has obligations in foreign currencies. Funding received from owners can be requested in the underlying currency. A large part of the currency exposure is related to the shipbuilding contract of three newbuilds, where a large part of the contract obligation, valued in USD, will be paid at delivery of the ships second half of 2024. In February 2022, Northern Lights entered USD currency hedge contracts with DNB, linked to the milestone payments for the first two ship building contracts.





Social responsibility

Northern Lights JV has a high focus on ethical behaviour, human rights, and the company's total impact on the environment. The Northern Lights JV offices in Stavanger have been selected to minimise as low as possible the carbon footprint and environmental impacts.

A Life Cycle Assessment (LCA) has also been carried out to quantify the carbon footprint of the full value chain of the Northern Lights activities. The results are published on the Northern Lights website. This study shows that, for both phases 1 and 2, the transport, injection and storage services provided by Northern Lights JV ensure an effective emission abatement corresponding to approximately 97.4% of the amount of CO_2 sent for storage. This result highlights the viability of the Northern Lights JV value chain in effectively storing CO_2 .

The Northern Lights Code of Conduct is the company's guide to ethical business practice and behaviours. It contains a set of business principles, based on values, beliefs, and expectations, requiring that business activities always be performed in an ethical, professional, and transparent manner, and always in compliance with the law. The Code also reflects how the company values (innovative, dedicated, reliable, and open) are to be put into practice every day, and establishes the standards of prudent conduct that is expected from all employees, secondees, contractors and hired personnel working for and on behalf of Northern Lights JV. Compliance training towards Northern Lights JV personnel was carried out on a regular basis throughout 2023.

Northern Lights JV DA is not subject to the regulations of The Transparency Act (Åpenhetsloven) by end 2023. However, Northern Lights JV expects suppliers, contractors, customers, and all other business partners to adhere to ethical standards and business principles which are consistent with those reflected in Northern Lights JV's Code of Conduct and to pay particular attention to safety and human rights standards and procedures, including their employees' working conditions.

Equal opportunities and non-discrimination

Northern Lights JV is an equal opportunity company committed to fostering an inclusive and diverse culture. All personnel hired to Northern Lights JV are treated fairly and equally. Employees are recruited based on qualifications and demonstrated skills irrespective of gender, age, and ethnicity.



By end of 2023, Northern Lights JV employed 18 direct hires, 28 secondees and seven consultants, resulting in a total of 53 employees. This compared to a total of 45 employees, at the end of the previous year. The organisation consists of 57% men and 43% women. In the leadership team there are three women and five men.

There have not been any staff working part time in 2023 or staff on maternity leave. The share of temporary hire in 2023 amongst the staff was 0.5%, this employee was transferred to permanent hire.

Going concern

The financial statement for 2023 is prepared under the assumption of going concern. The Company Meeting confirms this assumption. Northern Lights JV company structure means that the owners have unlimited liability for their respective shares of the total liabilities. Stavanger, 21 March 2024

Svein Skeie Chair of the Company Meeting Equinor Refining Norway AS



Michael Bullen

Member of the Company Meeting TotalEnergies EP Norge AS

Bjørn Melaa

Member of the Company Meeting A/S Norske Shell

Harald Børre Jacobsen Managing Director Northern Lights JV DA







For thousands of years, humans have been captivated by the northern lights. Its dancing lights across the Arctic sky have always been a source of beauty, inspiration, and myth.

Inspired by this captivating natural phenomenon, the Northern Lights Joint Venture emerges. The first company to offer commercial CO₂ transport and storage as a service, across borders.

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Northern Lights – an industrial solution to an industrial problem

We are offering the industry a realistic opportunity to reduce or remove emissions from its activities, and securely storing it within its origin, deep under the sea.

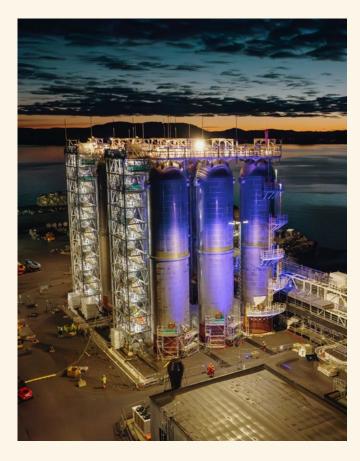
As we today understand the science behind the northern lights, we also understand the science and technology of CCS. Carbon capture and storage is a proven technology developed over nearly 30 years on the Norwegian Continental Shelf. It is an industrial solution to an industrial problem.

At Northern Lights we are developing an infrastructure and a value chain, enabling ship transport from industrial capture sites in Europe, through our intermediate onshore facilities in Western Norway, to the Aurora offshore storage site.

Europe has set ambitious targets to combat climate change and reduce emissions. And carbon capture and storage is necessary to reach these targets. With the support of the Norwegian government, Northern Lights and the Longship project demonstrates that the development of a CCS value chain is viable.

Having signed agreements to store CO_2 from the Netherlands and Denmark, we are now unlocking a commercial market for CCS services in Europe. With the Northern Lights facilities ready to store CO_2 from the end of 2024, CCS as a climate solution is rapidly becoming a reality.

We hope the Northern Lights continue to inspire action towards our shared commitments and goals, enabling carbon capture and storage for a sustainable future.





Northern Lights in numbers



Year 2024 Ready to receive CO_2 from industrial emitters

0 0 0 110 km

110 km Pipeline to offshore storage site in the Aurora license



37.5 million tonnes

Injection capacity over 25 years for first phase development



4 ships Four purpose-built CO₂ transport ships ordered and under construction

97.4%

Net abatement of CO₂ through the Northern Lights value chain



4 customers

Two as part of the state-supported Longship project and two commercial



2 600 meters

Secure geological storage site under the seabed

Progress report



Demonstrated climate effect

Northern Lights conducted in 2023 a study of the carbon footprint of its CO_2 transport and storage value chain throughout all phases of its lifecycle, from construction to decommissioning. The results find that Northern Lights will have a net abatement of 97.4% of the stored CO_2 .

The assessment is based on the first developments of Northern Lights with a minimum injection of 5 million tonnes CO_2 per annum through 25 years. Over the lifetime of these first development phases, Northern Lights will store 127.8 million tonnes CO_2 . The estimated lifecycle emissions are 3.3 million tonnes throughout the value chain, which results in a net greenhouse gas reduction of 124.5 million tonnes CO_2 .

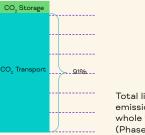
The lifecycle emissions of 2.6% from the Northern Lights value chain are largely related to the operations of CO_2 transport, more specifically the ship fuel consumption. Northern Lights has already implemented solutions such as LNG fuel, wind-assisted rotor sails, and air lubrication which reduces the carbon footprint compared to conventional ships, and continuously works to assess further climate mitigating solutions.

The study demonstrates that the Northern Lights CCS value chain is a viable concept and an efficient climate solution that contributes to net reduction of greenhouse gas emissions from hard-to-abate industries.

Carbon footprint of the value chain		
127.8	3.3 Mt CO ₂	97.4%
Stored over project lifetime	Lifecycle emissions of the value chain	Net abatement potential

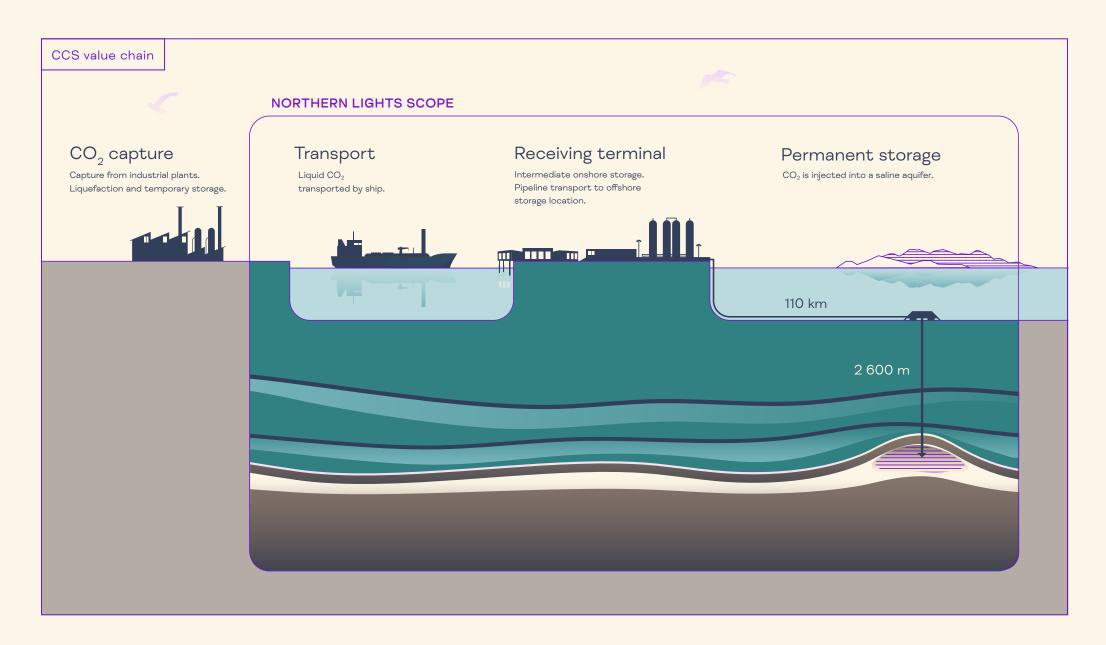
GHG emissions from implementation and operation of the Northern Lights value chain vs the amount of $\rm CO_2$ stored





Total lifecycle GHG emissions from the whole value chain (Phase 1 & 2)





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Progress in 2023

Great progress has been made in all three areas of the Northern Lights value chain in 2023:

- CO₂ transport
- Receiving terminal
- Offshore storage

CO_2 transport

In 2023, Northern Lights marked the formal construction start of the first two CO_2 ships with a keel laying ceremony at Dalian Shipbuilding Industry Co. (DSIC) yard in Dalian, China. An essential building block is the custom cargo tanks that are the biggest ever built for Liquid CO_2 transport. The shipyard with the classification society DNV have adapted welding and heat treatment procedures to successfully build these tanks. The ships which are around 80% completed by year end will be delivered from the dock at the shipyard in China in 2024 and sail to the Northern Lights facilities in Norway, ready for operations.





Northern Lights announced in September the award of a third shipbuilding contract to Dalian Shipbuilding Offshore Co., Ltd (DSOC), increasing its shipping capacity to cater to existing and new customers. In December came the announcement for the award of agreements to expand with another ship. The fourth ship will also be built at DSOC and share the same characteristics with a cargo capacity of 7,500 m³.

The first three ships are owned by Northern Lights and after a thorough tender process, "K" LINE (Kawasaki Kisen Kaisha) was awarded the contract for technical management and operatorship on behalf of Northern Lights. "K" LINE is an industry leader in ship management and bring a wealth of experience to Northern Lights, ensuring top quartile ship management.

A new aspect to the latest ship agreement is that the fourth Northern Lights ship will be owned and operated by Bernhard Schulte, a leading shipping company providing business ship management and other maritime services around the globe. Bernhard Schulte has signed a shipbuilding agreement with DSOC and Northern Lights has signed a long-term time charter party for the cross-border transport of CO_2 . This ownership structure signifies an interest from the shipping industry to enter the CCS market.



Finally, in December, The Norwegian Tax Administration issued a binding ruling (BFU) upon request from Northern Lights clarifying the VAT treatment of CO_2 transport and storage across borders. The BFU concluded that cross-border CO_2 transport and CO_2 storage on the Norwegian Continental Shelf (NCS) is covered by a VAT exemption. This is an important clarification for Northern Lights and the CCS industry in Norway and paves the way for CO_2 transport and storage providers operating on the Norwegian Continental Shelf.

Receiving terminal

Equinor, as a technical service provider to Northern Lights until the start of the operations, is responsible for the construction of the Northern Lights infrastructure. The construction of the CO_2 receiving terminal in Øygarden is on time and budget and is 90% completed by year end 2023.

In 2023, the project has followed up suppliers and contractors, ensuring the safe and timely



fabrication and installation of equipment and components. One major milestone was the successful installation of all twelve onshore storage tanks. Each tank is 32.5 meters tall and has the capacity to store nearly 700 tonnes of CO_2 before it is injected into pipelines and permanently stored in the offshore reservoir.

In addition, the horizontal direction drilled (HDD) tunnel and offshore installation campaigns for the preparation and installation of the first section of the export pipeline, umbilical and DCFO cable has been completed. The project has started the commissioning phase and preparation for the completion of the onshore facilities and offshore infrastructure, and to be ready for receipt of CO_2 in 2024.

