

### Module: Introduction

#### Page: Introduction

#### 0.1

##### Introduction

Please give a general description and introduction to your organization

Statoil is an **international energy company** with operations in 35 countries and 40 years of experience from oil and gas production on the Norwegian continental shelf. We are headquartered in Norway with app. 23 000 employees worldwide. We were founded as The Norwegian State Oil Company (Statoil) in 1972 and became listed on the Oslo and New York stock exchanges in June 2001. Statoil merged with Hydro's oil and gas division in October 2007. and in 2010 we implemented an IPO of Statoil Fuel and Retail on the Norwegian stock exchange (see more details at the end).

As of January 1, 2012, we have **seven business areas**: Development & Production Norway (DPN), Development & Production International (DPI), Development & Production North America (DPNA), Marketing, Processing and Renewable Energy (MPR), Technology, Projects and Drilling (TPD), Exploration (EXP) and Global Strategy & Business Development (GSB).

Statoil is an upstream, technology-driven energy company primarily engaged in oil and gas exploration and production activities. Statoil is among the world's largest net sellers of crude oil and condensate, and is the second largest supplier of natural gas to the European market. Statoil also has substantial processing and refining operations. We are contributing to the development of new energy resources, have on going activities in offshore wind, and are at the forefront of the implementation of technology for carbon capture and storage (CCS).

**Statoil's ambition is to provide energy to meet the growing demand that is needed for economic and social development, while at the same time caring for the environment and actively taking part in international efforts to mitigate climate change.** Statoil acknowledge that there is a broad scientific and political consensus for that climate changes are influenced by human factors, and that there are sufficient arguments for firm actions.

We are committed to accommodating the world's energy needs in a responsible manner, applying technology and creating innovative business solutions. For us, the way we work is as important as the goals we achieve. We believe that competitive returns for our shareholders are best achieved through a **values-based performance** culture, stringent ethical requirements and a code of conduct which promotes personal integrity.

**Statoil Fuel and Retail:** In 2010, Statoil's energy and retail business became a stand-alone entity, Statoil Fuel & Retail ASA (SFR), listed on Oslo stock exchange. Statoil continued to own 54% of the shareholding, but on June 19 2012 Statoil ASA sold its shareholding in SFR.

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**0.2****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
Sun 01 Jan 2012 - Mon 31 Dec 2012

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**0.3****Country list configuration**

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country
Brazil
Canada
Denmark
Norway
Estonia
Latvia
Lithuania
Poland
Russia
Sweden

Select country
United States of America
Germany
United Kingdom
Faroe Islands
Tanzania

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#### 0.4

##### **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.

NOK

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#### 0.6

##### **Modules**

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry and companies in the information technology and telecommunications sectors should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email [respond@cdproject.net](mailto:respond@cdproject.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. If you wish to view the questions first, please see <https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

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#### **Further Information**

Statoil's answer to the CDP questionnaire includes forward-looking statements which are by their nature, subject to significant risks and uncertainties because they relate to events and depend on circumstances that will occur in the future. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot assure you that our future results, level of activity, performance or achievements will meet these expectations. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. For a description of the factors that may affect our business, financial performance or results of operation, please have a look at the attached Risk review included in our Annual Report.

Statoil has operations in 35 countries, but is only reporting emissions from 15 countries. We have O&G activities in the 15 listed countries, the remaining have only

Statoil offices. Emissions from these offices are insignificant.

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## Attachments

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/Introduction/Risk review.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/Introduction/Risk%20review.pdf)

## Module: Management [Investor]

### Page: 1. Governance

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#### 1.1

**Where is the highest level of direct responsibility for climate change within your company?**

Individual/Sub-set of the Board or other committee appointed by the Board

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#### 1.1a

**Please identify the position of the individual or name of the committee with this responsibility**

There has been a growing recognition in recent years that sustainability risks can significantly affect the future of the company. A separate HSE and ethics committee was established to assist the board in matters relating to safety, ethics and sustainability. The committee also monitors and assesses the practicing, development and implementation of policies, systems and principles within the areas of HSE (including climate), ethics and corporate social responsibilities. The members of the HSE and ethics committee were Roy Franklin (chair), Børge Brende, Lill-Heidi Bakkerud and Bjørn Tore Godal.

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#### 1.2

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

Yes

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**1.2a**

**Please complete the table**

<b>Who is entitled to benefit from these incentives?</b>	<b>The type of incentives</b>	<b>Incentivized performance indicator</b>
Chief Executive Officer (CEO)	Monetary reward	Statoil has a climate KPI (CO2 intensity ) on the scorecard of the CEO.
Corporate executive team	Monetary reward	Some members of the Corporate Executive team has also a climate KPI on their score card
Environment/Sustainability managers	Monetary reward	Head of corporate climate unit is responsible for implementation of the climate strategy and is responsible for the climate KPI that is reflected on the CEO scorecard
	Recognition (non-monetary)	Statoil has established an HSE award that is attributed annually. The award was established in order to drive identification and maturing of good efforts in the field of health, safety and the environment including climate.

**Page: 2. Strategy**

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**2.1**

**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

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**2.1a**

**Please provide further details**

The management of climate change related risks and opportunities follows the same process applicable to managing other risks to achieving Statoil's business objectives. Risk assessment at company level: We have an enterprise-wide risk management approach which means that: (i) we have a focus on risk and reward at all levels in the organisation; (ii) we evaluate significant risk exposure related to major commitments; (iii) we manage and coordinate risk at corporate level. We manage risk on a short- and long term basis, and focus on what is best for us as a group in order to avoid sub-optimisation.

Our corporate risk committee (CRC) assesses and discusses measures to manage the overall risks for Statoil. The corporate risk committee is headed by our chief

financial officer and its members include representatives of our principal business areas. Statoil defines risk as a deviation from a specified reference value and the uncertainty associated with it. A positive deviation is defined as an upside risk, while a negative deviation is a downside risk. The reference value is expectation - most likely a forecast, percentile or target. We manage risk in order to ensure safe operations and to reach our corporate goals in compliance with our requirements. The corporate risk is based on input from all the business areas and is monitored and reported on a quarterly basis. All business area have separate risk maps which is regularly updated.

In addition to complying with national laws, our internal policies and guidelines for risk management are based on international standards. We employ the principles "as low as reasonably practicable" (ALARP) and "best available technology" (BAT). The overall management system of the Statoil group and the management systems of our operational entities are in line with the principles described in the ISO 14001 standard for Environmental Management Systems (EMS). The scope of the process: The risk management process with regard to climate change risks and opportunities covers regulatory, customers behaviour, financial, ownership, reputational and physical risks. The main risk associated with Statoil's operations is a regulatory risk.

Today, Statoil's is probably one of the most "CO2 exposed" companies, due to climate legislation (CO2 tax of 75 USD) both in Norway and in the European Union where most of our installations are currently located. Regulatory risk is relevant for both our upstream activities and our customers (demand-side risk). Of the life cycle emissions from Statoil's products, only 15%-20% occur in production, while 80%-85% occur when the end user consumes our products. The end user's carbon exposure can be four to five times the up-stream production exposure depending on how regulation is established. End users may face in the future strong incentives to turn demand towards less carbon intensive energy. Statoil's climate risk exposure also include a reputation risk: the ability for Statoil to grow the business depends on partnerships and relations with other companies, governments, investors, owners and the general public. The license to operate from this large range of stakeholders is strongly influenced by the way Statoil is able to stay globally competitive as an oil and gas company in a future where carbon regulations become stricter. Distrust from any of the major stakeholders could hamper Statoil's business opportunities. Our risk assessment take into account the fact that the effects of climate change could result in less stable weather patterns, resulting in more severe storms and other weather conditions that could interfere with our operations and damage our facilities.

Assessment at Asset Level: Each of the business area has a risk register which includes HSE (including climate) risks. New projects should, in its project economy calculations, take into account the commercial impact of national and international legislation to reduce GHG emissions. Where there is no existing legislation, we include assessments of possible future GHG mitigation measures and indicative carbon costs in evaluating the economics of all new projects. Impact assessments are performed for all relevant projects to assess environmental, social and health impacts, and to define measures to reduce or avoid negative impacts and enhance benefits.

Early identification, understanding and management of HSE, social and integrity risks are essential if we are to achieve sustainable development as we diversify our portfolio and grow internationally. Concerted efforts have resulted in the development and implementation of a web-based early-phase risk assessment (EPRA) tool for evaluating new business opportunities. The tool is based on a multi-disciplinary approach to risk assessment, integrating the disciplines of health, safety, security, environment and climate, social responsibility (CSR) and ethics, and anti-corruption. EPRA was improved and expanded in 2011 with respect to risk assessments relating to water management. Criteria for determining materiality/priorities: The following elements have to be included in the risk register: Reference value; Impact description; Impact on cash flow; Risk factor; Main contributors; Probabilities. Based on the expected impact and the probability a risk is included on Statoil's corporate risk map. No materiality criteria are applied for the prioritization of climate change related issues. Identification of reputation risks is a separate process. Our communication department owns this process. The frequency of monitoring and to whom the results are reported: we are committed to communicating and quantifying the total risk map, including upside and downside potentials, to our decision-makers. In that context, Statoil's corporate risk map is presented twice per year to our CEC and the Board of Directors. Specific climate regulatory risks are also discussed more in detailed with the Board of Directors' Safety, Sustainability and Ethics sub-committee. In addition, each of the Business Areas shall update its risk register as frequently as necessary and at least on a quarterly basis

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## 2.2

### Is climate change integrated into your business strategy?

Yes

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## 2.2a

### Please describe the process and outcomes

#### How the business strategy has been influenced?

Meeting growing energy needs, while at the same time reducing carbon dioxide emissions and environmental impacts, is one of the world's greatest challenges today. As an international energy company, Statoil has an important contribution to make to finding solutions to this energy, climate and environment dilemma. We believe we have the technology, experience and capital required to develop some of the future solutions. As indicated by the International Energy Agency's World Energy Outlook 2012, despite rapid growth in renewable energy sources, meeting the world's growing need for energy will require all sources of energy - including hydrocarbons. In that context, Statoil's greatest contribution will be to continue reducing the carbon intensity of our oil and gas production and developing low-carbon and renewable technologies where we can utilise our capabilities. Today, we are convinced that delivering a reliable supply of natural gas is our greatest contribution to solving the energy and climate dilemma. We believe indeed that natural gas has an important role to play in a lower carbon economy both in the short and long term. As part of our technology strategy, we have decided to focus part of our R&D efforts on three areas that are deemed to be critical to addressing climate challenges: (i) better resource management; (ii) the development of carbon capture and storage; (iii) renewable energies. We utilise existing core capabilities and current business positions to create profitable positions in renewable energy, prioritising offshore wind projects while keeping track of new opportunities.

#### What climate change aspects have influenced the strategy?

Statoil's strategy has been influenced by regulatory, reputational and business risks and opportunities related to climate change.

#### The most important components of the short-term strategy?

One of the strategic responses to climate risks is to ensure that Statoil's portfolio is CO<sub>2</sub>-robust with respect to possible changes in regulatory regimes and markets. Robustness is ensured both through increasing CO<sub>2</sub> efficiency and through proactive dialogue with key stakeholders. In 2008 the BoD and CEC decided to set the strategic objective to be an Industry Leader in carbon efficiency. This objective is now part of the CEC 2012 balanced scorecard.

A systematic approach to performance in order to be an Industry Leader in CO<sub>2</sub>-efficiency is already part of Statoil's steering system. For example: (i) The Capital Value Process (CVP) requires new investments to identify technology qualification needs towards first decision gate (DG1) as well to develop concepts for CO<sub>2</sub>-reduction towards the second decision gate (DG2). (ii) Statoil has an internal carbon price that is used by each of our project during the investment evaluation phase. (iii) Future prices on oil, gas and CO<sub>2</sub>-emissions are updated when relevant with Statoil best estimates of expected future CO<sub>2</sub>-policies. (iv) The company has an approved policy of no-production flaring, stating that continuous flaring for gas disposal is not acceptable. This is included in our Technical Requirements which is valid across Statoil where we are operators. (v) Statoil's emission performance is measured by an internal climate KPI.

Being an industry leader in HSE means also driving technological development. We have a strong commitment to environmental and climate R&D aimed at identifying new solutions for reducing carbon emissions and staying at the forefront of developing environmental management tools. Driving technological innovation also means working with our suppliers and the different sectors involved in the oil and gas value chain to find solutions that can reduce emissions. In particular, we are involved in several technology projects aimed at reducing greenhouse gases from our shipping activity. These projects focus on both new technical solutions and what type of energy carriers can be used in future.

As economic conditions and the world's energy realities become increasingly complex, we also believe that Statoil's management must effectively anticipate and

understand market shifts in order to position Statoil for continued growth and development. To improve our executive leadership capabilities in relation to climate and energy, we launched in 2011 the Climate and Energy leadership programme. After completing the programme, participants are expected to actively invest in the company's ability to identify and respond to future uncertainties within their respective areas of responsibility.

The most important components of the long-term strategy?

Statoil revised business strategy for 2020 was presented in June 2011 and one of the three strategic beliefs underlying this strategy is that HSE and carbon efficiency constitutes a competitive advantage today and, even more, in the future. In August 2011 the CEC decided to establish 2020 carbon efficiency targets to add a top-down approach to the carbon competitive efforts. Six production segments have been identified (conventional oil and gas, extra heavy oil - including oil sands, heavy oil, shale gas, LNG, refining and processing) and for each of them an intensity target has been set.

What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy :

Setting 2020 carbon efficiency targets (see above) and a key performance indicator (KPI) to reach these targets have been the most substantial business decision. Long-term investments in natural gas have also been influenced by our climate strategy. For example in November 2011, Statoil and Centrica entered into a long term gas sales agreement for the delivery of 5 billion cubic metres. Furthermore, In July 2011 Statoil and the Norwegian government (Gassnova) have invited suppliers to take part in a technology qualification programme for full-scale carbon capture at Mongstad (investment decision planned in 2016).

