Climate Change 2017 Information Request
Aker BP ASA

Module: Introduction

Page: Introduction

CC0.1
Introduction
Please give a general description and introduction to your organization.

Aker BP ASA is a fully fledged oil company with exploration, development and production of the petroleum resources on the Norwegian continental shelf. Aker BP's headquarter is located in Lysaker, with offices in Harstad, Sandnessjøen, Stavanger and Trondheim. Today, we have more than 1400 employees.
Aker BP is the operator for the fields; Valhall, Ula, Ivar Aasen, Alvheim and Skarv, making Aker BP a major producer of oil and gas.
The company is one of the biggest independent listed oil and gas companies in Europe, measured by production.
Aker BP had, including the portfolio from BP Norge, a production of 118,200 barrels of oil equivalent per day in 2016.
Aker BP operates in Norway only and has scope 1 and 2 emissions. Scope 3 emissions are partly estimated.

CC0.2
Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3
Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Norway

CC0.4
Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD($)

CC0.6
Modules
As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.
If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

Module: Management

Page: CC1. Governance

CC1.1
Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a
Please identify the position of the individual or name of the committee with this responsibility

Board Member and CEO (Chief Executive Officer)

CC1.2
Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a
Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Corporate executive team	Monetary reward	Emissions reduction project Emissions reduction target Efficiency project Efficiency target	Production KPI's and project targets are included in the incentive structure for relevant managers. Climate Strategy and Energy Management is included in the corporate HSE plan for 2017.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Management group	Recognition (non-monetary)	Energy reduction project Environmental criteria included in purchases Supply chain engagement	Emission reduction due to contracting a drilling rig supplied with electrical power - reduction of 15 200 tonnes CO2 /year. During ONS in august 2016 this project was presented and recognized. The project is also mentioned by the NOX-fund as a pilot for future NOX-reduction potentials.

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Norway; Aker BP only operates in Norway.	> 6 years	The Company risks are evaluated by top management and discussed with the Board on a monthly basis. Climate change 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.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

Aker BP has established and implemented an enterprise risk management process where risks and opportunities are identified and managed at all levels (activity, asset, business unit and company). 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 all levels in the organisation.

The majority of the risks and opportunities originate from 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 ISO 31000.

CC2.1c

How do you prioritize the risks and opportunities identified?

Risks and opportunities are evaluated using a matrix, including categories for Personnel, Environment, Cost, 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 Board of Directors).

Green competiveness is followed up as one of the risks for the company. Green competiveness cover energy effiency and climate change risks. The risks are evaluated according to the risk matrix and actions are made and tracked to address the risks.

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

Aker BP's overall business strategy has been influenced by the climate change and has resulted in a specific emission reduction target of 8.0 kg CO2/kg boe for 2017 (average NCS is 8.8 kg CO2/kg boe).

Aker BP's Climate Strategy is stated as follow::
- Incorporate climate change into company HSE policy and business strategy
-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)

The most substantial business decisions are the following reduction efforts implemented in Aker BP:
- Power from shore to Valhall and Ivar Aasen (as part of Utsira High from 2021). The experience with power from shore projects to Valhall, Ivar Aasen and Johan Sverdrup is an advantage in competing for new acreage.
- Energy efficient operations – our business strategy is linked to the target of 8.0 kg CO2/boe for 2017 (average NCS is 8.8 kg CO2/boe)
- Reduce our share of CO2 emission within the Industry, based on Paris agreement reduction commitments. (Target for reduction is 0.14 million tonnes)
- Reduce upset flaring by increasing reliability and promoting flaring policies. (Valhall, Skarv and Alvheim have closed flares, hence no pilot flames)-
- The decision to supply Johan Sverdrup with power from shore, including the option for future supply to a.o. Ivar Aasen. This enables the company to increase production with a minimal increase in CO2 emissions, hence reducing the carbon intensity.

Business processes are influences 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 HSE 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 E&P 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.

CC2.2c

Does your company use an internal price on carbon?

Yes

CC2.2d

Please provide details and examples of how your company uses an internal price on carbon

CO2-emissions from Norwegian O&G industry are subject to both CO2 tax and purchase of CO2 quotas from the EUETS quota system. Aker BP applies the CO2 tax and an assumption for future CO2 quota costs in economic evaluations for all our new developments and future project.

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Trade associations
Funding research organizations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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:	Support	Aker BP attend Industry committee (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.

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Norwegian Oil and Gas Association (NOROG)	Consistent	NOROG supports the UN intergovernmental panel on climate change, and want an ambitious international climate treaty. NOROG believe 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 in Norway. The oil and gas companies are collaborating with each other 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 is working actively with the environmental authorities to secure even better data on methane emissions and to identify possible reductions.	Aker BP supports NOROGs aims and work and participates actively in achieving the emissions reduction targets that are set for Norway.

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

Yes

CC2.3f

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 on 8,0 kg CO2/boe and is measured on a monthly basis. The Key Performance Indicator is also available on the internal website.

