# Aker BP ASA - Climate Change 2019

## C0. Introduction

### C0.1

**(C0.1) Give a general description and introduction to your organization.**

Aker BP ASA is an exploration and production (E&P) company with exploration, development and production of petroleum resources on the Norwegian continental shelf. Aker BP is the operator of Alvheim, Ivar Aasen, Skarv, Valhall, Hod, Ula and Tambar, partner in Johan Sverdrup field and has a total of 138 exploration licenses, including non-operated licences. The company is jointly owned by Aker ASA (40%), BP /30%), and other stakeholders. The company is listed on Oslo Stock Exchange with the ticker 'AKERBP'. Aker BP is headquartered at Fornebu outside Oslo and has offices in Stavanger, Trondheim, Harstad and Sandnessjøen. At the end of 2018, the company had 1649 employees.

Aker BP ASA generated total revenues of 3 750 USD million in 2018. The company paid income taxes of 606 USD milion, 28 USD million in CO2 fees, 1.6 USD million to the NOx fund and purchased CO2 quotas for 6 USD million. The company further generated a free cash flow of 1 652 USD million and paid 450 USD million as dividend to its shareholders.

To support the Paris climate agreement and the KonKraft initiative (reduction target for the Norwegian petroleum industry), Aker BP has committed to reduce CO2 emissions corresponding to our share of the KonKraft obligations (140 000 tonnes CO2/annum from 2020-2030). An energy forum was established in 2017 to actualize our part of the obligations. Our goal is to minimize emissions from activities on the Norwegian continental shelf through choosing energy-efficient solutions and operations. New projects must perform feasibility studies for power from shore or power transmission. In cases where new energy-intensive equipment is purchased, the equipment must be as energy-efficient as possible and utilise low-emission technology. In 2018, climate was further integrated and embedded in our strategy and decision making. Our climate strategic priorities ensure that we continuously improve by reducing our emissions and implementing energy efficiency in our operations. The Board chair together with the Board of Directors have ownership of climate-related objectives and expectations in Aker BP's climate strategy. They review and guide the major plans of action when it comes to investment decisions for climate initiatives.

Our CO2 intensity target, for operated fields, is set to less than 8 kg CO2 per barrel of oil equivalent (boe). In 2018, our CO2 intensity was 7 kg CO2/boe, below our target.

All our operations are located in Norway and have scope 1 and 2 emissions. Scope 3 emissions are partly estimated. Direct green house gas (GHG) emissions (scope 1) were 891,350 tonnes CO2 e in 2018, compared to 931,796 tonnes CO2e in 2017. Indirect GHG emissions (scope 2) increased from 126,180 tonnes CO2e in 2017 to 159,391 tonnes CO2 e in 2018, mainly due to increased sea water injection. GHG emissions include carbon dioxide (CO2) and methan (CH4). Emissions of NOx and SOx increased with 13% and 11% respectively, mainly due to increased drilling activity in 2018.

### C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

| | Start date | End date | Indicate if you are providing emissions data for past reporting years | Select the number of past reporting years you will be providing emissions data for |
|---|---|---|---|---|
| Row 1 | January 1 2018 | December 31 2018 | Yes | 1 year |

### C0.3

**(C0.3) Select the countries/regions for which you will be supplying data.**

Norway

### C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

### C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational control

## C-OG0.7

**(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?**

**Row 1**

**Oil and gas value chain**

Upstream

**Other divisions**

Please select

## C1. Governance

## C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

## C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

| Position of individual(s) | Please explain |
|---|---|
| Board Chair | Climate challenge is recognized by Aker BP and the Board chair, Øivind Eriksen, together with the Board of Directors have direct ownership of climate related objectives and expectations in the Aker BP's strategy. They have a leadership and supervisory role in all corporate social responsibility matters, including climate-related issues, and review and guide the major plans of action when it comes to investment decisions for climate initiatives. All members of the Board are considered independent of the Executive managment team. Production and CO2-emissions KPI's and project targets are included as part of the company's incentive structure. Climate strategy is incorporated in the business management system and anchored in the corporate HSSEQ policy and plans for 2019. |
| Board-level committee | Health, Safety, Security and Environment («HSSE») and Corporate Social Responsibility («CSR») are of paramount importance to the Board of Directors of Aker BP. The Board recognizes its responsibility for the safety of people and the environment and devotes appropriate time and resources to comply with all regulations and strives to adhere to the highest HSSE standards. The Board of Directors have direct ownership of climate related objectives and expectations in Aker BP's climate strategy, and reviews and guides the major plans of action when it comes to investment decisions for climate initiatives. The Board has established an Audit and Risk Committee consisting of the following Board members: Trond Brandsrud (Chair), Anne Marie Cannon and Kate Thomson. The committee oversees the company's financial risk management and monitors and reviews the company's business risk. |

## C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

| Frequency with which climate-related issues are a scheduled agenda item | Governance mechanisms into which climate-related issues are integrated | Please explain |
|---|---|---|
| Scheduled – some meetings | Reviewing and guiding strategy<br>Reviewing and guiding major plans of action<br>Reviewing and guiding risk management policies<br>Reviewing and guiding annual budgets<br>Reviewing and guiding business plans<br>Setting performance objectives<br>Monitoring implementation and performance of objectives<br>Overseeing major capital expenditures, acquisitions and divestitures<br>Monitoring and overseeing progress against goals and targets for addressing climate-related issues | The company's annual strategy process has a separate work stream to quantify our climate-related performance and related risks and opportunities. We project our performance in the future, and define a target we want to achieve. Thereafter we agree initiatives to be worked on during the strategy period to achieve this target. The board has ownership to the climate related issues. They review and guide the major plans of action when it comes to investment decisions for climate initiatives. The strategy, objectives and levers we use are anchored in the Executive Management Team, and communicated throughout the company. It is supported by our annual Sustainability report, which provides transparency around our broader sustainability performance - including climate-related issues. The Board will review and provide guidance for the major plans of action related to climate reductions. Risks and opportunities are reviewed and guidance given as to how climate related risk is part of the company performance objectives. The Board will also monitor and oversee progress against goals and targets set for short-term and long-term perspectives. Business plans are reviewed alongside budgets to set the correct strategic priorities for climate related issues. |

## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

| Name of the position(s) and/or committee(s) | Responsibility | Frequency of reporting to the board on climate-related issues |
|---|---|---|
| Chief Executive Officer (CEO) | Assessing climate-related risks and opportunities | More frequently than quarterly |
| Chief Financial Officer (CFO) | Assessing climate-related risks and opportunities | More frequently than quarterly |
| Chief Operating Officer (COO) | Both assessing and managing climate-related risks and opportunities | More frequently than quarterly |
| Other C-Suite Officer, please specify (HSSEQ) | Both assessing and managing climate-related risks and opportunities | More frequently than quarterly |
| Other committee, please specify (Energy Forum) | Both assessing and managing climate-related risks and opportunities | More frequently than quarterly |
| Chief Procurement Officer (CPO) | Assessing climate-related risks and opportunities | More frequently than quarterly |
| Sustainability committee | Assessing climate-related risks and opportunities | More frequently than quarterly |
| Environmental, Health, and Safety manager | Both assessing and managing climate-related risks and opportunities | More frequently than quarterly |
| Environment/ Sustainability manager | Both assessing and managing climate-related risks and opportunities | More frequently than quarterly |

## C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

Aker BP acknowledges the conclusions from the Intergovernmental Panel on Climate Change (IPCC) and supports the Paris Agreement's goal to keep the increase in global average temperature to well below 2 °C above pre-industrial levels; and to strive to bring the rise in temperature down towards 1.5 °C . Aker BP will reduce the emissions in line with the obligations in the KonKraft agreement. KonKraft is a collaboration arena for the Norwegian Oil and Gas Association, the Federation of Norwegian Industries, the Norwegian Shipowners Association and the Norwegian Confederation of Trade Unions (LO).

Aker BP's business strategy is to integrate climate and energy management in all our operations and to implement climate efficient solutions in the entire company. The Board Chair together with the Board of Directors have direct ownership of climate-related objectives and expectiations in Aker BP's climate strategy. They review and guide the major plans of action when it comes to investment decisions for climate initiatives. Aker BP's KPI on CO2 emissions is included as part of the company's incentive structure. Our CO2 intensity target (KPI) is set at less than 8 kg CO2 per barrel of oil equivalents (operated fields).

We work by promoting and investing in innovative energy solutions and have established a long-term R&D strategy to invest in climate related research. We work with climate by setting the tone from the top (Executive leadership team and Board) with expectations and policy setting. Our Energy forum (established in 2017) is used to support and challenge the business. Leaders and all employees take ownership and adhere to climate objectives. The entire company and all our operations shall work to meet the strategic directions and objectives. We put in place efficient and well-established processes, key performance indicators (KPI) and routines for climate and energy efficiency.

The roles and responsibilities are clearly stated in our common governing model for Climate and Energy Efficient Solutions. These positions are responsible for climate related issues:

**Board of Directors:**
- Ownership of climate related objectives and expectations in Aker BP's Strategy

**Executive leadership team (Senior Vice presidents from HSSE, Operations, Improvement , Supply Chain, Finance, Exploration, Reservoir development, Projects and CEO,):**
- Commitment and accountability to support the Paris Agreement
- Accountability to reduce our emissions in line with the obligations in the KonKraft agreement
- Sponsorship of the Energy Forum

**Energy Forum:**
- Nominated persons in management to identify, discuss and plan climate management activities
- Challenge and support the business in order to deliver in accordance to climate related objectives and expectations
- Ensure availability of information and necessary resources
- Bring in external perspectives and ensure measures for continuous improvement
- Share experience and best practice across the organisation
- Ensure climate review with the business, including risk and opportunity inputs

**Leaders:**
- Ensure all employees, assets, and installations adhere to climate related objectives and expectations
- Identify, prioritise and follow-up opportunities for improving climate and energy management performance
- Act as role models

**Employees:**
- All employees in our company are expected to follow our climate related objectives and expectations
- Develop a climate management mind-set and challenge established truths
- Bring in ideas and suggestions for energy efficiency initiatives including continuous improvement
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Climate is monitored and managed monthly by review of key performance indicators such as CO2 intensity per asset and aggregated for the company, following market trends, operational costs including CO2 costs (taxes, climate allowances etc.)

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**
Yes

## C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

**Who is entitled to benefit from these incentives?**
Corporate executive team

**Types of incentives**

Monetary reward

**Activity incentivized**
Efficiency target

**Comment**
Efficiency target (kg CO2/boe) is a company wide KPI and incentives are based on how well Aker BP delivers on the key performing indicators.

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**Who is entitled to benefit from these incentives?**
All employees

**Types of incentives**
Monetary reward

**Activity incentivized**
Efficiency target

**Comment**
All employees who are salary based can receive a monetary reward based on Aker BP's performance. Efficiency target is a company wide KPI and incentives are based on how well Aker BP delivers on the key performing indicators.

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**Who is entitled to benefit from these incentives?**
Corporate executive team

**Types of incentives**
Recognition (non-monetary)

**Activity incentivized**
Environmental criteria included in purchases

**Comment**
Supply chain is engaged in the process to include environmental criteria in purchases. Emission reduction due to contracting a drilling rig (Maersk Invincible) supplied by electrical power in 2017 on Valhall. Reduced CO2/year with 15 200 tonnes, in addition to NOx reductions.

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**Who is entitled to benefit from these incentives?**
Corporate executive team

**Types of incentives**
Monetary reward

**Activity incentivized**
Efficiency target

**Comment**
Production KPI's and project targets are included in the incentive structure for relevant managers. Climate stratety and enery management are included in the Corporate HSSE plan for 2018.

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**Who is entitled to benefit from these incentives?**
Management group

**Types of incentives**
Recognition (non-monetary)

**Activity incentivized**
Environmental criteria included in purchases

**Comment**
Environmental criteria are included in purchases in Aker BP.

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**Who is entitled to benefit from these incentives?**
Management group

**Types of incentives**
Recognition (non-monetary)

**Activity incentivized**
Supply chain engagement

**Comment**
Supply chain is engaged in the process to include environemental criteria in purchases. Emission reduction due to contracting a drilling rig (Maersk Invincible) supplied by electrical power in 2017 on Valhall. Reduced CO2/year with 15 200 tonnes, in addition to NOx reductions.

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**Who is entitled to benefit from these incentives?**
Chief Procurement Officer (CPO)

**Types of incentives**
Monetary reward

**Activity incentivized**
Efficiency target

**Comment**
Efficiency target (kg Co2/boe) is a company wide KPI and incentives are based on how well Aker BP delivers on the key perfomring indicator.

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**Who is entitled to benefit from these incentives?**
Chief Financial Officer (CFO)

**Types of incentives**
Monetary reward

**Activity incentivized**
Efficiency target

**Comment**
Efficiency target (kg Co2/boe) is a company wide KPI and incentives are based on how well Aker BP delivers on the key perfomring indicator.

