Carbon Disclosure Project

Module: Introduction

Page: Introduction

0.1

Introduction

Please give a general description and introduction to your organization.

Teekay Petrojarl is operating in the offshore oil production, storage and transportation sector, as well as in the conventional tanker business. Teekay Petrojarl is the largest operator of Floating Production, Storage and Offloading (FPSO) vessels in the North Sea. Teekay Petrojarl owns and operates five FPSOs (two on Norwegian and two on UK continental shelves, in addition to one on the Siri Field off the south-eastern coast of Brazil). The operating fleet also includes two shuttle tankers (Petronordic and Petroatlantic), one storage tanker (Apollo Spirit) and a 40 percent ownership in the FPSO Ikdam, operating offshore Tunisia. Our head office is in Trondheim, Norway and we have operations offices in Macaé, Brazil and Aberdeen, Scotland. A total of 650 persons are employed, working on- and offshore. Teekay Petrojarl is committed to responsible health, safety, environment and quality practices, and has a long, proven track record of safely operating FPSO vessels in one of the harshest environments in the world. Teekay Petrojarl is part of Teekay Corporation. Aspects relating to Teekay Corporation are reported separately in Teekay Corporation's 2010 Carbon Disclosure Project submission.

0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

Enter Periods that will be disclosed

Thu 01 Jan 2009 - Thu 31 Dec 2009

0.3

Are you participating in the Walmart Sustainability Assessment?

No

0.4

Modules

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

If you are in these sectors, the corresponding sector modules will be marked as default options to your information request.

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 www.cdproject.net/cdp-questionnaire.

Country	liet	configu	ration
Country	IISL	Commu	ratior

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		
	International Waters		
0.6			
	Please select if you wish to complete	a shorter information request.	
Furthe	er Information		
Attach	hments		
Modu	ule: Governance		
D			
Page:	: Governance		
	: Governance		
1.1	: Governance		
1.1	Where is the highest level of responsi	bility for climate change within your company?	
1.1		bility for climate change within your company?	
1.1	Where is the highest level of responsi	bility for climate change within your company? /	
1.1 1.1a	Where is the highest level of responsing Board committee or other executive body	bility for climate change within your company? /	
1.1 1.1a	Where is the highest level of responsi Board committee or other executive body Please specify who is responsible.	bility for climate change within your company?	
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1.1a 1.1a	Where is the highest level of responsions Board committee or other executive body Please specify who is responsible. Board/Executive Board	(

What is the mechanism by which the board committee or other executive body reviews the

company's progress and status regarding climate change?

Through HSE updates in board meetings, through minutes of meetings from annual Environmental Management Reviews, through annual accounts, and through the annual Teekay Petrojarl sustainability report.

Please explain how overall responsibility for climate change is managed within your company.

1.3b

Please explain how overall responsibility for climate change is managed within your company.

1.4

Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?

1.5

Please complete the table.

Who is entitled to benefit from those incentives?	The type of incentives	
All employees	Monetary reward	
All employees	Prize	

Further Information

All full-time shore staff and senior vessel officers are entitled to bonus pay based on a combination of individual, team and company performance. Such performance assessment is partially dependent on achievement of various objectives, including objectives stated in annual HSE programmes where goals related to air emissions are set. Within Teekay Petrojarl an annual Climate Competition is held, where staff are challenged to bring up ideas on how to reduce emissions to air. The winner(s) receive a monetary prize.

Attachments

Module: Risks and Opportunities

Page: Risks & Opportunities Identification Process

2.1

Describe your company's process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.

Risks and opportunities are addressed in all relevant areas of our operations. We systematically identify and prioritize potential risks and opportunities. When prioritizing and implementing measures, we seek to achieve a well founded and sound balance between issues like health and safety of our personnel, protection of the environment, reputation of our company, owners and our customers, and financial results and other business aspects. The risk management in Teekay Petrojarl is documented. Managers are obliged to manage and communicate risks and opportunities systematically. Our