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target
Intensity target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1	15%	24%	2016	123834	2018	No, and we do not anticipate setting one in the next 2 years	Power upgrade on Ula. Efficency of turbines will increase from 28% to 37 %. Fuel gas consumption on SAC turbines is expected to be reduced from 45 mill Sm3/year to 34 mill Sm3/year, resulting in CO2 emissions reduced by 29734 tonnes to 94100 tonnes. Reduction in % is calculated from the emissions from the SAC-turbines on Ula in 2016.
Abs2	Scope 1	1.8%	100%	2016	15200	2018	No, and we do not anticipate setting one in the next 2 years	The drilling rig Maersk Invincible will be supplied with power from Valhall, which again have power from shore. The CO2 emissions will be 0. The base emission of 15200 tonnes CO2 is based on the current diesel consumption for the sister rig.
Abs3	Scope 1	0.6%	96%	2016	5000	2018	No, and we do not anticipate setting one in the next 2 years	Modification on Alvheim FPSO to route unburned VOC to flare. The modification also requires operational procedure changes to avoid O2 in gas export.
Abs4	Scope 2 (location-based)	16%	90%	2016	135000	2022	No, and we do not anticipate setting one in the next 2 years	Currently Ivar Aasen is supplied with power from gas fired turbines on the Lundin operated Edvard Grieg Field. From 2022 the scope 2 emissions will be eliminated as part of the Utsira High Power from shore project.

CC3.1b
Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1	100%	0%	Metric tonnes CO2e per unit of production	2016	834709	2030	No, and we do not anticipate setting one in the next 2 years	

CC3.1c
Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	24	No change	0	Ivar Aasen Scope 2 emissions will decrease from 2021 as part of the Utsira High Power from shore project Alvheim will reduce methane emissions Skarv and Alvheim will have a slight increase in CO2 emissions due to tie-ins Valhall has power from shore and is anticipated with low but stable emissions Ula will be decommissioned by 2030

CC3.1e
For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	20%	0%	Power upgrade is being designed. Equipment is being ordered
Abs2	10%	0%	Maersk Invincible contract has started and the rig is located on Valhall as per May 2017
Abs3	0%	0%	An Engineering Query has been made.
Abs4	5%	0%	Power from shore is part of the Johan Sverdrup field development operated by Statoil
Int1	10%	0%	CO2 per produced unit is followed up on a monthly basis. The KPI is displayed on the Intranet as part of company reporting and is available for senior leadership and all employees.

CC3.2
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

CC3.2a
Please 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	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Product	Natural Gas Sales: Natural Gas replaced coal when sold to UK or continental Europe. Natural Gas from Aker BP fields has a carbon intensity 35-40 % lower than coal.	Low carbon product	Other:	10%	Less than or equal to 10%	

CC3.3
Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a
Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	7	9300
To be implemented*	2	150200
Implementation commenced*	1	29700
Implemented*	2	7000
Not to be implemented	0	0

CC3.3b
For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Processes	Closed flare on Valhall reducing CO2 emissions from the LP flare pilot flame with approximately 5000 tonnes CO2	5000	Scope 1	Voluntary	64500	500000	4-10 years	21-30 years	
Energy efficiency: Processes	Asymetric load on power turbines on Alvheim. Upgrade to allow for reduced use of fuel gas with lower power demand.	2000	Scope 1	Voluntary	25800	100000	1-3 years	16-20 years	

CC3.3c
What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Financial optimization calculations	Will be a trade-off with operational priorities, cost/benefit, employee & leadership engagement
Compliance with regulatory requirements/standards	Power from shore is being evaluated for all new major developments and projects. The climate cost and CO2 tax is included in the methods for calculations.

Further Information

Page: CC4. Communication

CC4.1

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	Status	Page/Section reference	Attach the document	Comment
In other regulatory filings	Complete	Chapter 7, Valhal	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Valhall.pdf	
In other regulatory filings	Complete	Chapter 7, Ula	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Ula- og Tambar.pdf	
In other regulatory filings	Complete	Chapter 7, Ivar Aasen	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Ivar Aasen.pdf	
In other regulatory filings	Complete	Chapter 7, Alvheim	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Alvheim.pdf	
In other regulatory filings	Complete	Chapter 7, Skarv	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Skarv.pdf	
In other regulatory filings	Complete	Chapter 7, leteboring	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Letefelt Aker BP.pdf	
In other regulatory filings	Complete	Chapter 7, Bøyla	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Bøyla.pdf	
In other regulatory filings	Complete	Chapter 7, Hod	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Hod.pdf	
In other regulatory filings	Complete	Chapter 7, Tambar	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Ula- og Tambar.pdf	
In other regulatory filings	Complete	Chapter 7, Vilje	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Vilje.pdf	
In other regulatory filings	Complete	Chapter 7, Volund	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/Volund.pdf	
In mainstream reports (including an integrated report) in accordance with the CDSB Framework	Complete	Annual report Aker BP, HSE chapter	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC4.1/AKERBP-Årsrapport-2016.pdf	