## C2. Risks and opportunities

### C2.1

**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

| | From (years) | To (years) | Comment |
|---|---|---|---|
| Short-term | 0 | 3 | Short term risks and opportunities are effectively measures to position ourselves to meet the low-carbon economy recognized in the Paris Agreement, hence ensuring we reach our obligations of reducing CO2 emissions annually from 2020-2030. Aker BP recently evaluated the opportunity to continue with power from shore through an area wide hub-approach in collaboration with other NCS operators. Other examples include exploring the opportunity to make use of wind farms directly in connection with the installation. |
| Medium-term | 3 | 10 | Medium term we have a goal to reduce CO2 emissions with 140 000 tonnes CO2 per year from 2020-2030. Risks for not meeting this goal and opportunities for exceeding the goal need to be in place. Climate risk with regards to changes within the following areas are also considered: market, regulatory, technical, reputation, physical and operational. Energy efficiency, flaring reduction, fuel switching (from diesel to gas), fugitive emissions (methane) and detailed emission reporting are mid-term strategies to impact the climate change, risks and opportunities and are all important issues influencing Aker BP. Aker BP now weigh in asset CO2 footprint in forward asset portfolio decision as an example of strategic level agenda measures lowering CO2 emissions. Examples include Ula and Valhall asset. |
| Long-term | 10 | 30 | Norway's political goals for reduction of climate gas emissions heavily affects the oil and gas industry, and hence Aker BP as a Norwegian exploration and production company. Supply of electrical power from shore to offshore installations is a long-term objective in our climate strategy. Changes in the market and regulatory impacts on climate related risks and opportunities are assessed to evaluate and set a long-term horizon. We consider a 10+ year perspective as long-term as our assets lifetimes range from 2028 to 2040+ in a market that is still dependent on oil and gas. Modification solutions to existing facilities to reduce the climate impact vary in length from medium-term to long-term. New build facilities are also part of the long-term horizon. Examples where Aker BP take in the long term perspective include exploring the opportunity to make use of wind farms directly in connection with powering the installation. |

### C2.2

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**
Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

### C2.2a

**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

| | Frequency of monitoring | How far into the future are risks considered? | Comment |
|---|---|---|---|
| Row 1 | Six-monthly or more frequently | >6 years | The Company risks are evaluated by top management and discussed with the Board on a monthly basis. Climate related risks are included in the company strategy including new field developments. Field developments normally have a time frame of 10 - 30 years; in some cases longer. Climate change is considered both as a risk and an opportunity for new developments and existing installations. Aker BP processes for risk identification is directly harmonized with our annual strategy process and else topically discussed in quarterly top management gatherings. Climate risk, both effect of and our impact to, is evaluated, weighted, and integrated into the strategic direction. Example of Aker BP strategic level direction is our drive for electrification to reduce our impact to Climate. |

### C2.2b

**(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.**

Aker BP uses an enterprise risk management process where risks and opportunities are identified and managed at all levels (activity, asset, business unit and company) to enable us to maximise opportunities, minimise threats and optimise achievements of performance objectives. We address and manage risks and opportunities across silos throughout the asset value chain and company. It is a common infrastructure that enables a holistic risk and opportunity managment on all levels. The common govering model includes:

- Risk and opportunity govering principle, bodies and reporting structure
- Risk and opportunity process framework and infrastructure
- Risk reduction and barrier managment

The governing structure is to manage risks and opportunities effectively and provide information where needed. The risk and opportunity management process is dynamic and the risks and opportunities must be updated and reported when significant changes occur. The Board of Directors review status monthly. A quarterly review is performed by the Audit and Risk committee as well as the Safety and Environment assurance (SEA) committee. Executive management team will review risks and opportunities upfront of the Board of Directors monthly meeting.

Significant risks and opportunities are elevated from lower levels. Risks and opportunities are captured and followed up in a risk management tool (PIMS). Risks and opportunities are reviewed on a monthly basis at leadership levels in the organization. The majority of the risks and opportunities originate from the Company's activity set. In addition, risks are also captured from various sources like regulators, industry initiatives, NGOs, public perception, investors, and mapped in appropriate tools. Risk registers are maintained and updated on a regular basis for both activities and business processes. Risks from each business unit are aggregated to company level. Risk management in Aker BP follows the international standard ISO 31000.

Risks and opportunities are evaluated using a matrix, including categories for Personnel, Environment (including climate), Cost and Project schedule impact, Production regularity and Reputation. The risks and opportunities are categorized based on probability and associated consequence and lifted to the appropriate level in the organisation (highest category is elevated to the Boards of Directors). Climate risk/green competiveness is followed up as one of the integrated Company wide risks for Aker BP. It covers energy efficiency and climate change risks and opportunities. The risks and opportunities are evaluated according to the risk matrix and actions are taken and tracked to address the risks and opportunities. Identification of climate related risks and opportunities is an integrated process into the overall risk management system.

Aker BP has one of the core principles implemented in a common governing model for climate and energy efficiency. The business strategy will be impacted in such a way that Aker BP focuses on energy efficient and low emission operations. This way Aker BP has reviewed the substantive financial impact on climate related risks and opportunities by taking real actions to meet the expectations of the market. The actions require significant changes and long-time commitments and investments.

We define a substantive financial impact to be:

- 20% decrease in revenue, i.e. 500 USDm based on 2018
- >5% reduction of our earnings (EBITDA), i.e.50 USDm based on 2018

## C2.2c

**(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?**

| | Relevance & inclusion | Please explain |
|---|---|---|
| Current regulation | Relevant, always included | Aker BP is present on the Norwegian Continental shelf and is as such pre-dominantly effected by regulatory issues in this region, but also including any other industry wide regulatory issues such as EU legislation. Regulation updates are received from the various standard reliable regulatory agencies providing direction for such (Norwegian Environmental Agency, Petroleum Safety Authority, EU, etc.). The regulatory regime and updates thereto are continuously evaluated as part of the business planning process and led by the Strategy and Business Development team on a Company wide basis for investments and divestments. An example where regulatory framework issues play an important role for Aker BP is geographical locations opening/closing for exploration and restrictions/ requirements to technological means of proposed production concepts. On Business Unit level current regulatory issues are made part of the standard internal risk assessment and reporting related to the Enterprise Risk Management process. Risks of complex nature are typically informed to the Executive team and if relevant the Board through the Enterprise Risk Management process. All risks of regulatory character both on a Company wide basis as well as Business Unit level are evaluated against on a common Environment impact standard and a Reputation impact standard. Environment impact standard assess potential negative impact on sensitive environment in terms of restitution including a reference amount of hydrocarbon release. Reputation impact standard assess potential negative trust issues with stakeholders on local, national, and global scale. |
| Emerging regulation | Relevant, always included | The impact of emerging regulations with regards to climate impact and other topics is an important risk factor assessed for business implications, and investment decision-making in Aker BP . Emerging regulations notifications are typically received through the trade organization NOROG which includes options for Aker BP to comment and influence the emerging changes. Emerging regulation notifications include both national, regional and EU/international regulations. NOROG as organization submits comments on behalf of the Norwegian oil and gas industry. For national regulations (i.e. Norwegian Environmental Agency and Petroleum Safety Authority) Aker BP also provides an impact assessment and comments directly on notifications to the regulatory bodies. All significant anticipated effect of emerging regulations is evaluated through sensitivity modelling run by Strategy and Business Development team. Intelligence to support evaluation of effects of both policy and technology is sought from key forecasters such as IEA and BP. Furthermore, risks related to emerging regulations are made an integral part of Aker BP's risk assessment process. One example where significant risk is evaluated is the climate quota permits. These permits, and including upcoming regulations are checked annually as required by Aker BP's management system. All risks of regulatory character both on a Company wide basis as well as Business Unit level are evaluated against on a common Environment impact standard and a Reputation impact standard. Environment impact standard assess potential negative impact on sensitive environment in terms of restitution including a reference amount of hydrocarbon release. Reputation impact standard assess potential negative trust issues with stakeholders on local, national, and global scale.. Economic impact (or Company robustness) is evaluated based on scenario modelling tested against our current break-even sanction target. In a scenario of increased emissions costs, Aker BP would become more competive relative to other impacted producers. Still, almost 5% of our production cost in 2018 were environmental taxes and fees, so should these costs increase materially, it would impact our profitability (although to a smaller extent than less carbon efficient competitors). Changes in framework conditions , eg. CO2 price,are included in the company risk matrix. |
| Technology | Relevant, sometimes included | ''Best available technology'' is used for all new field development designs and existing facilities, including emission reduction solutions. An example of this is the use of Thermtech cuttings cleaner (TCC®) during drilling operations. It is a technology that converts kinetic energy to thermal energy in a thermal desorption process that separates and recovers the components of drilling waste whilst preserving the original quality of the components prior to treatment. As a result, the recovered base oil can for example be re-used in new Oil Based Mud (OBM) or as fuel for diesel engines, whilst the cleaned solids have various industrial uses. Regulatory agencies have questions regarding the environmental/climate benefit and there have been legal questions raised for other oil and gas operators. Reputation is yet another area that needs to be considered if choosing such a technology. The overall picture of risks and opportunities and the impact of cost/climate/environment/legal/reputation/regulatory bodies has to be evaluated and assessed before implementing new technologies. Aker BP has specifically allocated resources to stay updated on new technolgy that is beneficial for reduced climate impact and also how to utilize renewable energy technology. Other recent technological advances in Aker BP with a positive impact on emission from our operations is the development and use of dual drilling rigs, where time to drill a well is proved reduced up-to 50% compared to traditional drilling benchmarks. This is covered under the Environment, Project and Cost and Production regularity of our risk matrix. |
| Legal | Relevant, always included | There are no ongoing lawsuits. The company is attentive to legal proceedings that could have an impact on climate related risks and our enterprise. An example of this is the use of Thermtech cuttings cleaner (TCC)during drilling operations. Regulatory agencies have questions regarding the environmental/climate benefit and there have been legal questions raised for other oil and gas operators. Reputation is yet another area that needs to be considered if choosing such a technology. The overall picture of risks and opportunites and the impact of cost/climate/environment/legal/reputation/regulatory bodies has to be evaluated and assessed before implementation. This is covered under the Environment, category of our risk matrix. |
| Market | Relevant, always included | A decrease in oil demand will result in lower oil price and reduced income to Aker BP. A significant reduction in oil price (typically below 40 USD) will make new developments less attractive and the net present value for these developments will be significantly reduced. This may result in fewer developments are sanctioned. The current developments in the CO2 allowance price will also be accounted for in future projects. Recently Aker BP experiment with taking in CO2 emission reflections in the economical decision basis with an intent to effectively have a real decision impact. This is covered under the Environment category of our risk matrix. |
| Reputation | Relevant, always included | Reputation is one of the categories that need to be assessed in the risk and opportunity management system, which includes climate related issues. An example of this is the use of Thermtech cuttings cleaner (TCC)during drilling operations. Regulatory agencies have questions regarding the environmental/climate benefit and there have been legal questions raised for other oil and gas operators. Reputation is yet another area that needs to be considered if choosing such a technology. The overall picture of risks and opportunites and the impact on cost/climate/environment/legal/reputation/regulatory bodies has to be evaluated and assessed before implementation. More recent example of effect of Reputation and Climate risk include measures to attract young talent where Aker BP through a reputation of the most cutting edge technology deployer for benefit of the society. |
| Acute physical | Relevant, always included | Sea level rise and extreme weather are acute physical risk elements that are considered as climate related. For example; the Valhall field centre and Tambar installation are subject to subsidence and a rise in the sea level will amplify this issue. It is not expected that sea level rise will have any siginficant effect of any of the other four fields in operation. Extreme weather becoming more frequent, can lead to operational limitations and shut-in of production. Three out of five fields may be exposed to this risk. |
| Chronic physical | Relevant, sometimes included | Changes in precipitation patterns and extreme variability in weather pattern could be relevant for our operations in the North Sea, Norwegian Sea and exploration in the Barents Sea. This is covered under the Environment and Production Regularity categories of our risk matrix. Aker BP by example monitor through our Work Environment team the working situation including variability in heat and cold. |
| Upstream | Relevant, always included | Possible future changes in Norwegian oil and gas regulations requiring new technical solutions to significantly reduce the CO2 emissions for existing fields are always evaluated towards viable opportunities (e.g. by requiring supply of electric power from shore to existing fields, such as Alvheim FPSO and Skarv FPSO). This is covered under the Environment and Production Regularity categories of our risk matrix. |
| Downstream | Relevant, always included | Oil and gas is exported for downstream processing at refineries. |

## C2.2d

**(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.**

Climate-related risks and opportunities are handled in our enterprise risk management system as described below.

Aker BP has implemented an enterprise risk management process where risks and opportunities are identified and managed at all levels (activity, asset, business unit and company) to enable us to maximise opportunities, minimise threats and optimise achievements of performance objectives. We address and manage risks and opportunities across silos throughout the asset value chain and company. It is a common infrastructure that enables a holistic risk and opportunity managment on all levels.

The common govering model includes:

•Risk and opportunity govering principle, bodies and reporting structure

•Risk and opportunity process framework and infrastructure

•Risk reduction and barrier management

The governing structure is to manage risks and opportunities effectively and provide information where needed. The risk and opportunity management process is dynamic and the risks and opportunities must be updated and reported when significant changes occur. The Board of Directors review status monthly. A quarterly review is performed by the Audit and Risk committee as well as the Safety and Environment assurance (SEA) committee. Executive management team reviews risks and opportunities upfront of the Board of Directors monthly meeting. Significant risks and opportunities are elevated from lower levels. Risks and opportunities are captured and followed up in a risk management tool (PIMS). Risks and opportunities are reviewed monthly at all levels in the organization. The majority of the risks and opportunities originate from the Company's activity set and are divided into physical and transitional risks. An example of a physical risk is rising sea water level resulting in structural damage or collapse. An example of transitional risk is reputation of the oil and gas industry and Aker BP as such, due to NGO's and public interest in climate related issues. In addition, risks are also captured from various sources like regulators, industry initiatives, NGOs, public perception, investors, and mapped in appropriate tools. Risk registers are maintained and updated on a regular basis for both activities and business processes. Risks from each business unit are aggregated to company level. Risk management in Aker BP follows the international standard ISO 31000. Risks and opportunities are evaluated using a matrix, including categories for Personnel, Environment (including climate), Cost and Project schedule impact, Production regularity and Reputation. The risks and opportunities are categorized based on probability and associated consequence and lifted to the appropriate level in the organisation (highest category is elevated to the Boards of Directors). Climate risk/lack of green competitiveness is followed up as one of the risks for the company. It covers energy efficiency and climate change risks and opportunities. The risks and opportunities are evaluated according to the risk matrix and actions are taken and tracked to address the risks and opportunities. Identification and management of climate related risks and opportunities is an integrated process into the overall risk management system and followed up in emergency response plans if applicable.