employees actively report risks and opportunities in daily operations. At the enterprise / project level the Value Assurance Board supports and advises decision makers (project owners) through early phase evaluation to identify and assess the risk and opportunity picture. The assessment includes, e.g., influence on HSE performance and risk picture, influence on future operational flexibility, influence on customer relation, reputation or other business risks, and environmental effects. Teekay Petrojarl has a number of risk assessment processes that are used by our operating units to identify and assess risks associated with their key processes. We apply standard industry accepted methodology as we assess probability for an unwanted event to occur, in combination with the event's severity, as risk is defined (quantitatively). Environmental risks are evaluated specifically as we evaluate our vessels' environmental aspects within various areas, including activities leading to air emission. Matrices have been developed as risks and environmental aspects have been weighted. Responsible positions for high risk related activities are identified as part of the work to control the risks occurring from such activities. Teekay Petrojarl has developed a management system which is certified according to ISO 14001. As part of our steering system the Environmental Advisor prepares an annual Environmental Management Review where environmental risks are covered. Evaluation of our environmental aspects is part of the environmental management system.

Furthe	er Information
	nments
Page:	Regulatory Risks
3.1	Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company? Yes
	Do you want to answer using: A text box
3.2A	What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales? Risk Region/Country Timescale in Years Comment

3.2B

What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

Due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, regulatory frameworks to reduce greenhouse gas emissions. These regulatory measures include, among others, adoption of cap and trade regimes, carbon taxes,

increased efficiency standards, and incentives or mandates for renewable energy. Compliance with changes in laws, regulations and obligations relating to climate change could increase our costs related to operating and maintaining our vessels and require us to install new emission controls, acquire allowances or pay taxes related to our greenhouse gas emissions, or administer and manage a greenhouse gas emissions program. Revenue generation and strategic growth opportunities may also be adversely affected. The International Maritime Organization (IMO) continues to work towards the adoption of greenhouse gas emissions regulation for the marine shipping industry. Regulations covering both the design of new vessels and the operation of all vessels are the focus of current regulatory proposals. A new vessel Energy Efficiency Design Index (EEDI) is in the final stages of preparation. This regulation will mandate a minimum level of energy efficiency from new vessels, and is intended to become more stringent over time. The regulation is anticipated to be adopted in 2010, and may enter into force one to two years later. The regulation will apply to all vessels trading worldwide. The IMO is also continuing with efforts to create a market-based mechanism that will provide a financial incentive to reduce fuel consumption and thus greenhouse gas emissions. This regulation may take the form of an emissions tax, a cap-and-trade scheme, a performance standard, or some combination of those concepts. The regulation is anticipated to be adopted before the end of 2011, but may enter into force at a later date. The IMO intends this regulation to be flag neutral (that is. applying to all vessels worldwide). However, some developing countries argue that any mandatory GHG reduction regulations should apply only to developed countries, adopting the "common but differentiated responsibilities" (CBDR) principle under the United Framework Convention on Climate Change (UNFCCC). Lastly, the European Commission has stated that it will unilaterally propose GHG legislation to take effect in 2013 if the IMO is unable to deliver global regulations by the end of 2011. The regulation would apply to vessels trading in EU waters or calling EU ports. In the United States, the EPA issued an "endangerment finding" regarding greenhouse gases under the Clean Air Act. While this finding in itself does not impose any requirements on our industry, it authorizes the EPA to regulate directly greenhouse gas emissions through a rule-making process. In addition, climate change initiatives are being considered in the United States Congress and by individual states. Any passage of new climate control legislation or other regulatory initiatives by the IMO, European Union, the United States or other countries or states where we operate that restrict emissions of greenhouse gases could have a significant financial and operational impact on our business that we cannot predict with certainty at this time.

3.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

The EEDI may result in increased costs in the construction of new vessels if shipbuilders are required to change designs to meet new requirements. Any market-based mechanism applied by the IMO will likely apply a cost on emissions, and thus the costs of fuel consumption for our vessels. This would raise the operating costs of our vessels, and marine transportation costs in general. This could lead to decreased profits or lower demand for marine transport. However, since Teekay Petrojarl's fleet trades on time-charter agreements wherein the charterer pays the cost of bunkers, the impact of added fuel charges may have less impact on Teekay Petrojarl than on some of our competitors trading primarily on the spot market.

3.4

Are there financial implications associated with the identified risks? Yes

3.5

Please describe them.