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	Possible future changes in Norwegian regulations requiring new technical solutions to significantly reduce the CO2 emissions for existing fields (e.g. by requiring supply of electric power from shore to existing fields (e.g. Alvheim FPSO and Skarv FPSO)).	Increased capital cost	3 to 6 years	Direct	Unlikely	Medium-high	Cost vary significantly from one field to another and may be in a range from minor to more than 150 million USD per field.	Robust and flexible technical design of facilities, in particular to only use electrical driven equipment on new installations to allow for easy switch to supply of external electric power. This was implemented on the Ivar Aasen field which started up in December 2016. This example is described in details in the public environmental impact assessment. Interact with authorities and politicians on technical and economic consequences of new requirements. Lobby with the authorities. Aker BP installed a regular exchange platform with an official Industry committee (NOROG). Within this committee, formalized input is given that aims at feeding into discussion about changes to regulations. Aker BP has developed and implemented an enterprise risk process for the company. The risks and opportunities are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Risk reviews are conducted at least on a	Low. Communicating to the authorities and attending NOROG committees will be done regardless of this risk and associated costs are included in budget and estimated to 100.000 USD.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								monthly basis in the whole organisation. Green competiveness was identified as a risk for CO2 in 2016 which resulted in several actions to mature the company's strategy for climate change. 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.	
Uncertainty surrounding new regulation	Aker BP have several fields that are marginal and it will be a challenge to develop these if new regulations require expensive design solutions to reduce CO2 emissions.	Increased capital cost	3 to 6 years	Direct	Unlikely	Medium-high	The break even price will be significantly increased and resulting in an uneconomic development with cost above long term oil price forecast (e.g. Snadd development with a requirement of electricity from shore wouldn't be realised with todays oil price. Estimated overall financial impact 500 million USD)	Interact with authorities and politicians on technical and economic consequences of new requirements. Aker BP installed a regular exchange platform with an official Industry committee (NOROG). Within this committee, formalized input is given that aims at feeding into discussion about changes to regulations. Aker BP has developed and implemented an enterprise risk process for the company. The risks are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Risk reviews are conducted at least on a monthly basis in the whole organisation. Example: As a result of the merger between the two companies the climate change policy was reviewed, further developed and implemented. A new KPI for CO2 intensity for all our operations was developed and implemented and establishing measures for climate friendly solutions for new developments	Low. Communicating to the authorities and attending NOROG committees will be done regardless of this risk and associated costs are included in budget and estimated to 100.000 USD.

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Sea level rise	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.	Increased operational cost	>6 years	Direct	Unlikely	Medium	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.	Aker BP has developed and implemented an enterprise risk process for the company. The risks are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Risk reviews are conducted at least on a monthly basis in the whole organisation. Modifications are followed up through the Company's Management of change process to ensure the risk is managed in a correct manner. Examples of modifications are replaceing Ula turbines with new and more environmental friendly turbines and modification to close in the Valhall flare.	Low. Included in budget and estimated to 20.000 USD.
Other physical climate drivers	Extreme weather becoming more frequent leading to operational limitations and shut down of production. Three out of five fields may be exposed to this risk.	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Medium	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.	Aker BP has developed and implemented an enterprise risk process for the company. The risks are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Risk reviews are conducted at least on a monthly basis in the whole organisation. 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	Low. Included in budget and estimated to 100.000 USD.

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Impaired reputation of Oil and Gas companies (including Aker BP) as a result of having activities leading to significant CO2 emissions.	Reduced demand for goods/services	>6 years	Direct	Unlikely	Low-medium	A decrease in oil demand will result in lower oil price and reduced income to company. 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.	Aker BP has developed and implemented an enterprise risk process for the company. The risks are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Risk reviews are conducted at least on a monthly basis in the whole organisation. Green competiveness was identified as a risk for CO2 in 2016 which resulted in several actions to mature the company's strategy for climate change. 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)	Low. Aker BP internet web site to be updated to better reflect the company's climate strategy and status . Included in budget and estimated to 100.000 USD.
Changing consumer behavior	Reduced demand for oil as a result of a change from petrol cars to electrical driven cars, hence less demand for oil from Aker BP.	Reduced demand for goods/services	>6 years	Direct	Unlikely	Low-medium	A decrease in oil demand will result in lower oil price and reduced income to company. 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.	Aker BP has developed and implemented an enterprise risk process for the company. The risks are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Green competiveness was identified as a risk for CO2 in 2016 which resulted in several actions to mature the company's strategy for climate change. 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)	Low. Included in budget and estimated to 100.000 USD.
Reputation	Aker BP is not a preferred employer for future generations due to reputation resulting in insufficient human resources to the Company.	Inability to do business	>6 years	Direct	Unlikely	Low	Increased cost to educate and recruit new employees. Estimated cost is 50.000 USD per year.	Aker BP has developed and implemented an enterprise risk process for the company. The risks are identified and followed up at a project/asset level but 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 a risk management tool (PIMS). Risk reviews are conducted at least on a monthly basis in the whole organisation. 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	Low. Estimated cost is 50.000 USD per year.