Aker BP has by example increased focus on climate risk by delivering Climate Risk specific risk assessment with Executive Team and including Board of Directors and external experts on our position and evaluation process. Process depicts one such per annum in conjunction with Strategy updates. Actions and direction outcomes are integrated in risk management processes and integrated into viable strategic direction

## C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**
Yes

## C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**
Risk 1

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type**
Transition risk

**Primary climate-related risk driver**
Policy and legal: Mandates on and regulation of existing products and services

**Type of financial impact**
Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

**Company- specific description**
Aker BP operate five offshore fields for hydrocarbon extraction and transportation for sales on the Norwegian Continental Shelf (NCS). All oil and gas exploration and production on the NCS are regulated by common law and regulatory framework. Current legislation promotes safe and prudent resource exploration and development through the tax system in combination with regulation. Production on the NCS also promote safe and prudent operating practises, and in addition drive contribution to society at large through the tax system. All business operations and development in Aker BP is thus heavily influenced by tax system, legislation and regulation. Future

changes in Norwegian regulations related to climate topics or other, most notably taxes on carbon or NOx emissions, may impact Aker BP's business by increasing our production costs. Economic production impact from current regulation in 2018 resulted in that Aker BP paid 28 USD million in CO2 fees, 1.6 USD million to the NOx fund, and purchased CO2 quotas for 6 USD million. Albeit future climate policy development is uncertain Aker BP test all our business development cases against our standard break-even sanction target through scenarios including those potential effects. Mitigation on a Company wide basis are weaved into the annual strategy process and capital allocation processes, whilst more direct mitigation such as electrification (providing power from grid rather than running on gas powered turbines) would be assessed on Asset level together with partners. Aker BP currently evaluate electrification viability on a select few of our Assets.

**Time horizon**
Medium-term

**Likelihood**
Unlikely

**Magnitude of impact**
High

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
210000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
The single point estimate on cost impact relates to adjusting our operations to more stringent regulation with regards to emissions and climate footprint. The impact value is reflected through a case study of implementing electrification of an Asset. Such an electrification project (Power from shore/land-based grid) is estimated to 0.21 billion USD for one field. The estimate is derived through Aker BP standard capital project estimation principles as used for all of Aker BP capital projects. Thus the amount of capital required to change one Asset power source from gas turbines to electricity is at feasibility stage estimated to 210 USD million.

**Management method**
Aker BP also assess future direction through our business planning process using scenario modelling and stress testing economics, examples where we seek input to plausible scenarios include IEA and BP future scenarios reports. Aker BP current principle by strategic choice is to prioritize and test our business cases using electric power from the grid on our new installations, including use of renewables. In 2018, risks and opportunities related to climate reduction initiative were identified, matured and followed up at a company level. One result of increasing focus on climate related risks and mitigation is further strengthening the position of management of climate, energy and sustainability in Aker BP, including closer collaboration with the Strategy and business development team. Cost of management of 325 000 USD, as included in budget, reflects fees associated with communication with authorities and attending NOROG committees as a key source of regulatory issues and development. Cost of internal man-hours to perform scenario analysis, stress testing, and executing the Company strategy process is included. NOROG 75,000 USD + Petroleum safety agency 100,000 USD + Internal costs 150,000USD = 325,000 USD

**Cost of management**
325000

**Comment**
Communication with the authorities and attending NOROG committees will be done regardless of this risk. Associated costs are included in budget and estimated to 325.000 USD.

---

**Identifier**
Risk 2

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type**
Physical risk

**Primary climate-related risk driver**
Chronic: Rising sea levels

**Type of financial impact**
Write-offs, asset impairment, and early retirement of existing assets due to policy changes

**Company- specific description**
The Valhall field platforms, Tambar and Ula platforms, located offshore in the North Sea, are subjected to waves and/or subsidence. A rise in sea level (extreme waves) will amplify this issue and is a risk for all platform installations. However, the subsidence is only relevant for one of the Valhall platforms at the field center. It is caused by reservoir compaction and reduction of original design air gap allowance. Under storm conditions there is a potential for storm wave crests to impact the lower-decks resulting in wave induced loading onto the structures that is above the tolerance level. Extreme weather conditions can lead to structural collapse.

**Time horizon**
Long-term

**Likelihood**
Unlikely

**Magnitude of impact**
High

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
10000000

**Potential financial impact figure – maximum (currency)**
100000000

**Explanation of financial impact figure**
Operations may be shut down at an earlier stage due to less clearance between lower deck and sea water level. A rise in sea water level may accelerate the need for modifications on the Valhall field to withstand extreme weather conditions. It is difficult to estimate the financial implications of this effect due to high uncertainty. However, modifications to risers to withstand higher loads caused by extreme weather is estimated to 10 million USD. A structural collapse will result in a financial impact of 100 mill USD. Both estimates are based on Aker BP standard estimation principles for modification projects (riser modification project) and capital projects (restitution of structural jacket elements) respectively. The total impact for the Aker BP will be in excess of both project estimates as a result of likely environmental damage and liabilities. Depending on the damage a repair would be estimated to range between 10-100 million USD.

**Management method**
The risks for structural collapse, equipment and environmental impact are followed up in the risk management system for the relevant assets, ie. Valhall , Ula and Tambar. The probability of collapse for Tambar is every 5x10-E4 years, and for Valhall it varies between 10-E2 and 10-E4 years. The weather forecasts are monitored and managed by un-manning procedures as part of overall emergency response. If the significant wave height exceeds a threshold, production will be shut in and the platform will be unmanned. Valhall did not experience any severe weather events in 2018. Included in the budget and estimated to 200,000 USD (corresponds to one full time position in Aker BP) A risk of this consequential magnitude is monitored as part of the principle Major Accident Hazards, and is also reported to Executive Management Level and Board of Directors. Risk reviews are conducted at least monthly in the Asset organisation where any gradual changes to the principle Major Accident Hazards are discussed, reported and managed through both operational measures such as inspection, correction and minor modifications, as well as major modification projects. Company's structured Management of Change process to ensure the risk is controlled. Cost of management is included in the budget and estimated to 200,000 USD. The figure is derived based on Aker BP's estimation standard for modification projects of integrity character related to wave impact integrity on the Valhall field centre.

**Cost of management**
200000

**Comment**
Included in the budget and estimated to 200,000 USD.

---

**Identifier**
Risk 3

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type**
Transition risk

**Primary climate-related risk driver**
Policy and legal: Mandates on and regulation of existing products and services

**Type of financial impact**
Reduced demand for goods and/or services due to shift in consumer preferences

**Company- specific description**
Aker BP operate five assets on the Norwegian Continental Shelf, primarily delivering oil and gas to the market place. Several of these fields are marginal in economic terms, meaning sustained operations is sensitive to market volatility – especially in a negative scenario. For Aker BP the main effect of shift in consumer preferences will play out in the delivery market place, likely inducing lower price per unit sold. The other key impact of a shift in consumer preferences is that of the effect on policymakers and regulators, which in turn increase pressure on the operating envelope with regards to emissions. CO2 and GHG emissions may therefore face further scrutiny through e.g.increased taxation mechanisms, rendering continued development of our Aker BP operated marginal fields more and more challenging. Implementing new and more efficient subsea technology and lesser environment impact topside equipment as a response to this scrutiny and to maintain economic operations may not become viable. Thus a shift in consumer preferences may imply that our Aker BP operated marginal fields (high development or operational costs, or low relative production) may become uneconomical, and negatively impact revenue and finances of the Company and specifically our contribution to the tax system, which in turn is the main vehicle in the Norwegian economy to fund technological and sustainable developments.

**Time horizon**
Medium-term

**Likelihood**
Unlikely

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
400000000

**Potential financial impact figure – maximum (currency)**
1000000000

**Explanation of financial impact figure**
The pressure on sustaining marginal operations as induced by both declining market effects and ever more challenging regulatory framework by for example taxation and declined access to new exploration acreage on the Norwegian Continental Shelf could lead to severe economic impairment of Aker BP's five assets in operations. Further reinforced by stress to Aker BP current target break-even price threshold, leading to development cost above long-term oil price forecasts provided by e.g. IEA and BP. Based on our 2018 reporting, USD 4bn revenue figure for the full year, we estimate a range between 10% to 25% decrease (equivalent to one or two assets being impaired) in revenue, equating to USD 400mill to 1bn lost revenue.

**Management method**
Key means to mitigate and proactively address the effects caused by a more challenging regulatory framework are two-fold. One where Aker BP has established a regular exchange with the official Industry committee (NOROG), as means to interact and provide formalized input to authorities and politicians on technical and economic consequences of new or changes to requirements. Secondly Aker BP continue to intensify our efforts to manage climate impact by aiming to drive all existing fields and future developments against the CO2 intensity target below 8kg CO2/boe. Additionally, revitalizing energy management in our operations with concrete Asset level goals to

improve by a relative number. Aker BP also increased focus on climate related R&D and is actively seeking improved climate and energy efficient solutions through that portfolio. Communication with the authorities and attending NOROG committees' meetings associated costs are included in budget and estimated to 100.000 USD (estimated to 500 internal hours), following an estimate based on in-house benchmark time-writing. Cost estimate related to on-off energy management is not included. Aker BP uses an enterprise risk process for the company. Risks related to shifts are identified and followed up at asset level and significant risks are also lifted to senior management including Board of Directors and the Audit and Risk committee. All enterprise risks are tracked and followed up in the risk management system.

**Cost of management**
100000

**Comment**
Communication with the authorities and attending NOROG committees meetings will be performed regardless of this risk and associated costs are included in budget and estimated to 100.000 USD.

---

**Identifier**
Risk 4

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type**
Physical risk

**Primary climate-related risk driver**
Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact**
Write-offs, asset impairment, and early retirement of existing assets due to policy changes

**Company- specific description**
Extreme weather becoming more frequent leading to operational limitations and shut down of production. Three out of our five Aker BP operated fields may be exposed to this risk in terms of interrupted operations, and longer term wear and operability.

**Time horizon**
Long-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
11000000

**Potential financial impact figure – maximum (currency)**
33000000

**Explanation of financial impact figure**
It is estimated that extreme weather can result in one week of additional down time for 3 of our fields. This is caused by e.g. interruption of offloading activities from the FPSO's. One week of additional downtime is estimated to 11 million USD (net) per year.

**Management method**
Aker BP uses an enterprise risk process for the company. Risks are identified and followed up at a project or asset level and significant risks are also lifted to senior management including Board of Directors and the Audit and Risk committee. All enterprise risks are tracked and followed up in the risk management tool. Risk reviews are conducted monthly in the organisation. Included in budget and estimated to 100,000 USD (estimated to 500 internal hours) Examples of mitigation actions resulting from this process are:- Installation of umbilical to allow hydraulic actuation of gas export subsea ball valve in severe weather conditions- Update of procedure for extreme weather to limit operations/activities during severe weather conditions.

**Cost of management**
100000

**Comment**
Included in budget and estimated to 100,000 USD.

---

**Identifier**
Risk 5

**Where in the value chain does the risk driver occur?**
Customer

**Risk type**
Transition risk

**Primary climate-related risk driver**
Reputation: Stigmatization of sector

**Type of financial impact**
Write-offs, asset impairment, and early retirement of existing assets due to policy changes

**Company- specific description**
Impaired reputation of Oil and Gas companies in the world, including Aker BP, as a result of having activities leading to significant CO2 emissions could lead to lower oil and gas prices and therefore lost revenue impacting the company. Scenario analyses of hte oil and gas market show a demand for oil and liquids will peak around 2020-25, and then fall toward 70-80 million barrels per day (mmbpd) in 2040 - down from around 100 mmbpd at year-end 2018.

**Time horizon**
Medium-term

**Likelihood**
Unlikely

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
1000000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
A decrease in oil demand will result in lower oil price and reduced income to Aker BP. Based on our Q2 2018 reporting, assuming a USD 4bn revenue figure for a year, we could assume a 25% decrease in revenue which would equate to USD 1 bn lost revenue. In addition, a lower oil price would make new developments unprofitable, meaning that the Net Present Value (NPV) of these projects would be lost.

**Management method**
Aker BP uses an enterprise risk process for the company. Risks are identified and followed up at a project or asset level and significant risks are also lifted to senior management including Board of Directors and the Audit and Risk committee. All enterprise risks are tracked and followed up in the risk management tool. Risk reviews are conducted monthly in the organisation. To mitigate this risk, Aker BP made a business decision to be more transparent in our operations by continuing CDP - and sustainability reporting for 2017 and intensifying our efforts to reduce climate impact by introducing and anchoring the climate strategy in 2017, by amongst other initiatives. The KPI for CO2 intensity target was a driver for reducing CO2 in all our existing fields and new developments. Additionally, in 2017, revitalizing energy management in our operations which also supported the overall strategy. Aker BP also increased focus on climate related R&D and is actively seeking improved climate and energy efficient solutions. Aker BP experienced a cultural change in mindset to also include other renewable energy sources for new development/larger modifications. Because of this changed mindset in 2017, we now work on projects to retrofit power from shore combined with wind power.