Offshore storage

In 2023, the Northern Lights subsurface team completed the containment risk assessment for the first phase development and finalised the interpretation of the data acquired in the two wells which were drilled in 2022. This includes the injection side-track 31/5-A-7 AH to Eos exploration well (31/5-7) and the contingent injection well 31/5-C-1 H drilled 7 km further south.

Constraints for reservoir pressurisation and injection pressure has been updated based on acquired data and regional mapping and characterisation of seal (Drake formation) of the Aurora storage complex. The ensemble of models has been updated based on the new information as well as the finalised SCAL-model which has been shared with the Norwegian Offshore Directorate.

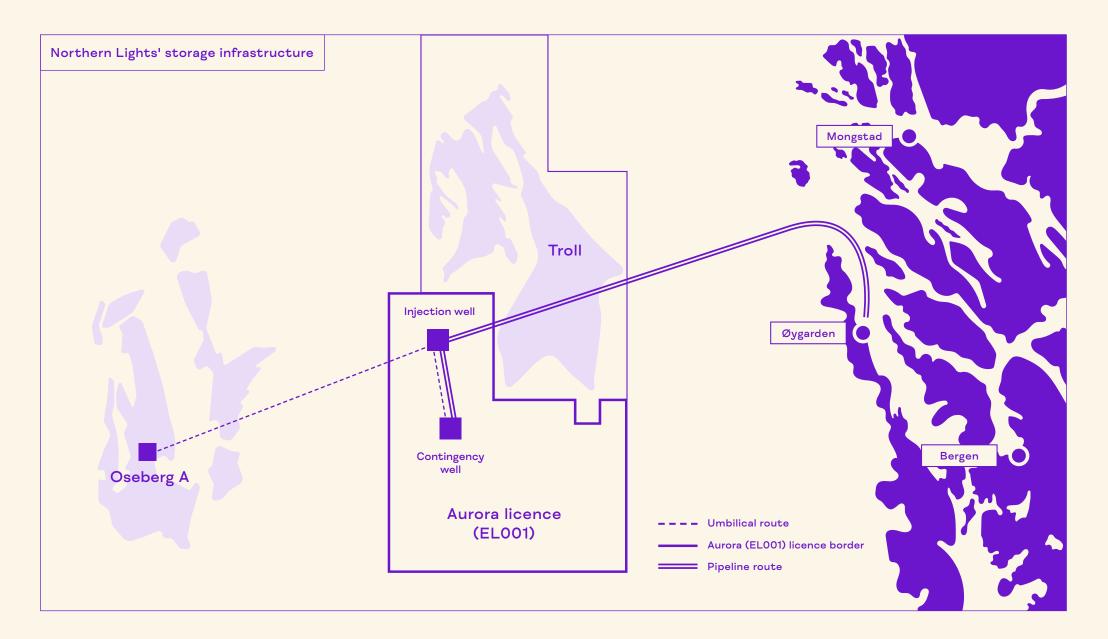
An injectivity test of the two wells was planned and executed by Equinor as technical service provider. The interpretation is ongoing. In preparation for an expansion of the storage capacity, the team has completed the first planning step for the proposed new wells for the next phase development.

Throughout 2023, the subsurface team has supported the work on operational readiness, defining necessary tools for daily well and reservoir monitoring. Work commenced to construct or re-construct dynamic models for seismic time-lapse (4D) monitoring, history matching and forecasting during operations. This work will continue in 2024.

Data dashboard from the well injectivity test.







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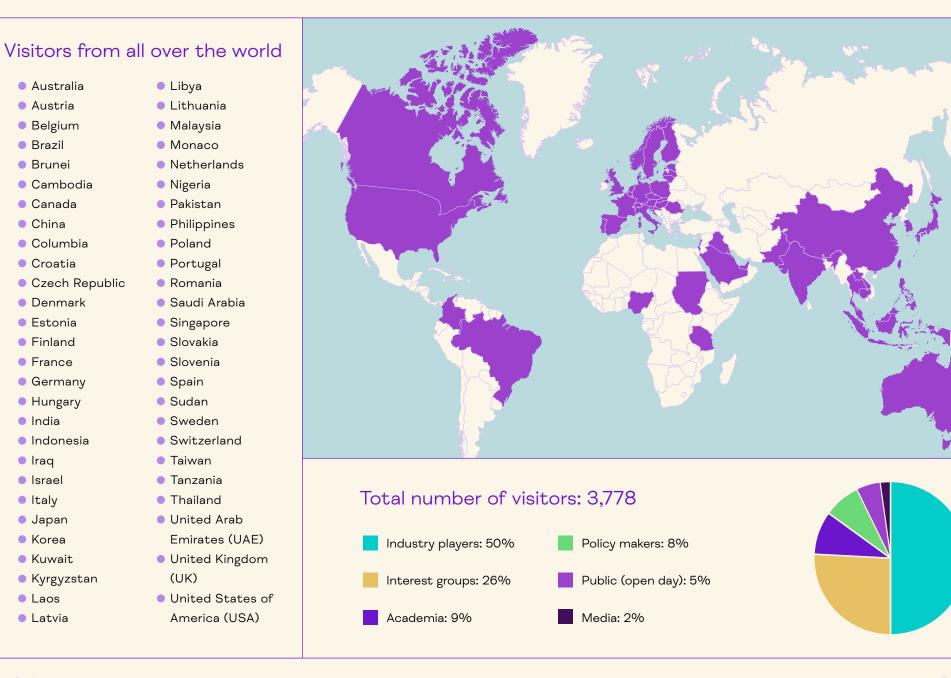


Attracting interest from around the world

Northern Lights welcomed 3,778 visitors from 53 countries to the visitor centre in Øygarden in 2023.

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Making CCS viable

CCS market development

In 2023, we have seen an important shift to the commercialisation of carbon capture and storage (CCS) and the development of a competitive market. Driven by increased political support, CCS is rapidly becoming a reality. As demand for essential commodities such as energy, cement and chemicals rise, growth in demand for emission reduction services is expected. For these industrial sectors, CCS offers a realistic decarbonisation opportunity where other options are limited.

The International Energy Agency (IEA) estimates in its roadmap to Net Zero by 2050, updated in September 2023, that CCS will account for 8% of the cumulative emissions reductions globally. While investments in CCS projects are increasing, there is still a need for more rapid deployment at scale. Currently, the operational capture and storage capacity is around 50 million tonnes CO_2 . That constitutes just 5% of the 1,000 million tonnes of CO_2 which need to be captured and stored per year by 2030 to be on track with reaching Net Zero Emissions by 2050.

However, the road to Net Zero remains within reach. Looking to current CCS projects under development, planned storage capacity is catching up with planned carbon capture, and is set to reach more than 400 million tonnes in 2030. About half of the planned capacity is in Europe.





"If all announced CCS projects are realised, the current growth trend continues, and project lead times are reduced, global carbon capture capacity could reach Net Zero levels by 2030 with a strong political and industry push."

Mathilde Fajardy, Energy Analyst, IEA, during her presentation at the Northern Lights Summit 2023



European value chain

The European Union (EU) is at the forefront of addressing climate change, setting ambitious climate targets and enforcing legislative initiatives to reduce emissions and reach climate neutrality by 2050. One initiative is the proposed Net-Zero Industry Act that aims to reduce industrial emissions and drive the deployment of CCS and development of CO₂ storage capacity for Europe.

In February 2024, the European Commission published its anticipated Industrial Carbon Management Strategy, outlining how CCUS can contribute to reducing emissions with 90% by 2040 and reach climate neutrality in 2050. The strategy sets an objective to develop 280 million tonnes CO_2 capture and storage capacity by 2040 and 450 million tonnes by 2050.

Norway, with its significant geological storage capacity in the North Sea and its long-standing experience with carbon capture and storage, has the opportunity to provide Europe with significant CO_2 storage capacity. According to the Norwegian Offshore Directorate the estimated storage capacity on the Norwegian Continental Shelf is 80 billion tonnes CO_2 .

Northern Lights, being the frontrunner in developing CO₂ transport and storage services open "The whole world is now looking to Norway for what we are very good at, namely CCS. The Norwegian government is now processing licence applications to drill for reservoirs in the North Sea to store large parts of European emissions for generations to come."

Norwegian Prime Minister Jonas Gahr Støre at NHO's annual conference 2024

to industrial emitters, plays an important part in achieving European decarbonisation targets. In December 2023, the European Commission announced the intention to award Northern Lights €131 million under the Connecting Europe Facility (CEF) funding scheme to support the further expansion of CO_2 storage capacity. The Directorate-General for Energy stated that the awarded projects are key to develop a Europe-wide carbon value chain.

The European Commission also recognised Northern Lights as a Project of Mutual Interest (PMI) in their 6th list, announced in November 2023, marking the third consecutive listing of Northern Lights. The Northern Lights PMI links 17 project promoters from 7 European countries and a further 24 affiliated organisations spread across the continent, demonstrating the strength of a flexible ship-based transport solution.

To enable cross-border CO_2 transport and storage, there is still a call for bilateral agreements that opens for export of CO_2 to abroad storage sites. Currently, a number of agreements to cooperate on CCS are under development



across the continent. The Norwegian government has entered bilateral initiatives with Belgium, Denmark, France, Germany, Netherlands, Sweden, Switzerland and UK.

In 2023, Norway has seen strengthened cooperation with several EU member countries.

- January: Germany and Norway agreed to strengthen Norwegian-German cooperation on the green transition, including hydrogen, battery technology, offshore wind, and carbon capture and storage.
- April: Belgium and Norway started formal negotiations for a bilateral agreement on the cross-border transport and storage of CO₂ on the Norwegian Continental Shelf, under the London Protocol.
- June: Denmark and Norway signed Memorandum of Understanding to strengthen Danish-Norwegian energy cooperation on carbon capture, utilisation, and storage (CCUS), hydrogen, and offshore wind.
- October: France and Norway agree to enhance the French-Norwegian dialogue and cooperation on green industrial transformation.







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Entering first commercial CCS agreements

Yara

On November 20^{th} , 2023, Northern Lights and Yara International announced the signing of the fully termed commercial transport and storage agreement with the ambition to capture and store 800,000 tonnes CO₂ annually from the ammonia production in Sluiskil from 2025.

The parties signed the main terms of the agreement in August 2022, representing the world's first commercial CCS agreement. The CO_2 will be liquefied and shipped from the Netherlands to permanent storage on the Norwegian Continental Shelf by Northern Lights.

The agreement between Northern Lights and Yara represents an important step in decarbonising hard-to-abate industries and is a major milestone in achieving Yara's own targets towards carbon-free food production and supply of clean ammonia for fuel and power production. Yara Sluiskil has already cut 3.4 million tonnes of CO_2 emissions per year from its ammonia and fertiliser production since 1990. Significant volumes of carbon dioxide are also reused in greenhouse plant production, for example as an ingredient for carbonated drinks.

This agreement is a testament to the commercial potential for CCS and demonstrates that the market for CO_2 transport and storage is evolving rapidly, and the agreement contributes to kick-starting a commercial market for CCS services in Europe.



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"Carbon capture and storage is particularly relevant for our industrial plants, especially where there is insufficient access to renewable energy to electrify. We have no time to lose and must use all the tools to cut emissions quickly. We believe that it is not possible to achieve the climate goals without CCS."

Lise Winther, SVP Upstream Projects & Technologies, Yara Clean Ammonia. Here speaking at the Northern Lights Summit 2023.

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Bacl



Ørsted

On May 15th, 2023, Northern Lights and Ørsted announced the signing of a commercial agreement to transport and store biogenic CO_2 emissions from two Danish power plants. The agreement marked the second commercial customer for Northern Lights and will from 2026 transport and store 430,000 tonnes CO_2 annually for 10 years.

Ørsted, who was awarded public funding from the Danish Energy Agency under the first Danish tender of the CCUS Fund, will develop a CO_2 capture hub for its biomass power stations Asnæs and Avedøre. These facilities will capture and liquefy 430,000 tonnes of biogenic CO_2 per year, which will then be transported by ship for permanent offshore storage below the North Sea.

Biogenic CO_2 refers to the emissions from bioenergy production, generated by the release of absorbed CO_2 from biomass such as wood, straw, or organic waste. Because biomass absorbs CO_2 from the atmosphere, capture, and storage of biogenic CO_2 (BECCS) results in net removal of CO_2 , hence playing an important part in reaching climate neutrality. The agreement supports Northern Lights' ambition for commercial growth and contributes to the development of a European market for CCS services. Ørsted has also entered into an agreement with Microsoft who will purchase carbon credits for 2.67 million tonnes of the captured and stored CO_2 from the Asnæs power station, representing one of the world's largest carbon removal offtake agreements by volume, to date.





