



THE  
GOVERNANCE  
GROUP

# Climate risk review

Mapping climate risk management in accordance with the recommendations of the Task force on Climate-related Financial Disclosures (TCFD)

*Aker Carbon Capture*

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## The Governance Group

The Governance Group AS (TGG) is an advisory firm specializing in risk analysis and sustainability strategies. TGG has a core team in Oslo and a network of affiliated experts in Africa, the Americas, Asia and Europe. Clients include large corporations in the energy, shipping, telecom, real estate and finance sectors, as well as government agencies in several countries.

# 1 Introduction

## BACKGROUND

The Financial Stability Board established the Task Force on Climate-Related Financial Disclosures (TCFD) to develop recommendations for effective climate-related disclosures that could promote more informed investment, credit, and insurance underwriting decisions. The disclosures enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks.

The TCFD recommends companies report on 11 disclosure items related to governance, strategy, risk management and metrics to inform the market of their exposure and approach to climate-related risks and opportunities. TCFD is now considered best practice for reporting on climate risk and is integrated into several jurisdictional reporting requirements globally.

This report summarizes key findings, gaps and recommendations on climate-related risks and opportunities for Aker Carbon Capture based on the 11 recommended disclosure items.

The report is structured according to the TCFD recommendations and provides suggestions for improvements in line with these recommendations.

## METHOD

The analysis is based on 90-minute workshops with key personnel from Aker Carbon Capture, conducted in December 2021. This included key people from finance, sustainability, supply chain, quality, HR, sales/market and HSSE.

The summary was shared with the company for corrections and quality assurance. Findings, gaps and recommendations were then compiled into this report.

## HOW TO READ THIS REPORT

Key findings, gaps and recommendations for Aker Carbon Capture are summarized in chapters 2 and 3. They include an assessment of Aker Carbon Capture's climate-related risk exposure and management, as well as overarching observations.

The complete list of identified risks and opportunities by Aker Carbon Capture are referenced in Table 1. The full review of Aker Carbon Capture against the 11 disclosure items recommended by the TCFD is referenced in Table 2.

# 2 Key risks and opportunities

The list below provides a summary of identified risks and opportunities for Aker Carbon Capture. Financial impacts of the risks identified have not been assessed.

## **PHYSICAL CLIMATE RISK IDENTIFIED**

Aker Carbon Capture has identified acute risks as relevant, such as extreme weather causing higher maintenance costs for operations and challenges in logistics and the supply chain. Chronic risks related to sea-level rise can cause challenges in stability for supply chain, operations, and transport to/from sites near the coast.

## **REGULATORY OPPORTUNITIES ARE SUBSTANTIAL, BUT UNPREDICTABLE**

Policy support for increased pricing or restrictions of GHG emissions is growing in several markets and will increase the demand for carbon capture and storage (CCS) solutions. There are, however, some concerns related to unpredictable regulations, particularly in terms of the roll-out of policy instruments such as government support and subsidies for customers, which may delay project commencement and impact profitability.

## **MARKET RISK AND GREEN FINANCE IS FAVORABLE**

Aker Carbon Capture has identified extensive market opportunities as there is growing market demand for CCS in all climate-related policy scenarios. Further, the company is experiencing promising access to green finance for its activities.

## **TECHNOLOGY RISK IS UNCLEAR**

There are some concerns related to first mover challenges, and the risk of over- or under-investing in technologies and projects, as there are rapid technological developments and several immature technologies involved. However, this is not mentioned as a major concern.

## **REPUTATIONAL RISK IS CONSIDERED LOW FROM A CLIMATE PERSPECTIVE**

Aker Carbon Capture reports positive talent attraction and political goodwill due to its climate-friendly business models. Aker Carbon Capture has chosen to not engage with controversial customer segments such as oil/tar sand in order to avoid the reputational risk associated with these segments. There may be some reputational risk of being associated with the involvement with oil and gas.

Table 1 below references the risks and opportunities identified by Aker Carbon Capture in the workshop.