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	Aker BP has supported a governmental project to map sources of fugitive emmissions and participated in developing new methods for more exact calculation of unburned nmVOC and methane from our operations offshore. This new mapping will be implemented within the company. The industry has been using old and uncertain methods to calculate fugitive emissions and there was a need for developing new and more accurate methods for calculating discharges Aker BP has implemented the outcomes from the improved calculation methods.	Increased demand for existing products/services	>6 years	Direct	Virtually certain	Low-medium	The low CO2 footprint from NCS operations can improve oil and gas sales prices and affect the share of the company's income. The difference in pricing of discharges from cold vents and burned fuel gas $0.84 /Sm3 - cold vents $0.12 /Sm3 fuel gas	There is still a need for oil resources in the future and the IPCC scenarios for 2015 have oil & gas as a substantial contributor to the worlds energy demand. Our industry has to report our fugitive emissions transparantly and open report our CO2 footprint. Installation of working group/committee to formulate recommendations on an initiative to quantify methane emissions is to be incorporated to provide better accuracy in the reporting. Implementation of an extensive database covering new methods and identified sources of emissions so that reporting to authorities and public can be more accurate for 2017 data.	negligible

CC6.1b

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	Aker BP has in 2016 contracted a Heavy Duty Jack up rig to be built and set up for supply by power from shore. There is surplus el power on the Valhall field and the rig intake team identified an opportunity to build a new jack up rig supplied with el power instead of diesel driven generators, to reduce CO2 discharges from the field.	Reduced operational costs	3 to 6 years	Direct	Virtually certain	Medium	The power consumption are based on historically power need for XLE rigs and estimated to 23196 MWh/year. The annually discharge 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 $0.9 million /year and NOx tax reduction is approx - $217 million /year The overall financial implication is ca. $218 million/year reduction.	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. 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 a drilling rig supplied by electrical power was stated in the contract between Aker BP and the rig owner and was seen as an opportunity for CO2 emission reduction and is incorporated in the company's overall emission reduction plan.	Aker BP pays the rig owner $1,8M as a lump sum, to set the drilling rig up to be operated by el power.

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Aker BP has developed an overall CO2 reduction plan to reduce CO2 discharges from our operations offshore. The list contains several operational actions to reduce discharges. Examples are: more efficient turbines on one field and reduced flaring, The overall plan has been distributed to both environmental authorities and industy organisation.	Reduced operational costs	>6 years	Direct	Very likely	Medium	Every ton CO2 saved reduces cost with 70 USD and for a full year 9.8 mill USD (included tax and EUETS quota).	Our strategy to achieve our company 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	Large variation, low or no cost for minor change in operational parameters that lead discharge reductions to major costs for new field developments.

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Fri 01 Jan 2016 - Sat 31 Dec 2016	834709
Scope 2 (location-based)	Sat 24 Dec 2016 - Sat 31 Dec 2016	2959
Scope 2 (market-based)		

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
Other

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Scope 2:
Power from shore to Valhall is accounted with 0 Scope 2 emissions. This is based on a Nordic Power Exchange historical data on production and consumption from Norway.

http://www.statnett.no/en/Market-and-operations/the-power-market/Elspot-areas--historical/

Ivar Aasen: Production started 24/12 2016. A pro rate calculation of expected power use on Edvard Grieg has been used.

Scope 1 Emissions are calculated using Norwegian Environmental Agency Guidelines for Reporting of Emissions and Discharges from Offshore Petroleum Activities (M-107) Norwegian Oil and Gas has published a supporting guideline for M107 (044).
EU ETS Trading scheme is followed for all scope 1 CO2 emissions.

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	Other: Norwegian Environmental Agency Guidelines for Reporting of Emissions and Discharges from Offshore Petroleum Activities (M-107) & 044 Norwegian Oil and Gas
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	3.17	metric tonnes CO2 per metric tonne	M-107 / 044
Electricity	0	kg CO2 per MWh	Nordic Power balance Norway 2016
Natural gas	2.4	metric tonnes CO2e per m3	Average. The emission factor is source specific and varies from week to week. EUETS require a minimum weekly analysis of the fuel gas composition. Ref M107 (EUETS)

Further Information

Attachments

https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Nordic Power balance Norway 2016.xlsx
https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/M107.pdf
https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/044 Emission Reporting Guidelines.pdf

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

834799

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have operations where we are able to access electricity supplier emissions factors or residual emissions factors, but are unable to report a Scope 2, market-based figure	We are purchasing el power from shore to the Valhall field. The Norwegian electricity is produced from hydropower and power production are produced from renewable energy. Statkraft is a net exporter of electricity to the European market and contributes to a more climate friendly an sustainable energy system and maintains a low climate footprint. See attached file.

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
1581		Related to Ivar Aasen. Energy is purchased from Edvard Grieg. The energy purchased from Valhall is 100% hydro power from shore. (see attachment)

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment

CC8.4

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

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints	The majority of GHG emissions are CO2 from combustion of natural gas. The uncertainty of the source is below 1,5 %. For flaring the uncertainty is 3-4 % and for diesel consumption below 5%. The uncertainties are larger for calculating methane emissions from fugitive emissions but using new and improved methods next year will reduce the uncertainty.
Scope 2 (location-based)	Less than or equal to 2%	Metering/ Measurement Constraints	El power is purchased from the Norwegian grid. Statnett's acceptance criteria for measurement is max 0,8 % uncertainty for the delivery of electricity. Emission relating to power from Edvard Grieg has undergone a 3rd. party verification. Accuracy as for scope 1 (within 1.5 %)
Scope 2 (market-based)	Less than or equal to 2%	Other: Statnett web	El power is purchased from the Norwegian grid. Statnett's acceptance criteria for measurement is max 0,8 % uncertainty for the delivery of electricity. Emission relating to power from Edvard Grieg has undergone a 3rd. party verification. Accuracy as for scope 1 (within 1.5 %)