The EEDI may result in increased costs in the construction of new vessels. Since the level of improvement to be achieved under the EEDI has not yet been decided, it is difficult to estimate the added costs of new vessel construction. New vessel designs may require changes such as lower friction hull forms and propellers/rudders, reductions in total installed power, and energy savings devices such as waste heat recovery. The financial impact of any market based mechanism enacted by the IMO depends on the type of mechanism and the level of financial inventive. A study

commissioned by Denmark estimated that an emissions charge would have minor to no impact on the prices of commodities transported by sea. The study estimated that introduction of an emission charge would raise commodity prices by 1% or less. Therefore, the overall impact of an emissions charge on the demand for sea transport, and for Teekay's transportation services, may be small.

3.6

Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

We have continued to expand the scope and completeness of our company GHG monitoring in order to better conform to the guidelines of the GHG Protocol / ISO 14064. This aids in ensuring weaknesses in our monitoring and mitigation of environmental aspects are better identified and corrected. This initiative requires a continuing level of staff resources, but no added financial costs. Vessel management has been trained in environmental issues (ISO 14001 training). Teekay Petrojarl continues to implement a number of activities to reduce the fuel consumption and thus GHG emissions from our vessels. By reducing emissions, we can partially mitigate the risks of any impending regulations.

3.7

Please explain why you do not consider your company to be exposed to significant regulatory risks - current and/or anticipated.

3.8

Please explain why not.

Further Information

Attachments

Page: Physical Risks

4.1

Do current and/or anticipated physical impacts of climate change present significant risks to your company?

Yes

Do you want to answer using:

A text box

What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?

Risk Region/Country	Timescale in Years	Comment
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4.2B

What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?

Climate change may result in an increase in severe weather events. The IPCC Fourth Assessment Report states that an increase in some forms of extreme weather has already been observed, and this trend is likely to continue in the future. Therefore, this risk may already have increased and will continue indefinitely. The geographic scope is worldwide.

4.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

An increase in severe weather events could increase safety risks for vessels and crews. An increase in severe weather events may also result in more frequent closures or delays in accessing some ports or offshore facilities. This could temporarily limit our ability to trade in the affected areas. Severe weather events may also disrupt or damage infrastructure supporting the energy supply chain, both upstream and downstream, temporarily resulting in less oil production and less demand for marine transport in the affected areas.

4.4

Are there financial implications associated with the identified risks? Yes

4.5

Please describe them.

Vessels may need to deviate from planned course to avoid adverse or dangerous weather. This could result in added fuel consumption costs. Vessel staff are trained to manage adverse weather conditions. Port or terminal closures due to severe weather are likely to be temporary, and our business is regionally diversified and not dependent on any one port or region. A longer-term loss of infrastructure due to damage from severe weather events could have a larger financial cost to our business. The cost could include the loss of business in the region, and the cost of repositioning vessels to other areas. Any added costs due to more frequent severe weather events are difficult to estimate at this time.

4.6

Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

Procedures are in place to mitigate the risks of weather events to vessels and crew. This includes the use of weather monitoring, weather routing and policies for vessel operations in adverse weather conditions. Since these procedures are already in place, there are no added costs. In addition, being the largest operator of Floating Production, Storage and Offloading (FPSO) vessels in the North Sea, Teekay Petrojarl has a long, proven track record of safely operating FPSO vessels in one of the harshest environments in the world. To mitigate the risks of downturns in one region we operate

4.7	Please explain why you do not consider your company to be exposed to significant physical risks - current and/or anticipated.
4.8	Please explain why not.
Furth	er Information
Attacl	hments
Page	: Other risks
5.1	Does climate change present other significant risks - current and/or anticipated - for your company? Yes
	Do you want to answer using: A text box
5.2A	What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?
	Risk Region/Country Timescale in Years Comment

What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?

5.2B

across geographical regions. Furthermore, Teekay Petrojarl's fleet is operated under fixed-rate charters that would continue to pay even during temporary oil supply or port disruptions.

Adverse effects upon the oil and gas industry relating to climate change may adversely affect demand for our services. Although we do not expect that demand for oil and gas will lessen dramatically over the short term, in the long term climate change may reduce the demand for oil and gas or increased regulation of greenhouse gases may create greater incentives for the use of alternative energy sources. Any long-term material adverse effect on the oil and gas industry could have a significant financial and operational adverse impact on our business that we cannot predict with certainty at this time. Teekay Petrojarl, and the petroleum industry as a whole as well as the marine shipping industry, face a reputational risk. Articles published in the popular press in recent years suggest a reputation of poor environmental management may already be developing.

5.3

Describe the ways in which the identified risks affect or could affect your business and your value chain.