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2.2b

Please explain why not

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2.3

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

Direct engagement  
Trade associations  
Funding research organizations

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2.3a



**On what issues have you been engaging directly?**

Focus of legislation	Corporate Position	Details of engagement	Proposed solution
Cap and trade	Support	Submission of Statoil position paper, contributing to position papers from IETA, OGP and Business Europe. Office in Brussels are meeting with policy makers on a regular basis	Supporting strengthening of EU ETS through backloading and ambitious 2030 GHG target for the EU
Cap and trade		In steering committee of the International Emission Trading Associations B-PMR, which works to do capacity building on carbon markets initiative around the world	Statoil actively support an international price on carbon and support development and initiatives on carbon pricing and linking of carbon market schemes

**2.3b**

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

Yes

**2.3c**

**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?
American Petroleum Institute	Mixed	In favour of industry developed standards to reduce emission reductions. Less in favour of federal climate regulations and legislation in the US	Statoil is relatively small company in the US and is usually not in a position to direct API's position on climate. However, we inform API when we disagree in positions they are taking
International Emission Trading Association	Consistent	Promoting market base climate legislations around the world	Actively participating in working groups on different topics. Provide direct input to positions papers
Center for Environment Policy Studies (CEPS)	Consistent	Discussing international climate negotiations and market based climate legislations around the world	Actively participating in working groups on different topics. Provide direct input to positions papers
IPIECA	Unknown	Not advocating on climate change legislation	
OGP	Mixed	To represent and advocate industry views by developing effective proposals based on	Has a different view than OGP on EU climate and energy policy and is providing input to position papers to adjust this

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?
		professionally established technical arguments in a societal context.	position

**2.3d**

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

Yes

**2.3e**

**Do you fund any research organizations to produce public work on climate change?**

Yes

**2.3f**

**Please describe the work and how it aligns with your own strategy on climate change**

In November 2012 Statoil's CEO approved Statoil's corporate climate positions. These positions are a key part of Statoil's climate strategy. The engagement process on climate positions, applying the corporate principles, is the responsibility of the corporate sustainability team in coordination with the Governmental and Public Affairs team and the Business Areas. With the climate positions as a starting point, Statoil is seeking dialogue with peers, the civil society and politicians, and call for market-based climate policies that will allow oil and gas companies to become part of the innovative solution towards a sustainable energy future.

We engage directly with governments, with the European Union and international organisations (UNFCCC; World Bank). We although engage through industry association such as the World Business Council for Sustainable Development (WBCSD); the International Emissions Trading Association (IETA), IPIECA, the Oil and gas producers association (OGP) the American Petroleum Association, etc. The purpose of this engagement is to collaborate with government to find the most cost-efficient way to address the climate challenges.

Since September 2011, Statoil's CEO has participated in the UN High Level Panel for Sustainable Energy for All. In that context, Statoil has worked very closely with public and private partners on how to reach three main goals towards 2030: (i) universal energy access; (ii) doubling of the share of renewables in the global energy mix and (iii) doubling of the annual rate of energy efficiency. Actions we are advocating: - Statoil strongly supports the process towards an UN-based and worldwide

agreement on greenhouse gas reductions by 2015 (as agreed at the COP 17 in Durban in November 2011), which will set stringent GHG reduction targets for all major emitters. Given its global character climate change must be addressed at the international level, via appropriate agreements that define targets and necessary measures, and that also specifies common rules for monitoring, reporting and verification.

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2.3g

Please provide details of the other engagement activities that you undertake

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2.3h

**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?**

All Statoil employees are using the corporate climate positions as a basis when being in dialogue with industry organizations, policy makers, media and other stakeholders. Besides, the corporate sustainability unit has frequent meetings with with the Governmental and Public Affairs team and relevant colleagues in the Business Areas consistency and alignment.

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2.3i

Please explain why you do not engage with policy makers

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#### Further Information

Regarding question 2.1:

Statoil book: evaluation: See StatoilBook Risk policy

Statoil risk evaluation : Risk review

Statoil's corporate position on climate policy: Corporate climate position

Regarding question 2.3 a: Our **direct** engagement on climate change legislation has been centred around support back loading in EU ETS, building an ambitious EU 2030 policy where EU ETS is the cornerstone, as well as engagement on supporting carbon pricing initiatives around the world. Our CEO has publically called for a high international price on carbon. As for not-direct/indirect engagement, see 2.3 c

## Attachments

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/2.Strategy/StatoilBook Risk policy.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/2.Strategy/StatoilBook%20Risk%20policy.pdf)  
[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/2.Strategy/Risk review.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/2.Strategy/Risk%20review.pdf)  
[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/2.Strategy/Corporate climate position.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/2.Strategy/Corporate%20climate%20position.pdf)

## Page: 3. Targets and Initiatives

### 3.1

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

Absolute and intensity targets

### 3.1a

**Please provide details of your absolute target**

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
DPN1	Scope 1	58.25%	9.02%	2007	8867712	2020	Type of Target = Absolute / Scope 1 / Only CO2 / Only offshore / Only Norway Background: Statoil is committed to contributing to the overall Norwegian industry goal of achieving improved energy efficiency equivalent to CO2 emission reductions of one million tonnes by 2020, compared with 2007 during the period 2008-2020 (according to Konkraft report, no. 5, 2008, and later follow-up of the report). Since Statoil operates about 80 % of the installations on the NCS, our

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment
							target is to contribute to 80 % of the Norwegian petroleum industry's pledge for 2020. By the end of 2011, we had already achieved approximately 520,000 tonnes of CO2 reductions. Cost effective energy efficiency measures are increasingly difficult to find on existing NCS installations because a large number of such measures already have been implemented since the CO2 tax was introduced in Norway in 1991. We have identified further feasible measures and new installations will be built state-of-the-art energy optimized. This will take us to the remaining 300 000 tonnes of CO2 to be reduced to meet our target by 2020. Scope I GHG Emissions 2007: Direct Operated CO2: 14 399 256 Tonnes CO2 Direct Operated CH4: 39 220 tonnes CH4 = 823 620 Tonnes CO2eq Total GHG Scope I: 15 222 876 Tonnes CO2eq Konkraft Commitment Emissions 2007 only from Norwegian continental Shelf = 10 490 689 tonnes CO2 Subtracting Snøhvit (LNG Onshore) = 1 622 977 tonnes CO2 Konkraft Commitment = 8 867 712 CO2 58.25 % emissions in Scope I in 2007

### 3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
DPNA1	Scope 1	2.5%	25%	metric tonnes CO2e per barrel of oil equivalent (BOE)	2012	332163	2020	Type of Target = Relative / Scope 1 / Only CO2 / Only onshore / Only Canada Intensity 2012 = 55.6 kg / boe (diluted bitumen) Reduction target = 10 % Opportunities Identified in Corner Reduction target = 15 % Technology Program
DPNA2	Scope 1	2.5%	15%	metric tonnes CO2e per barrel of oil	2012	332163	2025	Type of Target = Relative / Scope 1 / Only CO2 / Only onshore / Only Canada Intensity = 2012 = 55.6 kg / boe (diluted bitumen) Reduction target = 15 % Technology Program Phase 2

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
				equivalent (BOE)				
DPI1	Scope 1	2%	46.31%	metric tonnes CO2e per barrel of oil equivalent (BOE)	2011	161239	2012	Type of Target = Relative / Scope 1 / Only CO2 / Only offshore / Only Brazil Intensity Target 2011 = 130.0 tonne CO2 / ktonne Emissions 2011 = 161.239 tonnes CO2 Intensity 2011 = 210.7 tonne CO2 / ktonne Intensity Target 2012 = 144.0 tonne CO2 / ktonne Emissions 2012 = 192.172 tonnes CO2 Intensity 2012 = 107 tonne CO2 / ktonne or 14,3 kg CO2 / boe Reduction Target = (210.7 - 144.0) / 144.0 = 46.31% Reduction achievement = 100 * ( 210.7 - 107 ) / 107 = 97% Reduction achievement = 100 * ( 107 - 144 ) / 144 = 25% Over performed Target

### 3.1c

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
DPNA1	Increase		Increase		Taking into account target = 25% Increase in absolute Scope 1 because increase production towards 2020 (Hydrocarbons) Increase in absolute Scope 3 because increase production towards 2020 (Hydrocarbons)
DPNA2	Increase		Increase		Taking into account target = 15% Increase in absolute Scope 1 because increase production towards 2025 (Hydrocarbons) Increase in absolute Scope 3 because increase production towards 2025(Hydrocarbons)
DPI1	Increase	20	Increase		Emissions increase estimated on 2012 = 60 % Emissions 2012 = 192.172 tonnes

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
					CO2 instead of the "Business as usual" scenario forecasted emissions 2012 = 258 392 tonnes CO2 That it is mainly during 2011 several measures were taking in Peregrino towards more efficient operations (i.e, fuel savings) that led to perform even better in 2012 Increase in absolute Scope 3 because increase production (Hydrocarbons)

### 3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
DPN1	8.3%	2.24%	% Complete time = $100 * 1 / (2020 - 2008) = 8.333\%$ % Complete emissions = $100 * 17880 / 800000 = 2.235\%$ Accumulated reductions till 4Q2012: 537 880 tonnes CO2 reduced
DPI1	100%	100%	% Complete time = $100 * 1 / (2013 - 2012) = 100\%$ % Complete emissions = 25% extra reductions compared to Target Emissions

### 3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

### 3.2

**Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?**

Yes

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**3.2a**

**Please provide details (see guidance)**

1) Fuel switch: Exporting Gas to Europe

i) Explanation: Export of Norwegian gas is a key contributor to reducing the use of coal-fired power in Europe.

ii) Estimate: 230 million tonnes of CO<sub>2</sub> emissions

iii) Assumptions: Assuming that 75 % of the gas exported from Norway replaces coal in electricity generation, today's deliveries of 100 billion cubic metres per year could avoid the stated amount from coal fired power stations.

iv) No generation of CERs or ERUs within CDM / JI

2) Low Carbon Electricity (Offshore wind) in UK

i) Explanation: Lower Emission Factor (gr CO<sub>2</sub>eq/KWh) than average UK Grid

ii) Estimate: 475,200 tonnes every year

iii) Assumptions: Production of Electricity from the 317MW Sheringham Shoal Offshore Wind Farm, located off the coast of North Norfolk in the UK, comprises 88 wind turbines and generates around 1.1TWh per annum. This is enough clean energy to power almost 220,000 British homes and reduce CO<sub>2</sub> emissions by 475,200 tonnes every year based on the current UK generation mix.

iv) No generation of CERs or ERUs within CDM / JI

3) Active use of CDM / JI Credits and carbon trading. One example to take effect during the reporting year is the collaborative project between Statoil and Pemex to reduce gas flaring on the Tres Hermanos oilfield in Mexico was registered under the United Nations Framework Convention for Climate Change's Clean Development Mechanism (CDM) in 2010. This was the first gas flaring reduction project to be registered as a CDM by the UN and opens up interesting funding opportunities for similar projects globally. The expected start-up of the plant is April 2012. From that date, Pemex will stop flaring the associated gas in their "Tres Hermanos" oil field, and therefore reducing their emissions by an average of 83.000 tonnes CO<sub>2</sub>/year.

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**3.3**

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

Yes



3.3a

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	28	124800
To be implemented*	2	8559
Implementation commenced*	1	189
Implemented*	7	22037
Not to be implemented	4	1

3.3b

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)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Energy efficiency: Processes	Target ID: DPN1 Mandatory / Commitment Nature: Installed new pilot burner torch tip Scope: 1 Type: Flare reduction Installation: Staffjord C Segment: Conventional Oil and Gas Lifetime: 8 years Investment Cost: 3.25 MNOK NPV: 10 MNOK, in annual monetary savings would be: $(3.25+10)/8= 1.65625$ M NOK	3900	1656250	3250000	1-3 years
Energy efficiency: Processes	Target ID: DPN1 Mandatory / Commitment Nature: New compressor labyrinth seals to overhaul / re-bundling Scope: 1 Type: Energy efficiency Installation: Grane Segment: Heavy Oil Lifetime: 10 years Investment Cost: 0.8MNOK NPV: 6.11 MNOK, in annual monetary savings would be: $(0.8+6.11)/10= 0.691$ M NOK	1200	691000	800000	1-3 years

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in Q0.4)	Investment required (unit currency - as specified in Q0.4)	Payback period
Energy efficiency: Processes	Target ID: DPN1 Mandatory / Commitment Nature: Line water wash SLT 3 turbines Scope: 1 Type: Energy efficiency Installation: Sleipner T Segment: Conventional Oil and Gas	4700			
Energy efficiency: Processes	Target ID: DPN1 Mandatory / Commitment Nature: Flow Enhancer in the exhaust collector SLA 80A/BH Scope: 1 Type: Energy efficiency Installation: Sleipner A Segment: Conventional Oil and Gas	4700			
Energy efficiency: Processes	Target ID: DPN1 Mandatory / Commitment Nature: New exhaust duct 80C Scope: 1 Type: Energy efficiency Installation: Sleipner A Segment: Conventional Oil and Gas	2400			
Fugitive emissions reduction	Target ID: DPNA1 Voluntary Nature: Fugitive emissions repair Scope: 1 Type: Operational Installation: Leismer Segment: Extra Heavy Oil (Oil Sands)	137			
Energy efficiency: Processes	Target ID: DPNA1 Voluntary Nature: Utility gas optimizations Scope: 1 Type: Energy Efficiency Installation: Leismer Segment: Extra Heavy Oil (Oil Sands)	5000			
Energy efficiency: Processes	Target ID: DPN1 Mandatory / Commitment Name: Upgrading of inert gas generator Scope: 1 Nature: Energy efficiency Installation: Åsgard C Segment: Conventional Oil and Gas	980	700000	700000	1-3 years