Enabling negative emissions

According to the UN Intergovernmental Panel on Climate Change (IPCC), Carbon Dioxide Removal (CDR) is required to achieve global climate targets. CDR refers to human activities that remove emissions from the atmosphere and is carbon negative. It is specifically needed to counterbalance hard-to-abate emissions in a Net Zero Emissions (NZE) Scenario.

In the context of carbon capture and storage, CO_2 removal from bioenergy (BECCS) and direct air capture (DACCS) is particularly relevant. Because biomass absorbs CO_2 from the atmosphere, capture and storage of CO_2 from bioenergy production results in net removal of CO_2 . It is the only CDR method that can also produce energy.

In the International Energy Agency's NZE by 2050 Scenario, an estimated 190 million tonnes CO_2 will be removed through BECCS every year. The recent Industrial Carbon Management Strategy by the EU sets an objective to capture 280 million tonnes CO_2 by 2040 – half, 140 million tonnes, from biogenic sources or directly from the atmosphere.

The agreement between Northern Lights and Ørsted is a prime example of a cross-border BECCS collaboration. From 2026, 430,000 tonnes CO_2 will be removed and safely stored per year. Through the NL+ project with partners Ørsted, Microsoft and Aker Carbon Capture, Northern Lights aims to support the development of verified carbon removal credits and a voluntary carbon market.

A voluntary carbon market has two functions. It incentivises carbon capture and removal activities through the sale of carbon credits, and it enables the carbon credit buyers to offset their residual emissions. To develop a market for carbon credits from BECCS, a recognised standard for certification of carbon removal credits from CCS is needed.

Northern Lights is one of the founding parties and a core partner of the CCS+ Initiative which aims to develop robust carbon accounting methodologies to enable accurate measurement and monetisation of carbon removal with the highest levels of environmental integrity. The initiative aims to have its methodologies published under Verra's Verified Carbon Standard (VCS) program, the world' leading carbon crediting program.

Applying the CCS+ methodologies, the NL+ project sets out to demonstrate the potential

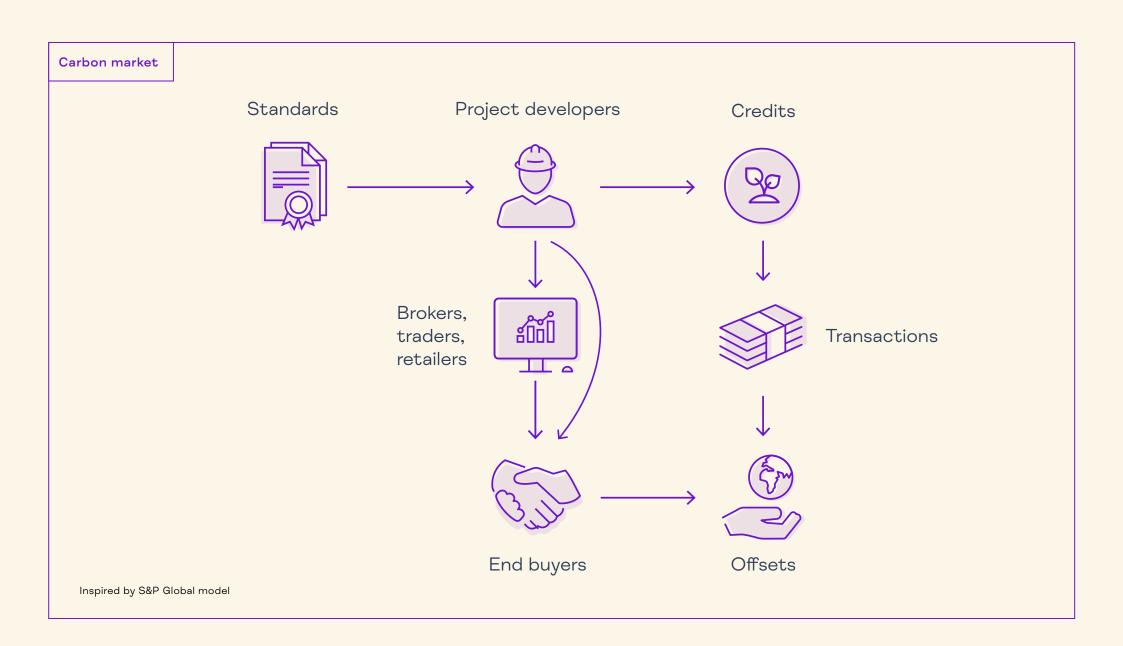


of BECCS in a voluntary carbon market for the first time. In December 2023, Ørsted broke ground for the construction of five carbon capture facilities delivered by Aker Carbon Capture to Ørsted's bioenergy plants, Asnæsværket and Avedøre.

Northern Lights was in May 2023 selected the CO_2 transport and storage provider of the project, whereas Microsoft has committed to buying the carbon offset of 2.67 million tonnes CO_2 over 11 years. In 2023, the NL+ project was awarded funding from Gassnova's Climit-Demo Program with the goal to share learnings and methods for future CCS projects to replicate.

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Northern Lights business development

In the past year, Northern Lights has experienced an increasing demand for effective and reliable carbon management services and new customer opportunities across Europe. Simultaneously, market competition in CO₂ transport and storage is picking up pace with the maturation of various CCS projects in Europe.

Northern Lights has identified Europe as its primary market and specifically targets more mature countries that have launched CCS strategies and incentive schemes which causes a surge in commercial interest for CCS services. The market development aligned with the region's commitment to sustainable development and emissions reduction, provides great growth opportunities for Northern Lights.

The business model of Northern Lights aligns with national, regional, and international carbon reduction schemes, such as the EU Emissions Trading System (ETS). Targeted customer segments include quota obligated sectors such as cement, steel/metal, refinery, chemical and fertiliser, also known as hard-to-abate sectors where CCS solutions are critical to reduce emissions.



In addition, the voluntary CCS market in sectors that are not under quota obligation is under development, representing important business development opportunities in carbon removal (CDR). Targeted customer segments include waste-to-energy, bioenergy, and Direct Air Capture (DAC), industries that are incentivised to develop carbon capture and removal through the sale of carbon credits. Northern Lights is experiencing high interest from new and existing Norwegian industrial players subject to EU ETS and the voluntary market/CDR segment. A big fraction of the players targeting the voluntary market express interest in establishing facilities locally in Øygarden. Northern Lights is also maturing a solution to cater for receiving CO₂ volumes from customers with trucks and ISO-containers. This solution is perused by Norwegian emitters with smaller annual emissions.

Throughout the year, in addition to the milestone commercial agreements with Yara and Ørsted, Northern Lights has continued its work to further mature a customer base. In late 2022 and early 2023, the company conducted an open season process with potential customers. The goal was to efficiently progress the most technically and commercially mature customers to support the work towards an expansion of the storage facilities.

The expression of interest submitted by the customers provided Northern Lights with a strong dataset and valuable market insight, revealing high demand for storage capacity. Northern Lights has continued dialogue with potential customers and are making use of insights from the process into negotiations.

CO₂

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4
signed transport and
services agreements (TSA)

~200 customer dialogues

100+ million tonnes CO_2 per year potential customer volumes

15

countries

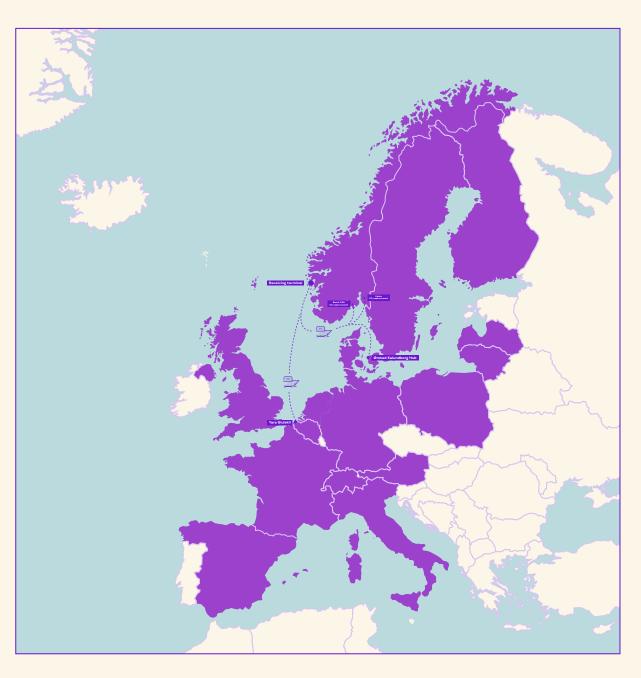
Austria, Belgium, Denmark, Finland, France, Germany, Latvia, Lithuania, Netherlands, Norway, Poland, Spain, Sweden, Switzerland, UK

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customer segments

Biofuel/gas, Cement, Chemicals, DAC (Direct Air capture), Fertilizer, Hydrogen, Metals, Refinery, Steel, Waste to Energy



Progress report



Digitalising the CCS value chain

The Northern Lights digitalisation efforts are at the centre of the twin transition; the green and digital transformations that could enable a carbon-neutral Europe by 2050. New technological and digital developments can contribute to increased resource efficiency and hence reduced environmental impact and greenhouse gas emissions.

In 2023, Northern Lights approved its digitalisation, IT, and Intellectual Property Rights (IPR) Strategy. The strategy focuses on the integration, standardisation, automation, and optimisation of the end-to-end CCS value chain, enabling business insights, economies-of-scale, lower cost, optimal efficiency, and opportunities for new value streams.

The short-term goal is to build the digital foundation to support all the key business workflows, ensuring that the digital workflows are ready for operations in 2024, to successfully manage CO_2 through the end-to-end value chain from capture point to permanent storage.

In December 2023, Northern Lights announced the signing of a memorandum of understanding (MoU) with Microsoft and SLB on the development and optimisation of cloud-based workflows for the operations of Northern Lights. "Leveraging the power and scalability of the cloud, Northern Lights has significantly accelerated the processes for subsurface modelling and simulation. This enables faster decision making while reducing risk of human error, ensuring high levels of accuracy and consistency."

SLB will extend its digital CCS workflows related to geomodelling and simulation of CO_2 flow in the underground on its DelfiTM digital platform, which Northern Lights deployed to streamline the subsurface workflows of Northern Lights in 2022.

Microsoft will deploy and extend its Azure data platform to ensure scalable cloud services that support Northern Lights' business and the SLB digital CCS workflows. SLB and Microsoft collaborate on developing an OSDU-compliant open-source Azure-data platform that can serve as the subsurface workflow digital infrastructure for Northern Lights. The approach of modelling a large set of different subsurface scenarios is called ensemble modelling. Northern Lights has prepared to use SLB's Agile Reservoir Modelling (ARM) workflow as its ensemble modelling tool to determine the geological uncertainty. ARM runs the scenarios or the ensemble in parallel on the cloud and thereby utilise the high-performance computation capabilities of cloud solutions.

The automation of processes and workflows through digitalisation increases productivity and efficiency. Leveraging the power and scalability of the cloud, Northern Lights has significantly accelerated the processes for subsurface **Progress report**

modelling and simulation. This enables faster

Contents

decision making while reducing risk of human error, ensuring high levels of accuracy and consistency.

Northern Lights has also been involved in development of Al-based CO_2 flow simulation since 2021. In June 2023, Microsoft and Northern Lights published a <u>paper in the Inter-</u><u>national Journal of Greenhouse Gas Control</u> that documented Al architectures for CO_2 flow simulation on large geological models where the FNO (Fourier Neural Operator) architecture had a post training speedup of 50 000X compared to conventional physics-based simulations.

The work has progressed with Microsoft and SLB to optimise the location of CO_2 injection wells. Preliminary results of Al-based CO_2 flow simulations and genetic-based optimisation on a test model shows superior well placement results, lower compute costs, and higher net value under all conditions tested. The methods are still in a phase of development.