**TABLE 1: RISKS AND OPPORTUNITIES IDENTIFIED IN WORKSHOP WITH AKER CARBON CAPTURE**

<p><b>PHYSICAL</b></p> <p><i>Acute risks related to extreme weather events and chronic risks like rising sea level and ecosystem changes</i></p>	<p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>Chronic risks include rising sea levels causing challenges on stability for supply chain, operations and transport to/from sites near the coast.</li> <li>Acute risks include increased severity of extreme weather events causing higher maintenance costs for operations and supply chain.</li> </ul> <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>None mentioned.</li> </ul>
<p><b>REGULATORY</b></p> <p><i>Stricter regulations such as CO2 taxes cap-and-trade schemes, energy efficiency requirements and reporting requirements</i></p>	<p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>CCS requires substantial investments, and many customers are dependent on government support/subsidies. The development of policy instruments may take time and their effectiveness is uncertain, which may delay Aker Carbon Capture’s start up and operations.</li> </ul> <p><b>Opportunities:</b></p> <p>Policy support for increased pricing/restrictions of GHG emissions is growing in several markets.</p>
<p><b>MARKET</b></p> <p><i>Changes in market demand, customer requirements and investor behavior</i></p>	<p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>Some industry segments are more challenged due to the green transition (i.e. O&amp;G), and some industries – and potential markets segments – may not survive.</li> <li>Decreased pricing of GHG emissions.</li> </ul> <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>Increased demand for CCS in several industry segments in order to meet CO2 regulations, market demands and corporate net-zero targets.</li> <li>Being a green company increases access to capital and may reduce cost of capital. Relevant for both Aker Carbon Capture and for customers using CCS technology.</li> </ul>
<p><b>TECHNOLOGY</b></p> <p><i>Step-wise or radical technology shifts leading to increased need for investments or risk of stranded assets</i></p>	<p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>New technology in the future that may render our products less competitive and hence reduce our return on investment.</li> </ul> <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>Aker Carbon Capture technology delivers better than customers’ current emissions permit. This may create an opportunity if future permit levels get stricter.</li> </ul>
<p><b>REPUTATION</b></p> <p><i>Risk of stigmatization leading to loss of goodwill, brand value and employee attraction</i></p>	<p><b>Risks:</b></p> <ul style="list-style-type: none"> <li>Doing business with customers in controversial industries could cause reputational risk for Aker Carbon Capture (i.e. coal, production of liquid hydrocarbons and/or industries with high emission/energy intensity such as Enhanced Oil Recovery and oil/tar sands. Aker Carbon Capture does not currently engage with these segments).</li> <li>Solutions chosen by other CCS providers (i.e. lower HSSE quality) may cause a general bad reputation for the industry that may affect Aker Carbon Capture.</li> </ul> <p><b>Opportunities:</b></p> <ul style="list-style-type: none"> <li>Being a green company has a positive impact on reputation incl. recruitment.</li> </ul>

# 3 Key findings & recommendations

The company's business model is founded on meeting the energy needs of a low emission society, and hence directly aligned with the Paris agreement. The company has several projects under development which has not entered the operational phase. Aker Carbon Capture has identified several relevant risks and opportunities, and the approach to risk management, strategy development and target setting appears systematic and coherent for a company with projects in this stage of development.

While the overall risk level is considered low, a more systematic approach to climate risk management is recommended to prepare for stricter regulations and to align with best practice requirements. Going forward, more attention could be paid to physical climate risk, supply chain risk and targets related to the EU taxonomy KPIs.

The information below outlines the key findings reported to Aker Carbon Capture. It is important to note that the company's projects have not yet fully entered the operational phase and hence the assessment of gaps and recommendations is based on the company's development plans.

## 1. Governance

**KEY FINDINGS:** Aker Carbon Capture's Board of Directors (BoD) receives regular updates on climate-related risks and opportunities. Climate-related targets are approved by the BoD and performance against targets is reviewed on a quarterly basis. Aker Carbon Capture's management team assesses and manages climate-related risks and opportunities as part of their general corporate risk process.

**RECOMMENDATIONS:** The workshop identified that physical, chronic climate-related risks are not systematically assessed. Further, climate-related risks in the supply chain may be underestimated. Aker Carbon Capture is recommended to assess this finding and if relevant, present an updated risk review with associated management actions and targets to the BoD.

## 2. Strategy

**KEY FINDINGS:** Aker Carbon Capture has identified climate-related risk and opportunities, see Table 1. The company's business and strategy planning reflect the impact of climate-related risks and opportunities, such as site locations of assets, maintenance costs for all sites and close monitoring of technological developments. Regulatory risk and market risk and the impact on demand/revenue is monitored through different climate-related scenarios (including a 1.5 degree, 2.0- and 2.5-degree scenarios).

**RECOMMENDATIONS:** No specific recommendations; the company demonstrated good processes for including the impact of climate-related risks and opportunities in its strategy processes given the company's development stage.

## 3. Risk management

**KEY FINDINGS:** Aker Carbon Capture has integrated climate risk in the overall enterprise risk system and process. The process is managed by the quality function. Material risks are identified and assessed quarterly from all functions in the organization before being discussed in the management team and then presented to the BoD.

Climate risk is primarily included in technology investment. More detailed climate risk due diligence assessment templates will be developed if/when M&A activity increases. Aker Carbon Capture has introduced liability caps and force majeure clauses to mitigate adverse financial impacts from unexpected events, like extreme weather.

**RECOMMENDATIONS:** Aker Carbon Capture should consider the need for more detailed climate risk due diligence assessments in investment/M&A processes and should ensure documentation of physical climate risk assessments in line with EU taxonomy requirements when the company enters the operational phase. Aker Carbon Capture should also consider reviewing physical climate risks related to disruption in logistics and downtime of operations more systematically.

## 4. Metrics and targets

**KEY FINDINGS:** Aker Carbon Capture has established and is further developing relevant and comprehensive metrics and targets. The company currently use metrics such as:

- Aker Carbon Capture's carbon emissions, carbon intensity and energy efficiency
- Carbon pricing in different IEA scenarios
- Carbon emission reduction for customers with Aker Carbon Capture technology.
- Aker Carbon Capture also reports on scope 1,2 and 3 in accordance with the GHG protocol.