### 3.3c

**What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	Minimum requirements for energy efficiency, non- production flaring or evaluation requirements for CO2 reduction projects are included with our corporate technical requirements/ corporate policies. Not respecting those requirement implies to ask for a formal dispensation and mitigation plan need to be in place. TR10009: Technical environment for onshore plants TR10011: Technical Environment standard for design, modification and operation of offshore plants Corporate Recording

Method	Comment
	requirements on * CO2 and CH4 reporting. Monthly for Statoil Operated and Quarterly for Partner Operated Installations * CO2 and CH4 Forecasting Compliance with legislation such as EU-ETS, Norwegian CO2 tax, etc. where applicable to our operations
Dedicated budget for energy efficiency	Departmental budgets * Rotary equipment department for Energy efficiency * Energy Systems, for larger measures
Dedicated budget for low carbon product R&D	Statoil invest in R&D for carbon reduction technologies such as energy efficiency programme, CCS, offshore wind technologies, second generation biofuels, geothermal. R&D expenditure has been approximately NOK 2.1 billion per year (\$360 million) for the last three years. Also, RDI (Research) Energy System, including budget for unconventional resources energy system research
Dedicated budget for other emissions reduction activities	Budget for CO2 / Energy consumption reduction in buildings and living quarters, from increase of building energy efficiency to usage of renewable paper coffee cups
Employee engagement	Encouraging cycling to work Deal with RUTER (public transportation in Oslo) to encourage employees to take public transportation instead of private car, reducing 17% monthly cost of public transport card
Internal price of carbon	We consider the potential cost of a project's CO2 emissions in all investments decisions. Our internal price of carbon assume major increase of CO2 price both in Europe and in the rest of the world towards 2040
Internal incentives/recognition programs	Annual HSE Awards, of which large CO2 Emission Reductions could be proposed by anyone in the organization.
Lower return on investment (ROI) specification	Yes, Konkraft commitment. Target ID: DPN1
Marginal abatement cost curve	We have developed Marginal Abatement Curve for evaluating our emissions reduction projects and for communicating with Statoil's management. These provide a method of evaluating potential emissions reductions activities by comparing the largest equity CO2 Reduction Measures. It applies in a more strategic level and when level of investments are much larger.
Partnering with governments on technology development	In cooperation with Gassnova (which represents the Norwegian government in CCS matters), Norske Shell and Sasol, Statoil will in 2012 start up the Carbon dioxide Technology Centre Mongstad (TCM). The USD 1 billion test centre, which is now completed, is unique in the global context. Two different technologies will be tested on two different exhaust gas sources (Combined heat and power plant and refinery). This makes the findings from TCM relevant to both gas- and coal-fired power plants. In 2006, the Norwegian government and Statoil also entered into an agreement to build a full-scale carbon capture facility at Mongstad. Early in 2009, Statoil delivered a master plan that set out the best possible basis for the process leading up to full-scale carbon dioxide capture from the combined heat and power plant and other substantial sources at the refinery. Since 2009, the project has been subject to some delays, mainly due to immaturity of the capture technology compared with expectations in 2006, but Statoil remains strongly committed to the realisation of this project.
Other	Task forces on improve quality and completion of CO2 reporting and Improving quality of CO2 Forecasting New CO2 Emission Reduction Monitoring Indicator at Corporate Level, on which the data shown in this chapter is based Developed a GHG Calculator for Early Phase Projects, therefore, taking into consideration climate risk into new developments Energy networks across the Business Areas (DPN, MPR)

3.3d

If you do not have any emissions reduction initiatives, please explain why not

#### Attachments

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/3.TargetsandInitiatives/Historical NCS CO2 reduction efforts.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/3.TargetsandInitiatives/Historical%20NCS%20CO2%20reduction%20efforts.pdf)

#### Page: 4. Communication

4.1

Have you published information about your company'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	Page/Section reference	Attach the document
In mainstream financial reports (complete)	p 298-306 - sustainability section	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation1/AnnualReportingCompendium.pdf">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation1/AnnualReportingCompendium.pdf</a>
In voluntary communications (complete)	<a href="http://www.statoil.com/en/environmentsociety/environment/climate/pages/internationalclimate.aspx">http://www.statoil.com/en/environmentsociety/environment/climate/pages/internationalclimate.aspx</a>	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation2/Statoil%20external%20website%20-%20climate%20page.JPG">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation2/Statoil external website - climate page.JPG</a>
In voluntary	Statement EU ETS	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation2/Statoil%20external%20website%20-%20climate%20page.JPG">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation2/Statoil external website - climate page.JPG</a>

Publication	Page/Section reference	Attach the document
communications (complete)		tor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation3/Statement on ETS.pdf
In voluntary communications (underway) – previous year attached	OGP	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation4/OGP%20environmental%20report.pdf">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation4/OGP environmental report.pdf</a>
In other regulatory filings (complete)	Norway - KLIF	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation5/SnipImage%20Klif.JPG">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation5/SnipImage Klif.JPG</a>
In other regulatory filings (complete)	EU ETS	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation6/Copy%20of%20CO2%20Quota%20Accounts%20overview%202012.xls">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-4.1-C3-IdentifyAttachment/Investor-4.1-PublishedInformation6/Copy of CO2 Quota Accounts overview 2012.xls</a>

## Module: Risks and Opportunities [Investor]

### Page: 5. Climate Change Risks

#### 5.1

**Have you identified any climate change risks (current or future) 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

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
R1	International agreements	International climate negotiations: Policies and initiatives at international level to address climate change are likely to affect business conditions and demand for our products in the medium to long term.	Increased operational cost	6-10 years	Direct	More likely than not	Medium
R2	Cap and trade schemes	EU ETS Uncertainties related to the number of allowances (will there be backloading or not) during Phase 3 (2013-2020) and post-2020 and hence the current and future emission price in the scheme	Increased operational cost	Current	Direct	Very likely	Medium
R3	Carbon taxes	Norwegian CO2 tax Some direct carbon taxes exist in various regions where Statoil operates, especially in Norway. The Norwegian offshore CO2 tax was doubled to around 75USD/tonne on 1 January 2013. Increased CO2 tax in Norway might result in marginal projects (new or development of existing) not being realized. Beside, this national tax constitutes a competitive disadvantage in comparison to our competitors who operate in other part of the world. Statoil believes that cap and trade is a better solution to promote cost-efficient solutions rather than domestic carbon tax.	Increased operational cost	Current	Direct	Likely	Medium-high
R4	General environmental regulations, including planning	Rising climate change concerns could lead to additional regulatory measures that may result in project delays and higher costs	Increased operational cost	1-5 years	Direct	Likely	Low-medium
R5	Product efficiency regulations and standards	Product efficiency regulations, such as emission performance standards in the US, might reduce demand for our products.	Reduced demand for goods/services	6-10 years	Direct	About as likely as not	Low-medium
R6	Uncertainty surrounding new	Investment risks associated with uncertainties surrounding scope and timescales for new climate regulation in	Increased operational cost	6-10 years	Direct	More likely than not	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
	regulation	countries in which we operate (Brazil, US, Canada, etc.)					
R7	Lack of regulation	Lack of regulation in countries outside of Norway/the EU could represent a competitive disadvantage for Statoil who is today very much exposed to carbon costs.	Reduced stock price (market valuation)	1-5 years	Direct	About as likely as not	Low-medium
R8	Product efficiency regulations and standards	Low Carbon Fuel Standard in California and other states in the US and the Fuel Quality Directive in the EU for example could have some important market for the fuel markets and reduce the demand for some of our products	Reduced demand for goods/services	1-5 years		About as likely as not	Medium
R9	International agreements	Policies and initiatives at international level to address climate change are likely to affect demand for our products in the medium to long term.	Reduced demand for goods/services	>10 years	Direct	About as likely as not	
R10	Cap and trade schemes	EU ETS - uncertainties related to the number of allowances (backloading or not) during Phase 3 (2013-2020) and post-2020 and hence the current and future emission price in the scheme	Reduced demand for goods/services	6-10 years	Direct	More likely than not	High
R11	Cap and trade schemes	Alberta Carbon pricing scheme. Statoil's Leismer project (approx 200.000 ton CO2/year) will be part of the system in 2014. The project is set to emit less than the allocated baseline and could in this case sell credits to other operators. However, there is a risk that the baseline and the price of complying will change	Increased operational cost	1-5 years	Direct	Very likely	Medium-high

### 5.1b

**Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk and (iii) the costs associated with these actions**

i) potential financial implications of the risks before taking action: (this applies for all of the risk mentioned above) We operate in approximately 35 countries around the world, and any of these countries could modify its tax laws/ climate legislation in ways that would adversely affect us. Reduced demand for our products and increased operational costs are likely to be a consequence of international climate agreements, cap and trade, CO2 taxes, new performance standards, etc. At the same time, Statoil is today very exposed to CO2 costs (EU quotas + CO2 tax in Norway). We therefore support stricter climate policy at a global level that would create a level playing field for our operations. In the future, in order to meet the world's energy demand, we expect are production to come more and more from

unconventional sources. If we are unable to find economically viable and publically acceptable solutions that reduce our CO2 emissions for new or existing projects, we might face delays. The potential financial implications of carbon taxes, cap and trade is variable depending on the cost of allowances and taxation applied. Still, we try to estimate the financial risk before taking action

ii) methods we use to manage risks

Our internal risk assessment requires that all projects and assets take into account carbon costs in our business decisions even for projects located in countries where no carbon trading scheme or tax is currently envisaged. Furthermore a country risk factor, where risk of environmental regulation is one of 15 factors, is applied to adjust the NPV calculation of a new project

Energy efficiency measures and implementation of our "industry leader strategy in carbon efficiency" is our main way to mitigate our CO2 cost exposure.

Methods to mitigate regulatory risks include stakeholders engagement (relevant for all risks mentioned above). Stakeholder's engagement is also key to mitigate risk of delays: appropriate consultation highlighting the benefits of our projects with key stakeholders and regulators involved in the planning process help mitigate this risk and identify planning related requirements that are appropriate to local and national policies.

Advocacy for our products, i.e., natural gas is also one of the actions to mitigate the risks of reduced demand for our product.

iii) costs associated with these actions Costs associated with carbon costs calculation are currently mainly related to staff work. Today, all emissions reduction projects completed have a positive NPV (Net Present value). R&D expenditure has been approximately NOK 2.1 billion per year (\$360 million) for the last three years. For our oil sands operations for example, Statoil believes research and innovation will result in new technologies and processes that will reduce the energy and water consumed by our Steam-assisted gravity drainage operations (the most common commercial method used to develop in-situ oil sands). We are seeking a 25% reduction in the carbon dioxide intensity of our oil sands operations by 2020, and have a long-term ambition of a total 40% reduction in carbon dioxide intensity by 2025. We are also aiming for a 45% reduction in water intensity over the next 10 years. To accomplish this, Statoil has established a USD 30 million oil sands technology plan. This five-year plan identifies technologies and development strategies that will improve project economics while meeting our carbon dioxide and water intensity targets

## 5.1c

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

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
P1	Change in precipitation extremes and droughts	Development of extreme weather patterns that affect operations and have specific impacts on water availability which could represent an increased challenge for our onshore activities in the US for example	Reduction/disruption in production capacity	>10 years	Direct	More likely than not	Medium-high
P2	Sea level rise	Many of our assets have coastal or offshore locations. Sea level rise (including high storm) presents a risk to the integrity of these assets and	Reduction/disruption in production capacity	>10 years	Direct	Unlikely	Low-medium



ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
P3	Uncertainty of physical risks	to the safety of workers Given the high uncertainty of how and where climate change will affect our business there is a risk that installations turns out to be wrongly designed	Increased operational cost	>10 years	Direct	About as likely as not	Low-medium

#### 5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

Replies relevant for P1 and P2

(i) Statoil's portfolio is global and geographically diverse with both onshore and offshore production facilities. The diversity of our portfolio means different risks will affect individual locations, in different ways and to differing degrees. The potential implications of these risks are not quantifiable at this stage but, if not managed, could have negative impact on our efficiency, production volumes and availability to deliver our products. Extreme weather events have the potential to shut down operations and halt production of oil and gas. This could impact Statoil's revenues. (ii) To manage this risk, Statoil monitors weather patterns to prepare for events that may disrupt operations. Risks are seasonal and are constantly being evaluated. (iii) The costs associated with managing these risks are not quantifiable. For new projects, significant in climatic parameters may result in changes to the design of a project. Our risk assessment system is structured to enable risks to be identified at an early stage, therefore minimising the cost of mitigation. Other costs are mainly staff costs.

#### 5.1e

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

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
Q1	Reputation	Poor reputation may impact our market value, access to acreage	Wider social	6-10 years	Direct	Unlikely	Medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		and our attractiveness for talent	disadvantages				
Q2	Other drivers	Today Statoil is recognized as one of the most efficient oil and gas upstream companies (60% more efficient than the industry average). However our strategy for 2020 implies that we will move towards more-intensive crudes. This can have adverse effect on our business if lifecycle CO2 intensity based regulations impose constraints on access to certain markets/exploration of certain resources	Increased operational cost	6-10 years	Direct	More likely than not	Medium-high
Q3	Uncertainty in market signals	Some analysts argue that companies with carbon intensive production will be less attractive or investors (ref reports on "The Carbon bubble" from HSBC, Standard & Poor, Carbon Tracker) . Other analysts disagree and claim that oil and gas will be dominating till 2030 and that the prices of these commodities will increase	Reduced demand for goods/services	6-10 years	Direct	About as likely as not	High

## 5.1f

**Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions**

Q1: Reputation risk (i) potential financial implications: The potential financial implications of the risk prior to taking actions are difficult to quantify. Poor reputation could lead to project delays, additional costs and operational risks. Trust from policy makers, partners, from the society around us is key for our future business. The attraction and retention of talents and senior management and skilled personnel is also a critical factor in the successful implementation of our strategy as an international oil and gas group. (ii) methods to manage risks: methods used to manage that risk include appropriate consultation with stakeholders, sustainability communications such as the Annual Sustainability Report, or the Oil Sand Score Card and submissions through sustainability indices. (iii) The implementation costs are principally staff time related and communication activities.