**Cost of management**
100000

**Comment**
Aker BP internet web site to be continously updated to continously report on our status meeting the company's climate strategy. Included in budget and estimated to 100.000 USD (estimated to 500 internal hours).

---

**Identifier**
Risk 6

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type**
Transition risk

**Primary climate-related risk driver**
Market: Changing customer behavior

**Type of financial impact**
Reduced demand for goods and/or services due to shift in consumer preferences

**Company- specific description**
Reduced demand for oil as a result of a change from e.g. petrol cars to electrical driven cars, oil to gas switching in the heavy transport and petrochemical section as a result of climate considerations or taxes - hence less demand for oil from Aker BP. This would impact the whole company in the form of lower revenues.

**Time horizon**
Long-term

**Likelihood**
About as likely as not

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
400000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
A decrease in oil demand will result in lower oil price and reduced income to company. Based on our Q2 2018 reporting, assuming a USD 4bn revenue figure for a year, we could assume a 10% decrease in revenue which would equate to USD 400 mn lost revenue. In addition, a lower oil price would make new developments unprofitable, meaning that the NPV of these projects would be lost.

**Management method**
Aker BP uses an enterprise risk process for the company. Risks are identified and followed up at a project or asset level and significant risks are also lifted to senior

management including Board of Directors and the Audit and Risk committee. All enterprise risks are tracked and followed up in the risk management tool. Risk reviews are conducted monthly in the organisation. Included in budget and estimated to 100.000 USD. (estimated to 500 internal hours) Examples of actions were development of a new KPI for CO2 intensity target for all our operations and establishing measures for climate friendly solutions for new developments.Examples of other risk reducing measures are: -Integrate energy management in our operations and operations model -Evaluate power from shore for all new field developments -Promote and invest in innovative energy solutions for late life operations -Invest in R&D work to promote knowledge of low carbon energy solutions and implement climate efficient solutions -Long term R&D strategy to invest in climate related research (e.g. carbon capture storage). This specific risk is global and beyond Aker BP's control. Our management method is therefore to monitor development of this risk factor and forecast prices of our products, so that we make the correct investment decisions.

**Cost of management**
100000

**Comment**
Included in budget and estimated to 100.000 USD.

---

**Identifier**
Risk 7

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type**
Transition risk

**Primary climate-related risk driver**
Reputation: Stigmatization of sector

**Type of financial impact**
Write-offs, asset impairment, and early retirement of existing assets due to policy changes

**Company- specific description**
Aker BP is not a preferred employer for future generations due to reputation resulting in insufficient human resources to the company. This would most likely impact the sectors of education in which we are competing with other industries, e.g. facilities engineering, economics, logistics and HSE - as opposed to Petroleum Technology or Drilling Technology.

**Time horizon**
Long-term

**Likelihood**
More likely than not

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
50000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
Increased cost to educate and recruit new employees. Estimated cost is 50.000 USD per year (estimated to 250 internal hours)

**Management method**
Aker BP uses an enterprise risk process for the company. Risks are identified and followed up at a project or asset level and significant risks are also lifted to senior management including Board of Directors and the Audit and Risk committee. All enterprise risks are tracked and followed up in the risk management tool. Risk reviews are conducted monthly in the organisation. Estimated cost is 50.000 USD per year (estimated to 250 internal hours) Examples of mitigation actions to reduce this risk are: -Provide presentation of Aker BP at Universities and other relevant places in the public domain to encourage recruitment to Aker BP - Further develop trainee program in Aker BP - Implemented leadership pipeline program It is important for Aker BP to communicate both the relative climate performance of the Norwegian Continental Shelf and our own efforts to improve to the general public and to the industry at large, as a risk mitigation factor for this specific risk.

**Cost of management**
50000

**Comment**
Estimated cost is 50.000 USD per year.

---

## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**
Yes

## C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Energy source

**Primary climate-related opportunity driver**
Use of lower-emission sources of energy

**Type of financial impact**
Reduced operational costs (e.g., through use of lowest cost abatement)

**Company-specific description**
Implement an energy optimization solution through use of sensor data and data driven control of our gas turbines on offshore installations in Norway. We are currently working with our supplier and subsidiary Cognite to identify the opportunity to develop algorithm based dashboards that guide the operators on how to optimally run these turbines. This will enable more energy efficient operations and online energy monitoring. This allows for quick interactions to reduce emissions. We expect this to improve total utilization rate of our turbines, and potentially lower the total number of turbines in use. At higher utilization, the carbon intensity drops per energy unit produced, reducing our emissions and costs. This is relevant for all our operations in Norway, especially the installations (platforms or floating production and storage operated vessels) located in the North Sea and Norwegian Sea that are powered by natural gas.

**Time horizon**
Short-term

**Likelihood**
Very likely

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
10000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
Financial impact is not yet quantified at a detailed level. Will consist of 1) Reduced purchase gas / diesel, 2) Increased revenues from sales of gas, 3) Reduced carbon and NOx tax. Estimated to 10 million USD (ca. 25% of environmental fees paid in 2018). Optimizing use of turbines will lower CO2 emissions.

**Strategy to realize opportunity**
In-house / with partner development of dashboards and algorithm to recommend optimal turbine operations. Cost to realize the opportunity is a rough estimate of required software development from Cognite together with our asset operations teams, as well as training and roll-out to all assets.

**Cost to realize opportunity**
1000000

**Comment**
Cost to realize the opportunity is a rough estimate of required software development from Cognite together with our asset operations teams, as well as training and roll-out to all assets.

---

**Identifier**
Opp2

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Development and/or expansion of low emission goods and services

**Type of financial impact**
Increased revenue through demand for lower emissions products and services

**Company-specific description**
There is still a need for oil and gas resources in the future and the IPCC scenarios for 2015 have oil and gas as a substantial contributor to the worlds energy demand. Aker BP reports fugitive emissions of methane and CO2 transparently, and are committed to continuously improve our methods and reporting accuracy. Aker BP supported a governmental project to map sources of fugitive emissions in 2016 and participated in developing new methods for more exact calculation of unburned nmVOC and methane from our operations offshore. This new mapping was implemented within the company in 2017 . The BAT reference document was included in our business management tool. As a result of the newly developed 'best available technique' (BAT) reference document, Aker BP has a further potential to reduce methane and nmVOC emissions. This BAT document enables Aker BP to adapt best practice for new and existing fields, resulting in reduced GHG emissions and oil and gas production with a lower carbon footprint. Additonally, enhanced methods for mapping sources and more acccurately calculating emissions.

**Time horizon**
Medium-term

**Likelihood**
Virtually certain

**Magnitude of impact**
Medium-low

**Are you able to provide a potential financial impact figure?**
No, we do not have this figure

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
The low CO2 footprint from Norwegian operations, including Aker BP, can improve oil and gas sales prices and affect the share of the company's income.

**Strategy to realize opportunity**
There is still a need for oil and gas resources in the future and the IPCC scenarios for 2015 have oil and gas as a substantial contributor to the worlds energy demand. Aker BP reports fugitive emissions of methane and CO2 transparently, and are committed to continously improve our methods and reporting accuracy. Aker BP supported a governmental project to map sources of fugitive emissions in 2016 and participated in developing new methods for more exact calculation of unburned nmVOC and methane from our operations offshore. This new mapping was implemented within the company in 2017 . The BAT reference document was included in our business management tool. Negligble cost to implement, estimated to 1000 USD.

**Cost to realize opportunity**
1000

**Comment**
Negligble cost to implement

---

**Identifier**
Opp3

**Where in the value chain does the opportunity occur?**
Supply Chain

**Opportunity type**
Resilience

**Primary climate-related opportunity driver**
Resource substitutes/diversification

**Type of financial impact**
Increased reliability of supply chain and ability to operate under various conditions

**Company-specific description**
Based on the experience with the electrically powered Heavy Duty Jack up rig on Valhall, built and set up for supply by power from shore since 2017, we have an opportunity to implement similar emission reduction measures for future drilling campaigns both on Valhall and Ivar Aasen (electrically operated platforms) . As a result, this drilling operation reduced CO2 emissions by 15,200 tons, compared to using diesel powered drilling rigs. Forward benefit is continually exemplified through dual drilling breakthroughs reducing drilling time and therefore "emission" time from drilling rigs.

**Time horizon**
Medium-term

**Likelihood**
Virtually certain

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
1000000

**Potential financial impact figure – maximum (currency)**
1500000

**Explanation of financial impact figure**
The power consumption are based on historically power need for XLE rigs and estimated to 23 196 MWh/year.The annual emission reductions are estimated to 168 tons NOx and 15200 tons CO2 by using el. power from shore compared to diesel generators. The CO2 cost reduction is approx $900 000 /year and NOx tax reduction is approx - $217 000 /year. The overall financial implication is ca. $1,117,000/year reduction.

**Strategy to realize opportunity**
Norway has agreed to a plan for reducing the CO2 emissions by 40% in 2030 compared to 1990. (Paris Agreement). The Norwegian Petroleum Industry has a reduction target of 2.5 mill MT CO2 equivalents within 2030. Aker BP is taking its share of this and will reduce 140 000 tonnes per year from 2020-2030. Implementation of energy efficiency measures based on an emission reduction target of 8.0 kg CO2/boe in 2017 will position Aker BP to take our share of obligations to reduce CO2. Building the Maersk Invincible drilling rig with the option for electrical power was stated in the contract between Aker BP and the rig owner, and was seen as an opportunity for CO2 emission reduction. The learning from this project will be input to future jack-up rigs.

**Cost to realize opportunity**
1800000

**Comment**
Aker BP paid the rig owner $1,8M as a lump sum, to set the drilling rig up to be operated by el power.

---

**Identifier**
Opp4

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Resource efficiency

**Primary climate-related opportunity driver**
Use of more efficient production and distribution processes

**Type of financial impact**
Reduced operating costs (e.g., through efficiency gains and cost reductions)

**Company-specific description**
Aker BP has developed an overall CO2 reduction plan to reduce CO2 emissions from our operations offshore. The list contains several operational actions to reduce emissions. Examples are: more efficient turbines on one field and reduced flaring, evaluation of power from shore. The overall plan has been distributed to both environmental authorities and industry organisation.

**Time horizon**
Medium-term

**Likelihood**
Very likely

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
10000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
Every ton CO2 saved reduces cost with 70 USD and for a full year ca. 10 mill USD, ca. 140,000 ton CO2 (included tax and EUETS quota).

**Strategy to realize opportunity**
Our strategy to achieve Aker BP's objective of max 8 kg CO2/boe is to:- incorporate the risk of climate change into our business strategy- integrate energy management processes in our operations and operating models- evaluate power from shore on new field developments- carry out R&D work to promote knowledge of low carbon energy solutions and implement climate effective solutions. In 2018 the carbon intensity was 7 kg CO2/boe. Large variation, low or no cost for minor changes in operational parameters that lead to emission reductions to major costs for new field developments. Cost set to 1 million USD here.

**Cost to realize opportunity**
1000000

**Comment**
Large variation, low or no cost for minor changes in operational parameters that lead to emission reductions to major costs for new field developments. Cost set to 1 million USD here.

---

**Identifier**
Opp5

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Energy source

**Primary climate-related opportunity driver**
Use of lower-emission sources of energy

**Type of financial impact**
Reduced operational costs (e.g., through use of lowest cost abatement)

**Company-specific description**
We are investigating the use of offshore wind as a power source for our new development NOAKA, offshore Norway. This would potentially be in combination with power from shore. In addition we are considering electrification of other installations. This would replace gas fired turbines as main power source, and significantly improve our environmental performance and operating costs.

**Time horizon**
Medium-term

**Likelihood**
More likely than not

**Magnitude of impact**
Unknown

**Are you able to provide a potential financial impact figure?**
No, we do not have this figure

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
Reduced costs of carbon quotas and CO2 / NOx taxes. Increased gas volumes available for sale. Reduced dependence on power prices (relevant for the wind turbines only). Potential sales of excess power from wind turbines to the power market. In total, we expect this type of project to have a net financial impact around zero, based on current cost levels, and a potential investment decision therefore only driven by the positive climate effects.