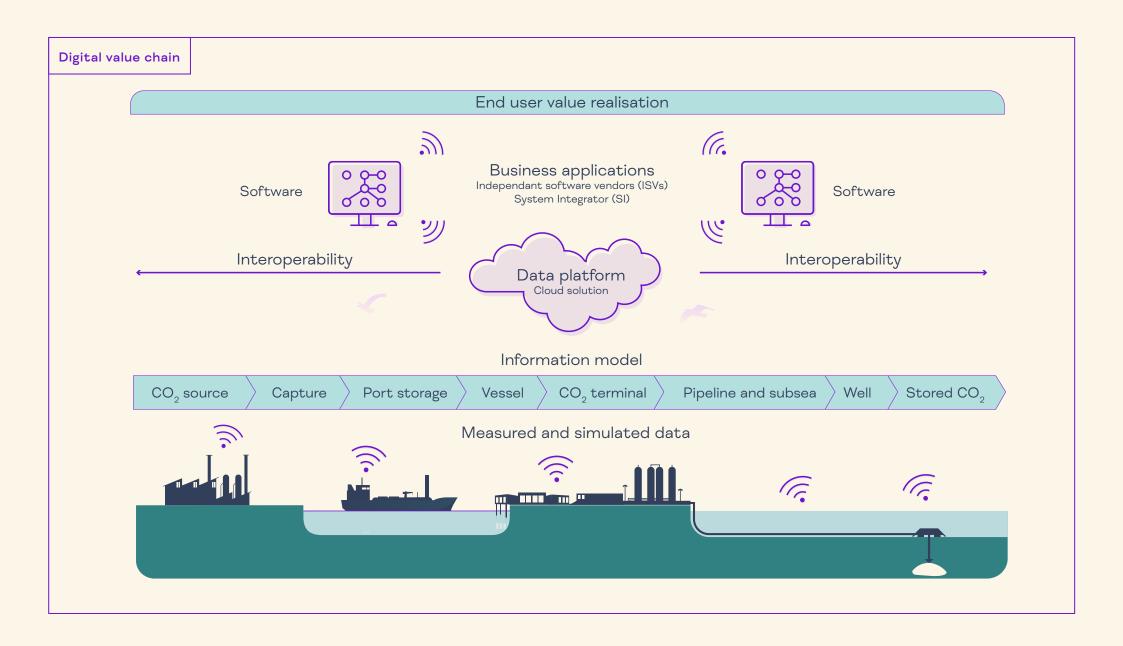
In addition, Northern Lights in 2023 initiated a collaboration with OPC Foundation on developing open industry standard information models for data exchange in the emerging CCS industry. Information models structures and describes data to increase the interoperability between

machines without human intervention. The models have the potential to improve cyber security and data quality control, provide economies-of-scale, and efficient operational CO₂ material tracking.



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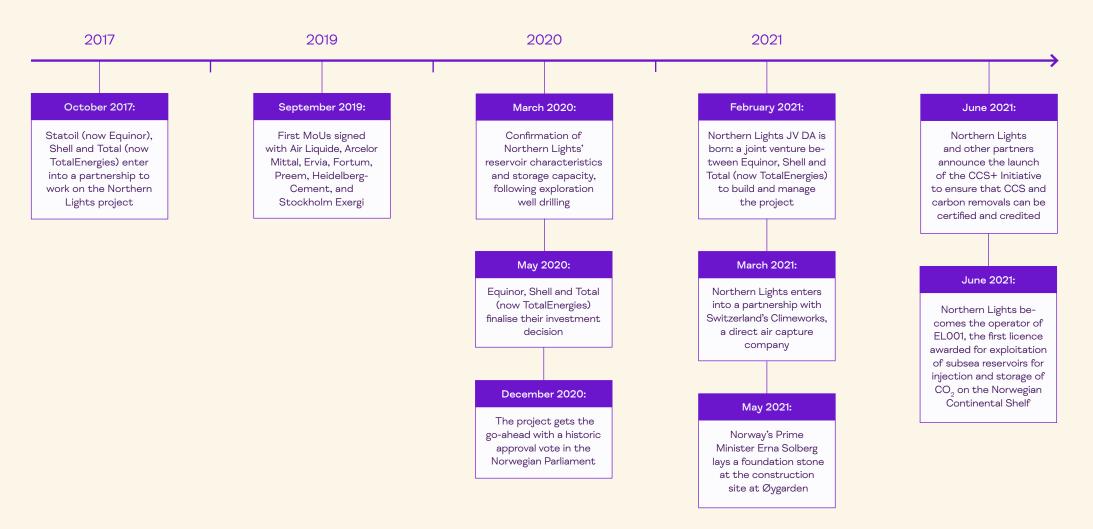




Progress report



Timeline



Progress report



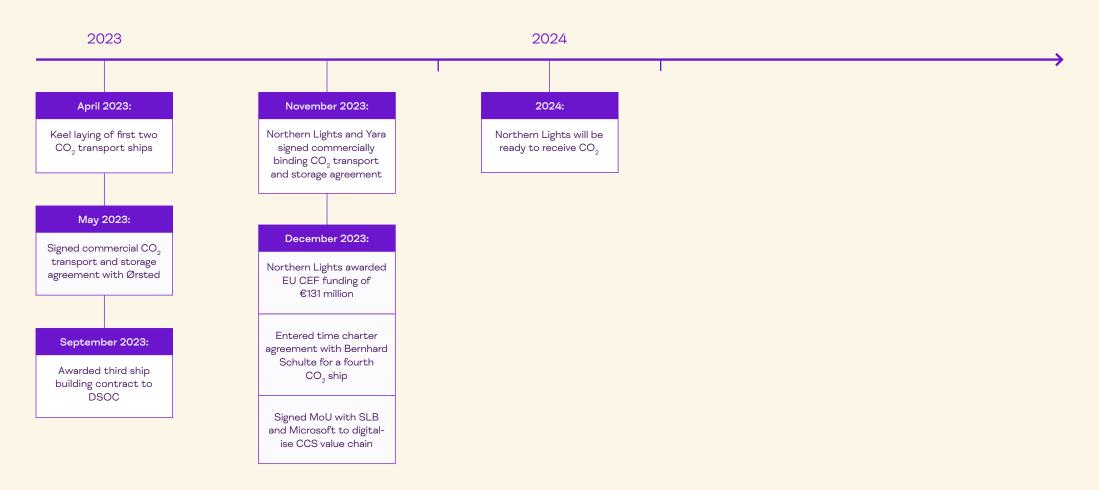
Timeline



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Timeline





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Lessons learned

As a pathfinder, it is Northern Lights' responsibility to share our experiences and learnings transparently with the world.

Northern Lights

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CCS confirmed effective climate solution in lifecycle analysis

Northern Lights, in 2023, conducted a study to assess the estimated carbon footprint of its CO_2 transport and storage value chain throughout all phases of its lifecycle, from construction to decommissioning. The results demonstrate that Northern Lights expects to have a net abatement of 97.4% of the stored CO_2 , based on the first developments with a minimum injection of 5 million tonnes CO_2 per annum through 25 years.

The study was performed according to the ISO standards 14040 and 14044. For each activity, the design, procurement, construction, operation, decommissioning, post injection and post closure are assessed. This work required an extensive and time-consuming collection of data from all parties of the Northern Lights value chain for the analysis to be as accurate as possible.

The analysis shows that over the project lifetime (from construction to post closure of the storage site for both injection phases), Northern Lights will achieve a net abatement of 124.5 million tonnes CO_2 , equal to 97.4% of the total CO_2

stored of 127.8 million tonnes. During the project lifecycle a total of 3.32 million tonnes CO_2 was estimated to be emitted, or 0.026 tonne CO_2 per tonne of CO_2 stored.

The lifecycle emissions of 2.6% from the Northern Lights value chain are largely related to the operations of CO_2 transport, more specifically the ship fuel consumption. Northern Lights has already implemented solutions such as LNG fuel, wind-assisted rotor sails, and air lubrication which reduces the carbon footprint compared to conventional ships, and continuously works to assess further climate mitigating solutions.

The study demonstrates that the Northern Lights CCS value chain is a viable concept and an efficient climate solution that contributes to net reduction of greenhouse gas emissions from hard-to-abate industries. This groundwork has laid the foundation for future analyses where the value chain contributors are well known, enabling easier identification of areas with further emissions reduction potential. "Northern Lights expects to achieve a net abatement of 124.5 million tonnes CO_2 , equal to 97.4% of the total CO_2 stored of 127.8 million tonnes."

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Entering first of its kind commercial CCS agreements

2023 was the year for entering commercial agreements in Northern Lights. The pioneering agreements with Yara and Ørsted sparked the start of a commercial market for CCS services and signified a substantial step towards decarbonising industry in Europe. Entering these agreements required a forward-thinking approach and close collaboration between the companies and the negotiation processes posed challenges inherent in such first of its kind commercial agreements.

Initially, linguistic nuances in industry-specific terminology between the negotiating parties had to be clarified. While carbon transport and storage services are largely developed building on the heritage of the oil and gas industry, clients on the carbon capture side represents industries such as ammonia, fertiliser, and power production. In the contractual process it was necessary to define a common language and understanding to avoid any confusion. On the same note, cultural differences came to the fore, with the negotiating parties being industry leaders with their own established standards. What is common practice in one industry is not necessarily common practice in another industry. In the absence of precedent CCS industry standards, there were different sentiments on which international standards to apply, particularly concerning construction requirements and HSE standards.

Another challenge was the absence of a regulatory framework for cross-border CCS. During the negotiation processes a significant amount of time was spent on the political risks related to the development of a new CCS value chain. While the negotiating parties were confident in governmental support and facilitation of cross-border CO_2 transport and storage, there was a high risk in investing in CCS infrastructure and entering long-term contracts without bilateral agreements between the countries to enable carbon capture and storage across borders. Though at times challenging, the process of entering Europe's first commercial CCS agreements is a testament to the commercial potential of CCS and has laid the groundwork for future collaboration and negotiation between different industries and cultures.

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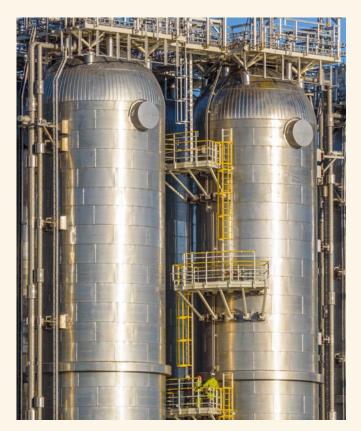


Updated CO₂ specifications based on new knowledge

Liquid Carbon Dioxide (Liquid CO_2) has specific properties that are important to consider in carbon capture and storage. To ensure that the Liquid CO_2 from carbon capture sites meets industry standards for carbon transport and storage, Northern Lights has developed a set of Liquid CO_2 quality specifications. The specifications define the required purity and acceptable levels of impurities in the Liquid CO_2 and are crucial to ensure the integrity of the infrastructure and safe operations.

As the CCS industry matures, Northern Lights has identified a need to revisit and update its Liquid CO₂ quality specifications based on state-of-the-art knowledge from the latest research findings and publicly available industry knowledge and expertise. In 2023, Northern Lights initiated a task force, led by DNV, with contribution from subject matter experts from DNV, Northern Lights JV DA and the owner companies (Equinor, Shell and TotalEnergies). More than 75 experts have been involved in the work, considering new insights into cross reactions between components and development of corrosive fluids, the Northern Lights ships and facility design, and the possibility to expand the list of allowable impurities. The specifications are updated to ensure material integrity, operability, health, safety, and environment considerations for the customers and Northern Lights value chain (temporary storage, ships, onshore and offshore facilities).

The result is a set of Liquid CO_2 specifications that maintain the highest safety standards and opens for new industry segments to deliver CO_2 . Several emitters have confirmed the technical feasibility of the specifications. The new Liquid CO_2 specifications were <u>published in February</u> 2024 and will be the basis for current and future commercial transport and storage agreements.



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Consistent and inclusive regulatory framework is key to unlock CCS market

The key to unlock the full potential of a commercial CCS market is investor confidence. As demand for carbon management solutions increases, the industry with support from policy makers needs to accelerate investments to deploy CCS, delivering on market demand while keeping Net Zero targets within reach. However, as we face a heated global market experiencing inflation and an uncertain regulatory landscape, investor confidence in CCS is challenged. Managing rising costs while capitalising on market demand is a challenge Northern Lights is prepared to navigate.

In terms of regulation, the EU Net-Zero Industry Act, while an important step for decarbonising European industry, currently overlooks the significant CO_2 storage capabilities of the Norwegian Continental Shelf. This oversight creates a regulatory gap that we must address to ensure a unified and efficient European CCS market, that secures the necessary CO_2 storage capacity aligned with European climate targets. Looking to Norway, it's imperative that we work towards a consistent and inclusive regulatory framework that reflects the actual environmental risks connected to CCS as a low-margin industry. Currently, the regulators require financial security from the CO_2 injection license operators on contingent elements that have a very low probability to occur, such as well failure and emission of CO_2 to the seabed.

In addition, the regulators request a guarantee that needs to cover the licence period and a post closure period of 20 years. The current challenge is the size of the guarantee required for both firm elements such as decommissioning, monitoring, and operational cost as well as contingent elements with very low probability to occur, and today there is not a common industry insurance or an industry fund to drive the cost for the financial guarantee down.