Q2: Higher CO2 costs exposure (i) financial implications: financial implications will depend of each specific climate legislation but we see already that this risk is present in our operations today for example related to oil sands operations and legislation being developed that could discriminate oil sands. (ii) to mitigate this risk, Statoil is implementing the following actions: - improve carbon efficiency in each of the segments in which we operate and work toward the 2020 targets - continue to invest in R&D and in particular in solutions such as CCS - Develop lower CO2 sources such as natural gas - We work closely with government, industry and civil society to build effective climate policies. (iii) costs are mainly related to technologies development (energy efficiency technologies, CCS technologies, etc.)

Q3: i) Statoil's own analysts prepare quarterly updated most likely forecast on long term supply, demand and prices of oil, gas, carbon allowances. Alternative

scenarios and corresponding market implications are also provided to test the robustness of the portfolio. ii) Sophisticated mathematical models and reliable market data is applied. iii) Statoil is on the basis of expected costs and revenues assessing the current portfolio and we will not be involved in projects if the expected costs are set to be higher than the expected revenue.

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5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**Further Information**

Statoil's public carbon performance targets for 2020:

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**Attachments**

**Page: 6. Climate Change Opportunities**

**6.1**

**Have you identified any climate change opportunities (current or future) 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

**6.1a**

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

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
OP1	International agreements	A stringent international agreement on climate applicable for all countries may present an opportunity for Statoil. It could create a level playing field and will benefit our gas operations through a high carbon price that will lead to fuel switching from coal to gas	Other: Create a level playing field	1-5 years	Direct	More likely than not	Medium
OP2	Cap and trade schemes	A strengthened EU ETS is vital for bringing more gas (and less coal) to the European power sector. Establishment of new carbon pricing mechanism and linking of carbon markets is likely to have the same effect. Pricing on CO2 could also stimulate our offshore wind projects and our efforts to bring CCS to the market	Increased demand for existing products/services	Current	Direct	Likely	Medium-high
OP3	Emission reporting obligations	Statoil CO2 intensity is currently very low in comparison to our peers. Improved benchmarking methodology could constitute an opportunity to	Wider social benefits	1-5 years	Direct	Likely	Low-medium

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		communicate about Statoil's carbon performance.					
OP4	Other regulatory drivers	Legislation to support offshore wind and Carbon Capture and Storage	Investment opportunities	1-5 years	Direct	About as likely as not	Low-medium

### 6.1b

**Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions**

Climate change legislation is expected to offer some opportunities to Statoil. The two main opportunities for Statoil will be (i) a level playing field since we are today one of the most CO2 exposed company in the world and (ii) an increase in demand for natural gas. i) the potential financial implications can be significant but it seems difficult to quantify all implications of the opportunities mentioned above. ii) method used to manage this opportunity: - we are increasing the efficiency of our operations worldwide which will give us a competitive advantage in the future when cap and trades systems are in place - we are promoting a shift from coal to gas and then the use of natural gas as back-up solution for increasing share of renewables. Finally on a longer term, we believe natural gas could be used with CCS. - we continue to research and develop technologies that increase efficiency and reduce emissions in hydrocarbon production. - we invest in offshore wind projects. We are using our offshore expertise in marine operations and offshore maintenance to sharpen our competitive edge in offshore wind projects. Statoil has taken significant offshore wind positions over the last few years. They include a Norwegian kroner 5 billion (USD 850 million) investment in the Sheringham Shoal offshore wind farm in the UK started operations end 2012, and securing options in the big Dogger Bank licence in the UK.

### 6.1c

**Please describe the opportunities that are driven by changes in physical climate parameters**

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
OQ1	Snow and ice	melting of the ice in the Arctic is opening new opportunities for sustainable exploration of hydrocarbones high North	Increased production capacity	>10 years	Direct	Likely	Medium-high

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity and (iii) the costs associated with these actions

Arctic hydrocarbon resources are already being actively explored for, developed and produced. Greater activity is almost inevitable, especially if we expect the demand for energy to increase. We aim to do everything possible to ensure that Arctic operations comply with our principle of reducing the negative environmental impact from our activities and products. We focus on technological developments to reduce risk from a variety of actual and potential discharges to sea and emissions to air from all our operations. (i) Potential implications could be consequent: The Arctic's hydrocarbon resource potential is well documented. The United States Geological Survey (USGS) estimates that 22% of the world's undiscovered, technically recoverable hydrocarbons lie north of the Arctic Circle, or, to be more specific, 30% of the world's undiscovered gas (47.3 trillion cubic metres), 13% of the world's undiscovered oil (90 billion technically recoverable barrels) and 20% of the world's undiscovered natural gas liquids (44 billion barrels). Approximately 84% of this is believed to be offshore (ii) methods to manage this opportunity: - Research and development are critical to finding optimal sustainable solutions in the Arctic. We are conducting several long-term industrial research projects with universities and institutions that focus on developing innovative technologies for safe and sustainable exploration and production of hydrocarbons in the far north. These include the Sustainable Arctic Marine and Coastal Technology (SAMCoT) project and the Arctic Materials project. The eight-year SAMCoT project was established by the Research Council of Norway in 2011. The goal is to develop technology that ensures sustainable and safe exploration, exploitation and transport from and within the Arctic. It is also the basis for developing environmentally adapted coastal infrastructure. The five-year Arctic Materials project started in 2008 with the aim of establishing criteria and solutions for the application of materials for low-temperature service. (iii) costs associated with these actions are R&D costs but also communication activities with main stakeholders.

6.1e

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

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
OO1	Changing consumer behaviour	Climate change and the growing demand for clean energy are opening up new business opportunities. Statoil is in a position to seize these opportunities by utilising long-standing core capabilities from the oil and gas industry.	Investment opportunities	6-10 years	Direct	Likely	Medium
OO2	Increasing	Statoil aims to be a part of the future sustainable	Increased demand for	1-5 years	Direct	Very likely	Medium-

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
	humanitarian demands	energy mix where more energy is needed to bring people out of poverty.	existing products/services				high

6.1f

**Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions**

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

(i) potential financial opportunities include increased of our natural gas sales volumes worldwide and also the development of a profitable business for renewable energies. (ii) the methods you are using to manage this opportunity: - making the case for natural gas:

In 2011, Statoil took several initiatives to ensure that natural gas is properly addressed by European policy makers in their attempt to define a low carbon society. In October 2009, EU member states agreed on a target for the reduction of greenhouse gas emissions of 80-95% by the middle of the century compared with 1990 levels. The 2050 targets have led to discussion about how to design energy systems in the future and they have intensified the competition between different fuels for shares in Europe's future energy mix. Together with Centrica, Eni, E.On-Ruhrgas, Gazprom Export, GdF-Suez, Qatar Petroleum and Shell, Statoil has taken part in the European Gas Advocacy Forum (EGAF), which produced a joint position paper in spring 2011 on how natural gas can help Europe to reach its target of an 80% emission reduction by 2050 [1]. To promote the role of natural gas in Europe, Statoil also launched "The Gas Machine" campaign online in early 2011. - Investing in renewables We are using our offshore expertise in marine operations and offshore maintenance to sharpen our competitive edge in offshore wind projects. Statoil has taken significant offshore wind positions over the last few years. They include a Norwegian kroner 5 billion (USD 850 million) investment in the Sheringham Shoal offshore wind farm in the UK that is scheduled to start operations end 2012, and securing options in the big Dogger Bank licence in the UK. Statoil has also developed Hywind, the world's first floating wind turbine. The Hywind pilot has demonstrated excellent performance and regularity since it was installed in September 2009. The next step will be the development of pilot wind farms. Statoil aspires to play a proactive role in reducing offshore wind costs. In order to do this, technologies and projects based on a clear road map to becoming independently profitable are essential. On this basis, Statoil has chosen to exit its onshore Norwegian wind project portfolio and concentrate exclusively on offshore wind, so that Statoil can utilise its offshore development and operations experience in the best possible way. With the development of larger and lighter units and the realisation of other economies of scale, cost-competitive floating offshore wind may soon be on the horizon. In addition to our strong focus on offshore wind, we are pursuing some research activities in biofuels (from algae, wood or wheat straw) and geothermal energy. (iii) the costs associated with these actions are: - investments in gas infrastructures for natural gas - R&D for renewable energies - communication

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

## **Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]**

### **Page: 7. Emissions Methodology**

---

7.1

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

<b>Base year</b>	<b>Scope 1 Base year emissions (metric tonnes CO2e)</b>	<b>Scope 2 Base year emissions (metric tonnes CO2e)</b>
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Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Mon 01 Jan 2007 - Mon 31 Dec 2007	15222876	106674

## 7.2

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
Energy Information Administration 1605B
IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2003
IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Climate Leaders: Direct Emissions from Stationary Combustion
US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources
US EPA Mandatory Greenhouse Gas Reporting Rule
Other

### 7.2a

If you have selected "Other", please provide details below

Others: Assets used their local regulated methodologies:

- EU Emission Trading Scheme for our operations in Norway and Denmark, this represent ~90% of our operated emissions.
- US EPA requirements
- Brazil National/Local reporting requirements (IBAMA)

- Canada National/Local reporting requirements

### 7.3

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

Gas	Reference
CO2	IPCC Second Assessment Report (SAR - 100 year)
CH4	IPCC Second Assessment Report (SAR - 100 year)

### 7.4

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Crude oil	3.17	metric tonnes CO2 per metric tonne	Klif (Norwegian Climate and Pollution Agency)
Other: Condensate	3.17	metric tonnes CO2 per metric tonne	Klif (Norwegian Climate and Pollution Agency)
Natural gas	2.8	metric tonnes CO2 per metric tonne	Klif (Norwegian Climate and Pollution Agency)
Liquefied petroleum gas (LPG)	2.75	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Liquefied Natural Gas (LNG)	2.75	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Other: Methanol	1.21	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club

Fuel/Material/Energy	Emission Factor	Unit	Reference
			conversion factors
Naphtha	5.33	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Diesel/Gas oil	2.97	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Motor gasoline	2.97	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Other: Heavy Fuel Oil	3.06	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Jet kerosene	2.5	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors
Petroleum coke	2.86	metric tonnes CO2 per metric tonne	EIA - Voluntary reporting of Greenhouse Gases Program. Appendix H. Form EIA-1605 Emission Factors (kg CO2 / MMBtu), converted into kgCO2/kg product using MIT Energy club conversion factors

### Further Information

Scope I GHG Emissions 2007:

Direct Operated CO2: 14 399 256 Tonnes CO2

Direct Operated CH4: 39 220 tonnes CH4 = 823 620 Tonnes CO2eq

Total GHG Scope I: 15 222 876 Tonnes CO2eq

Important: SYSTEM BOUNDARIES! GHG Protocol Scope 1 Definition includes all direct GHG Emissions. Our figures include All direct GHG Emissions related to core activities: Exploration, Production, Refining and Processing, so it can be related to production figures, we consider this is more clear and transparent towards stakeholders. In Scope III you would find small sources of GHG connected to other activities which could be operated or leased, such as buildings. Finding out which type of contractual agreements for ownership or service for all of these assets would be unworthy for the insignificance of the figures compared to overall Scope 1 or 3 GHG Emissions, and that it is the reason we keep it in Scope 3 for this year.

For Direct and Indirect Emissions, we have an environmental accounting system that tracks the singularities of each facility (Gas composition, carbon content, emission factors due to equipment, efficiency) and measure flow rates, volumes, ... since each facility has it is own emission factoring model, It is not practical nor

economic to present all conversion and emission factors used in our environmental accounting system.

All Emission factor above are only used to Calculate Scope 3 Emissions. An uncertainty assessment has been performed:

- Average deviation compared to GHG protocol suggested emission factors was 0.61%.
  - Largest differences in Methanol and Naphtha
  - Weighted uncertainty level due to Emission Factors used = 3.68 %
  - Next year we expect to use GHG Protocol emission factors and update results accordingly
- An excel spread sheet can be attached upon request

## **Page: 8. Emissions Data - (1 Jan 2012 - 31 Dec 2012)**

---

### **8.1**

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

Operational control

---

### **8.2**

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e**

15362600

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### **8.3**

**Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e**

409444

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**8.4**

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

Yes

---

**8.4a**

Please complete the table

Source	Scope	Explain why the source is excluded
CH4	Scope 2	CH4 emissions from imported energy are not easily available. An uncertainty assessment has been done to calculate the effect of methane on Scope 2. Applying emission factors (grCH4/MWh) from several references, the effect of methane in Scope 2 would be neglectable (~1%) since most of the imported energy comes from renewable sources in Norway
GHG Statoil Fuel and Retail	Scope 2	Total Divestment at half year, so it is only included the part of the year (Operated). Direct emissions are accounted as Scope III on Equity basis for the whole year.
CO2 & CH4 from Bakken	Scope 2	Energy imported reported, but not CO2 associated. Currently working on establishing the emission factor models for Bakken in the environmental accounting system, including energy imports (we need to figure out where the utility vendors bring the electricity from in North Dakota)

---

**8.5**

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 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Assumptions	Reporting occurs monthly, on each installation and drilling and well operations Important percentage of data it is based on continuous sampling and metering (CEMS) in the offshore fields. Some calculations in Brazil and Canada, but they also use the same environmental accounting system to report on a monthly basis Given the nature of the system, uncertainties higher than 5% are not expected. Data management: QA/QC quarterly No data gaps All data it is externally verified (KPMG) by ISAE3000 Standard Development & Production in Norway (DPN) and Marketing Processing and Refining (MPR) are part of the EU ETS, check attachments in further information, CO2 emissions under EU ETS account for ~88% of Scope 1 Emissions.	More than 5% but less than or equal to 10%	Data Gaps Assumptions	Most data within EU-ETS (~80%): Refining and Processing Data management: QA/QC quarterly Bakken has energy imported, but no CO2 associated It is not externally verified Germany and Canada assumptions on Emission Factor: Use of combustion processes (natural gas), but do not reflect a physical tie to the grid.