A poor public opinion of marine shipping and oil production could put pressure on customers to look for alternative transport options and energy sources. Or, the public may directly act against ship owner / operating companies through protests, boycotts, etc. However, this risk may be greater for oil companies marketing directly to the public, and may not materially affect Teekay Petrojarl.

5.4

Are there financial implications associated with the identified risks? Yes

5.5

Please describe them.

As there are few competitive alternatives to the long distance transport of oil and oil products, any reputational risk may not significantly shift modes of transport. So the financial implications may not be severe.

5.6

Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.

Teekay Corporation is working with INTERTANKO (the International Association of Independent Tanker Owners) and other industry groups and IMO members to support the development through the IMO of global regulations to reduce GHG emissions from marine shipping. The costs of these efforts include staff time and related travel costs for IMO and industry meetings. However, an estimate of costs specifically for these activities is not available.

5.7

Explain why you do not consider your company to be exposed to other significant risks - current and/or anticipated.

5.8

Please explain why not.

Further Information
Attachments

Page: Regulatory Opportunities

6.1

Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?

Yes

Do you want to answer using:

A text box

6.2A

What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?

Opportunities Region/Country Timescale in Years Comment

6.2B

What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?

Marine shipping emits less CO2 per tonne-mile on average than air, truck or rail transport. GHG regulation could therefore encourage a modal shift towards marine transport. This opportunity may become apparent as the IMO enacts GHG regulations for the marine industry in the next few years. Lastly, GHG regulation may encourage the development of carbon capture and storage (CCS) projects. Teekay Corporation has worked with I.M. Skaugen SE to develop logistics solution for CCS projects. This opportunity will likely be realized first in the North Sea area where CCS operations already exist.

6.3

Describe the ways in which the identified opportunities affect or could affect your business and your value chain.

The development of more GHG regulatory regimes worldwide could shift transportation demand towards marine sources, which could benefit Teekay Petrojarl. The development of offshore CCS projects serviced by marine transportation of CO2 would be a unique opportunity for Teekay as well.

6.5	
	Please describe them.
	All of the described opportunities could result in increased charter rates, increased number of vessels and assets, and / or new business opportunities (for instance CO2 transporting Shuttle Tankers, a growth in FLNG (Floating LNG liquefaction) and Compressed Natural Gas (CNG) transport). An estimate of the value of these opportunities is not provided here.
6.6	
	Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.
	Teekay Corporation has worked jointly with I.M. Skaugen SE to develop the complete logistics solution for the Carbon Capture and Storage demonstration project being lead by the UK affiliate of German power utility RWE npower. I.M. Skaugen and Teekay participated in the project as part of an industrial group formed to encompass the full range of expertise needed to demonstrate carbon capture, transport and eventual undersea storage. In 2008, Teekay received approval from the American Bureau of Shipping (ABS) for a Floating LNG (FLNG) concept. Teekay sees this as a significant future growth area.
6.7	Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.
6.8	
	Please explain why not.
Furth	er Information
Attac	hments

Are there financial implications associated with the identified opportunities?

7.1

Page: Physical Opportunities

Do current and/or anticipated physical impacts of climate change present significant opportunities for your company? Yes

Do you want to answer using:

A text box

7.2A

What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?

Opportunities Region/Country Timescale in Years Comment

7.2B

What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?

Climate change may result in an increase in severe weather events. Being the largest operator of Floating Production, Storage and Offloading (FPSO) vessels in the North Sea, Teekay Petrojarl has a long, proven track record of safely operating FPSO vessels in one of the harshest environments in the world. This is seen as an opportunity, especially in geographical regions having less harsh environment conditions than the North Sea today.

7.3

Describe the ways in which the identified opportunities affect or could affect your business and your value chain.

The opportunity is related to a potential growth in the demand for harsh environment Floating, Production, Storage and Offloading vessels (FPSOs).

7.4

Are there financial implications associated with the identified opportunities?

Yes

7.5

Please describe them.

The described opportunity could result in increasing demand for our services, potentially affecting rates as well as the number of vessels and assets. An estimate of the value of these opportunities is not provided here.

7.6

Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.

Teekay Petrojarl has not taken any specific action in relation to the described opportunity.