Another challenge is the availability of guarantees that can cover a 40+ year period. The cost of

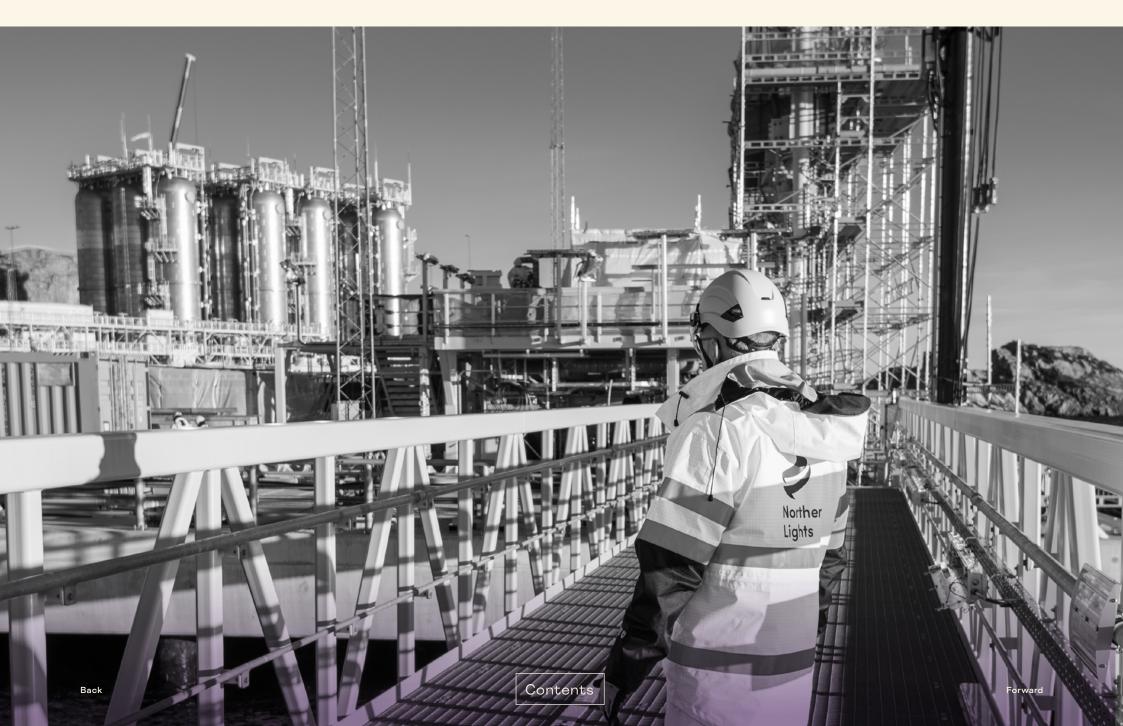
such a guarantee can potentially drive the tariffs up or limit commercial demand for CCS if there is not a clear framework in place and cost-effective solutions to meet the financial guarantee for the operators.

There is also a need to harmonise the CO_2 storage permits. Having two separate processes (ie. PDO and Storage Permit) at different timelines creates uncertainty and significant additional work for developers of CO_2 transport and storage.

These regulatory uncertainties and challenges need to be addressed and resolved to increase predictability and investor confidence, which in turn will accelerate essential investments in CCS deployment, developing a robust CCS market and ensuring that the potential of CCS in Norway is realised.

Governance





Governance



Code of Conduct

The Northern Lights JV Code of Conduct serves as a comprehensive guide to ethical business practices and contains a set of business principles that reflects our values, beliefs, and expectations that business shall always be performed in an ethical, professional, and transparent manner, always in compliance with the law.

The Code sets out principles for maintaining the highest standards for safety and security, respecting human rights, equality, diversity, and inclusion, protecting the environment, and data privacy and protection. Compliance training towards NLJV personnel was carried out on a regular basis throughout 2023. Northern Lights expects suppliers, contractors, customers, and other business partners to adhere to ethical standards and business principles consistent with those reflected in the Code.







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Our values:

- Innovative: We nurture big ideas, listen to our stakeholders and move quickly.
- **Dedicated:** We are dedicated to our purpose of creating real progress towards tackling climate change and to work with our customers to safely store their emissions.
- **Reliable**: We are loyal, committed, diligent and uphold high standards and right conduct in our work.
- **Open:** We are attentive, imaginative and curious. We share our learnings and experiences.

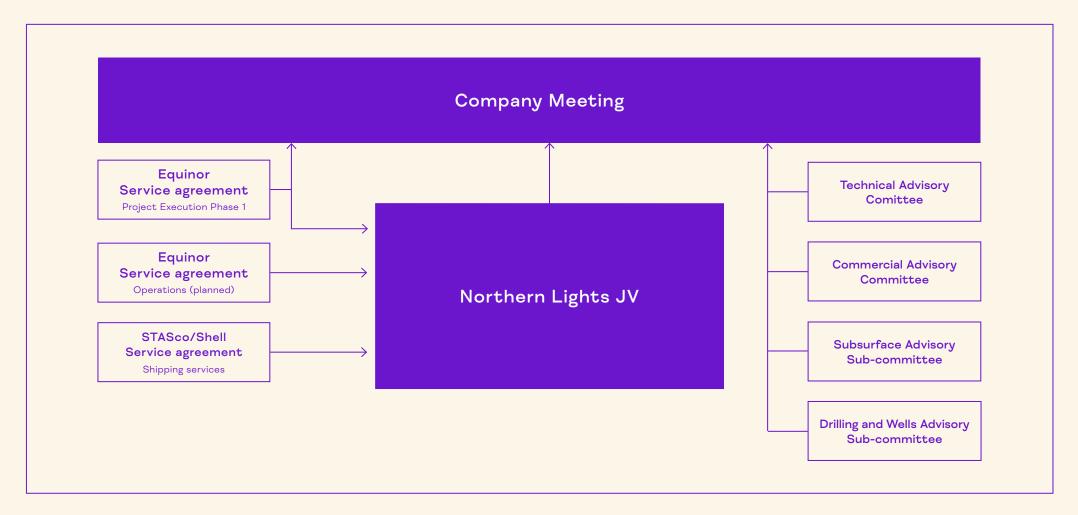
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Northern Lights organisation



Governance



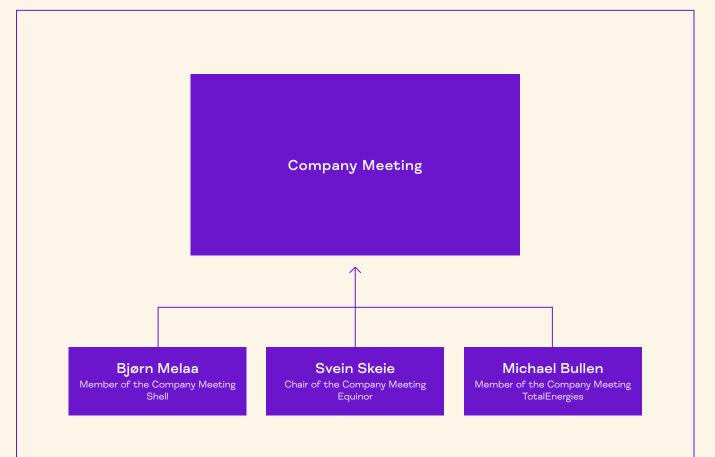
Governance structure

Northern Lights JV DA is a registered, incorporated unlimited liability Partnership with shared liability (DA), with three owners: Equinor, Shell and TotalEnergies.

The Company Meeting is the governing body of the Company and makes decisions regarding Northern Lights and its activities. Each owner company appoints one member and one deputy member. The Company Meeting is chaired by a member appointed by the Company Meeting, currently Equinor.

The purpose of the Company Meeting is to:

- Steer direction and strategy and take decisions
- Ensure alignment and processes are established for integrated corporate governance
- Ensure safe and efficient execution and follow-up
- Capture lessons learned and drive change



Governance



Northern Lights JV is the owner of and is accountable for the development and operations of the Northern Lights project. It is also the license holder and operator of the Aurora exploitation licence EL001. Project execution is ensured through technical service providers: Equinor ASA is responsible for the development of the onshore and offshore facilities, whilst Shell International Trading and Shipping Company Limited (STASco) is responsible for the ship building execution for the first three 7,500 m³ ships. Further service agreements will be put in place for necessary work related to operations and maintenance of the facilities, as well as to any future capacity expansions.

Northern Lights JV has established four advisory committees to support its decision-making: the Technical Advisory Committee, Commercial Advisory Committee and Subsurface Advisory Sub-Committee, Drilling and Wells Advisory Committee. These committees are led by Northern Lights JV with representatives from the owners as members.

By year end 53 persons were working in Northern Lights, 18 as direct hires. The organisation consists of 57% men and 43% women. In the leadership team there are three women and five men. 28 employees are seconded from owner companies. Other roles are sourced depending on the nature and duration of the needs.



The organisation is divided into the following departments: Operations & Logistics, Technical & Subsurface, Business Development, Strategy & Market, Finance & Administration, Health Safety Environment & Quality (HSEQ), Legal, and Communications & Government Relations. Most employees seconded or hired to Northern Lights JV have 10–20 years of experience within their respective fields of expertise. Several of the secondees have been involved in the Northern Lights project for several years prior to the establishment of the company. Secondees have been handpicked from the owner companies to fulfil NL JV's purpose and objectives.

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Northern Lights JV leadership team



Børre Jacobsen Managing Director



Martin Solberg Technical Director



Birthe Nylund Sundt CFO



Jostein Tegle Strategy & Market Director



Ruth Hilde Sætre General Counsel



Nathalie Renzi HSE Director



Juan Charier Operations & Logistics Director



Ove Dalland Business Opportunity Director

Governance



Health, Safety, Environment & Quality

Everyone working for and with Northern Lights is expected to never compromise on HSE, ethics and compliance. This is crucial to success. HSE is at the heart of performance across Northern Lights. It is underpinned by the Business Management System which defines the systematic framework that is designed to sustainably deliver safe, reliable, and compliant operations. In 2023 there has been 1 recordable incident reported from the execution activities carried out within Equinor TSP scope of work: 1 Lost Time Injury (LTI) in Øygarden. The TRIF and LTIF at year end were around 0.5 which confirmed the good performances achieved in 2023. Northern Lights is committed to doing business ethically and transparently. Employees are expected to work in line with this commitment, to do what's right and to treat others with respect, fairness, and dignity.

The company manages the impact of all activities on the environment, including spill prevention, waste, and air pollution, as well as continuously looking for opportunities to reduce the overall environmental footprint. A Life Cycle Analysis has been performed to assess Northern Lights' carbon footprint along its entire value chain for phases 1 and 2. Conclusions show that Northern Lights' value chain ensures an effective abatement of greenhouse gases emissions of approximately 97% of the initial emissions sent for storage.

A transparent and robust Health, Safety, Security, Environment & Quality (HSSEQ) reporting system, corresponding to ISO 9001:2015, is in place. This provides a framework for planning, execution, monitoring and improving performance.

Northern Lights works together with contractors and Technical Service Providers to secure compliance in design, follow-up of deliverables and activities. The company has an important role in sharing data and experience from designing and developing the $\rm CO_2$ transport and storage infrastructures.

Stakeholder engagement

Stakeholder engagement is at the core of what Northern Lights does. As a first mover in developing cross-border commercial CO_2 transport and storage services, it is our mandate to transparently share our knowledge and experience with the world. In 2023, we hosted 270 visits and 3778 visitors from 53 countries, representing authorities, media, industry, and academia, to our CO_2 receiving facilities. This is nearly twice as many visitors compared to 2022. Our visitor centre in \emptyset ygarden serves as an important educational

arena, where visitors are offered an introduction to Northern Lights and the CCS industry complemented by a guided tour of the facilities and technical knowledge sharing.

Through our work with national and international media, Northern Lights communicates with the public and contributes to raising awareness and knowledge of CCS as an industrial climate solution. Public acceptance and support is important to succeed with the deployment of CCS projects and unlocking public investments. Northern Lights works with media relations daily and have in 2023 conducted weekly interviews with broadcast and published media on TV, radio and in newspapers across the world. We are experiencing particular media interest from France, Germany and the UK, as a result of increased political support and public interest in these markets. Annual report 2023

Governance



Selected international media stories in 2023

BBC

British television broadcaster Yara deal with Northern Lights to transport and store CO₂

Link to story

Financial Times

British business newspaper Northern Lights has welcomed 6000 visitors to its site in Øygarden

Link to story

Daily Mail

British daily newspaper

Prince and Princess of Wales meet with leading Norwegian businesses on green energy solutions

Link to story

Bloomberg

American business newspaper EU and Norway to form green alliance on carbon capture and hydrogen

Link to story

Der Spiegel German weekly newspaper Underground CO₂ storage

Link to story

ZDF German television broadcaster CO, storage from Norway



ARD Weltspiegel

German television broadcaster Northern Lights to store CO₂ from Heidelberg Materials

Link to story

Radio France

French radio broadcaster

Norway on the verge of becoming the champion of CO_2 storage

Link to story

Les Echos

French business newspaper French manufacturers in discussions to reserve capacity with Northern Lights

Link to story

L'Usine nouvelle French business magasine French Minister of Industry visited Northern Lights

Link to story

Svenska Dagbladet Swedish daily newspaper

Norway buries CO₂ emissions 2.6 km under the sea

Link to story

Governance



The Northern Lights team actively represents the company in various external conferences and arenas. In 2023, Northern Lights presented at approximately 45 conferences globally. We use our own channels actively to share project updates and reports on our website and to our 13,000 social media followers. In addition, in 2023 we hosted our annual Northern Lights Summit, an industry forum open to the public online. With the theme "Making CCS viable" we brought together policy makers from the EU and Norway, financial and climate analytics, and industry experts to discuss the challenges and opportunities in the development of a commercial CCS market in Europe.