**Strategy to realize opportunity**
Wind power: Conduct technical feasibility study. Invite contractors to investigate potential concepts. Run economics. Investigate green fund investments. Power from Shore: Run economics and assess versus asset development plans. General: Ensure carbon intensity and opex targets are integrated in asset strategies to make these initiatives a key part of the long term development plans for each asset. Magnitude of costs and impacts are estimated to 100 000 USD (estimated to 500 internal hours)

**Cost to realize opportunity**
100000

**Comment**
Magnitude of costs and impacts are estimated to 100 000 USD (estimated to 500 internal hours)

## C2.5

**(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

| | Impact | Description |
|---|---|---|
| Products and services | Impacted | Oil and Gas market is likely to change due to climate related drivers. Aker BP's current core focus is in oil production and sales but are strategically evaluating both to bring more gas production into the mix and to expand use of renewable power sources, mainly hydro-power, to support our operations. Impact to date is limited both taking into consideration market sales and climate related emission fees. In 2018 Aker BP contributions where 28 USD million in CO2 fees, 1.6 USD million to the NOx fund, and CO2 quota purchase for 6 USD million.. |
| Supply chain and/or value chain | Impacted for some suppliers, facilities, or product lines | To mitigate the risk of added costs from new emissions taxes, we have conducted a project to electrify a mobile drilling rig using power from shore (which in Norway is supplied by hydro power). Good experience from electrifying drilling from the Maersk Invincible, saving 186 000 kg NOx. This provided learnings and inspiration for the rest of the organization. Impact has been high for the affected rig, and medium for the rest of the business (assessing whether this is possible for other installations in the future). Aker BP has also together with our rig lines deployed technology to increase operating efficiency with less rig time as a result. Reducing NOx and CO2 emission from our supply chain. |
| Adaptation and mitigation activities | Impacted for some suppliers, facilities, or product lines | Aker BP is already adjusting to a more stringent regulatory framework on the Norwegian Continental Shelf. On strategic level we are in the process of evaluating adding gas to the production mix and expand use of clean power sources (generation from hydro-power) instead of diesel- and gas-powered turbines on our five operated offshore installations. Failing to adjust could render our economically marginal fields unviable. Current estimated at a total Company impact equivalent to 2 impaired assets – ranging 400 – 1,000 USD million impact. Electrification of one of our assets Valhall has already taken place, and our plans to power Ivar Aasen with clean hydro-power energy by 2022 will contribute to a viable business coming under increased pressure. Estimated feasibility cost for electrifying one asset amounts to 210 USD million using Aker BP standard estimating practises. Aker BP has also worked with our partners to mitigate effect from emission taxes. A project to electrify a mobile drilling rig using power from shore (which in Norway is supplied by hydro-power). Current experience from electrifying drilling from one of our partner drilling rigs the Maersk Invincible equates to saving 186 000 kg NOx |
| Investment in R&D | Impacted | One of Aker BP's main strategic pillars is to digitize the value chain, transforming the way we work and use data to optimise, change, and drastically transform our product delivery. Eureka – supported by Cognite, is a 10 USD mill investment driving actionable improvements. Several of which are related to energy optimisation. Our first efforts focus on power gas turbine optimisation to drive efficiency and thus reducing emissions and driving to lower our 7 kg CO2/boe delivered in 2018 – already 1 kg CO2/boe less than average on Norwegian Continental Shelf. |
| Operations | Impacted | Ref. the identified opportunity to lower costs to carbon taxes and quota purchases, our operations teams are required to identify initiatives within our Climate Strategy boundaries to bridge the gap between current performance and our carbon intensity targets. This includes directing our engineering capacity towards this goal. Impact has been of medium size so far, causing us to invest engineering hours in assessing options and improvement opportunities. |
| Other, please specify | Impacted | Climate Risk and opportunities has since framework establishment undergone a structured approach to identification and consideration and evaluated through Aker BP overall strategic process ending in annual strategy revision. |

## C2.6

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

| | Relevance | Description |
|---|---|---|
| Revenues | Impacted for some suppliers, facilities, or product lines | Risks: Certain crude oil qualities may have reduced demand due to crude quality, following implementation of IMO 2020 regulations. Opportunities: Similarly, demand for light, sweet crudes will increase. Net, the effect is estimated to be positive for Aker BP. Aker BP has implemented estimation procedures for our revenue per crude quality in our financial planning processes to develop a view on the impact. Following IEA indicative long-term price path, currently at 65 USD/bbl Aker BP sanction target of 35 USD/bbl for new developments is robust and provides a solid foundation for further growth. We have tested threshold of 45 USD/bbl and still withstand robustness tests. All investment cases follow Aker BP maturation and sanctioning process together with partners for each specific asset. Internally we manage such through capital allocation process anchored in the executive management team and with the board of directors. |
| Operating costs | Impacted | Aker BP current target of 7 USD/boe OPEX is put in place to become the leading exploration and production company on the Norwegian Continental Shelf. This goal has been set through the annual strategic business process and is endorsed by board of directors. Changes to regulatory regime bringing upwards pressure on tax and quota pricing for assets operated on the Norwegian Continental Shelf may negatively impact our operating costs. Aker BP is still fairly robust with a OPEX of approx. 12 USD/boe we paid income taxes in the range of 600 USD million in 2018 and revenues of approx. 4,000 USD million. The Company is stress testing and assessing the tax levels, forecasts and EUA markets quarterly to ensure quality cost forecasts as input to all investment decisions. |
| Capital expenditures / capital allocation | Impacted | Impact of emissions and related costs are forecasted and factored into the quarterly capital allocation process. In addition to the financial impact from taxes and fees, the emissions targets and projected performance against these are assessed for all investments considered. Aker BP current sanction threshold of 35 USD/bbl applies for all capital investments in the CAPEX portfolio. We have been testing impact of the risk upwards of 45 USD/bbl and still provide financial robustness. |
| Acquisitions and divestments | Not yet impacted | We currently evaluate impact of climate related risks on all our acquisition or divestment strategy and plans, aiming to drive down our total portfolio emission foot-print. Acquisitions and divestments of magnitude are manged through our strategy and capital allocation processes on executive level, and endorsed by board of directors. Our carbon efficiency goal of 8 kg CO2/boe is the threshold for decision making. |
| Access to capital | Impacted | Albeit Aker BP having secured solid funding options through pro-actively having taking steps to improve carbon efficiency – e.g. through setting a clear investment / divestment threshold of 8 kg CO2 /boe, there is notice of increased interest and scrutiny from the investment community (both equity and debt markets) to our climate performance and our climate risks. The corporate finance team continuously engage with the market throughout the business planning processes to secure best possible terms considering our performance of 7 kg CO2/boe. One impact to the business planning process is that raising capital to a larger extent must be sought outside of Scandinavia to a larger degree due to the communities hardening policy on providing facility. |
| Assets | Impacted | Aker BP emissions and related costs are forecasted and factored into the quarterly cost process. In addition to the financial impact from taxes and fees, the emissions targets and projected performance against these are assessed for all investments considered. |
| Liabilities | Impacted | Aker BP's cost of borrowing money has not yet been impacted by climate, but we expect this could be the case within 15-20 years if the climate related issues globally continue developing along the current trajectory. |
| Other | Not evaluated | |

## C3. Business Strategy

### C3.1

**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

### C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, qualitative and quantitative

### C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

**(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

No, we do not have a low-carbon transition plan

### C3.1c

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

We consider various scenarios for trends in demand, both our own and scenarios developed by key forecasters such as the International Energy Agency (IEA) and BP. Their respective scenarios «Sustainable development» and «Even faster transition,» from their 2018 flagship publications, provide demand and pricing forecasts consistent with roughly a halving of global carbon emissions by 2040 . Other reports provide climate change scenarios at 1.5 ºC and a halving of global carbon emissions by 2032. We are in the progress of analysing the related economic and strategic impact on Aker BP.

The projected outcome of these scenarios is that the demand for oil and liquids wil peak around 2020-25, and then fall toward 70-80 million barrels per day (mmbpd) in 2040 – down from around 100 mmbpd at year-end 2018. Such a reduction in the demand for oil would likely be accompanied by a decline in oil prices, which would have a financial implication for Aker BP. While this is a dramatic decline in demand, the fact that the existing production declines even more year on year, would mean that new developments are still required, and the cost of developing these resources will indicate a long-term price. The IEA estimates this price at around 65 USD/bbl (2018 terms).

Aker BP's target is to sanction projects with break-even oil prices at 35 USD/bbl or below, and most of the projects in our portfolio are already meeting this criterion, implying that Aker BP would still be a highly profitable company. This has also been tested for a scenario with 45 USD/bbl (2018 real terms). Aker BP would remain a highly profitable company, though with less tail-end production.

Example of how climate-related issues are integrated into business objectives:

- The decision to supply Johan Sverdrup with power from shore was a substantial business decision for Aker BP, among many factors the decision of reduced operational costs was driven by GHG and overall climate impact. Power from shore to Johan Sverdrup also allows for future supply of electric power (hydropower) to a.o. the Aker BP operated field Ivar Aasen. This enables increased production with a minimal increase in CO2 emissions, hence reducing the carbon intensity. Business processes are influenced by changing mind-set from regulators, industry organisations, NGOs, investors etc. and Aker BP has captured a risk regarding green competiveness and implemented a climate strategy. This risk is highly relevant for climate change and is captured in our risk management system and actions are distributed to various members in the organisation to drive our strategy both long term and short term in the right direction. The Ivar Aasen development has also benefited from the decision to supply the Utsira High area with power from shore . Also the opportunity of energy management has been raised to a higher business level and included in the corporate HSSEQ plan as a long term strategy. Energy use and main consumer of energy are implemented on all Aker BP's fields.

Norway's political goals for reduction of climate gas emissions heavily affects the oil and gas industry, and hence Aker BP as a Norwegian exploration and production company. Supply of electrical power from shore to offshore installations is a long term objective in our climate strategy, while energy efficiency, flaring reduction, fuel switching (from diesel to gas), fugitive emissions (methane) and detailed emission reporting are more short term strategies to impact the climate change and are all important issues influencing Aker BP. The company's annual strategy process has a separate work stream to quantify our climate-related performance and related risks and opportunities. We project our performance in the future, and define a target we want to achieve. Thereafter we agree initiatives to be worked on during the strategy period to achieve this target. Aker BP's strategy, objectives and levers we use are anchored in the Executive Management Team, and communicated throughout the company. It is supported by our Sustainability report, which provides transparency around our broader sustainability performance - including climate issues.

In addition, as a Norwegian exploration and production company, Aker BP's business is subject to a number of policy instruments, such as the EU emission trading system (ETS), carbon tax, strict flaring provisions, emission/ discharge permits with requirements for energy management, and requirements to use the best available technology and to assess power from shore for new developments.

## C3.1d

**(C3.1d) Provide details of your organization's use of climate-related scenario analysis.**

| Climate-related scenarios | Details |
|---|---|
| IEA Sustainable development scenario | Aker BP uses IEA scenarios and others to estimate projected demand for our products (oil, gas and NGLs) and discuss regularly how it will impact our activities and investment decisions. We consider the full period from 2018 to 2070, estimating the impact from different scenarios on our project profitability based on the impact it would have on the prices we would receive in the market. It therefore impacts all departments in our organisation: All assets have projects, and all business units provide cost input to those projects. What we see is a set of scenarios that would imply significantly lower oil and gas prices (around 40 USD/bbl), which means that a set of the projects in our portfolio would not be developed. However, we have another base case price trajectory and use these scenarios to illustrate the impact other not unlikely scenarios would have on our business. These scenarios have impacted our business strategy by the concrete project investment decisions we make, because we test our financial capacity in the scenarios by varying the project mix. The projected outcome of these scenarios is that the demand for oil and liquids will peak around 202-25, and then fall toward 70-80 million barrels per day (mmbpd) in 2040, down from around 100 mmbpd at year-end 2018. Such a reduction in the demand for oil would likely be accompanied by a decline in oil prices, which would have a financial implication for Aker BP. While this is a dramatic decline in demand, the fact that the existing production declines even more year on year, would mean that new developments are still required, and the cost of developing these resources will indicate a long-term price. The IEA estimates this price at around 65 USD/bbl (2018 terms). Aker BP's target is to sanction projects with break-even oil proces at 35 USD/bbl or below, and most of the projects in our portfolio are already meeting this criterion, implying that Aker BP would still be a highly profitable company. |
| Other, please specify (Company scenarios) | Aker BP develops our own scenarios for prices, factoring in the impact of various events that could impact the demand for our products. Examples of what we consider are oil to gas switching in petrochemicals, gas driven trucks, electric vehicle penetration, vehicle fuel efficiency, carbon tax increases. We consider the full period from 2018 to 2070, estimating the impact from different scenarios on our project profitability based on the impact it would have on the prices we would receive in the market. It therefore impacts all departments in our organisation: All assets have projects, and all business units provide cost input to those projects. What we see is a set of scenarios that would imply significantly lower oil and gas prices (around 40 USD/bbl), which means that a set of the projects in our portfolio would not be developed. However, we have another base case price trajectory and use these scenarios to illustrate the impact other not unlikely scenarios would have on our business. These scenarios have impacted our business strategy by the concrete project investment decisions we make, because we test our financial capacity in the scenarios by varying the project mix. |
| Other, please specify (Contributions to the KonKraft initiative ) | We model our contributions to the KonKraft initiative in Norway, and consider Aker BP's performance relative to this target with different compositions of our project portfolio to ensure we meet the target. The Konkraft target corresponds to the 2020-2030 time horizon, and it is mainly used by the Operations and HSSEQ departments to make sure we stay on track to deliver on our committed targets. Is helps us calibrate whether our climate initaitives are sufficiently effective. |

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**
Both absolute and intensity targets

### C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

**Target reference number**
Abs 1

**Scope**
Scope 1

**% emissions in Scope**
98

**Targeted % reduction from base year**
15

**Base year**
2017

**Start year**
2018

**Base year emissions covered by target (metric tons CO2e)**
913796

**Target year**
2030

**Is this a science-based target?**
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**% of target achieved**
0.2

**Target status**
Achieved

**Please explain**
Aker BP has committed to reduce CO2 emissions according to the Norwegian Oil and gas climate roadmap. Aker BP's share of the committment is equivalent to 140 000 tons CO2/year from 2020-2030. The base year is 2017. The CO2-Emissions in the target year 2030 are expected at 514 000 Tonnes CO2 with current production profile scenarios. These emission reductions are in support of the Paris agreement.