**8.6**

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

Third party verification or assurance complete

**8.6a**

**Please indicate the proportion of your Scope 1 emissions that are verified/assured**

More than 90% but less than or equal to 100%

---

**8.6b**

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document
Reasonable assurance	European Union emissions trading system (EU ETS)	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-8.6b-C3-RelevantStatement/Investor-8.6b-VerificationDetails1/Statoil%20is%20in%20compliance%20under%20the%20EU%20ETS%20for%20its%202012%20emissions.pdf">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-8.6b-C3-RelevantStatement/Investor-8.6b-VerificationDetails1/Statoil is in compliance under the EU ETS for its 2012 emissions.pdf</a>
Limited assurance	ISAE3000	<a href="https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/Investor-8.6b-C3-RelevantStatement/Investor-8.6b-VerificationDetails2/Statoil%20Sustainability%20report%202012%20Independence%20Assurance%20report.pdf">https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/Investor-8.6b-C3-RelevantStatement/Investor-8.6b-VerificationDetails2/Statoil Sustainability report 2012 Independence Assurance report.pdf</a>

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**8.6c**

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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**8.7**

Please indicate the verification/assurance status that applies to your Scope 2 emissions

No third party verification or assurance

---

**8.7a**

Please indicate the proportion of your Scope 2 emissions that are verified/assured

---

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document

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8.8

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

No

---

8.8a

Please provide the emissions in metric tonnes CO2

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**Further Information**

Important: SYSTEM BOUNDARIES! GHG Protocol Scope 1 Definition includes all direct GHG Emissions. Our figures include All direct GHG Emissions related to core activities: Exploration, Production, Refining and Processing, so they can be related to production figures, we consider this is more clear and transparent towards stakeholders. In Scope III you would find small sources of GHG connected to other activities which could be operated or leased, such as buildings. Finding out which type of contractual agreements for ownership or service for all of these assets would be unworthy for the insignificance of the figures compared to overall Scope 1 or 3 GHG Emissions, and that it is the reason we keep it in Scope 3 for this year.



For verification purposes, please note that the Operated Emissions (CO<sub>2</sub> & CH<sub>4</sub>) and Energy figures stated in the Sustainability report 2012 (See attachment) would be larger than our Scope 1 definition (Operational Control boundary) as explained before. Scope 1 would then be always externally verified.

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## Attachments

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/8.EmissionsData\(1Jan2012-31Dec2012\)/MongstadRaffineri\\_godkjenning\[1\].pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/8.EmissionsData(1Jan2012-31Dec2012)/MongstadRaffineri_godkjenning[1].pdf)

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[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/8.EmissionsData\(1Jan2012-31Dec2012\)/Sustainability Report Performance on Environment and climate.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/8.EmissionsData(1Jan2012-31Dec2012)/Sustainability%20Report%20Performance%20on%20Environment%20and%20climate.pdf)

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/8.EmissionsData\(1Jan2012-31Dec2012\)/Brage\\_godkjenning\[3\].pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/8.EmissionsData(1Jan2012-31Dec2012)/Brage_godkjenning[3].pdf)

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**Page: 9. Scope 1 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)**

**9.1**

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

Yes

**9.1a**

**Please complete the table below**

Country/Region	Scope 1 metric tonnes CO2e
Norway	13579677
Denmark	564044
United States of America	452133
Canada	358973

Country/Region	Scope 1 metric tonnes CO2e
Brazil	321555
Norway	45362
Faroe Islands	15365
Tanzania	22965
Brazil	2527

---

## 9.2

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

By business division

By GHG type

---

### 9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
DPN	9558288
DPI	321555
DPNA	811106
MPR	4585433
EXP	86219

---

### 9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	14639796
CH4	722804

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9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
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9.2e

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)
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**Further Information**

Reason there are 2 Norway country and 2 Brazil Country is that the second ones are related to Exploration activities, and we wanted to separate this fact

Important: SYSTEM BOUNDARIES! GHG Protocol Scope 1 Definition includes all direct GHG Emissions. Our figures include All direct GHG Emissions related to core activities: Exploration, Production, Refining and Processing, so it can be related to production figures, we consider this is more clear and transparent towards stakeholders. In Scope III you would find small sources of GHG connected to other activities which could be operated or leased, such as buildings. Finding out which type of contractual agreements for ownership or service for all of these assets would be unworthy for the insignificance of the figures compared to overall Scope 1 or 3 GHG Emissions, and that it is the reason we keep it in Scope 3.

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**Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)**

---

**10.1**

**Do you have Scope 2 emissions sources in more than one country?**

Yes

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**10.1a**

**Please complete the table below**

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling (MWh)
Canada	71312	180728	0
Norway	223078	5203719	0
Denmark	68981	403034	0
United Kingdom	5	794	0
Germany	11627	29463	0
United States of America	0	29800	0
Baltic states	34431	0	0

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**10.2**

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

By business division

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**10.2a**

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

Business division	Scope 2 emissions (metric tonnes CO2e)
DPN	3564
DPNA	71312
MPR	299424
CSO Facility Management	689
TPD (Research Lab Kårstø)	15
Statoil Fuel and Retail	34431

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**10.2b**

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

Facility	Scope 2 emissions (metric tonnes CO2e)
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**10.2c**

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

Activity	Scope 2 emissions (metric tonnes CO2e)
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10.2d

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)
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#### Further Information

Bakken had a reporting dispensation during 2012, since last year was part of the acquisition process and establishment of reporting routines, emission factors were not calculated (we are working on that during 2013), so we present the energy imports (MWh) but not its associated emissions.

Statoil Fuel and Retail is considered as:

BALTIC STATES includes: ESTONIA, LATVIA, LITHUANIA, POLAND, RUSSIA, NORWAY, SWEDEN and DENMARK.

OPERATED for 2012, but only partially (34 431 metric tonnes CO2e out of 68 414 metric tonnes CO2e of the whole year) SFR was established in May 2010 as a separate legal entity within the Statoil group. In October 2010, Statoil ASA transferred all activities relating to the fuel and retail business to SFR. Following an initial public offering, the shares of SFR were listed on the Oslo Stock Exchange (Oslo Børs) in October 2010. Up until June 2012, Statoil ASA was the majority shareholder in SFR, holding 54% of the shares. On 19 June 2012, Statoil ASA sold its remaining 54% shareholding in SFR to Alimentation Couche-Tard

**Page: 11. Energy**

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11.1

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

More than 0% but less than or equal to 5%

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**11.2**

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

Energy type	MWh
Fuel	63309932
Electricity	4037923
Heat	203705
Steam	0
Cooling	165

---

**11.3**

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

Fuels	MWh
Natural gas	43560225
Diesel/Gas oil	3698369
Other: Fuel oil	909
Propane	651
Refinery gas	7880303
Other: Natural gas (flared)	1005621
Other: LOFS	2804
Other: Tail gas	81400
Coke oven coke	2856123
Other: coLGO	87
Other: Spill gas	122
Other: Purge gas	318095
Butane	53732
Other: Gasoline	54



Fuels	MWh
Other: Condensate	4256
Other: Other	169
Other: Unassigned	119059

#### 11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comments
No purchases or generation of low carbon electricity, heat, steam or cooling	0	We calculate the emissions associated with any type of electricity, heat, steam or cooling we purchase. In our case, we use emission factors to calculate emissions from the Norwegian grid (even though it is one of the cleanest in the world, based on hydropower).

### Page: 12. Emissions Performance

#### 12.1

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

Increased

#### 12.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	0.15	Decrease	As stated in Section 3: 22037 metric tonnes CO2eq of savings Decrease = ~0.15%
Divestment			
Acquisitions	2.99	Increase	Enter into Shale Oil Segment: Notable production increase due to Bakken acquisition CO2 emissions = 396 861 tonnes CO2 GHG emissions = 452133 tonnes CO2 Increase= ~2.99%
Mergers			
Change in output	1.8	Increase	Operated figures: Similar production in Conventional Oil and Gas Higher Heavy Oil production (Peregrino) Higher Extra Heavy Oil production (Leismer) LNG also increased production wrt. 2011
Change in methodology			
Change in boundary	0.28	Decrease	Facilities (Oslo, Stavanger, Harstad, Rotvoll and Canada Lodges) = 1115 tonnes CO2eq Midstream, transportation and other operations = 41 636 tonnes CO2eq have been moved to Scope III Emissions this year as stated in methodology section. Decrease = ~0.28%
Change in physical operating conditions			
Unidentified			
Other			

## 12.2

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.000022	metric tonnes CO2e	unit total revenue	1.11	Decrease	Reason: Higher equity volumes and larger marginal price in an environment with higher oil prices. Good company performance during 2012. Important: Comparing GHG Operated Figures with Equity financial gains!!! 2012 Intensity = Scope 1 + 2 Emissions / Total revenues and other income = 15 772 044 tonnes CO2eq / 723.4 (in NOK billion) =

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
					21755 tonnes CO <sub>2</sub> eq / NOK billion = 21.8 tonnes CO <sub>2</sub> eq / NOK million. Change = - 1.11% from last year last year referred to Net operating income, which it was NOT what it was asked. 2011 Intensity = Scope 1 + 2 Emissions / Total revenues and other income = 14 747 998 tonnes CO <sub>2</sub> eq / 670.4 (in NOK billion) = 21998 tonnes CO <sub>2</sub> eq / NOK billion = 22 tonnes CO <sub>2</sub> eq / NOK million Attachment: Statoil Annual Report Profit and Loss

### 12.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO<sub>2</sub>e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
684.9	metric tonnes CO <sub>2</sub> e	FTE employee	33	Increase	Reason: Statoil Fuel and Retail sold out mid-year, decreasing FTE Employee 2012 Intensity = Scope 1 + 2 Emissions / work hours = 15 772 044 tonnes CO <sub>2</sub> eq / 23 028 FTE = 684.9 tonnes CO <sub>2</sub> eq / FTE Attachment: Statoil Annual Report 2012 FTE

### 12.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
9.5	metric tonnes CO2e	barrel of oil equivalent (BOE)	6.2	Increase	ONLY UPTREAMS OPERATIONS!!! Statoil increased its carbon intensity in 2012 for the following main reasons: - Maturing of Conventional Oil and Gas and part of Heavy Oil (similar/decreasing production while same CO2 emissions) - Increase on Production Share from Heavy Oil, Extra Heavy Oil and especially Shale Oil segments, even though those segments improved wrt previous year - Scope 1 and Scope 2 emissions were calculated explicitly with the same system boundaries for both years, per asset and per segment, to understand and facilitate the disclosure of the yearly changes. An extensive work has been done to report accurately on segment portfolio GHG and CO2 intensity.

#### Further Information

2011 Scope 1 Emissions = 14 650 164 tonnes CO2eq  
 2011 Scope 2 Emissions = 462 838 tonnes CO2eq  
 2011 Scope 1 + 2 Emissions = 15 113 002 tonnes CO2eq  
 2012 Scope 1 Emissions = 15 362 600 tonnes CO2eq  
 2012 Scope 2 Emissions = 409 444 tonnes CO2eq  
 2012 Scope 1 + 2 Emissions = 15 772 044 tonnes CO2eq  
 Increase Scope 1 Emissions = 4.86 %  
 Increase Scope 2 Emissions = -11.54%  
 Increase in Scope 1 + 2 combined = 4.36%

Changes in Scope % are derived from these calculations

#### Attachments

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/12.EmissionsPerformance/Statoil Annual Report Profit and Loss.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/12.EmissionsPerformance/Statoil%20Annual%20Report%20Profit%20and%20Loss.pdf)  
[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/12.EmissionsPerformance/Statoil Annual Report 2012 FTE.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/12.EmissionsPerformance/Statoil%20Annual%20Report%202012%20FTE.pdf)

13.1

Do you participate in any emissions trading schemes?

Yes

13.1a

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	Sun 01 Jan 2012 - Mon 31 Dec 2012	1558222	8996017	11734692	Facilities we own and operate

13.1b

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

Our first objective is to ensure that we are in compliance with the schemes in which we participate, and in addition transaction cost is minimised. Statoil operates facilities which are subject to Norwegian and European climate legislation. The company must each year submit quotas corresponding to the entire (oil and gas production on the Norwegian continental shelf) or parts (other activities) of its carbon emissions. Emission allowances are purchased in the market to meet these compliance obligations. The emission trading group is responsible for compliance related CO2 trading for all Statoil operated licenses. Statoil has been active in the carbon market since 2005, and was the first company to execute a contract on the first carbon exchange in the world. In addition to European carbon allowances (EUAs) Statoil is using Certified Emissions Reductions (CERs), generated by CDM projects, for compliance purposes. Statoil supports the developments of new emission trading scheme in different part of the world as the most cost-efficient way to cut emissions.