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportio of reported Scope 1 emission verified (%)
Annual process	Complete	High assurance	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC8.6a/AkerBP_Skarv_EUETS_2016_verification_report_Final_Rev20170607.pdf	The whole report are relevant.	European Union Emissions Trading System (EU ETS)	95
Annual process	Complete	High assurance	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC8.6a/AkerBP_Ula_EUETS_2016_verification_report_TRW_Final_Rev.pdf	The whole report are relevant.	European Union Emissions Trading System (EU ETS)	99
Annual process	Complete	High assurance	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC8.6a/AkerBP_Valhall_EUETS_2016_verification_report_Final.pdf	The whole report are relevant.	European Union Emissions Trading System (EU ETS)	97
Annual process	Complete	High assurance	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC8.6a/AkerBP_Alvheim_EUETS_2016_verfication_report_Final.pdf	The whole report are relevant.	European Union Emissions Trading System (EU ETS)	81
Annual process	Complete	High assurance	https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/CC8.6a/AkerBP_Ivar_Aasen_EUETS_2016_verfication_report_Final.pdf	The whole report are relevant.	European Union Emissions Trading System (EU ETS)	100

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Progress against emissions reduction target	We applied Enova and got financial support to study Ula power upgrade- the objective of this study was to develop a plan for modifications needed to ensure Ula power demand for the rest of the lifetime. Different alternatives including power from shore was investigated. Enova got all documentation and assured compliance with requirements for funding a pre-study. Enova is a governmental initiative established to be a driving force for low carbon society.

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Attachments

https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC8.EmissionsData(1Jan2016-31Dec2016)/Nordic Power balance Norway 2016.xlsx

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1
Do you have Scope 1 emissions sources in more than one country?

No

CC9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By GHG type
By activity

CC9.2a
Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Operations	791853
Projects	33214
Exploration	9732

CC9.2b
Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Alvheim FPSO	253147		
Transocean Winner	9790		
Transocean Arctic	1680		
Skarv FPSO	314963		
Marsk Interceptor	21894		
Ivar Aasen	3892		
Safe Zephyrus	17161		
Ula P	193271		
Hod	384		
Valhall PH	18617		

CC9.2c
Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	765209
CH4	69590

CC9.2d
Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Operations	780382
Mobile Unit Production Drilling	11471
Exploration Drilling	9732
Projects	33214

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1
Do you have Scope 2 emissions sources in more than one country?

No

CC10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By activity

CC10.2a
Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Operations	1581	1581
Exploration	0	0
Projects	0	0

CC10.2b
Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Alvheim FPSO	0	0
TO Winner	0	0
TO Arctic	0	0

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Skarv FPSO	0	0
Maersk Interceptor	0	0
Ivar Aasen	1581	1581
Safe Zephyrus	0	0
Ula PP	0	0
Hod	0	0
Valhall PH	0	0

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Operations	1581	1581
Mobile Unit Production Drilling	0	0
Exploration Drilling	0	0
Projects	0	0

Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 15% but less than or equal to 20%

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	0
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

1028485

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	121514
Natural gas	906971

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Direct procurement contract with a grid-connected generator or Power Purchase Agreement (PPA), where electricity attribute certificates do not exist or are not required for a usage claim	383139	0	We are purchasing power from shore to the Valhall field. The Norwegian electricity is produced from hydropower. Norway is a netto exporter of electricity to the European market. We can seek and apply a low carbon emission factor in the future.

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
1411624	383139	1028485	0	0	We do have WHRU on both Skarv and Alvheim. The WHRU produce heat on continuous basis as long as the turbines are running. WHRU = Waste Heat Recovery Units. Approximately 40 MW of heat is produced on Alvheim and Skarv (20 MW on each). This energy is not purchased but is a bi-product from running of gas turbines (Waste Heat Recovery). Hence 0 purchased heat in section 11.2.