### C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

**Target reference number**
Int 1

**Scope**
Scope 1

**% emissions in Scope**
98

**Targeted % reduction from base year**
3

**Metric**
Other, please specify (metric tons CO2 per barrel of oil equivalent)

**Base year**
2016

**Start year**
2018

**Normalized base year emissions covered by target (metric tons CO2e)**
765209

**Target year**
2025

**Is this a science-based target?**
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

**% of target achieved**
3

**Target status**
Achieved

**Please explain**
Aker BP has a CO2 Intensity target of less than 8 kg CO2 per barrel of oil equivalent (boe). In 2018 our CO2 intensity was 7 kg CO2/boe.

**% change anticipated in absolute Scope 1+2 emissions**
0.2

**% change anticipated in absolute Scope 3 emissions**
0

## C4.2

**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

## C-OG4.2a

**(C-OG4.2a) If you do not have a methane-specific emissions reduction target for your oil and gas activities or do not incorporate methane into your target(s) reported in C4.2 please explain why not and forecast how your methane emissions will change over the next five years.**

Methane emissions are monitored and measured on a continous basis, however we have not set a methane reduction target for 2018. Methane emission target will be implemented in 2019. We expect a downward trend for methane over the next five years due to implementing reduction measures and a decrease in expected oil volume from tanker loadings.

## C4.3

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**
Yes

## C4.3a

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

| | Number of initiatives | Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *) |
|---|---|---|
| Under investigation | 76 | 120000 |
| To be implemented* | 3 | 45000 |
| Implementation commenced* | 1 | 0 |
| Implemented* | 3 | 25250 |
| Not to be implemented | 17 | 10000 |

## C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative type**
Fugitive emissions reductions

**Description of initiative**
Oil/natural gas methane leak capture/prevention

**Estimated annual CO2e savings (metric tonnes CO2e)**
25100

**Scope**
Scope 1

**Voluntary/Mandatory**
Mandatory

**Annual monetary savings (unit currency – as specified in C0.4)**
35000

**Investment required (unit currency – as specified in C0.4)**
1000

**Payback period**
<1 year

**Estimated lifetime of the initiative**
11-15 years

**Comment**
Reduction on two fields - Until end of lifetime for Alvheim FPSO and Ivar Aasen

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**Initiative type**
Energy efficiency: Processes

**Description of initiative**
Other, please specify (Phased out the use of temporary diesel engines for water injection on Ivar Aasen)

**Estimated annual CO2e savings (metric tonnes CO2e)**
150

**Scope**
Scope 2 (location-based)

**Voluntary/Mandatory**
Mandatory

**Annual monetary savings (unit currency – as specified in C0.4)**
100000

**Investment required (unit currency – as specified in C0.4)**
0

**Payback period**
<1 year

**Estimated lifetime of the initiative**
11-15 years

**Comment**
Stop using temporary diesel engines for water injection on Ivar Aasen

## C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

| Method | Comment |
|---|---|
| Compliance with regulatory requirements/standards | Energy management system according to int. standards is a regulatory requirement which results in asset specific energy reduction plans and actions. |
| Dedicated budget for energy efficiency | Asset budget in place to support energy improvement initiatives. |

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

## C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

**Level of aggregation**

Product

**Description of product/Group of products**

Natural Gas Sales: Natural Gas replaced coal when sold to UK or continental Europe. Natural Gas from Aker BP fields has a carbon intensity that is 35-40 % lower than coal.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (Norwegian oil and gas association )

**% revenue from low carbon product(s) in the reporting year**

15

**Comment**

% revenue is estimated based on sold total volume of liquid/gas.

## C-OG4.6

**(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.**

Methane reduction initiatives are part of Aker BPs list of emissions reduction measures. Due to the CO2 tax, cold venting have a high priority as the tax for cold venting is 7 times the tax for combustion. As part of a joint industry project to improve methods for calculation of methane (and VOC) emissions from the oil and gas industry in Norway, one of our assets (Alvheim) was a pilot in the project from 2014 on supporting the project with internal resources and support to map and quantify the emissions and develop new methodology.

## COG4.7

**(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?**

Yes

## C-OG4.7a

**(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.**

Aker BP has a procedure for planning, performance and follow-up of possible leaks and sweats in the production facilities offshore in Norway. The process includes searching by Infra red (IR)-camera for sweats and possible seeps in the process area. This is performed every 12 months as a minimum and includes a risk assessment of the sweats and seeps, individual follow-up, trending and continuous improvement. AkerBP has implemented internal KPI's for following up seeps and sweats and this is a weekly topic in operational management meetings. Risk of developing a larger seep is reviewed and action is taken if needed.

## C-OG4.8

**(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.**

No production flaring is performed at any  of the Aker BP facilities. Only safety flaring is allowed in Norway.

As a policy a closed flare is base case for our new field developments and implemented on 4 of 5 fields in operation.

Flaring policies and procedures are implemented on all fields to further reduce the safety flaring and hence limit emissions.

Flaring volumes are operational KPIs. Annual targets are set and regulated by having quarterly flaring permits for each operation.

Flaring reduction initiatives are captured and pursued as part of our energy management process.

## C5. Emissions methodology

### C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

**Scope 1**

**Base year start**
January 1 2018

**Base year end**
December 31 2018

**Base year emissions (metric tons CO2e)**
904679

**Comment**
Includes emission for all our operated assets and exploration.

**Scope 2 (location-based)**

**Base year start**
January 1 2018

**Base year end**
December 31 2018

**Base year emissions (metric tons CO2e)**
201493

**Comment**
This includes scope 2 emissions from power purchased from Edvard Grieg to Ivar Aasen and energy consumed in processing and exporting production from Ivar Aasen through Edvard Grieg. Scope 2 emissions from Valhall are included with 0 under market based emissions.

**Scope 2 (market-based)**

**Base year start**
January 1 2018

**Base year end**
December 31 2018

**Base year emissions (metric tons CO2e)**
0

**Comment**
Scope 2 emissions from Valhall are included with 0 emissions. Valhall receives power from shore from the national grid in Norway which is hydro power.

### C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**
IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011

## C6. Emissions data

### C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**
904679

**Start date**
January 1 2018

**End date**
December 31 2018

**Comment**
A slight reduction from 2017 due to reduced methane emissions.

**Past year 1**

**Gross global Scope 1 emissions (metric tons CO2e)**
910754

**Start date**
January 1 2017

**End date**
December 31 2017

**Comment**
Includes emissions for all our operated assets and exploration

## C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**
We are reporting a Scope 2, location-based figure

**Scope 2, market-based**
We are reporting a Scope 2, market-based figure

**Comment**
Location-based calculation: Ivar Aasen purchase power and processing/export capacity from the Lundin operated Edvard Grieg field. Aker BP use our share of the fuel and flare numbers from Edvard Grieg combined with the emissions factors for Edvard Grieg to calculate our scope 2 emissions from Ivar Aasen. Market-based calculation: On Valhall Aker BP get the electricity from the national grid. The national grid is dominated by hydro power and other renewables. Norway is a net exporter of electric power. The import/export statistics are attached as evidence. Marked based scope 2 emissions for Valhall are estimated to 0.

## C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**
201493

**Scope 2, market-based (if applicable)**
0

**Start date**
January 1 2018

**End date**
December 31 2018

**Comment**
Location Based: Increasing Scope 2 location based emissions due to increased power demand on Ivar Aasen related to water injection. Marked Based: On Valhall Aker BP get the electricity from the national grid. The national grid is dominated by hydro power and other renewables. Norway is a net exporter of electric power. The import/export statistics are attached as evidence. Marked based scope 2 emissions for Valhall are estimated to 0.

**Past year 1**

**Scope 2, location-based**
127170

**Scope 2, market-based (if applicable)**
0

**Start date**
January 1 2017

**End date**
December 31 2017

**Comment**
This includes scope 2 emissions from power purchased from Edvard Grieg to Ivar Aasen and energy consumed in processing and exporting production from Ivar Aasen through Edvard Grieg. Scope 2 emissions from Valhall are included with 0 under market based emissions.

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**
No

## C6.5

**(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BP are evaluating specific criteria for where this is important to assess, for example services are less relevant than purchase of energy intensive equipment and energy intensive raw materials. A common system is under development, and is not matured in all parts of the business.

**Capital goods**

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BP are evaluating specific criteria for where this is important to assess, for example services are less relevant than purchase of energy intensive equipment and energy intensive raw materials. A common system is under development, and is not matured in all parts of the business.

### Fuel-and-energy-related activities (not included in Scope 1 or 2)

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Fuel combustion is considered when entering logistics contracts. Diesel consumption is captured for vessels on hire. However the CO2 accounting for these vessels are not aggregated. A system needs be developed. For helicopters the running hours and average fuel consumption can be calculated.

### Upstream transportation and distribution

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Oil and gas export through pipeline is accounted for under Scope 1. Other means of transport (shuttle tankers) are not included.

### Waste generated in operations

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Non-hazardous waste from Aker BPs operations is either recycled or energy recovered.

### Business travel

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
3415

**Emissions calculation methodology**
Aker BP has video conferencing facilities in all office locations including the offshore locations which allows for significant reductions of business travelling. Aker BP has an agreement with SAS for business flights and SAS is part of established CO2 quota system. Through our travel agency we get an annual report of our CO2 footprint through business travelling. In 2018 Aker BP had just over 12 000 business flights. This resulted in 3415 tonnes CO2e. However, CO2 awareness is still not implemented in AkerBPs business travel guidelines. A new and more precise mehtod for calculating the emissions has been adopted in 2018. This leads to the numbers from 2017 not being directly comparable to numbers of 2018.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
90

**Explanation**
We expect that some business travels are booked outside the Aker BP travel system and therefore the percentage of emissions calculated is 90% and not 100%.

### Employee commuting

**Evaluation status**
Relevant, not yet calculated

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BPs largest office location in Stavanger are offering a commuting programme enabling employees to commute by train (electric) and buses for a discounted price (Hjem-Jobb-Hjem). All employees can register for use of electric bikes in coorporation with Stavanger municipality. These bikes are available outside our Stavanger office and several places in Stavanger. In addition all employees who needs to commute by car will pay for their own parking spot. However CO2 awareness is still not implemented in AkerBPs commuting guidelines.

### Upstream leased assets

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BP has no leased assets

### Downstream transportation and distribution

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BP has only upstream activities

### Processing of sold products

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
The crude oil is sold to various refineries that are processing the oil. These refineries are part of EU ETS and report their own emissions. Gas is exported through various pipelines to terminals in Europe. The consumer marked is the major user of natural gas, hence no significant processing.

### Use of sold products

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
10966350

**Emissions calculation methodology**
On NCS by average less than 10% CO2 is used for exploration and production of oil and gas. An international general rule of thumb of 10X the emissions of CO2e is used. (Source: Norwegian Oil and Gas Association)

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Explanation**
The CO2 emissions from the use of natural gas and oil is fairly easy to calculate, however the methane emissions from natural gas distribution is dependent on the downstream distribution and user facilities. 90 % of the emissions are from the use of the products.

### End of life treatment of sold products

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Oil and gas is combusted. No significant rest product

**Downstream leased assets**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BP has no leased assets

**Franchises**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Aker BP has no franchised activities.

**Investments**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
Owned activities are accounted for in Scope 1 and Scope 2. No other investments are relevant.

**Other (upstream)**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
No other upstream activities are relevant

**Other (downstream)**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Explanation**
No other downstream activities are relevant

## C6.7

**(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**
No

## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**
0.0029

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**
1096635

**Metric denominator**
unit total revenue

**Metric denominator: Unit total**
3750000000

**Scope 2 figure used**
Location-based

**% change from previous year**
27.5

**Direction of change**
Decreased

**Reason for change**
Even if emissions were higher for Scope 2 location-based in 2018, the total revenue increased significantly resulting in a lower intensity figure.