As part of the State Support Agreement, Northern Lights has a close dialogue with the Norwegian government and deliver monthly reports on benefit realisation of the project. As an Operator, Northern Lights also maintains close dialogue with Norwegian regulatory bodies like the Norwegian Offshore Directorate and the Norwegian Ocean Industry Authority. Collaboration with key authorities in Øygarden Municipality and Vestland County is also an essential priority. In addition, we have had good conversations and regular contact with policy makers in the EU.



150 Mentions in Norwegian media

45 Conferences attended

270 Presentations held at visitor centre Governance



Membership and support to industry associations and interest organisations

Knowledge and experience sharing is a core value for Northern Lights. Through our memberships and collaboration with industry associations and interest organisations we engage with governments, regulators, and communities. Northern Lights has different levels of participation and influence in industry associations and interest organisations.

Memberships

Offshore Norway: Employer and industry organisation for companies with activities on the Norwegian Continental Shelf, and part of the Confederation of Norwegian Enterprise (NHO). Northern Lights benefits from its membership in Offshore Norway through shared insights in important areas.

Offshore Norway administers administrative tools and systems on behalf of the industry, including License to Share (L2S) which Northern Lights as a license holder on the Norwegian Continental Shelf is mandated to use in our communication with authorities. Northern Lights was a contributor to establish a CCS forum in the organisation. The forum is a permanent professional advisory body. Zero Emissions Platform (ZEP): The technical advisor to the EU on the deployment of Carbon Capture and Storage (CCS) and Carbon Capture and Utilisation (CCU) – a European Technology and Innovation Platform (ETIP) under the Commission's Strategic Energy Technologies Plan (SET-Plan). Northern Lights derives benefit from its membership in ZEP, through its active role in European CCS policy discussions. We provide strategic input to ZEP through its Advisory Council and Networks.

Stavanger Chamber of Commerce: Norway's largest Chamber and Business organisation. The organisation is working to ensure make Stavanger a preferred region to live and work in. They organise business meetings and seminars.

CCS+: Northern Lights is one of the founding partners of CCS+. The objective of the initiative is to leverage carbon markets and scale global decarbonisation and carbon removal efforts. CCS+ is focused on advancing carbon accounting for carbon capture, utilisation, storage, and removal technologies, underpinned by robust 'cradle-to-grave' life cycle assessments (LCA) and verification standards to ensure environmental integrity.

Financial support

Bellona: The Bellona Foundation is an independent non-profit organisation that aims to meet and fight climate challenges, by identifying and implementing sustainable environmental solutions. They work towards reaching a greater ecological understanding, protection of nature, the environment and health. Bellona is engaged in a broad range of current national and international environmental questions and issues around the world.

ZERO: The ZERO Environmental Foundation is an independent, non-profit organisation founded in 2002 by a group of former members and employees of Nature and Youth and Bellona. They work to ensure that everyone can contribute and become part of the climate solution and has a goal to drive zero-emission solutions, at the expense of solutions that produce emissions. ZERO is politically independent.

Financial highlights







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Statement of profit or loss

(amounts in NOK 1000)	Note	31.12 2023	31.12 2022
Operating income			
Other Income		70	0
State Support	4	78,637	40,803
Total operating income		78,707	40,803
Operating expenses			
Phase 2 activities	5,6	299,378	207,915
Wages and Personell cost	6	21,398	2,817
Secondees and 3rd party consultants	6, 7	88,442	67,389
Depreciation and writedowns	5, 8	6,309	6,427
Other operating expenses	7	34,160	33,859
Total operating expenses		449,687	318,407
Operating loss		-370,980	-277,604
Finance items			
Finance income	9	156,406	177,395
Finance expenses	9	-143,174	-110,413
Net finance items		13,232	66,983
Net loss		-357,748	-210,621



Statement of financial position – Assets

(amounts in NOK 1000)	Note	31.12.2023	31.12.2022
ASSETS			
Non-current assets			
Fixed assets			
Buildings and land	5	168,997	172,778
Right of use assets	8	10,035	12,656
Office equipment	5	1,795	2,606
Facilities under construction	5, 6, 10, 11	6,111,514	4,641,247
Ships under construction	5, 6, 10	475,000	231,898
Total fixed assets		6,767,341	5,061 186
Total non-current assets		6,767,341	5 061,186
Current assets			
Receivables			
Trade Receivables	12	1,215	3,093
VAT receivables	12	207,185	219,360
Prepaid cost to Service Provider	12	346,262	484,185
Other current receivables	12	22,969	10,064
Financial Instruments	12	60,082	55,938
Total receivables		637,712	772,641
Cash and cash equivalents	13	583,336	546,092
Total current assets		1,221,048	1,318,733
Total assets		7,988,389	6,379,919



Statement of financial position – Equity and liability

Equity and liabilities	Note	31.12.2023	31.12.2022
Equity			
Equity			
Retained earnings		-650,298	-292,550
Paid-in capital	14	2,646,297	1,606,576
Total equity		1,996,000	1,314,026
Liabilities			
Non-current liabilities			
Asset retirement obligation	11	410,525	307,499
Deferred State Support	4	5,122,292	3,696,382
Lease liabilities	8	7,371	10,334
Total non-current liabilities		5,540,188	4,014,215
Current liabilities			
Accounts payable		30,798	25,944
Lease liabilities	8	2,821	2,821
Other current liabilities	15	418,582	1,022,912
Total current liabilities		452,201	1,051,677
Total liabilities		5,992,389	5,065,892
Total equity and liabilities		7,988,389	6,379,919

Stavanger, 21 March 2024 Svein Skeie Chair of the Company Meeting Equinor Refining Norway AS Michael Bullen Member of the Company Meeting TotalEnergies EP Norge AS

Bjørn Melaa

Member of the Company Meeting A/S Norske Shell

Harald Børre Jacobsen

Managing Director Northern Lights JV DA

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Statemer	nt of	(amounts in NOK 1000)	31.12 2023	31.12 2022
comprehe	ensive	Loss for the period	-357,748	-210,621
income/lc)SS	Total comprehensive loss for the period	-357,748	-210,621
		Total comprehensive loss for the period is attributable to:		

Owners of Northern Lights JV DA

Statement of changes in equity

(amounts in NOK 1000)	Note	Paid-in capital	Retained earnings	Total equity
Opening belance 1 January 2022	2	1,606,576	-292,550	1,314.026
Opening balance 1 January 2023	2	1,000,570	-292,000	1,314,020
Loss for the period			-357,748	-357,748
Other comprehensive income		0	0	0
Total comprehensive loss for the period		1,606,576	-650,298	956,279
Transactions with Owners in their capacity as Owners				
Paid-in capital contribution	14	1,039,721	0	1,039,721
Total transaction with Owners		1,039,721	0	1,039,721
Balance at 31 December 2023		2,646,297	-650,298	1,996,000

-210,621

-357,748



Statement of cash flows

(amounts in NOK 1000)	Note	31.12 2023	31.12 2022
Cash flows from operating activities			
Net loss		-357.748	-210,621
Depreciation	5, 8	6,271	3,102
Writedowns	5, 5	38	3,256
Accretion	11	10,270	9,996
Net change in accounts payable	"	4.854	7,427
Net change in receivables	12	139,072	134,247
Net change in financial instruments without cash effect	12	-4,144	-55,938
Net change in liabilities	12	-604.330	715.044
Net cash flow from operating activities		-805,716	606,514
		-605,716	000,514
Cash flows from investment activities			
Purchase of fixed assets	5	-1,619,712	-3,646,585
Investment related State Support received	4	1,425,910	2,475,197
Net cash flow from investment activities		-193,803	-1,171,389
Cash flows from financing activities			
Lease interest payments	8	-361	-274
Repayment of lease liabilities	8	-2,821	-1,555
Proceeds from capital contribution from Owners		1,039,721	1,057,159
Net cash flow from financing activities		1,036,538	1,055,330
Net changes to cash and cash equivalents		37,020	490,455
Bank deposits, cash and cash equivalents 01.01.2023		546,092	55,021
Net currency translation effect		224	616
Bank deposits, cash and cash equivalents 31.12.2023	13	583,336	546,092

Financial highlights



Notes to the financial statements

NOTE 1 ORGANISATION

Northern Lights JV DA ("Northern Lights JV" or "The Company") was founded 5 February 2021. The operatorship was transferred from Equinor ASA to Northern Lights JV 7 June 2021, this date represents the start of the company.

Northern Lights JV DA is a General Partnership subject to Norwegian company law and the owners have unlimited liability for their respective shares of the total liabilities. Northern Lights JV DA's owners are Equinor Refining Norway AS, TotalEnergies EP Norge AS and A/S Norske Shell, all holding equal ownership shares of 33.3%.

Northern Lights JV DA is part of Norwegian Authorities' efforts to develop a full-scale carbon capture and storage in Norway, referred to as "Langskip" (Longship). The address of its registered offices is Byfjordparken 15, 4007 Stavanger, Norway. Northern Lights JV DA purpose is to deliver CO_2 transport and storage as a service. By developing the worlds first open-source CO_2 transport and storage infrastructure, utilizing shipping as a flexible solution, the industry can take responsibility for its emissions.

NOTE 2 SIGNIFICANT ACCOUNTING POLICIES

Statement of compliance

The financial statements of Northern Lights JV are prepared in accordance with simplified application of international accounting standards according to section 3–9 of the Norwegian Accounting Act and the current regulations regarding simplified application of IFRS® issued by the Norwegian Ministry of Finance. Northern Lights JV has been granted exemption from the requirement in the Norwegian Accounting Act § 3-4 to prepare the financial statements in the Norwegian language. The financial statement is as such only prepared in English.

Basis for preparation

Except for the exemption rules that are available under the simplified application of international accounting standards, the financial statements have, in the areas of recognition and measurement, been prepared in full accordance with the relevant IFRS accounting standards, as adopted by the EU at the end of the financial year.

Northern Lights JV has not chosen to use any of the voluntary exceptions that are applicable under simplified application of international accounting standards.

In the areas of presentation and note disclosures, the financial statements have been prepared in accordance with the requirements of Norwegian Accounting Act. The statement of cash flows has been prepared using the indirect method.



The financial statement has been prepared on a going concern basis.

Functional and presentation currency and foreign currency translations

Northern Lights JV uses Norwegian Kroner, NOK, as presentation currency. NOK is also the functional currency, based on an evaluation of Northern Lights JV's primary economic environment and related cash flows. The cash flow from received State Support and financing activities from the owners are mainly generated in NOK. The currency that influences costs is a mix of NOK, USD, EUR and GBP, where NOK is the main currency in the establishment period.

NOTE 3 FINANCIAL RISK MANAGEMENT

General information related to financial risks

Northern Lights JV DA's approach to risk management includes assessing and managing risk with focus on achieving the highest risk adjusted returns for the owners. Northern Lights JV DA is in the establishment phase. The Norwegian State will finance a large portion of the investments in this phase and the owners will cover remaining part.

Currency risk

Currency risks arise from multi-currency cash flows within Northern Lights JV DA. Northern Lights JV DA is exposed to foreign currency exchange risk on its purchases. In all material aspect exposure is related to changes in USD, EUR and GBP. Northern Lights JV DA receives state support for eligible costs. Please refer to note 4 for further information on state support and definition of eligible cost. State Support is in NOK and Northern Lights JV DA will as such be exposed to currency exchange differences between NOK and the above-mentioned currencies.

Cost not covered by State Support will be covered by the owners through capital contributions. Northern Lights JV DA can request funding from the owners in NOK, USD, GBP and EUR at its own discretion. This reduces the currency risk exposure for Northern Lights JV DA.

A substantial currency exposure is related to the building of the ships. A large milestone payment of 60% of the contract value is due at delivery of the two first ships in second half of 2024. Northern Lights JV DA entered into hedge agreement to mitigate the currency risk related to the building of the two first CO_2 ships where the milestone payments are nominated in USD. The contract for hedging was signed medio February 2022. Northern Lights has not entered any additional hedging contracts in 2023.