13.2

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

Yes

13.2a

Please complete the table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose, e.g. compliance
Credit Origination	Other: Carbon fund	Prototype Carbon Fund	CDM (Clean Development Mechanism)	191641	191641	No	Compliance
Credit Origination	Other: Carbon fund	Community development carbon fund	CDM (Clean Development Mechanism)	1355	1355	No	Not applicable
Credit Origination	Other: Carbon fund	Carbon portfolio MGM	CDM (Clean Development Mechanism)	113019	113019	No	Compliance
Credit Purchase	Other: Exchange	Internal HSE compliance, offsetting emissions from employees' flights	CDM (Clean Development Mechanism)	14500	14500	Yes	Voluntary Offsetting

#### Further Information

The table above gives the volume delivered in 2012 and paid for from the three carbon funds Statoil is involved, and volume of sCERs purchased bilaterally and sCERs purchased at Exchanges. For none of these investments it has been possible to identify which CDM projects the credits are coming from. In August 2012 Statoil decided to no longer buy sCERs at the exchanges to avoid to get credits from HFC23 and N2O-adipic acid projects in the portfolio. Statoil is voluntarily offsetting emissions from employees' work related flights

14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Not relevant, explanation provided				Assumed to be insignificant compared to the Total of Scope 3 Emissions Lacking reported data from outsourced services: - Outsourced Exploration and Drilling activities. - Outsourcing to companies providing shipping and transportation activities. - Outsourced development of facilities and infrastructure (eg. Oil fields). - External hires and providers of Technological services and consulting. CO2 related to waste management operations could be asked to the service supplier in the future
Capital goods	Not relevant, calculated	848	Type of data: Energy used (not imported, already included in Scope II) in Buildings and facilities. Data Source: Environmental accounting system (TEAMS) Data quality: High, based on purchased energy / fuels Uncertainty assessment: =<5% Uncertainty	0.00%	Combustion processes in facilities and buildings for heat and power generation. Emission factors models for each facility in the environmental (env.).accounting system. Explanation of why they are included here: In economics, capital goods are tangible objects that are used in the production of other goods or commodities or during the providing of services. They can include things such as buildings, machinery, tools, computers and any other equipment that is used to make or do something else, which can then be sold to another party. The means of production might be owned by individuals, businesses, organizations or governments. This term also refers to any material used or

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
					consumed while other goods are being produced or services are being provided
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	12124	"Type of data: Energy used (not imported, already included in Scope II) in energy facilities not related to O&G activities. In our case, the subsidiary Naturkraft AS. Data Source: Environmental accounting system (TEAMS)" Data quality: High, based on purchased energy / fuels Uncertainty assessment: =<5% Uncertainty	0.00%	Emission factors models for each facility in the env.accounting system.
Upstream transportation and distribution	Not relevant, calculated	17388	"Type of data: Energy used (not imported, already included in Scope II) in trading hubs and terminals. Data Source: Environmental accounting system (TEAMS)" Only includes facilities we operate. Equity from other trading hubs and terminals are missing in the environmental system Data quality: High, based on purchased energy / fuels Uncertainty assessment: =<5% Uncertainty	0.01%	Emission factors models for each facility in the env.accounting system. Alternatively, CO2 reports from HSE Managers / Company representatives.
Waste generated in operations	Not relevant, explanation provided				Assumed to be insignificant compared to the Total of Scope 3 Emissions Assumed not CO2 / CH4 from combustion / oxidation of waste. Only traces of biological waste. CO2 related to waste management operations could be asked to the service supplier in the future.
Business travel	Not relevant, calculated	40788	Data from SAP records, linked to air service suppliers. No on-road transportation considered	0.02%	Airlines usually estimate CO2 related to flights based on distance and average fleet efficiency.
Employee commuting	Not relevant, calculated	0	Results are included in Business Travel. Data from SAP records, linked to air service suppliers. No on-road transportation considered.	0%	Airlines usually estimate CO2 related to flights based on distance and average fleet efficiency
Upstream leased	Not relevant,				No upstream leased assets



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
assets	explanation provided				
Investments	Not relevant, explanation provided				Assumed no investment generates CO2 Emissions.
Downstream transportation and distribution	Not relevant, explanation provided	21187	"Type of data: Energy used (not imported, already included in Scope II) in Buildings and facilities. Data Source: Environmental accounting system (TEAMS)" Data quality: High, based on purchased energy / fuels Uncertainty assessment: =<5% Uncertainty	0.01%	
Processing of sold products	Not relevant, explanation provided				Our own processing of sold products it is included in Scope 1 and 2. The rest of oil and gas products are sold worldwide, making it impossible to analyse the processing of our products. It could be assumed that gas is used "as is", and crude oil and condensate would be refined somewhere downstream, increasing emissions and carbon intensity of the final product from a Life Cycle Assessment perspective. This option will be evaluated, but please, explicitly mention it in the feedback to our questionnaire.
Use of sold products	Relevant, calculated	267327268	"Type of data: Energy used (not imported, already included in Scope II) in Buildings and facilities. Data Source: Environmental accounting system (TEAMS)" Data quality: Reasonable, based on official production figures and annual report. Uncertainty assessment: =<3.68 % Uncertainty	99.96%	It is assumed that all sold products (carbon-based) will be burnt or oxidized by our customers. It is therefore important that stakeholders understand that our Scope 1 and 2 emissions are only ~6% compare to the end-user emissions and the biggest reductions of end-user emissions can be achieved through energy efficiency and larger share of gas in their purchases compared to oil and coal.
End of life treatment of sold	Not relevant, explanation				Assumed to be insignificant compared to the Total of Scope 3 Emissions Assumed all sold

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Methodology	Percentage of emissions calculated using primary data	Explanation
products	provided				products are burnt or oxidized, therefore, no end-of-life treatment of sold products is needed.
Downstream leased assets	Not relevant, explanation provided				No downstream leased assets
Franchises	Not relevant, explanation provided				Not applicable
Other (upstream)	Not relevant, explanation provided	0	"Type of data: Energy used (not imported, already included in Scope II) renewable energy projects. Data Source: Environmental accounting system (TEAMS)"	0%	Assumed to be insignificant compared to the Total of Scope 3 Emissions Outsourced development of Sheringham Shoal
Other (downstream)	Not relevant, calculated	0	"Type of data: Energy used (not imported, already included in Scope II) in Hydrogen production. Data Source: Environmental accounting system (TEAMS)"	0%	This year there was no hydrogen production

## 14.2

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

No third party verification or assurance

## 14.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

14.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Type of verification or assurance	Relevant standard	Attach the document

14.3

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

Yes

14.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Capital goods	Emissions reduction activities	23	Decrease	48 % Lower emissions in buildings. Method does not take into account Vækerø office in Oslo (habited till October 2012), since it is included in the divestment category. This decreased 23% this category from 2011
Capital goods	Divestment	0.63	Decrease	Divestment of Vækerø office in Oslo (from October 2012) yield a decrease of 4%. Emissions from Fornebu office in Oslo are still not available. This decreased 23% this category from 2011

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Capital goods	Change in output	8	Increase	Canada Lodge (Living quarters) increased 21% energy consumption (fuel related), either because higher occupation and activity or a colder winter. That increase 8% this category from 2011
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in output	90	Increase	Values reported for Naturkraft external power facilities are much lower this year, since it is not in operation (only maintenance reasons). Naturkraft AS is a company by itself, but owned partially (50%) by Statoil.
Upstream transportation & distribution	Acquisitions	100	Increase	Etzel terminal in Germany. Cheecham terminal in Canada increased also, but its emissions are neglectable (2 tonnes CO2 operated)
Business travel	Emissions reduction activities	2.18	Decrease	From 41 700 tonnes CO2 to 40 788 tonnes CO2. Part of a cost-reduction programme to increase use of videoconference and reduce business trips.
Employee commuting	Emissions reduction activities	2.18	Decrease	Included in Business Travel
Downstream transportation and distribution	Divestment	54	Decrease	Statoil Fuel and Retail (SFR) was established in May 2010 as a separate legal entity within the Statoil group. In October 2010, Statoil ASA transferred all activities relating to the fuel and retail business to SFR. Following an initial public offering, the shares of SFR were listed on the Oslo Stock Exchange (Oslo Børs) in October 2010. Up until June 2012, Statoil ASA was the majority shareholder in SFR, holding 54% of the shares. On 19 June 2012, Statoil ASA sold its remaining 54% shareholding in SFR to Alimentation Couche-Tard Assumption: SFR Equity in 2010= $(100\%*5/12+54\%*7/12)=41,66\%+31,5\%=73,16\%$ , SFR Equity in 2011=54%; SFR Equity in 2012= $54\%*6/12=27\%$
Use of sold products	Change in output	5.55	Increase	Statoil increase sales of raw (crude oil, condensate and natural gas) and processed products (LPG, LNG, Condensate, Methanol, Naphta, Gas oil, Fuel distillate, Petrol, Heavy Fuel Oil, Petcoke and Jet fuel)
Other (upstream)	Change in output	100	Decrease	No offshore wind developments reported this year yet (Sheringham Shoal) outsourced services

**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 customers

Yes, other partners in the value chain

---

**14.4a**

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

- Consumers / Advertisement: Promoting gas as cleaner fuels with campaigns in UK, Germany and US for industrial and households purposes
- Governments / Events - Task Forces: Active on the European Union discussions panels related to the EU ETS, carbon taxes, the role of gas.
- International task forces on climate change: Driving the industry and society towards better climate performance

\* UN Sustainable Energy for all:

\* World Bank: GGFR Flaring Reductions

- Suppliers / Collaboration : Shipping:

A number of specific achievements support our sustainable shipping strategy. For example, we are reducing our emissions through initiatives such as being the world's first commercial enterprise to convert a tanker from heavy oil fuel to dual fuel, enabling liquid natural gas to be used for power generation. Compared with heavy oil fuel, the combustion of LNG is expected to reduce nitrogen oxides emissions by 85%, carbon dioxide emissions by 25%, and sulphur oxides and other particles completely. The fouling of ships' hulls is a well-known phenomenon, causing reduced speed, increased fuel consumption and general wear and tear to vessels. To reduce fouling, Statoil employs the Norwegian service company CleanHull, which has an environmentally responsible method of cleaning ship hulls. Hull cleaning reduces emissions and minimises the transfer of invasive species. CleanHull removes hitch-hiking marine organisms picked up in foreign waters and can cut carbon dioxide emissions by around 100,000 tonnes a year if cleaning is performed twice annually. One other action taken to reduce our emissions is the "green voyage procedure" (GVP) for shuttle tankers. GVP targets the optimisation of tanker scheduling. The strategy includes practices such as "virtual arrival", a process for tankers developed by the Oil Companies International Marine Forum (OCIMF) that establishes a framework for agreeing to reduce a vessel's speed on voyages to meet a revised arrival time when there is a known delay at the discharge port. According to Teekay's "Shuttle Tanker Emissions Report 2008", a two-knot decrease from 14 knots to 12 knots results in a 10% reduction in fuel consumption and an almost 6% decrease in greenhouse gas emissions.

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**14.4b**

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

Number of suppliers	% of total spend	Comment
---------------------	------------------	---------

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14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details

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14.4d

Please explain why not and any plans you have to develop an engagement strategy in the future

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**Attachments**

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/14.Scope3Emissions/globalgasflaringinitiative.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/14.Scope3Emissions/globalgasflaringinitiative.pdf)  
[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/14.Scope3Emissions/UNsustainableenergyforall.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/14.Scope3Emissions/UNsustainableenergyforall.pdf)

**Module: Oil & Gas**

**Page: OG0 Reference information**

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OG0.1

Please enter the dates for the periods for which you will be providing data. We ask for historic data for the year ending in 2007 to the year ending in 2012 and a forecast for the year ending in 2013. The years given as column headings in subsequent tables correspond to the year ending dates selected below

Year ending	Date range
2007	Mon 01 Jan 2007 - Mon 31 Dec 2007

Year ending	Date range
2008	Tue 01 Jan 2008 - Wed 31 Dec 2008
2009	Thu 01 Jan 2009 - Thu 31 Dec 2009
2010	Fri 01 Jan 2010 - Fri 31 Dec 2010
2011	Sat 01 Jan 2011 - Sat 31 Dec 2011
2012	Sun 01 Jan 2012 - Mon 31 Dec 2012
2013	Tue 01 Jan 2013 - Tue 31 Dec 2013

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#### OG0.2

Please give the gas types included in "All nonconventional gas"

Hydrocarbon group	Gas types in this group
All nonconventional gas	

---

#### OG0.3

Please give the oil types included in "All conventional oil"

Hydrocarbon group	Oil types in this group

Hydrocarbon group	Oil types in this group
All conventional oil	Light & medium oils Heavy oil Extraheavy oil Natural gas liquids inc condensate

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#### OG0.4

Please give the oil types included in "All nonconventional oil"

Hydrocarbon group	Oil types in this group
All nonconventional oil	Bitumen (oil sands) Shale oil

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#### Further Information

Statoil's answer to the O&G module questionnaire includes forward-looking statements which are by their nature, subject to significant risks and uncertainties because they relate to events and depend on circumstances that will occur in the future. Although we believe in that the expectations reflected in the forward-looking statements are reasonable, we cannot assure you that our future results, level of activity, performance or achievements will meet these expectations. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. For a description of the factors that may affect our business, financial performance or results of operations, please have a look at the Risk review included in our Annual Report 2012: <http://www.statoil.com/annualreport2012/en/riskreview/pages/riskreview.aspx>

#### Page: OG1 Production & reserves by hydrocarbon type

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#### OG1.1

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

Yes



**OG1.2**

Please provide values for annual production of each of the hydrocarbon types (in units of BOE) for the years given in the following table. The values required are aggregate values for the reporting organization. The values for 2013 are forward-looking estimates

Product	2007	2008	2009	2010	2011	2012	2013 single estimate	2013 low estimate	2013 high estimate
Other: Crude oil (includes natural gas liquids (NGL), condensate and bitumen. NGL includes LPG			381000000	352000000	343000000	353000000			
Other: Natural gas			271000000	269000000	255000000	311000000			

**OG1.3**

Please provide values for reserves by hydrocarbon types (in units of BOE) for 2012. 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), 2012	Date of assessment	Proved/Probable/Proved+Probable
Other: Oil and NGL (including proved reserves of bitumen)		2389000000	Mon 31 Dec 2012	Proved
Other: Natural gas		3034000000	Mon 31 Dec 2012	Proved

**OG1.4**

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

Statoil's oil and gas reserves have been estimated by its qualified professionals in accordance with industry standards under the requirements of the U.S. Securities and Exchange Commission (SEC), Rule 4-10 of Regulation S-X. Statements of reserves are forward-looking statements

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**OG1.5**

**Is your organization involved in the extraction of bitumen from oil sands?**

Yes

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**OG1.5a**

**Please explain the techniques you have most commonly used and their relative energy intensity**

Statoil is currently operating one oil sand asset; the Leismer Demonstration Project ( Kai Kos Dehseh) in Canada. The asset is developed in situ using steam assisted gravity drainage (SAGD).