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

This is our first year of estimation

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.66	metric tonnes CO2e	1260803	Location-based	0	N/A	Aker BP is a merged company from the former BP Norway and Det Norske. 2016 is the first year of reporting Scope 2 emissions. However Aker BP has established corporate strategies to handle climate change and energy efficiency. The opportunity of energy management has been raised to a higher business level and is included in the corporate HSE plan. Energy use and main consumer of energy are implemented on all Aker BP's fields. Supply of electrical power from shore to offshore installations is a long term objective for Aker BP, while energy efficiency, flaring reduction, fuel switching (from diesel to gas), fugitive emissions (methane) and detailed emission reporting are more short term and are all important issues influencing Aker BP ASA Aker BP's climate Strategy are stated as follow:: - Incorporate climate into company HSE policy and business strategy -Integrate energy management in our operations -Implement power from shore, as base case, on new field developments and it is seen as the most important for long term strategy. -Promote and invest in innovative energy solutions for late life operations -Invest in R&D work to promote knowledge of low carbon energy solutions -Long term R&D strategy to invest in climate related research (e.g. carbon capture storage) Reduction efforts implemented in Aker BP - Power from shore to Valhall and Ivar Aasen (as part of Utsira High from 2021). The experience with power from shore projects to Valhall, Ivar Aasen and Johan Sverdrup is an advantage in competing for new acreage. - Energy efficient operations – our business strategy is linked to the target of 8.0 kg CO2/boe for 2017. - Reduce CO2 emission with half of remaining 0.5 million tonnes (0.25 million tonnes) by 2030 (based on 2016 emisions our share would be 0.14 million tonnes) - Reduce upset flaring by increasing reliability and promoting flaring policies. (Valhall, Skarv and Alvheim have closed flares, hence no pilot flames)- - The decision to supply Johan Sverdrup with power from shore, including the option for future supply to Ivar Aasen was the most substantial business decision in 2014. This enables the company to increase production with a minimal increase in CO2 emissions, hence reducing the carbon intensity.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.008	metric tonnes CO2e	unit of production	102335116	Location-based	0	N/A	Aker BP is a merged company from the former BP Norway and Det Norske. 2016 is the first year of reporting Scope 2 emissions. Denominator is in barrels of oil equivalents sales (boe). Aker BP has implemented a climate strategy and has had a management process to establish an intensity target of 8 kg CO2/boe for 2017. The company had no divestment activities nor experienced any change in boundaries or physical operating conditions during 2016. Also ref. Sec 3.1.c for forecasted emissions with the existing level of activities. A decrease of 24 % CO2e is anticipated towards 2030.

Further Information

Aker BP is a merged company from the former BP Norway and Det Norske. 2016 is the first year of reporting Scope 2 emissions. Also the historic emissions from the two "former" companies are not relevant for the merged company, the reasons are: BP Norway was reported as subsidiary of global BP in CDP, hence no relevant historic data is available.

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

Yes

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
European Union ETS	Fri 01 Jan 2016 - Sat 31 Dec 2016	145464	611959	757423	Other: In our EUETS permits both our own operated fields and 3rd party drilling rigs are included. Drilling rigs are included as separate source streams in the permits.

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

The management strategy is;

a) to offset emissions by purchasing the necessary allowances
b) 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.
c) to implement energy efficency in all operations and operational models.
d) to comply with the field specific monitoring plans related to EUETS.

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, not yet calculated	0			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	Relevant, not yet calculated	0			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)	Relevant, not yet calculated	0			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	Relevant, not yet calculated	0			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	Not relevant, explanation provided	0			This is insignificant. Non-hazardous waste is either recycled or energy recovered.
Business travel	Relevant, not yet calculated	0			Aker BP has video conferencing facilities in all office locations including offshore which allows for significant reductions of business travelling. Aker BP has an agreement with SAS for business flights. SAS report the CO2 footprint on each travel document. However, CO2 awareness is still not implemented in AkerBPs business travel guidelines.
Employee commuting	Relevant, not yet calculated	0			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. 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	Not relevant, explanation provided	0			Aker BP has no leased assets
Downstream transportation and distribution	Not relevant, explanation provided	0			Aker BP has only upstream activities
Processing of sold products	Not relevant, explanation provided	0			Various refineries are processing the oil. Gas is exported through various pipelines to terminals in Europe.
Use of sold products	Relevant, calculated	8347090	On NCS by average less than 10% CO2 is used for exploration and production of oil and gas. A general rule of thumb of 10X the emissions of CO2e is used. (Source: Norwegian Oil and Gas Association)	90.00%	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	Not relevant, explanation provided	0			Oil and gas is combusted. No significant rest product
Downstream leased assets	Not relevant, explanation provided	0			Aker BP has no leased assets
Franchises	Not relevant, explanation provided	0			Aker BP has no franchised activities
Investments	Not relevant, explanation provided	0			Owned activities are accounted for in Scope 1. No other investments are relevant
Other (upstream)	Not relevant, explanation provided	0			No other upstream activities are relevant
Other (downstream)	Not relevant, explanation provided	0			No other downstream activities are relevant

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

No, this is our first year of estimation

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

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

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

During development of new projects and major modifications, assessments are done to establish best available technology (BAT) and climate efficient solutions. As an example Maersk Invincible was supplied with the option to use power from shore as a climate efficient solution. Maersk Invincible is used on Valhall. This will be input to Environmental Impact Assessments. The next step is to establish an environmental budget where emissions for detailed technical solutions can be evaluated. The strategy is based on:
a) ALARP
b) Energy efficiency including closed flaring, avoid cold flaring
c) Input from regulators and other stakeholders

Success is measured through a combination of meeting project specific targets and a qualitative environmental assessment. Engagement is prioritized on:

a) Environmental footprint including GHG emissions
b) Manageability (priority is on owned facilities)

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	5	10%	Vessels on contract. Fuel consumption is an important criteria when selecting and contracting new vessels. To some extent this applies also to drilling rigs. Estimated total spend is based on fuel consumption.

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Terje Solheim	Office Manager, Harstad	Board/Executive board

Further Information

Attachments

https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC15.SignOff/0172_001.pdf

Module: Oil & Gas

Page: OG0. Reference information

OG0.1

Please identify the significant petroleum industry components of your business within your reporting boundary (select all that apply)

Exploration, production & gas processing

Further Information

Aker BP is an upstream oil and gas company. Aker BP is not involved in midstream or downstram activities

Page: OG1. Production, reserves and sales by hydrocarbon type - (1 Jan 2016 - 31 Dec 2016)

OG1.1

Is your organization involved with oil & gas production or reserves?