The contract for the 3rd ship is not subject to currency hedge as the exposure is somewhat reduced. For the 3rd ship, Northern Lights can cash call the owners for 50% of the cost in the underlying currency of the contract being USD.

Please refer to <u>note 10</u> for more information.

Liquidity risk

Liquidity risk is the risk that Northern Lights JV DA will not meet obligations of financial liabilities when they become due. Northern Lights JV DA is funded by the owners and with State Support. On a monthly basis Northern Lights JV DA ask the State and the owners for prepayment (often referred to as cash calls). The amount requested represents the expected payment in the following month.

To identify current and future financing needs, Northern Lights JV DA carries out short-term (12 months) budget and long-term forecasts (5-year plan) to plan the liquidity. These budget and forecasts are updated regularly, for various scenarios and form part of the decision basis for the Northern Lights JV DA's management and the Company Meeting.

Financial highlights

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Northern Lights JV DA has no external debt financing as of end 2023.

Environmental and climate risk

Northern Lights assesses financial risk from climate change as limited. The Øygarden CO₂ receiving terminal is built according to today's regulations and standards, taking environmental risk into account. It is not expected that changes in the climate will require additional investments or upgrades of the facilities.

It should be noted that the Northern Lights ships are already considered a low CO₂ emissions transport solution: they are using LNG and are equipped with a wind assisted propulsion system to reduce the energy consumption and an air lubrication system to limit the friction effects with seawaters while sailing. All of these measures will help reducing by 34% the carbon footprint compared to conventional solutions. In addition, it is worth to mention that all contractual shipping options that the Northern Lights has or will consider in the future i.e., direct construction or chartering, have strict environmental and safety clause in place.

In 2024 the shipping industry in EU and Norway will be quota bounded and Northern Lights will need to pay CO_2 quotas on the emissions from the fuel combustion. The cost related to the

quotas are accounted for in the long term plans and forecasts of Northern Lights. Going forward, Northern Lights will look for new technologies or fuel compositions that can reduce future emissions from ships even further.

Northern Lights has concluded that impact on financial risk in the balance sheet from climate changes is limited.

The activities of Northern Lights have limited impact on the climate. The business model of Northern Lights is to offer industry the opportunity to take responsibility of its emission, by providing a scalable, cross-border CO_2 management solution through the transport and safe storage of CO_2 .

Northern Lights's overarching goal is to abate CO_2 , coming from industries that have 'hardto-abate emissions', meaning they lack the green technological solutions to substitute their current processes, and thus need an alternative, such as permanent storage of their CO_2 . Northern Lights thus has significant potential for CO_2 abatement of the EU industry, which in turn participates in the common effort towards reaching climate targets and limiting climate change. Indeed, CCS is recognised by the IEA as one of the necessary pillars to decarbonise our industries. To assess its carbon footprint along the full value chain, Northern Lights has commissioned Carbon Limits to perform a Life Cycle Assessment (LCA) following the principles of ISO 14040 "Life Cycle Analysis – principles and framework" and ISO 14044 "Life Cycle Analysis – requirements and guidelines". The assessment covers the entire lifetime (50 years, including 25 years of operation) and full value chain of its activities (from cradle to grave). The Life Cycle Assessment has also enabled to identify the main contributors to the overall carbon footprint and has been used to support the definition of the emissions reduction strategy.



NOTE 4 STATE SUPPORT

Significant accounting policies

As part of the Longship Project, Northern Lights JV DA receives government grants related to its establishment activities of the transport and storage of CO_2 . When such grants are received to carry out certain activities or compensate specific expenses, the grant is recognized in the income statement over the same period as the associated costs. Grants that compensate Northern Lights JV DA for the cost of purchase or creation of an asset are recognized as deferred State Support in the statement of financial position, and subsequently recognized as other income over the useful life of the asset.

Deferred State Support

Northern Lights JV DA has entered into a State Support Agreement (SSA) which regulates the government grants Northern Lights JV DA can request. Eligible cost is defined as cost that is subject to State Support. The Agreement between Northern Lights JV DA and the Norwegian State regulates Basis Investment and Additional Investment. The Norwegian State supports Northern Lights JV DA with different percentages of grants to cover cost based on whether it is regarded as Basis Investment or Addtional Investment.

Eligible cost related to Basis Investment comprise of cost necessary for establishment of onshore/offshore facilities and two ships to handle 1.5 million tonnes CO_2 stored annually. This phase is supported with 80% State Support. Eligible costs related to Additional Investment which comprise of an extra well and a third ship is supported with 50%. State Support related to eligible cost not fulfilling the recognition criteria in IAS 16.7 is recognized in the profit and loss statement.

The support for Basis Investment is maximum upward limited to 6,119 million NOK and support for Additional Investment is upward limited to 800 million NOK per Nov. 2019 value.

Specification of State Support received through the year

(amounts in NOK 1000)

Recognised in profit and loss, as related to expenses in current period	78,637
Recognized as deferred State Support, related to assets under construction	1,425,910
Total received	1,504,547

Specification of deferred State Support

(amounts in NOK 1000)

Opening balance 01.01.2023	3,696,382
Support received through the year	1,425,910
Balance 31.12.2023	5,122,292



NOTE 5 PROPERTY, PLANT & EQUIPMENT

Significant accounting policies

Property, plant & equipment are recognized in the statement of financial position at cost less accumulated depreciation and impairment losses. The cost price of such assets is the purchase price including expenses directly attributable to the purchase of the asset. For assets under construction that are purchased turnkey from the supplier, the cost price consists of advances paid. For self-constructed assets under construction, the cost price reflects the cost of materials and labour added to the asset. Expenses incurred after the asset has been put into use, such as ongoing daily maintenance, are charged to the income statement in the period in which they were incurred, except for expenses expected to generate future economic benefits that are recognized as a part of the asset.

Facilities- and ships under construction

Northern Lights JV DA is currently developing and building a complete facility to receive and permanently store CO_2 from various industrial emitters. In addition, Northern Lights JV DA also have three ships under construction, which will transport the CO_2 from the customers to the storage facility. Two injection wells have been drilled and subsea templates has been installed.

The progress for ship building construction as of 31 December 2023 is 82.4% for ship no. 1, 81.5% for ship no. 2 and 6.4% for ship no. 3.

Committed obligation

Northern Lights JV DA uses Equinor as a service provider to oversee and control the establishment of onshore and offshore facilities. The total committed amount is 6,760 million NOK. This includes the cost for establishment of onshore and offshore facilities in Øygarden in addition to their overseeing and control. Northern Lights JV DA uses Shell International Trading and Shipping Company Limited ("Stasco") to oversee and control the building of three ships. The total committed for ship building and supervision amount is 1,970 million NOK.

Assessment related to impairment triggers, please refer to <u>note 10</u>.

Assets under construction are not depreciated. Writedowns relate to Høyreavkjøringsfelt til Ljøsøyvegen that has been transferred to Vestland Fylkeskommune in Q1 2022, a minor adjustment to this cost was added in 2023, and subsequently written down in 2023.

Phase 2 activities

In addition to the facilities currently under construction, Northern Lights JV DA is maturing the expansion of the facilities that will make it possible to receive 5 million tonnes CO_2 annually. Expenditures attributed to this project are recognized as expense in the statement of profit or loss, as the recognition criterias in IAS 16.7 are currently not considered to be met. The cost related to expansion will be captialized after an investment decision has been taken by the owners.

This part of the project is not covered by the State Support agreement and will be funded by the owners.



NOTE 5 PROPERTY, PLANT & EQUIPMENT

Specification of property, plant & equipment

(amounts in NOK 1000)	Office equipment	Buildings	Land, and infrastructure	Facilities under construction	Asset Retirement Obligation-Asset	Ships under construction	Total
Opening balance 01.01.2023	3,173	142,166	31,559	4,344,606	296,642	231,898	5,050,044
Additions/Corrections*	0	-335	-565	1,377,510	92,756	243,102	1,712,468
Writedowns for the year	0	0	-38	0	0	0	-38
Cost 31.12.2023	3,173	141,832	30,957	5,722,116	389,397	475,000	6,762,474
Opening balance	567	948	0	0	0	0	1,515
Depreciations for the year	810	2,843	0	0	0	0	3,654
Accumulated depreciation 31.12.2023	1,377	3,791	0	0	0	0	5,168
Book value 31.12.2023	1,795	138,040	30,957	5,722,116	389,397	475,000	6,757,306
Economic useful life	3 years	50 years					
Depreciation schedule	Linear	Linear	Not started	Not started	Not started	Not started	

*Corrections in Buildings, Land, and infra-structure, relate to credit note received in 2023 for 2022 charges.



NOTE 6 PERSONELL COST

Northern Lights JV DA has grown from average 2 direct hires in 2022 till average 12 direct hires in 2023. By year-end 2023, Northern Lights JV DA had in total 18 direct hires. In addition, the number of seconded personnel and external consultants have increased. Seconded personnel are personnel formally employed in the owner companies and are hired to Northern Lights JV DA for a specific period, usually between three to five years.

Personnel costs related to establishment of the facilities are capitalized to the extent that the conditions for this is met.

Pensions

Northern Lights JV DA have a defined contribution pension for its employees. The defined contribution plan is where the employer pays in monthly contributions to the employees individual pension account. The pension received by the employee in the future is based on the contributions paid by the employer and gains or losses from the investment of the funds, where the risk profile is decided by the employee. The pension contributions are expensed in the income statement as incurred. The secondees and contractors are covered by the pensions scheme at their formal employer.

Specification of personnel costs

(amounts in NOK 1000)	2023	2022
Wages and personell related costs	19,906	2,682
Pension costs	1,493	135
Secondee costs	86,396	67,418
3rd party consultantcy costs	22,442	13,582
Recognized as costs of fixed assets	-20,396	-13,611
Total	109,840	70,206

Number of employees

(average FTE for the period)	2023	2022
Employees	12	2
Secondeed	32	22
External consultants	7	4
Total	51	28



NOTE 7 REMUNERATION OF MANAGEMENT AND AUDITOR

Remuneration of management

The Managing Director of Northern Lights JV DA is seconded from A/S Norske Shell. Northern Lights JV DA has as such not paid any remuneration directly to the Managing Director. Northern Lights JV DA has in total been invoiced 4,385 kNOK related to Managing Director's services in 2023.

There have not been any payments of remuneration to the Company Meeting representatives.

Specification of auditors remuneration

(amounts in NOK 1000)	2023	2022
Statutory audit fee	640	725
Other audit related services*	674	316
Total	1,314	1,041

Reported amounts are exclusive of VAT.

*Other audit related services relate to assurance of project accounts.



Significant accounting policies

IFRS 16 requires a lessee to account for lease contract by recognizing a lease liability and an asset representing the right-to-use the underlying asset for the lease term. The lease liability represents the net present value of the lease payments to be made over the remaining lease period. The right-to-use asset is depreciated over the lease term and interest expensed on the lease liability is recognized in the profit and loss.

Northern Lights JV is involved in lease agreements as a lessee. Lease payments related to lease agreements with low value or short duration (below 12 months) are recognized in the income statement as operating expenses.

All other lease agreements are recognized in the balance sheet. Lease agreements with low value are defined as leases related to assets with cost price below NOK 50,000. When assessing whether a lease agreement is short-term (below 12 months) or not, the starting point is at initial date or renewal date of the lease agreement.

Assumptions and judgements applicable to leases

Northern Lights JV's office lease agreement was recognized at the time of commencement (end

of August 2021). An extension to the lease was agreed as part of an agreement in 2022 to increase the leased area. This extended the lease agreement 29 June 2027. The lease liability has been calculated using a discount rate of 3.25%, which represent the risk-free borrowing rate.

29 November 2023, Northern Lights JV entered a long-term lease arrangement with Bernhard Schulte for leasing of a fourth ship. The fourth ship is expected to be delivered in first half 2026 and will be a sister ship to the three vessels under construction.

Specification of right-of-use assets

amounts in NOK 1000)	2023
	2023
Opening balance 01.01.2023	14,942
Additions	0
Carrying amount 31.12.2023	14,942
Opening balance 01.01.2023	-2,286
Depreciations	-2,618
Accumulated depreciation 31.12.2023	-4,904
3ook value 31.12.2023	10,038
Economic useful life	5 years
Depreciation schedule	Linear

Specification of lease liabilities

1	
(amounts in NOK 1000)	2023
Opening balance 01.01.2023	13,155
Additions	220
Interest expenses	-361
Lease payments	-2,821
Carrying amount 31.12.2023	10,193
Due within one year	2,821
Due within one and five years	7,371
Due after 5 years	0
Total	10,193

NOTE 9 FINANCIAL ITEMS

Specification of financial items

(amounts in NOK 1000)	2023	2022
Interest Income	14,240	5,827
Realized currency exhange gain*	43,892	34,408
Unrealised currency exhange gain**	98,273	137,160
Realized currency exchange loss	-18,645	-25,408
Unrealised currency exhange loss	-103,845	-68,727
Interest expense	-20,683	-16,278
Total financial items	13,232	66,983

 * Realized currency exchange gain from financial instruments amounts to 19,066 kNOK in 2023 versus 11,013 kNOK in 2022.
** Unrealized currency exhange gain from financial instruments amounts to 60,082 kNOK in 2023 versus 55,938 kNOK in 2022.