## C-OG6.12

**(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.**

**Unit of hydrocarbon category (denominator)**
Thousand barrels of crude oil / condensate

**Metric tons CO2e from hydrocarbon category per unit specified**
7

**% change from previous year**
3

**Direction of change**
Decreased

**Reason for change**
Lower methane emissions.

**Comment**

## C-OG6.13

**(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.**

**Oil and gas business division**
Upstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**
0.169

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**
0.012

**Comment**

# C7. Emissions breakdowns

## C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**
Yes

## C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

| Greenhouse gas | Scope 1 emissions (metric tons of CO2e) | GWP Reference |
|---|---|---|
| CO2 | 881281 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| CH4 | 23398 | IPCC Fifth Assessment Report (AR5 – 100 year) |

## C-OG7.1b

**(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.**

**Emissions category**
Flaring

**Value chain**
Upstream

**Product**
Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**
90470

**Gross Scope 1 methane emissions (metric tons CH4)**
186

**Total gross Scope 1 emissions (metric tons CO2e)**
90656

**Comment**

---

**Emissions category**
Combustion (excluding flaring)

**Value chain**
Upstream

**Product**
Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**
790811

**Gross Scope 1 methane emissions (metric tons CH4)**
6828

**Total gross Scope 1 emissions (metric tons CO2e)**
797640

**Comment**

---

**Emissions category**
Venting

**Value chain**
Upstream

**Product**
Oil

**Gross Scope 1 CO2 emissions (metric tons CO2)**
0

**Gross Scope 1 methane emissions (metric tons CH4)**
6571.9

**Total gross Scope 1 emissions (metric tons CO2e)**
6571.9

**Comment**

---

**Emissions category**
Fugitives

**Value chain**
Upstream

**Product**
Unable to disaggregate

**Gross Scope 1 CO2 emissions (metric tons CO2)**
0

**Gross Scope 1 methane emissions (metric tons CH4)**
9811.24

**Total gross Scope 1 emissions (metric tons CO2e)**
9811.24

**Comment**

---

## C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

| Country/Region | Scope 1 emissions (metric tons CO2e) |
|---|---|
| Norway | 904679 |

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division
By facility
By activity

## C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

| Business division | Scope 1 emissions (metric ton CO2e) |
|---|---|
| Operations Business Unit | 895244 |
| Exploration Business Unit | 9436 |

## C7.3b

**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

| Facility | Scope 1 emissions (metric tons CO2e) | Latitude | Longitude |
|---|---|---|---|
| Alvheim | 243473 | 59.57 | 2 |
| Skarv | 374840 | 65.7 | 7.59 |
| Ivar Aasen | 37680 | 58.92 | 2.19 |
| Ula | 219426 | 57.11 | 2.85 |
| Valhall incl. Hod | 19824 | 56.28 | 3.4 |
| Exploration | 9436 | 59 | 2 |

## C7.3c

**(C7.3c) Break down your total gross global Scope 1 emissions by business activity.**

| Activity | Scope 1 emissions (metric tons CO2e) |
|---|---|
| Operations | 888672 |
| Exploration | 9436 |
| Oil Loading | 6571.92 |

## C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

| | Gross Scope 1 emissions, metric tons CO2e | Net Scope 1 emissions , metric tons CO2e | Comment |
|---|---|---|---|
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Electric utility generation activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | 904679 | <Not Applicable> | |
| Oil and gas production activities (downstream) | 0 | <Not Applicable> | No downstream business. |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

| Country/Region | Scope 2, location-based (metric tons CO2e) | Scope 2, market-based (metric tons CO2e) | Purchased and consumed electricity, heat, steam or cooling (MWh) | Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh) |
|---|---|---|---|---|
| Norway | 201493 | 0 | 576554 | 431554 |

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division
By facility
By activity

## C7.6a

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

| Business division | Scope 2, location-based emissions (metric tons CO2e) | Scope 2, market-based emissions (metric tons CO2e) |
|---|---|---|
| Operations Business Unit | 201493 | 0 |
| Exploration Business Unit | 0 | 0 |

## C7.6b

**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

| Facility | Scope 2 location-based emissions (metric tons CO2e) | Scope 2, market-based emissions (metric tons CO2e) |
|---|---|---|
| Alvheim | 0 | 0 |
| Skarv | 0 | 0 |
| Ivar Aasen | 201493 | 0 |
| Ula | 0 | 0 |
| Valhall incl. Hod | 0 | 0 |

## C7.6c

**(C7.6c) Break down your total gross global Scope 2 emissions by business activity.**

| Activity | Scope 2, location-based emissions (metric tons CO2e) | Scope 2, market-based emissions (metric tons CO2e) |
|---|---|---|
| Operations | 201493 | 0 |
| Exploration | 0 | 0 |
| Oil Loading | 0 | 0 |

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

**(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

| | Scope 2, location-based, metric tons CO2e | Scope 2, market-based (if applicable), metric tons CO2e | Comment |
|---|---|---|---|
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | 201493 | 0 | |
| Oil and gas production activities (downstream) | 0 | 0 | |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

## C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.**

| | Change in emissions (metric tons CO2e) | Direction of change | Emissions value (percentage) | Please explain calculation |
|---|---|---|---|---|
| Change in renewable energy consumption | 0 | No change | 0 | |
| Other emissions reduction activities | 0 | | 0 | Improved methods for calculation of N2 in cold vents on Ivar Aasen and Alvheim |
| Divestment | 0 | No change | 0 | |
| Acquisitions | 0 | No change | 0 | |
| Mergers | 0 | No change | 0 | |
| Change in output | 0 | No change | 0 | |
| Change in methodology | 25100 | Decreased | 2.4 | Improved methods for calculation of N2 in cold vents on Ivar Aasen and Alvheim |
| Change in boundary | 0 | No change | 0 | |
| Change in physical operating conditions | 48488 | Increased | 4.6 | Increased use of diesel on Ivar Aasen for Water Injection (later phased out) Increased Water production on Alvheim. Increased drilling activities. |
| Unidentified | 0 | No change | 0 | |
| Other | 37182 | Increased | 3.5 | Increased Scope 2 emissions from Ivar Aasen. CO2 from power transfer from Edvard Grieg was not included in 2017. |

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

# C8. Energy

## C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 5% but less than or equal to 10%

## C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

| | Indicate whether your organization undertakes this energy-related activity |
|---|---|
| Consumption of fuel (excluding feedstocks) | Yes |
| Consumption of purchased or acquired electricity | Yes |
| Consumption of purchased or acquired heat | No |
| Consumption of purchased or acquired steam | No |
| Consumption of purchased or acquired cooling | No |
| Generation of electricity, heat, steam, or cooling | Yes |

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

| | Heating value | MWh from renewable sources | MWh from non-renewable sources | Total MWh |
|---|---|---|---|---|
| Consumption of fuel (excluding feedstock) | LHV (lower heating value) | 0 | 3929108.9 | 3929108.9 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 431554 | 145000 | 576554 |
| Consumption of purchased or acquired heat | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired steam | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 0 | <Not Applicable> | 0 |
| Total energy consumption | <Not Applicable> | 431554 | 4074108.69 | 4505662.44 |

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

| | Indicate whether your organization undertakes this fuel application |
|---|---|
| Consumption of fuel for the generation of electricity | Yes |
| Consumption of fuel for the generation of heat | Yes |
| Consumption of fuel for the generation of steam | No |
| Consumption of fuel for the generation of cooling | No |
| Consumption of fuel for co-generation or tri-generation | No |

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**
Diesel

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
257895.94

**MWh fuel consumed for self-generation of electricity**
231742.14

**MWh fuel consumed for self-generation of heat**
26153.8

**MWh fuel consumed for self-generation of steam**
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**
Natural Gas

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
3272492.6

**MWh fuel consumed for self-generation of electricity**
3059302.69

**MWh fuel consumed for self-generation of heat**
0

**MWh fuel consumed for self-generation of steam**
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Comment**

---

**Fuels (excluding feedstocks)**
Natural Gas

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
398720.39

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
0

**MWh fuel consumed for self-generation of steam**
<Not Applicable>

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Comment**
This is safety flaring. Safety flaring is necessary in incidents where pressure release of the process plant is required.

---

## C8.2d

**(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

**Diesel**

**Emission factor**
3.17

**Unit**
metric tons CO2 per metric ton

**Emission factor source**
Standard Factor as documented in Norwegian Oil and Gas reporting Guidelines

**Comment**

**Natural Gas**

**Emission factor**
0.00233

**Unit**
kg CO2e per m3

**Emission factor source**
Weighted average for Ula, Skarv and Alvheim. Based on online GC and laboratory analyses.

**Comment**

## C8.2e

**(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

| | Total Gross generation (MWh) | Generation that is consumed by the organization (MWh) | Gross generation from renewable sources (MWh) | Generation from renewable sources that is consumed by the organization (MWh) |
|---|---|---|---|---|
| Electricity | 3291044.8 | 3291044.8 | 0 | 0 |
| Heat | 26153.8 | 26153.8 | 0 | 0 |
| Steam | 0 | 0 | 0 | 0 |
| Cooling | 0 | 0 | 0 | 0 |

## C8.2f

**(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

**Basis for applying a low-carbon emission factor**
Grid mix of renewable electricity

**Low-carbon technology type**
Wind
Hydropower

**Region of consumption of low-carbon electricity, heat, steam or cooling**
Europe

**MWh consumed associated with low-carbon electricity, heat, steam or cooling**
431554

**Emission factor (in units of metric tons CO2e per MWh)**
0

**Comment**
General import and export statistics support the energy mix in Norwegian grid as 100% renewable energy. Annual domesticc comsumption is lower than renewable production.

# C9. Additional metrics

## C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**
Waste

**Metric value**
22.84

**Metric numerator**
Oil ppm in produced water

**Metric denominator (intensity metric only)**
Produced water

**% change from previous year**
25.9

**Direction of change**
Increased

**Please explain**
Poor water quality in Ula and Alvheim.

---

**Description**
Waste

**Metric value**
5

**Metric numerator**
Number acute discharges to sea (> 0.1 m3)

**Metric denominator (intensity metric only)**

**% change from previous year**
18.6

**Direction of change**
Decreased

**Please explain**
The number of spills are at a low level.

---

**Description**
Waste

**Metric value**
7466870

**Metric numerator**
Produced water re-injection m3

**Metric denominator (intensity metric only)**

**% change from previous year**
18.6

**Direction of change**
Increased

**Please explain**
High reinjection rates at Alvheim and Ivar Aasen

---

**Description**
Waste

**Metric value**
31059240

**Metric numerator**
Gas flaring (million SM3)

**Metric denominator (intensity metric only)**

**% change from previous year**
83

**Direction of change**
Increased

**Please explain**
High flaring in 2018 due to icing problems in the SAGE gas export gas pipeline and on Edvard Grieg

---

## C-OG9.2a

**(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).**

| | In-year net production | Comment |
|---|---|---|
| Crude oil and condensate, million barrels | 44.7 | |
| Natural gas liquids, million barrels | 0 | Oil Equivalents |
| Oil sands, million barrels (includes bitumen and synthetic crude) | 0 | |
| Natural gas, billion cubic feet | 67.9 | |

## C-OG9.2b

**(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.**

Aker BP ASA's reserves and contingent resources volumes have been classified in accordance with the Society of Petroleum Engineer's (SPE) "Petroleum Resources Management System". This classification system is consistent with Oslo Stock Exchange's requirements for the disclosure of hydrocarbon reserves and contingent resources

## C-OG9.2c

**(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.**

| | Estimated total net proved + probable reserves (2P) (million BOE) | Estimated total net proved + probable + possible reserves (3P) (million BOE) | Estimated net total resource base (million BOE) | Comment |
|---|---|---|---|---|
| Row 1 | 917 | 917 | 917 | 3P reserves are not published. 3P reserves are set equal to 2P |

## C-OG9.2d

**(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.**

| | Net proved + probable reserves (2P) (%) | Net proved + probable + possible reserves (3P) (%) | Net total resource base (%) | Comment |
|---|---|---|---|---|
| Crude oil / condensate / Natural gas liquids | 68 | 68 | 68 | 3P reserves are not published. 3P reserves are set equal to 2P |
| Natural gas | 32 | 32 | 32 | 3P reserves are not published. 3P reserves are set equal to 2P |
| Oil sands (includes bitumen and synthetic crude) | 0 | 0 | 0 | 3P reserves are not published. 3P reserves are set equal to 2P |

## C-OG9.2e

**(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.**

**Development type**
Other, please specify (Offshore Norway)

**In-year net production (%)**
6

**Net proved reserves (1P) (%)**
8

**Net proved + probable reserves (2P) (%)**
6

**Net proved + probable + possible reserves (3P) (%)**
6

**Net total resource base (%)**
6

**Comment**
3P reserves are not published. 3P reserves are set equal to 2P

## C-CO9.6/C-EU9.6/C-OG9.6

**(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.**

**Investment start date**
January 1 2018

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Other energy efficiency measures in the oil and gas value chain

**Investment maturity**
Applied research and development

**Investment figure**
100000

**Low-carbon investment percentage**
0-20%

**Please explain**
Aker BP is a member of the centre for energy efficient and competitive industry for the future (High EFF). The centre is one of Norway's centres for environment friendly energy research (FME) and co-founded by the Research Council of Norway and the Industry. The centerfocuses on energy efficient processing, surplus heat utilization, industrial clusters, education and training. The aim is to reduce energy consumption with 20-30%, reduce greenhouse gas emission with 10%, increase value creation in Norway, develop energy efficient processes and components which should make Norwegian industry competitive. The project will run through 2022.

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**Investment start date**
January 1 2018

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Smart systems

**Investment maturity**
Applied research and development

**Investment figure**
100000

**Low-carbon investment percentage**
Please select

**Please explain**
With increased opening of the Norwegian Barents Sea through the 23rd concession round, the importance of a continued and area specific data acquisition is underlined. In their announcement the Norwegian Petroleum Directorate (NPD) hereunder state: «To ensure a responsible petroleum activity, it is important that relevant operational uncertainties and risk factors are well understood and safeguarded prior to execution of exploration drilling and field development". The Norwegian Petroleum Safety Authority (PSA) has further pronounced "The far North" as a main priority for 2015, emphasising operator collaboration as a key to success. In line with authority expectations and operator needs, therefore a joint effort to collect additional and necessary metocean and ice data in the region was inititated. The scope of work consists of a 3-year long metocean measurement programme in the Norwegian Barents Sea and in addition the deployment and recovery of five ice and current mooring rigs. It is a large scale environmental and meteorological, oceanographic program. Data is collected and an environmental base line established. Sensor technology is tested out and can be applied to other areas.

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**Investment start date**
January 1 2018

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Smart systems

**Investment maturity**
Applied research and development

**Investment figure**
50000

**Low-carbon investment percentage**
Please select

**Please explain**
Aker BP joined the phase 2 of the Lofoten Vesterålen (LoVe) online environmental monitoring observatory. Sensor platforms are located 12 km of the coast at Bø i Vesterålen, at 250 m depth. Sensors are connected to shore via cables and data are easily accesible at http://love.statoil.com. The goal of the research project is to build knowledge about marine ecosystems through collection of tealtime data and develop sensor based environmental monitoring. Technology development in this project could be used in climate related applications.