Yes

OG1.2

Please provide values for annual gross and net production by hydrocarbon type (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization

Product	Gross production (BOE)	Net production (BOE)	Production consolidation boundary	Comment
Conventional non-associated natural gas Associated natural gas Natural gas liquids (NGL) Light oil Medium oil	119135502	102335116	Operational control	100% of operated assets.

OG1.3

Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year. Please indicate if the figures are for reserves that are proved, probable or both proved and probable. The values required are aggregate values for the reporting organization

Product	Country/region	Reserves (BOE)	Date of assessment	Proved/Probable/Proved+Probable
Conventional non-associated natural gas Associated natural gas Natural gas liquids (NGL) Light oil Medium oil	Norway	711100000	Sun 01 Jan 2017	Proved+Probable
Conventional non-associated natural gas Associated natural gas Natural gas liquids (NGL) Light oil Medium oil	Norway	529000000	Sun 01 Jan 2017	Proved

OG1.4

Please explain which listing requirements or other methodologies you have used to provide reserves data in OG1.3. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this

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

OG1.5

Please provide values for annual sales of hydrocarbon types (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization

Product	Sales (BOE)	Comment
Conventional non-associated natural gas Associated natural gas Natural gas liquids (NGL) Light oil Medium oil	102335116	Sales volume is 100% of operated assets. Total net production to Aker BP averaged 77 mboepd (total 28 mmboe) in 2016 including volumes from former BP Norge AS fields from September 30th 2016.

OG1.6

Please provide the average breakeven cost of current production used in estimation of proven reserves

Hydrocarbon/project	Breakeven cost/BOE	Comment
		Not stated in the reserve report. However a future oil price of 60.6 USD/bbl hase been used to calculate the reserves as stated in O.G.1.3

OG1.7

In your economic assessment of hydrocarbon reserves, resources or assets, do you conduct scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition?

No

OG1.7b

Please explain why you have not conducted any scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition

The reported 2P/P50 reserves include volumes which are believed to be recoverable based on reasonable assumptions about future economical, fiscal and financial conditions. Discounted future cash flows after tax are calculated for the various fields on the basis of expected production profiles and estimated proven and probable reserves. According to IEA a low-carbon energy transition still require a significant share of hydrocarbons in the global energy mix.

Further Information

Attachments

https://www.cdp.net/sites/2017/56/64656/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/OG1.Production,reservesandsalesbyhydrocarbontype(1Jan2016-31Dec2016)/Annual-Statement-of-Reserves-2016.pdf

Page: OG2. Emissions by segment in the O&G value chain - (1 Jan 2016 - 31 Dec 2016)

OG2.1

Please indicate the consolidation basis (financial control, operational control, equity share) used to report the Scope 1 and Scope 2 emissions by segment in the O&G value chain. Further information can be provided in the text box in OG2.2

Segment	Consolidation basis for reporting Scope 1 emissions	Consolidation basis for reporting Scope 2 emissions
Exploration, production & gas processing	Operational Control	Operational Control

OG2.2

Please provide clarification for cases in which different consolidation bases have been used and the level/focus of disclosure. For example, a reporting organization whose business is solely in storage, transportation and distribution (STD) may use the text box to explain why only the STD row has been completed

OG2.3

Please provide masses of gross Scope 1 carbon dioxide and methane emissions in units of metric tonnes CO2 and CH4, respectively, for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Exploration, production & gas processing	765119	2784

OG2.4

Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 2 emissions (metric tonnes CO2e)	Comment
Exploration, production & gas processing	1581	Ivar Aasen power from Edvard Grieg. Valhall power from shore is renewable energy

Further Information

Page: OG3. Scope 1 emissions by emissions category - (1 Jan 2016 - 31 Dec 2016)

OG3.1

Please confirm the consolidation basis (financial control, operational control, equity share) used to report Scope 1 emissions by emissions category

Segment	Consolidation basis for reporting Scope 1 emissions by emissions category
Exploration, production & gas processing	Operational Control

OG3.2

Please provide clarification for cases in which different consolidation bases have been used to report by emissions categories (combustion, flaring, process emissions, vented emissions, fugitive emissions) in the various segments

OG3.3

Please provide masses of gross Scope 1 carbon dioxide and methane emissions released into the atmosphere in units of metric tonnes CO2 and CH4, respectively, for the whole organization broken down by emissions category

Emissions category	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Combustion	680639	98

Emissions category	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Flaring	81015	6
Process emissions	0	0
Vented emissions	0	1276
Fugitive emissions	0	1234

OG3.4

Please describe your organization's efforts to reduce flaring, including any flaring reduction targets set and/or its involvement in voluntary flaring reduction programs, if flaring is relevant to your operations

Aker BP have no operations where continuous flaring is part of the field development. Alvheim, Ivar Aasen, Skarv and Valhall have closed flare, hence no pilot flames. Ula has a pilot flame. All fields follow a flaring policy with regards to upset flaring, limiting the time before the production is reduced or shut down.