Aker Carbon Capture has also set specific targets for emission reduction and removal and targets for reductions in Aker Carbon Capture's own emissions, which will be submitted to the SBTi for validation. In addition, Aker Carbon Capture will set longer-term targets for EU taxonomy KPIs in 2022.

**RECOMMENDATIONS:** Going forward, it is important that current plans and ambitions (SBTi, Taxonomy, avoided emissions targets) are duly followed up and monitored. Aker Carbon Capture could also consider addressing expectations for net-zero supply chains.

## TCFD MATRIX: DETAILED FINDINGS

The Governance Group has summarised the key findings based on the information given in the workshop.

**TABLE 2: SUMMARY OF INFORMATION PROVIDED IN THE WORKSHOP**

 <b>GOVERNANCE</b>		
#	Disclosure	Summary of findings
1	<b>Describe the board's oversight of climate-related risks and opportunities.</b>	<p>Climate risk is included in Aker Carbon Capture's regular corporate processes. The board's audit committee receives quarterly risk reports and updates the board on key issues. Enterprise risk will be part of CEO updates in board meetings going forward.</p> <p>The board has an annual strategy meeting and targets are approved by the board in connection with the budget process. The board reviews performance against targets on a quarterly basis.</p>
2	<b>Describe management's role in assessing and managing climate-related risks and opportunities.</b>	<p>Climate risk is part of Aker Carbon Capture's corporate risk process.</p> <p>The CFO is responsible for managing and facilitating the risk process. The respective leaders in the management team are responsible for identifying and reporting on climate-related risks within their areas.</p>
 <b>STRATEGY</b>		
#	Disclosure	Summary of findings
3	<b>Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</b>	See overview in table 1.
4	<b>Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</b>	<p>The company's business model is founded on meeting the clean energy needs of a low emission society, and a 5-year strategy process was agreed by the board in June.</p> <p>Regulatory/market risk and impacts on demand/revenue is monitored through scenario analyses of demand/CO2 price for a 1.5-degree scenario with IEA numbers used for CO2 pricing. Aker Carbon Capture has also reviewed an alternative scenario for 2-2.5 degrees.</p> <p>Physical climate change assessments inform site location decisions and estimated maintenance costs for all sites.</p> <p>Technology risks are managed through closely monitoring tech developments and collaboration with customers, particularly with regards to energy efficiency.</p>

		In line with stakeholder expectations, the company has defined carbon reduction targets and has committed to SBTi.
5	<b>Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</b>	The company uses scenario analysis to inform its strategy, including 1.5 degree, 2.0 and 2.5 degree scenarios, which all show robust demand for Aker Carbon Capture's solutions.

 <b>RISK MANAGEMENT</b>		
#	Disclosure	Summary of findings
6	<b>Describe the organization's processes for identifying and assessing climate-related risks.</b>	Climate risk is integrated in the overall enterprise risk system and process. The process is managed by the quality function. Material risks are identified and assessed quarterly from all functions, discussed in the management team and then presented to the board.
7	<b>Describe the organization's processes for managing climate-related risks.</b>	<p>Climate risk is included in all investment decisions, primarily for technology investments, as the company is not yet in a position for acquisitions. More detailed climate risk DD templates will be developed if/when M&amp;A activity increases. Aker Carbon Capture has decided not to pursue opportunities in severely risk-exposed industries like coal, as it expects this market to decline.</p> <p>Aker Carbon Capture has introduced liability caps and force majeure clauses to mitigate adverse financial impacts from unexpected events, such as extreme weather.</p> <p>Aker Carbon Capture has clear requirements for which customers it collaborates with to reduce reputational risk.</p> <p>Aker Carbon Capture also expects to benefit from processes/systems in Aker Horizons as its business develops</p>
8	<b>Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</b>	Climate risk is integrated in the overall enterprise risk system, which is made available for both the management and board



## METRICS & TARGETS

#	Disclosure	Summary of findings
9	<b>Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</b>	<p>Metrics used:</p> <ul style="list-style-type: none"><li>• Aker Carbon Capture's carbon emissions, carbon intensity and energy efficiency</li><li>• Carbon pricing in different IEA scenarios</li><li>• Carbon emission reduction for customers with Aker Carbon Capture technology,</li><li>• Further metrics are planned, as the CCS technology matures</li></ul> <p>Key EU taxonomy metrics (proportion of green turnover, capex and opex) will be reported in the annual report for 2021</p>
10	<b>Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</b>	<p>Aker Carbon Capture reports on scope 1, 2 and 3 GHG emissions. This will become more challenging as new activities start up and is an area that has been identified for close follow up.</p> <p>Aker Carbon Capture plans to report on avoided emissions and is conscious of correct accounting according to the GHG protocol.</p>
11	<b>Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</b>	<ul style="list-style-type: none"><li>• Handprint target for 2025; secure contracts to capture 10 mill tonnes of CO2 per year by 2025.</li><li>• Targets for own emission reductions and carbon intensity, with commitment letter sent to the SBTi.</li><li>• Targets for longer-term EU taxonomy KPIs.</li></ul>



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