---

**Investment start date**

January 1 2018

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Smart systems

**Investment maturity**
Applied research and development

**Investment figure**
14000000

**Low-carbon investment percentage**
0-20%

**Please explain**
A portfolio of 18 further climate related R&D projects, largely focused on emissions, leaks, impact of production in arctic environments, and zero emissions systems.

---

**Investment start date**
January 1 2018

**Investment end date**
December 31 2018

**Investment area**
R&D

**Technology area**
Other, please specify (Sea bird tracking)

**Investment maturity**
Applied research and development

**Investment figure**
100000

**Low-carbon investment percentage**
Please select

**Please explain**
Mapping of migration routes of sea birds breeding in colonies and juvenile seabirds using light-logging technology and GPS -loggers

---

**Investment start date**
January 1 2018

**Investment end date**
December 31 2020

**Investment area**
R&D

**Technology area**
Other, please specify (Development of a risk tool to manage produced water risk in the water column)

**Investment maturity**
Applied research and development

**Investment figure**
80000

**Low-carbon investment percentage**
Please select

**Please explain**
Development of a risk tool to manage produced water risk in the water column

---

## C-OG9.7

**(C-OG9.7) Disclose the breakeven price (US$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.**

12

*This information is not public. Instead the cost per barrel is given*

## C10. Verification

## C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

| | Verification/assurance status |
|---|---|
| Scope 1 | Third-party verification or assurance process in place |
| Scope 2 (location-based or market-based) | Third-party verification or assurance process in place |
| Scope 3 | No third-party verification or assurance |

## C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

**Scope**
Scope 1

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
High assurance

**Attach the statement**
AkerBP_Ivar_Aasen_EUETS_2018_verfication_report_Approved.pdf
AkerBP_Valhall_EUETS_2018_verification_report_Approved.pdf
AkerBP_Ula_EUETS_2018_Verification_Report_Approved.pdf
AkerBP_Alvheim_EUETS_2018_verfication_report_Approved.pdf
AkerBP_Skarv_EUETS_2018_verification_report_Approved.pdf

**Page/ section reference**
All pages

**Relevant standard**
European Union Emissions Trading System (EU ETS)

**Proportion of reported emissions verified (%)**
96

---

**Scope**
Scope 2 location-based

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
High assurance

**Attach the statement**
V025-18 Edvard Grieg-Verifikasjonsrapport.pdf

**Page/ section reference**
All pages

**Relevant standard**
European Union Emissions Trading System (EU ETS)

**Proportion of reported emissions verified (%)**
96

---

**Scope**
Scope 2 market-based

**Verification or assurance cycle in place**
Annual process

**Status in the current reporting year**
No verification or assurance of current reporting year

**Type of verification or assurance**
Not applicable

**Attach the statement**
Power Statistics Norway.xlsx

**Page/ section reference**
All - Statistics of electrical power generation and export. Renewable generation exceeds export. 2018 is missing but trend is evident

**Relevant standard**
Other, please specify (Statistics Norway )

**Proportion of reported emissions verified (%)**
0

---

## C10.2

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**
No, we do not verify any other climate-related information reported in our CDP disclosure

## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

### C11.1a

**(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

EU ETS

Norway carbon tax

### C11.1b

**(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.**

**EU ETS**

**% of Scope 1 emissions covered by the ETS**

96.3

**Period start date**

January 1 2018

**Period end date**

December 31 2018

**Allowances allocated**

139755

**Allowances purchased**

731238

**Verified emissions in metric tons CO2e**

870993

**Details of ownership**

Other, please specify (Facilities we operate, owned or hired as part of the climate quota permit)

**Comment**

Both owned and hired production facilities, drilling rigs and flotels are included in the climate quota permits for each of the Aker BP fields. Exploration drilling are not included.

### C11.1c

**(C11.1c) Complete the following table for each of the tax systems in which you participate.**

**Norway carbon tax**

**Period start date**

January 1 2018

**Period end date**

December 31 2018

**% of emissions covered by tax**

95

**Total cost of tax paid**

473243

**Comment**

Gross USD

### C11.1d

**(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

**The management strategy in Aker BP is;**

- to offset emissions by purchasing the necessary allowances
- to invest in emission reduction technology where the abatement cost is acceptable. A recent example is the drilling rig Maersk Invincible on Valhall receiving power from shore
- to implement energy efficency in all operations and operational models
- to comply with the field specific monitoring plans related to EU ETS.

Aker BP has updated the corporate business management system to account for existing climate regulations, such as EU ETS, and how to comply with the specific monitoring plans. An annual meeting is held to review potential changes that will trigger updates.

## C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

**(C11.3) Does your organization use an internal price on carbon?**

Yes

## C11.3a

**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

**Objective for implementing an internal carbon price**

Change internal behavior
Other, please specify (To transfer allowances internally)

**GHG Scope**

Scope 1

**Application**

Aker BP use a carbon price when forecasting costs in operations and projects

**Actual price(s) used (Currency /metric ton)**

25

**Variance of price(s) used**

No internal transfers were made during 2018.

**Type of internal carbon price**

Shadow price

**Impact & implication**

Used in forecasting of costs in operations and projects . One example is the NOAKA project where power from shore has been selected as base case for current design.

# C12. Engagement

## C12.1

**(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers
Yes, other partners in the value chain

## C12.1a

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**
Innovation & collaboration (changing markets)

**Details of engagement**
Other, please specify (We encourage our suppliers to develop new ways to reduce climate change impacts of the products/services that they offer)

**% of suppliers by number**
23

**% total procurement spend (direct and indirect)**
43

**% Scope 3 emissions as reported in C6.5**
0

**Rationale for the coverage of your engagement**
Aker BP acknowledges the conclusions from the Intergovernmental Panel on Climate Change (IPCC) and is committed to take responsibility for our carbon footprint. We therefore encourage our suppliers to innovate and choose solutions that contributes to our work in reducing our carbon footprint. Aker BP has a responsibility to ensure that its suppliers and sub-suppliers behave ethically and responsibly. This is done by addressing suppliers policies and performance with regards to Environment, Social and Governance (ESG) indicators.

**Impact of engagement, including measures of success**
Aker BP purchased goods and service for about 3 billion USD and engaged around 1600 direct suppliers in 2018, mainly within the oil and gas service sector. Our suppliers are generally contracted for high-technology services such as engineering, well and drilling services, or rental of rigs and marine services. Throughout the next period we are working to reduce our carbon foot print significantly, and to get below 8 kg CO2 per boe. We have made some concrete achievements in supporting our strategy and reduction goal. Some of these are: - Installed battery packs on the shipping vessels NS Orla and NS Fraya - When possible, we use LNG as fuel for the supply vessesls that are compatible with this fuel type. - Powered Valhall Flank West from shore, through Valhall Field Center (VCC). First oil expected fall 2019. - Aker BP have succeessfully installed the world's first offshore free-fall life boat with electric propulsion powered by BMW i3 batteries. This removes the requirement for diesel fuel on board or to change out fuel during standby position. - Remote condition monitoring of equipment from field center control room reduces number of helicopter flights . Apart from this, we are collaborating with our suppliers on evaluating several initiatives, such as: - Supplying power from land to all our assets - Electrification of rigs - Logistics and optimization of supply vessel routes - Increase use of LNG Regular performance review meetings with the major suppliers are held and performance measures are reviewed, including climate and energy optimization measures.

**Comment**
The percentages refer to the areas and suppliers where there is a carbon footprint and where we are focusing on reducing it

## C12.1c

**(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.**

Several of our supply vessels are using dual fuel (LNG+MGO), which has 15-20 % less CO2 and 85 % less NOx emission, compared to vessels that only use MGO. During 2018 we used 1450 m3 LNG, which led to a reduction of approximately 290 ton CO2. Two of our supply vessels, NS Orla and NS Fraya, have also installed battery packs and are using ASCO's (started early 2019) shore based electricity power supply at Risavika in Norway. Powering the supply vesselsl from shore reduces the need for fuel and corresponding emissions. We are also working on optimizing vessel routes, which will lead to fever miles travelled by vessels. Else, Aker BP continues to engage with drilling rig contractors such as Odfjell and Maersk Drilling to reduce NOx and CO2 emissions from drilling operations. We manage this by aligning our operational and environmental objectives.

## C12.3

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**
Direct engagement with policy makers
Trade associations
Funding research organizations

## C12.3a

**(C12.3a) On what issues have you been engaging directly with policy makers?**

| Focus of legislation | Corporate position | Details of engagement | Proposed legislative solution |
|---|---|---|---|
| Energy efficiency | Support | Aker BP has engaged with NOROG to establish guidelines for how to account for emissions when we receive power from another platform (Edvard Grieg) to Ivar Aasen. | Need to establish calculation rules that are the same for all companies when reporting on emission reduction measures. |
| Regulation of methane emissions | Support | New mapping of emissions from cold venting and fugitive emissions of methane. Establishment of new methods for quantification of emissions in joint engagement/task force group | Aker BP supports the implementation of new and better quantification methods for methane and nmVOC emissions. |
| Other, please specify (trade organisations) | Support | Aker BP attends Industry committee meetings (NOROG) who are providing input and feedback to changes in regulations related to climate change risks and opportunities. | Aker BP commits and supports the initiatives and common decisions by the Industry. |

## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**
Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**
Aker BP is a member of Norwegian Oil and Gas (NOROG) Association. Several senior leaders participate in various collaborative initiatives. NOROG is a professional body and employer's association for oil and supplier companies. The joint general meeting is the Norwegian Oil and Gas Association's highest authority. Each member company can appoint one representative to the relevant branch board. The branch boards choose their own chair. The Norwegian Oil and Gas Association's board consists of nine members chosen by the joint general meeting. Five are chosen from the oil companies and four from the supplier companies. The chair of the board is elected by the general meeting. The board has a quorum when at least six members are present.

**Is your position on climate change consistent with theirs?**
Consistent

**Please explain the trade association's position**
The Norwegian Oil and Gas (NOROG) Association support the UN intergovernmental panel on climate change, and want an ambitious international climate treaty. All reputable forecasts nevertheless show that oil and gas will be key energy sources for the foreseeable future and that reflects growing energy demand and the fact that renewable sources alone cannot meet these requirements. NOROG believes that ensuring the lowest possible emissions from the fossil energy, which the world needs, should be a high-priority climate measure. NOROG have launched a joint industry project to enhance energy efficiency to enable reduction of greenhouse gas and emissions. Aker BP and the other oil and gas companies are collaborating with each other here to exchange experience, transfer knowledge and find good ways to implement energy efficiency measures. Encouraging more demonstration and pilot projects for emission-reducing technology is also an aim. NOROG are working actively with the environmental authorities to secure even better data on methane emissions and to identify possible reductions. Methane is a powerful greenhouse gas, and reducing its emissions could provide first aid for the climate. NOROG see the Industry's future from a climate perspective, as an important step to put CO2 prices in place – preferably globally, but at least nationally and regionally – which make the most polluting fossil energy sources less profitable. Consumption can thereby be transferred to forms of energy which release less greenhouse gases. Exploring for, finding and delivering natural gas from Norway to the markets is important for ensuring stable energy supplies in addition to the share met by renewables. Emissions from oil and gas production on the Norwegian continental shelf (NCS) are 50 per cent below the world average.

**How have you influenced, or are you attempting to influence their position?**
Aker BP supports NOROGs goals and participates actively in achieving the emissions reduction targets that are set for Norway. We influence the position by attending the various group meetings and providing input/influence and feedback to NOROG from Aker BP's perspective.

## C12.3d

**(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**
Yes

## C12.3f

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Aker BP's public policy issues are coordinated by VP Communication, involving CEO and relevant Executive Management officers. Aker BP has incorporated a climate strategy and stated a climate objective as follows: Aker BP is a leading offshore E&P company and wants to be recognized as a major contributor to reduce CO2 emission. The company has also implemented a company target of less than 8,0 kg CO2/boe - this is measured on a monthly basis. The Key Performance Indicator is visualized in dashboards and available on the Intranett.

## C12.4

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**
In voluntary sustainability report

**Status**
Complete

**Attach the document**
1
Aker-BP-Sustainability-Report-2018.pdf

**Page/Section reference**
Company Profile(page 4), Letter from CEO (Page 5-6), Safety and Security (page 7-8), Ethics and Integrity (page 9-10), Enviromental Impact (page16-20), Economic Impact (page 24-25), Disclosures (page 26-28)

**Content elements**
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

**Comment**

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**Publication**
In mainstream reports

**Status**
Complete

**Attach the document**
1
Aker-BP-Annual-report-2018.pdf

**Page/Section reference**
Letter from CEO (page 7-9), Key Figures (page 10-11) A focused Portfolio (page 12-35), Board of Directors Report (45-64), Reporting of Payments to Governments (page 66-67), The board of Directors Report on Corporate Governance (68-80)

**Content elements**
Risks & opportunities
Emissions figures
Emission targets
Other metrics

**Comment**

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## C14. Signoff

## C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

## C14.1

**(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

| | Job title | Corresponding job category |
|---|---|---|
| Row 1 | Senior Vice President HSSEQ | Other C-Suite Officer |

## Submit your response

**In which language are you submitting your response?**
English

**Please confirm how your response should be handled by CDP**

| | Public or Non-Public Submission | I am submitting to |
|---|---|---|
| I am submitting my response | Public | Investors |

**Please confirm below**

I have read and accept the applicable Terms