Further Information

Page: OG4. Transfers & sequestration of CO2 emissions - (1 Jan 2016 - 31 Dec 2016)

OG4.1

Is your organization involved in the transfer or sequestration of CO2?

No

Further Information

Transfers & sequestration of CO2 emissions is not relevant for Aker BPs operations

Page: OG5. Emissions intensity - (1 Jan 2016 - 31 Dec 2016)

OG5.1

Please provide estimated emissions intensities (Scope 1 + Scope 2) associated with current production and operations

Year ending	Segment	Hydrocarbon/product	Emissions intensity (metric tonnes CO2e per thousand BOE)	% change from previous year	Direction of change from previous year	Reason for change
2016	Exploration, production & gas processing	Associated natural gas Light oil Medium oil	0.008		N/A	This is the first year of reporting for the merged company Aker BP

OG5.2

Please clarify how each of the emissions intensities has been derived and supply information on the methodology used where this differs from information already given in answer to the methodology questions in the main information request

Emissions have been calculated for CO2 and methane for all activites including mobile drilling rigs in development and exploration and divided by sales of oil and gas in boe.

Further Information

Page: OG6. Development strategy - (1 Jan 2016 - 31 Dec 2016)

OG6.1

For each relevant strategic development area, please provide financial information for the reporting year

Strategic development area	Describe how this relates to your business strategy	Sales generated	EBITDA	Net assets	CAPEX	OPEX	Comment
Energy efficiency	Energy Management is being implemented on a corporate level in addition to field level	0	0	0	0	20000	Development of a common repository and publication for KPIs
Methane management	Routines for leak detection will be aligned with excisting routines for technical safety reasons.	0	0	0	0	30000	Development of common routines for leak detektion and documentation
Exploration and development of new hydrocarbon reserves	Exploration and development og HC reserves close to excisting infrastructure is one of the strategies for the company. This allows for low footprint operations and reuse of facilities/infrastructure	0	0	0	1000000	0	CAPEX varies with size of project

OG6.2

Please describe your future capital expenditure plans for different strategic development areas

Strategic development area	CAPEX	Total return expected from CAPEX investments	Comment
Exploration and development of new hydrocarbon reserves	1000000	100000	Estimated. Numbers will vary with project
Energy efficiency	0	0	CAPEX will be accounted for under each project
Methane management	0	0	No major CAPEX investment required

OG6.3

Please describe your current expenses in research and development (R&D) and future R&D expenditure plans for different strategic development areas

Strategic development area	R&D expenses – Reporting year	R&D expenses – Future plans	Comment
Other:	29000000	33000000	R&D programme in total, main focus is digitalization

Further Information

Page: OG7. Methane from the natural gas value chain

OG7.1

Please indicate the consolidation basis (financial control, operational control, equity share) used to prepare data to answer the questions in OG7

Segment	Consolidation basis
Exploration, production & gas processing	Operational Control

OG7.2

Please provide clarification for cases in which different consolidation bases have been used

Aker BP has only Exploration, production and gas processing, hence operational control has been selected

OG7.3

Does your organization conduct leak detection and repair (LDAR), or use other methods to find and fix fugitive methane emissions?

Yes

OG7.3a

Please describe the protocol through which methane leak detection and repair, or other leak detection methods, are conducted, including predominant frequency of inspections, estimates of assets covered, and methodologies employed

For fugitive emissions the OGI Leak/no leak method is bing used. The method is based on mapping of the process equipment on all assets with IR-camera, and establishment and manintenance of a database of all potential leaking equipment. The update frequency varies among the fields.

OG7.4

Please indicate the proportion of your organization's methane emissions inventory estimated using the following methodologies (+/- 5%)

Methodology	Proportion of total methane emissions estimated with methodology	What area of your operations does this answer relate to?
Direct detection and measurement	25% to <50%	All
Engineering calculations	25% to <50%	All
Source-specific emission factors (IPCC Tier 3)	0%	
IPCC Tier 1 and/or Tier 2 emission factors	0%	

OG7.5

Please use the following table to report your methane emissions rate

Year ending	Segment	Estimate total methane emitted expressed as % of natural gas production or throughput at given segment	Estimate total methane emitted expressed as % of total hydrocarbon production or throughput at given segment
2017	Exploration, production & gas processing	0.03%	0.02%

OG7.6

Does your organization participate in voluntary methane emissions reduction programs?

Yes

OG7.6a

Please describe your organization's participation in voluntary methane emissions reduction programs

Contributor in the Norwegian Oil and Gas Associations methane reduction programme.

OG7.7

Did you have a methane-specific emissions reduction target that was active (ongoing or reached completion) in the reporting year and/or were methane emissions incorporated into targets reported in CC3?

Yes, a methane-specific emissions reduction target

OG7.7a

If you have a methane-specific emissions reduction target that is not detailed as a separate target in CC3, please provide those details here, addressing all of the metrics requested in table CC3.1a or CC3.1b (for an absolute or intensity target, respectively)

ABS 3: This target will allow reduction of VOC and methane on Alvheim. Details can be found in CC3.

Further Information

CDP: [W][-,-][AQ][Pu][E2]