The annual average direct CO2 intensity was 55.6 kg CO2 per barrel in 2012

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**Further Information**

Statoil is annually publishing their Oil Sand Report. The report for 2012 combines information previously in Statoil Canada's Oil Sands Report Card and Annual Community Report

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**Attachments**

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/OG1Productionreservesbyhydrocarbontype/Statoil Oil Sands Report 2012 2v.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/OG1Productionreservesbyhydrocarbontype/Statoil%20Oil%20Sands%20Report%202012%202v.pdf)

**Page: OG2 Emissions by segment in the O&G value chain**

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**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
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Segment	Consolidation basis for reporting Scope 1 emissions	Consolidation basis for reporting Scope 2 emissions
Exploration, production & gas processing	Operational Control	Operational Control
Storage, transportation & distribution	Operational Control	Operational Control
Speciality operations	Operational Control	Operational Control
Refining	Operational Control	Operational Control
Retail & marketing	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**

Storage, transportation & distribution Scope 1 emissions are included this year in Scope 3 emissions, since they cannot refer to product output / throughput, and therefore, would yield a mismatching intensity level for the company.

Retail and Marketing (Statoil Fuel and Retail) was sold out mid 2012, and accounted as "operated" only partially for 2012 (Scope 2 are 68 414 tonnes CO2 for the whole year, but operated only ~34 000 tonnes CO2)

## OG2.3

**Please provide masses of gross Scope 1 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations by value chain segment. The values required for 2013 are forward-looking estimates**

Segment	2007	2008	2009	2010	2011	2012	2013 single estimate	2013 low estimate	2013 high estimate
Exploration, production & gas processing	11166616	11239875	9994869	10018240	10298761	10777167			
Refining	4055750	3791714	3885278	4091147	4351403	4585433			

## OG2.4

Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations by value chain segment. The values required for 2013 are forward-looking estimates

Segment	2007	2008	2009	2010	2011	2012	2013 single estimate	2013 low estimate	2013 high estimate
Exploration, production & gas processing	316	306	1981	22960	60163	74885			
Refining	105606	129228	139672	369736	328939	287797			
Storage, transportation & distribution						11627			
Retail & marketing			72470	74817	72939	34431	0	0	0
Speciality operations	752	814	972	874	798	704			

#### Further Information

Exploration, production & gas processing excludes gas processing terminal/facilities, and includes only gas processing on site / platform. Gas processing in terminal /facilities like Sture or Kårstø in Norway are included in Refining figures (MPR). Buildings, labs, services and facilities (Some assets in historical figures are considered Scope 3 this year, like hydrogen production or offshore wind, but its significance it is totally neglectable) could be considered speciality operations, and that explains the 510 tonnes CO2eq difference between Baseline of Emissions in 2007 and OG2.3 answer.

Both CO2 and CH4 emissions are included in the figures; figures are updated from previous years.

#### Page: OG3 Scope 1 emissions by emissions category

##### 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
Storage, transportation & distribution	Operational Control
Speciality operations	Operational Control
Refining	Operational Control
Retail & marketing	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**

Retail and Marketing (Statoil Fuel and Retail) was sold out mid 2012, and not accounted as "operated" for 2012 (Scope 2 are 68 414 tonnes CO2)

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**OG3.3**

**Please provide masses of gross Scope 1 GHG emissions released to atmosphere in units of metric tonnes CO2e for the whole organization broken down by emissions categories: combustion, flaring, process emissions, vented emissions, fugitive emissions. The values required for 2013 are forward-looking estimates**

Category	2007	2008	2009	2010	2011	2012	2013 single estimate	2013 low estimate	2013 high estimate
Combustion	11077100	11249052	10812901	11024329	11357251	12162241			
Flaring	2296501	2270999	1270531	1330193	1215569	1514460			
Process emissions	949282	771724	900161	965826	965826	1117825			
Vented emissions	0	0	0	0	0	0			
Fugitive emissions	676048	552761	625548	627312	623035	568074			

---

**Further Information**

OG3.3 Figures 2007-2011 are taken from last year, and do not include methane emissions nor reflect changes in system boundaries (even though these are minor) 2012 figures are GHG (tonnes Co2eq), include system boundaries changes and are subjected to an extensive study facility by facility. Venting emissions only occur in Kårstø, and they are insignificant (7 tonnes CO2eq in equity basis), they are accounted into fugitive emissions, always operational basis. For 2012, you can confirm the sum of sources it is equal to the Scope 1 GHG Emissions reported in previous sections: 15 362 600 tonnes CO2eq

**OG4.1**

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

Yes

**OG4.2**

Please indicate the consolidation basis (financial control, operational control, equity share) used to report transfers and sequestration of CO2 emissions

Activity	Consolidation basis
Transfers	
Sequestration of CO2 emissions	Operational Control

**OG4.3**

Please provide clarification for cases in which different consolidation bases have been used (e.g. for a given activity, capture, injection or storage pathway)

Capture of CO2 from Sleipner gas and storage into saline Utsira formation under the seabed offshore Sleipner.  
 Capture of CO2 from Snøhvit gas and storage into Stø formation under the seabed offshore Snøhvit

**OG4.4**

Using the units of metric tonnes of CO2, please provide gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis). Please note that questions of ownership of the CO2 are addressed in OG4.6

Transfer direction	2007	2008	2009	2010	2011	2012
CO2 transferred in	0	0	0	0	0	0

Transfer direction	2007	2008	2009	2010	2011	2012
CO2 transferred out	0	0	0	0	0	0

#### OG4.5

**Please provide clarification on whether any oil reservoirs and/or sequestration system (geological or oceanic) have been included within the boundary of the reporting organization. Provide details, including degrees to which reservoirs are shared with other entities**

Capture of CO2 from Sleipner gas and storage of 841800 tonnes in 2012 into saline Utsira formation under the seabed of Sleipner. Utsira formation is used by other entities for disposal/storage.

Capture of CO2 from Snøhvit gas and storage of 489700 tonnes in 2012 into Stø formation under the seabed offshore Snøhvit. Stø formation is not used by other entities for disposal/storage.

#### OG4.6

**Please explain who (e.g. the reporting organization) owns the transferred emissions and what potential liabilities are attached. In the case of sequestered emissions, please clarify whether the reporting organization or one or more third parties owns the sequestered emissions and who has potential liability for them**

No transferred emissions. All emissions captured are our own emissions and Statoil is responsible for the storage.

#### OG4.7

**Please provide masses in metric tonnes of gross CO2 captured for purposes of carbon capture and sequestration (CCS) during the reporting year according to capture pathway. For each pathway, please provide a breakdown of the percentage of the gross captured CO2 that was transferred into the reporting organization and the percentage that was transferred out of the organization (to be stored)**

Capture pathway in CCS	Captured CO2 (metric tonnes CO2)	Percentage transferred in	Percentage transferred out
------------------------	----------------------------------	---------------------------	----------------------------

Capture pathway in CCS	Captured CO2 (metric tonnes CO2)	Percentage transferred in	Percentage transferred out
Gas stream separation from natural gas purification	841800		
Gas stream separation from natural gas purification	489700		

#### OG4.8

Please provide masses in metric tonnes of gross CO2 injected and stored for purposes of CCS during the reporting year according to injection and storage pathway

Injection and storage pathway	Injected CO2 (metric tonnes CO2)	Percentage of injected CO2 intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO2 injected and stored (metric tonnes CO2)
CO2 injected into a geological formation or saline formation for long-term storage	841800	100%	1996	13843090
CO2 injected into a geological formation or saline formation for long-term storage	489700	100%	2008	1858000

#### OG4.9

Please provide details of risk management performed by the reporting organization and/or third party in relation to its CCS activities. This should cover pre-operational evaluation of the storage (e.g. site characterisation), operational monitoring, closure monitoring, remediation for CO2 leakage, and results of third party verification

At Sleipner, the Utsira reservoir is continuously monitored using seismology, and comprehensive models have been developed for calculating how the carbon dioxide moves in the reservoir. The CO2 is contained under an eight hundred metre thick layer of gas-tight cap rock and cannot seep into the atmosphere.

At Snøhvit, a separate pipeline transports the CO2 from the Hammerfest LNG plant back to the Snøhvit field. Until March 2011 the gas was injected and stored in the Tubåen formation while it later has been injected into the Stø formation. This structure lays two thousand five hundred metres beneath the seabed and under the layers in Snøhvit containing gas. The pressure development in the injection well is monitored on a daily basis by using data from the pressure and temperature (PT) gauge installed in the well. In addition, 2D seismic survey was acquired in 2006 in order to establish a 2D-4D reference for further monitoring. A 3D/4D seismic



monitoring survey was shot in August 2011 to monitor CO2 movement in the Stø and Tubåen formations. CO2 storage and monitoring is reported yearly to Norwegian authorities (Klif - Climate and Pollution Agency) as well as National Inventory Report (NIR) for Snøhvit field Statoil has been participating in most international research initiatives within CO2 storage since we started the Saline Aquifer CO2 storage project (SACS) in 1997. The research activities within CO2 storage include: CO2 storage and risk, CO2 storage operations, CO2 storage monitoring, CO2 transport. The activities are closely related to the on going Statoil operations and there is extensive international cooperation where we support and participate in international projects and provide them with real- world data. For a CCS project to be regarded as a climate change mitigation activity, it is a prerequisite that the geological formations at the selected site have the appropriate long-term containment capability. Many countries have built CCS into their strategies for mitigation measures but the basis for regulating permission and control activities is only to a limited extent in place. We have been actively involved in advising the EU, national governments and international organisations on this matter based on our experience on the Norwegian Continental Shelf.

**Page: OG5 Sales and emissions intensity of production by hydrocarbon type**

**OG5.1**

**Please provide values for annual sales of the hydrocarbon types (in units of BOE) for the years given in the following table. The values required are aggregate values for the reporting organization. The values for 2013 are forward-looking estimates**

Product	2007	2008	2009	2010	2011	2012	2013 single estimate	2013 low estimate	2013 high estimate
Bitumen (oil sands)	0	0	0	85015	3685738	5977817			

**OG5.2**

**Please provide estimated emissions intensities for the exploration, production and gas processing associated with different hydrocarbon types based on the current production and operations**

Year ending	Hydrocarbon type	Emissions intensity: exploration, production & gas processing (metric tonnes CO2e per thousand BOE)
2010	Bitumen (oil sands)	605
2011	Bitumen (oil sands)	72.7
2012	Bitumen (oil sands)	55.6
2011	Heavy oil	8.1
2012	Heavy oil	8.3

Year ending	Hydrocarbon type	Emissions intensity: exploration, production & gas processing (metric tonnes CO2e per thousand BOE)
2011	Other: LNG	27.7
2012	Other: LNG	25.8
2012	Shale oil	30
2011	Other: Conventional Oil and Gas	8.1
2012	Other: Conventional Oil and Gas	8.3

### OG5.3

Please provide estimated emissions intensities for a) storage, transportation and distribution and b) refining associated with different hydrocarbon types based on current operations

Year ending	Hydrocarbon type	Emissions intensity: storage, transportation & distribution (metric tonnes CO2e per thousand BOE)	Emissions intensity: refining (metric tonnes CO2e per thousand BOE)
2011	Other: Refining and Processing	0	6.4
2012	Other: Refining and Processing	0	6.5

### OG5.4

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 intensity only include Scope 1 Direct CO2 Emissions, excluding exploration and gas processing, indirect emissions and methane emissions. % change between years does not significantly change, although total intensities (Scope 1 + 2 GHG Intensities) would be slightly higher, between ~0.6% in Heavy Oil and ~13% in Shale Oil, depending basically on the methane intensity of the segment (usually the heavier, the less stranded gas, the less flaring, the less methane emissions)

Statoil increased its carbon intensity in 2012 for the following reasons:

Maturing of Conventional Oil and Gas

Increase on Production Share from Heavy Oil, Extra Heavy Oil (Oil Sands) and especially Shale Oil (started operatorship).

However, Oil sands and LNG improved performance.

Our operated (or technical service provider role) Processing and Refining facilities are grouped together, therefore, making it more complicated to disclose Refining and processing separately.

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## Attachments

[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/OG5Salesandemissionsintensityofproductionbyhydrocarbontype/2010\\_Oil\\_sands\\_report\\_card\\_lo.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/OG5Salesandemissionsintensityofproductionbyhydrocarbontype/2010_Oil_sands_report_card_lo.pdf)  
[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/OG5Salesandemissionsintensityofproductionbyhydrocarbontype/Oil Sands Report 2012.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/OG5Salesandemissionsintensityofproductionbyhydrocarbontype/Oil%20Sands%20Report%202012.pdf)  
[https://www.cdproject.net/sites/2013/32/23132/Investor CDP 2013/Shared Documents/Attachments/InvestorCDP2013/OG5Salesandemissionsintensityofproductionbyhydrocarbontype/Oilsands Report Card 2011.pdf](https://www.cdproject.net/sites/2013/32/23132/Investor%20CDP%202013/Shared%20Documents/Attachments/InvestorCDP2013/OG5Salesandemissionsintensityofproductionbyhydrocarbontype/Oilsands%20Report%20Card%202011.pdf)

## Page: OG6 Strategy for development of renewable and clean energy technologies

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### OG6.1

**Does your organization have a strategy for the development of renewable and clean energy technologies?**

Yes

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### OG6.1a

**Please provide details**

Climate change and a growing demand for clean energy are opening up new renewable and low-carbon technology business possibilities. Our core capabilities and competencies put us in a position to seize these opportunities in two specific areas;- offshore wind and carbon capture and storage (CCS). While these are exciting prospects, they come with a series of great challenges. High technology costs and uncertain regulatory frameworks are key issues to be solved in order to establish sustainable business models.