NOTE 10 IMPAIRMENT ASSESSMENT

Significant accounting policies

Northern Lights JV DA assesses assets or groups of assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Assets are considered for impairment individually to the extent that a recoverable amount can be determined, or otherwise as part of a cash-generating unit. Deferred government grants that are directly attributed to specific assets, and which will be recognized as income over their useful life, are deducted from the carrying amounts when assessing impairment.

Significant accounting judgements

Northern Lights JV DA consist of one cash generating unit (CGU). The impairment assessment has as such been done on one CGU. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflow from other assets or groups. Northern Lights JV DA business model is to safely deliver transportation and storage of CO_2 . As an initial approach the service will be delivered as a package deal, where the customer will enter a contract for both transportation and storage with an associated tariff covering both

elements. Depending on the outcome of commercial negotiations, this assumption could be revised on a case by case basis. The three CO_2 ships that are under construction are included in the CGU. At this stage it is considered to have a limited alternative use, as there is no active market for CO_2 transportation ships yet. This assessment will be reassessed from time to time. It is expected that an active market for CO_2 ships will evolve within the next coming years.

Estimation, assumption and sensitivity

All the Northern Lights JV DA's significant assets, except from the visitor center at Øygarden, are currently under construction and Northern Lights JV DA does not have any revenues. Furthermore, as Northern Lights JV DA's business model is new, there are currently no significant competitors in the market for the transportation and storage of CO_2 service, but this is expected to evolve towards 2026. During 2023, Northern Lights JV DA signed two long-term customer contracts with Yara in Netherlands and Ørsted in Denmark. Northern Lights JV is currently in negotiations with several customers in order to land fully termed agreements towards an expansion.

Uncertainty in the impairment assessment relates to future market development, EU



emission quota market, adoption of the technology and solutions for CCS value chain and weighted average cost of capital (WACC).

Northern Lights JV DA uses an approach of regular updates of assumptions and economic conditions in establishing the long-term forecasts which are reviewed and approved by the Company Meeting. The assessment is updated at least annually.

When the owners took their final investment decision 6 May 2020 the EU Emission Trading System ("ETS") price was approximately 20 EUR per ton. In 2023 the ETS prices have been more stable than in 2022, where the ETS price has fluctuated between 97 EUR/t and down to 75 EUR/t. In December 2023, the ETS price increased to 80 EUR/t. The appetite to invest in CCS for commercial customers will be affected by the development of the ETS price.

Impairment conclusion

The management of Northern Lights has performed an impairment trigger assessment and have concluded that no impairment triggers are present as of 31 December 2023. NOTE 11 ASSET RETIREMENT OBLIGATION

Significant accounting policies

Asset retirement obligations primarily relate to plugging of injection wells, removal of subsea templates and other installations on the seabed. The obligation matures at the time when the associated assets reach the end of their useful life. Initial recognition of the liability takes place at the time when the related asset is acquired or installed, with a corresponding amount recognized as an additional cost of the asset and subsequently depreciated over its ucseful life. The amount recognized is measured as the present value of the estimated future expenditures. In subsequent periods, the unwinding of the discount is presented as financial expense, while other changes are recognized as a change in the cost of the related asset in accordance with IFRIC 1.

Estimation uncertainty

The estimated future expenditures relating to asset retirement is based on the current regulation and requirements, while considering the currently available technology. In determining the estimate, scenario analysis is used to address the significant uncertainty associated with developments in future price levels, technological developments and regulatory conditions. The discount rate used in the calculation is determined using an estimated risk-free interest rate.

Assumptions and sensitivity

The calculations assume an inflation rate of 2% and a nominal interest rate of 3.25%.

Asset retirement obligations presented in the financial statement of 2023 relate to pipeline and subsea templates in addition to two injection wells installed on the EL001 Aurora licence, and the onshore facilities. Additions for 2023 relate to estimates for Pipelines to shore and Onshore facilities that was not included in 2022. Other changes relate to reduction in P&A estimate, increase in subsea and decomissioning.

Asset retirement obligations 01.01.2023	307,499
Unwind of discount (financial expense)	10,270
Addition of onshore plant	78,838
Addition of pipelines & umbillicals	21,848
Other changes	-7,930
Asset retirement obligations 31.12.2023	410,525



NOTE 12 TRADE AND OTHER RECEIVABLES

Significant accounting policies

Trade and other receivables are recognized at face value, less provisions for expected credit losses. Provisions for expected credit losses are based on the simplified approach, using a lifetime expected loss allowance. The credit rating of the counterparties generally means that expected credit loss is not material.

Specification of other current receivables

(amounts in NOK 1000)	2023	2022
Trade receivables	1,215	3,093
Prepayment to Service Provider	346,262	484,185
VAT receivables	207,185	219,360
Other receivables	22,969	10,064
Financial Instruments	60,082	55,938
Total trade and other receivables	637,712	772,641

Prepayment to Service Providers

Service Provider can ask for prepayment (cash calls) from Northern Lights JV DA on a monthly basis. Prepaid amount as of year-end 31 December 2023 consists of prepayment for January costs of 103,493 kNOK, in addition to an insurance refund receivable of 242,769 kNOK.

VAT receivables

Northern Lights JV DA has not deducted ingoing VAT related to historical cost occurred before the establishment of Northern Lights JV DA. In 2021, Northern Lights JV DA formally requested the Norwegian Tax Authorities advice related to handling of VAT and received a formal response in September 2023. The conclusion was that Northern Lights are entitled to deduct VAT on historical cost in total 89 MNOK currently recorded as a receivable in the balance sheet. The credit from the tax authorities including interest was received end January 2024.

Other receivables

Other receivables consist of prepaid cost of total 17,015 kNOK per 31.12.2023 versus 10,064 kNOK per 31.12.2022.

Hedge contracs USD/NOK maturing in 2024

Financial instruments

On 15 February 2022 Northern Lights JV DA entered into 7 currency hedge contracts with DNB maturing in period from 2022 to 2024. The hedge contracts are related to payment of two CO_2 ships currently under construction. As of 31 December 2023 an unrealized exchange gain amounted for 60,082 kNOK for the contracts.

NOTE 13 CASH AND CASH EQUIVALENTS

Significant accounting policies

Bank deposits, cash and cash equivalents includes all cash, bank deposits and other short term liquid investments. Northern Lights JV DA has no restricted cash except employee advance tax withholding of 1,190 kNOK on 31 December 2023.

		2023			2022	
(amounts in 1000)	Initial value*	Value as of 31.12.2023	Unrealised gain per 31.12.2023	Initial value*	Value as of 31.12.2022	Unrealised gain per 31.12.2022
USD	49,220	49,220		61,500	61,500	
NOK	440,604	500,686	60,082	550,286	606,224	55,938

* Initial value refers to value on trade date 15.02.2022



NOTE 14 RELATED PARTY TRANSACTIONS

Significant accounting policies

Related party relationships are those involving control (either direct or indirect), joint control or significant influence. Related parties are in a position to enter into transactions with the company that would not be undertaken between unrelated parties.

Northern Lights JV DA is a General Partnership where the owners have unlimited liability for their respective shares of the total liabilities. Northern Lights JV DA's owners are Equinor Refining Norway AS, TotalEnergies EP Norge AS and A/S Norske Shell, all holding equal ownership shares of 33.3%. They have joint control over Northern Lights JV. Transactions with related parties of the owner is reflected in overview below.

Significant related parties transactions

On 7 June 2021 Northern Lights JV DA entered into an asset transfer agreement with the previous participants in the Northern Lights JV DA project. Agreements with related parties to Northern Lights JV DA

Participant Agreement

On 7 June 2021, the owners of Northern Lights JV DA entered into the Participant Agreement regulating the control and objective of Northern Lights JV DA.

Service Agreement Equinor ASA

On 7 June 2021, Northern Lights JV DA entered into a service agreement with Equinor ASA for oversee, control and building of onshore, offshore

Specification of related party transactions 2023*

	2023		2022	
(amounts in NOK 1000)	Paid-in capital	Other	Paid-in capital	Other
A/S Norske Shell	346,554	42,520	352,323	21,053
TotalEnergies EP Norge AS	346,554	48,599	352,323	43,795
Equinor Refining Norway AS	346,613	0	352,514	0
Equinor ASA		2,352,749		3,421,123
Equinor Energy AS		1,461		2,330
Shell International Trading and Shipping Company Limited		73,014		24,924
Shell U.K. Limited		0		1,285

*This overview includes invoices received from related parties and does not include any accruals.

facilities and pipeline in Øygarden outside Bergen. The agreement regulated the establishment of a facility to handle 1.5 million tonnes CO_2 annually.

Service Agreement Shell International Trading and Shipping Company Limited ("Stasco")

On 13 October 2021, Northern Lights JV DA entered into a service agreement with Stasco for the supervision of the construction phase of two newbuild CO_2 transportation ships in Dalian, China. The service agreement with Stasco was extended 7 July 2023 to also cover the supervision of a 3rd sister ship that will build in Dalian, China.



NOTE 15 PROVISIONS AND OTHER CURRENT LIABILITIES

Significant accounting policies

Other current liabilities are mainly related to services received, for which payment is due within the next twelve months. These liabilities are measured in nominal amounts.

Specification of other current liabilities

(amounts in NOK 1000)	2023	2022
Accrued secondee and 3rd party personnel costs	38,915	11,121
Services provider payables	360,248	987,200
Other accrued expenses	19,419	24,591
Total other current liabilities	418,582	1,022,912

NOTE 16 INCOME TAX

Significant accounting policies

As a General Partnership, Northern Lights JV DA is not subject to income taxation in Norway. As such, Northern Lights JV DA does not recognize any assets, liabilities or expenses relating to income tax. However, Northern Lights JV DA is

Specification of taxable profit

required to determine a net taxable profit to be allocated to the owners, which is subsequently taxable in accordance with their respective ownership shares.

(amounts in NOK 1000)	2023	2022
Net loss	-357,748	-210,621
Permanent differences	281	397
Net change in temporary differences	10,198	11,435
Taxable profit	-347,268	-198,790

Specification of temporary differences

(amounts in NOK 1000)	2023	2022	Change
Fixed assets	5,510,650	3,992,254	-1,518,396
Defferred state support	-5,122,292	-3,696,382	1,425,910
Right-of-use assets	10,035	12,656	2,622
Leasing liabilities	-10,193	-13,155	-2,963
Asset retirement obligations	-410,525	-307,499	103,026
Net temporary difference	-22,325	-12,127	10,198



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INDEPENDENT AUDITOR'S REPORT

To the Partnership Meeting of Northern Lights Jv DA

Opinion

We have audited the financial statements of Northern Lights Jv DA (the Company), which comprise statement of financial position as at 31 December 2023, the income statement, statement of comprehensive income, statement of cash flows and statement of changes in equity for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

Vassbotnen 11a Forus, 4313 Sandnes Postboks 8015, 4068 Stavanger

In our opinion the financial statements comply with applicable legal requirements and give a true and fair view of the financial position of the Company as at 31 December 2023 and its financial performance and cash flows for the year then ended in accordance with simplified application of international accounting standards according to section 3-9 of the Norwegian Accounting Act.

Other information

Other information consists of the information included in the annual report other than the financial statements and our auditor's report thereon Management (the company meeting and the general manager) is responsible for the other information. Our opinion on the financial statements does not cover the other information, and we do not express any form of assurance conclusion thereon.

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Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Company in accordance with the requirements of the relevant laws and regulations in Norway and the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

In connection with our audit of the financial statements, our responsibility is to read the other information, and, in doing so, consider whether the company meeting report contains the information required by legal requirements and whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information or that the information required by legal requirements is not included, we are required to report that fact.



We have nothing to report in this regard, and in our opinion, the board of directors' report is consistent with the financial statements and contains the information required by applicable legal requirements

Responsibilities of management for the financial statements

Management is responsible for the preparation of the financial statements that give a true and fair view in accordance with simplified application of international accounting standards according to section 3-9 of the Norwegian Accounting Act, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Independent auditor's report - Northern Lights Jv DA 2023

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As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- · Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- · Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- · Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

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