**Offshore wind.**

We have the ambition to play a proactive role in bringing down offshore wind costs. In order to do this, technologies and projects with a clear roadmap towards becoming profitable on a stand-alone basis are essential. On this basis, we have chosen to concentrate exclusively on offshore wind, so that we can leverage our offshore development and experience in the best way possible.

We have taken significant offshore wind positions over the last few years. These include a NOK 5 billion investment (USD 850 millions) in the Sheringham Shoal offshore wind farm in the UK. The Sheringham Shoal wind farm, of the coast of Norfolk in the UK, was completed in 2012. It has 88 wind turbines and an installed capacity of 317 MW. Estimated yearly production is 1.1 TWh and will provide power to app. 220 000 households.

In October 2012 Statoil purchased 70% of the Dudgeon offshore wind farm, about 32 km off the coast of North Norfolk, UK. (Statkraft owns the remaining 30%). Dudgeon received its consents from UK authorities in 2012, allowing an installed capacity of up to 560MW. Investment decision is scheduled for 2014, and the project could be fully operational in 2017. Water depths are between 18 and 25 m.

On 8 January 2010, Forewind, a consortium consisting of Statoil, Statkraft, RWE and Scottish and Southern Energy awarded development rights for an offshore wind farm in the Dogger Bank area in the UK sector of the North Sea. Surveys and planning are now concluded, and the first consent application will be submitted in 2013. Due to the size of the area, the development will have to take place in phases. Potential combined capacity of the first two Dogger Bank wind projects is 2.4 GW. Dogger Bank covers nearly 9,000 square kilometres off the Yorkshire coastline, where depths range from 18 to 63 metres.

We have also developed Hywind technology for floating wind energy projects. In 2007 Statoil invested around NOK 400 million in the construction and further development of a full scale prototype, the Hywind demo, and research and development related to the wind turbine concept. The Hywind demo has shown excellent performance and regularity since operation started in 2009. Based on results of the Hywind demo project, the technology has been further developed, both in design and scale. Following this it has become apparent that floating wind, and in particular this technology could represent a game changer for offshore wind, and contribute to lower costs for future commercial scale deployments. Statoil is planning to take a next step, developing pilot parks consisting of 4-5 units in larger scale, to be followed by commercial scale deployments. The main objectives for the pilot parks will be to confirm design improvements and test interaction and optimise marine operations in order to reduce the risk for commercial scale projects.

#### **Carbon capture and storage (CCS)**

CCS represents a key technology for reducing carbon emissions, and we have become a world leader in its development and application. We will build on our carbon storage experience (from Sleipner, Snøhvit and In Salah projects) to position ourselves for a future storage of CO2.

We are also maturing two carbon capture projects at present; - the large-scale Technology Centre Mongstad (TCM) testing facility (opened in May 2012) and the full-scale Carbon Capture Mongstad (CCM). TCM is a joint venture between Gassnova (on behalf of the Norwegian government), 75.12%, Statoil (20%), Shell (2.44%) and Sasol (2.44%). CCM is fully owned by the Norwegian government.

The TCM partners have made a clear commitment to technology improvements and invested 6BNOK for the construction and development of the technology centre. In late spring 2011 the CCM project announced a technology qualification programme for companies which had technology that could be used to capture CO2 from the existing combined heat and power (CHP) station at Mongstad (at full capacity, the volumes planned to be captured from the CHP is expected to be around 1.2 million tonnes CO2 annually). The purpose of the technology qualification programme is to qualify at least one technology and demonstrate that it can be scaled up and used at the CHP at Mongstad while ensuring that relevant HSE requirements are met. Successful results in the technology qualification program should allow concept selection - including the selection of technology- in the second quarter of 2014. A final investment decision for this project is planned in 2016

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#### **OG6.1b**

##### **Financial contribution of renewable and clean energy technologies, including CCS - sales generated**

<b>Technology area</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Wind - offshore				

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**OG6.1c**

**Financial contribution of renewable and clean energy technologies - Investment (capital expenditure + research & development)**

Technology area	2009	2010	2011	2012
Wind - offshore				

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**OG6.1d**

**Financial contribution of renewable and clean energy technologies - Earnings Before Interest, Taxation Depreciation, Amortization (EBITDA)**

Technology area	2009	2010	2011	2012
Wind - offshore				

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**OG6.1e**

**Financial contribution of renewable and clean energy technologies - net assets**

Technology area	2009	2010	2011	2012
Wind - offshore				

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**OG6.1f**

**Financial contribution of renewable and clean energy technologies - please provide a short description of the technologies**

Technology area	Please provide short description of technology
Wind - offshore	

**Page: OG7 Methane from the natural gas value chain - approach & quantification**

**OG7.1**

**Please indicate the consolidation basis (financial control, operational control, equity share) used to prepare data to answer the questions in OG7 and OG8**

Segment	Consolidation basis
Production	Operational Control
Production	Operational Control
Gathering	Operational Control
Processing	Operational Control
Transmission	Operational Control
Storage	Operational Control
Distribution	Operational Control

**OG7.1a**

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

No cases in which different consolidation bases have been used

**OG7.2**

**Does your company have written operating procedures and/or policies covering the reduction of methane leakage and venting?**

Yes

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**OG7.2a****Please attach the relevant document(s) in the further information field or describe how the written procedures/policies cover these emissions sources**

Statoil requirements related to methane emissions are described in Technical Environment standards for design, modification and operation on offshore plants (TR1009) and offshore plants (TR1011).

- Air emissions, including, but not limited to, CO<sub>2</sub>, NO<sub>x</sub>, CH<sub>4</sub>, nmVOC, H<sub>2</sub>S, SO<sub>x</sub> and particulates, shall be minimised. Focus shall be given to reduce air emissions by process design and through energy optimisation
- Production flaring/continuous flaring for gas disposal is not acceptable. Flaring for safety reasons is acceptable, however, the process systems shall be designed to minimise flaring. Each plant/installation shall have operational guidelines in order to minimise flaring.
- Cold venting (venting of unburned gas) shall be avoided
- Methods for controlling and reducing fugitive emissions shall be considered and implemented in the design, operation and maintenance of onshore and offshore facilities. The selection of appropriate valves, flanges, fittings, seals and packings should consider safety and sustainability requirements as well as their capacity to reduce gas leaks and fugitive emissions. Additionally, leak detection and repair programs should be implemented.
- For shale gas operations the followings requirements for flow back water or produced water are stated: VOC's (including methane) shall either
  - be captured and made available for use as fuel gas or sales gas
  - be injected into a geological formation
  - be flared, however, flaring shall be minimised and is only accepted for existing facilities as a temporary solution bases upon an application for deviation

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**OG7.3****Has your company set quantitative or qualitative goals for reducing methane leakage and venting?**

Yes

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**OG7.3a****Please describe**

Statoil is currently working on a methane strategy document including a fixed target for methane intensity. The policy document and corresponding fixed target will be ready in 3Q2013.

Norway, through the Ministry of Environment, participates in the Global Methane Initiative (GMI), and Statoil is a part of the Norwegian delegation and is participating

in the Oil&Gas subcommittee. A focus of the GMI is that methane reduction measures can be very cost-effective, particularly considering fugitive emissions on locations where the gas otherwise can be utilised

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**OG7.4**

**Has your company published a policy position on the regulation of methane emissions?**

No

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**OG7.4a**

Please attach the document

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**OG7.5**

**Does the company inventory and quantify the methane emissions associated with your operations?**

Yes

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**OG7.5a**

**Please indicate the proportion of methane emissions inventory estimated using the following methodologies (+/-5%)**

<b>Methodology</b>	<b>Proportion of total methane emissions estimated with methodology</b>	<b>What area of your operations does this answer relate to?</b>
Direct detection and measurement	0%	All
Engineering calculations	>75%	All
Source-specific emission factors (IPCC Tier 3)	5% to <10%	All
IPCC Tier 1 and/or Tier 2 emission factors	0%	All



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**OG7.5b**

**Do your operations include the production, gathering and processing stages?**

Yes

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**OG7.5c**

**Please use the following table to report the proportion of the company's natural gas production that is emitted to the atmosphere during production (differentiating if possible between production from hydraulically-fractured wells and non-hydraulically-fractured wells), gathering and processing**

Stage	Estimate gas leaked or vented expressed as % of gas produced
Overall figure for production (all wells), gathering and processing	0%

---

**Further Information**

How Methane is calculated?

Norway: No emissions are based on CEMS. The closest you come to such system are NOx emissions, which are calculated based on PEMS. CH4 are calculated with an emission factor multiplied with the total annual gas handling volume on each installation

USA (Bakken Shale Oil): - Direct detection and measurement None

- Engineering calculations yes
- Source-specific emission factors yes, flare combustion efficiency, average CH4 concentration from well analyses
- Other emission factors standard factors for CH4

Proportion of the company's natural gas production that is emitted to the atmosphere during production (differentiating if possible between production from hydraulically-fractured wells and non-hydraulically-fractured wells), gathering and processing is neglectable compare to company's natural gas total production.

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**Page: OG8 Methane from the natural gas value chain - control measures**

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**OG8.1**

**Are reduced emission completions relevant to your operations?**

Yes

**OG8.1a**

**For natural gas wells that are hydraulically-fractured, please complete the table**

<b>What proportion of completions and work-overs in the reporting year used reduced emission completion technology for these wells?</b>	<b>If gas is not utilized via reduced emission completion technology, please explain if it is flared or vented</b>	<b>What area of your operations does this answer relate to?</b>
100%	No natural gas wells in Bakken, only oil wells. Gas is flared, not vented	USA only

**OG8.2**

**Is liquids unloading (de-watering) of natural gas wells relevant to your operations?**

Yes

**OG8.2a**

**For gas wells with liquids accumulation requiring venting to the atmosphere or some form of artificial liquids unloading, please complete the table**

<b>What proportion has technologies in place that reduce methane venting from the liquids un-loading process?</b>	<b>If you wish, please add context to this figure</b>	<b>What area of your operations does this answer relate to?</b>
100%	Only stabilized liquids are transferred to tank trucks for transportation, so most vapours are removed prior to transfer	USA only

**OG8.3**

**Does the company have a program for identifying and replacing or retrofitting high-bleed rate pneumatic controllers powered by natural gas (i.e. controllers that vent more than 6 standard cubic feet per hour)?**

Yes

OG8.3a

Please complete the table

What proportion of the company's high-bleed controllers have been replaced with low-emission alternatives?	If you wish, please add context to this figure	What area of your operations does this answer relate to?
100%	OG8.3 No pneumatic devices in the Bakken	USA only

OG8.4

Are natural gas compressors relevant to your operations?

Yes

OG8.4a

Please complete the table

What proportion of compressors, including those at the wellhead and in gathering and processing, are either reciprocating compressors or centrifugal compressors operating wet seals?	What proportion of these compressors is vented to the atmosphere?	What area of your operations does this answer relate to?
51%	Total number of operating centrifugal compressors : 153. Total number of compressors operating dry gas seals : 75. Total number of compressors operating oil seals : 78. There are a lot of compressors onshore as well, not to mention smaller reciprocating compressors. Compressors operating oil seals are usually from older installations and are not recommended nowadays, dry gas seals shall be used (See Technical requirements below). When it comes to dry gas seals (DGS) everyone is (except maybe 1 or 2) is operating a tandem configuration with primary vent going to flare and secondary vent going to atmosphere (TR2009). There is no measuring instrument on the secondary vent, so I can't give any estimation on the gas emissions. There is also a possibility that the primary vent is vented to	All

What proportion of compressors, including those at the wellhead and in gathering and processing, are either reciprocating compressors or centrifugal compressors operating wet seals?	What proportion of these compressors is vented to the atmosphere?	What area of your operations does this answer relate to?
	atmosphere like on Heidrun, or using secondary N2 buffer seal gas on secondary seal like the new installation Gudrun. So the question "how many of these are vented to the atmosphere?" can be 100% (if you mean secondary vent) or an unknown amount if you mean primary vent.	

**OG8.4b**

**Please explain measures you are taking to reduce emissions from these sources**

Statoil has several technical requirements related to use of compressors, the most relevant for this answer are:

TR1083: Centrifugal Compressors and Amendments to API Std 617

where it is stated that: "The standard sealing method is to use dry gas shaft seals. The use of oil seals shall be approved by Company. The gas seals shall be designed as a replaceable cartridge Leakage across the seal shall be guaranteed by the vendor and be measured as part of the seal performance test. This is relevant for both gas and oil seals"

TR2009: Specification for dry gas seal for centrifugal compressors. This Technical requirement includes references to API 617/7 and API 614/4, ISO 1940 G5.5, and requirements on basic design (axial movement, dynamics, operational envelope, seal selection, monitoring and support systems)

**OG8.5**

**Is associated gas relevant to your company?**

Yes

**OG8.5a**

**What is the company's overall approach for dealing with associated gas in terms of its relative use of venting, flaring and capture (e.g. for sale, re-injection or use as a fuel)? Companies may differentiate their approach between circumstances where there is/is not a market**

Use of associated gas as much as possible, under economic, technological and geological realities (promoting infrastructure, re injection availability, fuel combustion on-site, ...), if none of these options are available for short / imminent periods of time, a dispensation from company requirements (flaring dispensation) must be given and justified since Statoil has a no production flaring policy. This is the case of our operations in Bakken (North Dakota)

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**OG8.5b**

**Outline the measures undertaken to reduce venting for example from tank and casing-head gas**

Gas is captured via VRTs, VRUs, or is combusted.

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**Further Information**

OG8.3 No pneumatic devices in the Bakken

**Module: Sign Off**

**Page: Sign Off**

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**Please enter the name of the individual that has signed off (approved) the response and their job title**

Elna Berner  
Sr. Advisor Sustainability  
Statoil ASA

**CDP**