7.7	
	explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated.
7.8	
7.0	Please explain why not.
	iease explain why not.
Furthe	Information
Attach	nents
Page:	Other Opportunities
8.1	
	Ooes climate change present other significant opportunities - current and/or anticipated - for our company?
	our company?
	Do you want to answer using:
	The table below
8.2A	
	What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?
	Opportunities Region/Country Timescale Comment in Years
8 2B	

8.2B

What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?

8.4	Are there financial implications associated with the identified opportunities?
8.5	Please describe them.
8.6	Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.
8.7	Explain why you do not consider your company to be presented with significant opportunities - current and/or anticipated. Several opportunities were identified and discussed in response to Regulatory Opportunities (Q6). No further significant opportunities are foreseen at this time.
8.8	Please explain why not.
Furth	ner Information
Attac	hments
Mod	ule: Strategy
Page	e: Strategy

Please describe how your overall group business strategy links with actions taken on risks and opportunities (identified in questions 3 to 8), including any emissions reduction targets or

Describe the ways in which the identified opportunities affect or could affect your business and

your value chain.

9.1

achievements, public policy engagement and external communications.

Teekay Petrojarl will continue to evaluate the risks to our business from climate change and climate policy, while investigating and pursuing new opportunities. Our response to climate change is in compliance with our policies, i.e. compliance with regulatory requirements, use of our experience to improve environmental performance, maintain an environmentally friendly workplace, minimise discharges, emissions and waste and their environmental effects. To mitigate carbon related risks, we continue to improve our greenhouse gas inventory, which enables us to better identify opportunities for emissions reductions. To engage staff we have increased our internal and external communication of environmental issues, and produce an annual Sustainability Report. Given our expertise in offshore shuttle tankers and FPSOs, Teekay Petrojarl has a competitive advantage in creating these new business opportunities.

Furth	er Information
	hments
Page	: Strategy - Targets
9.2	
	Do you have a current emissions reduction target?
	No
9.3	
	Please explain why not and forecast how your Scope 1 and Scope 2 emissions will change over

Please explain why not and forecast how your Scope 1 and Scope 2 emissions will change over the next 5 years. (If you do not have a target)

GHG emission plans have been discussed, but are not implemented for the company as a whole just yet. Some of our FPSOs have planned initiatives (HSE program) to reduce their GHG emissions in 2010. During the coming years we expect direct emissions to be reduced as per vessel due to more environmentally friendly fuel and enhancements related to engines. (Scope 1 emissions.) Regarding Scope 2 emissions we do not expect radical changes from today.

9.4

Please give details of the target(s) you are developing and when you expect to announce it/them. (If you are in the process of developing a target)

9.5

Please explain if you intend to set a new target. (If you have had a target and the date for completing it fell within your reporting year, please answer questions 9.5 and 9.6)

Please complete the table. (If you have a current emissions reduction target or have a recently completed target)

Target Value Base Type Target year	Emissions in base year Targe (metric Year tonnes CO2-e)	GHGs and GHG sources to met? which the target applies	Comment
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Further Information

Attachments

Page: Strategy - Emission Reduction Activities

ż

Is question 9.7 relevant for your company?

Yes

9.7

Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Actio ns - pleas e descr ibe	2. Ann ual ene rgy savi ng	3. Ann ual ener gy savi ngs - num ber	4. Ann ual ene rgy savi ng - unit s	5. Annu al emis sion reduc tion in metri c tonne s CO2- e	6. Reduc tion - achiev ed or anticip ated	7. Invest ment - numb er	8. Invest ment - curren cy	9. Mone tary savin gs - numb er	10. Mone tary savin gs - curre ncy	11. Mone tary savin gs	12. Timesc ale of actions & associ ated invest ments (if relevan t)
Flarin g reduci ng meas ures.											Teekay Petrojar I is currentl y takng the first

1. Actio ns - pleas e descr ibe	2. Ann ual ene rgy savi ng	3. Ann ual ener gy savi ngs - num ber	4. Ann ual ene rgy savi ng - unit s	5. Annu al emis sion reduc tion in metri c tonne s CO2- e	6. Reduc tion - achiev ed or anticip ated	7. Invest ment - numb er	8. Invest ment - curren cy	9. Mone tary savin gs - numb er	10. Mone tary savin gs - curre ncy	11. Mone tary savin gs	12. Timesc ale of actions & associ ated invest ments (if relevan t)
											step includin g develop ing a flaring policy / strategy across the fleet. This action is part of the vessels' HSE programs 2010, with deadlin es varying (some vessels Q2, other vessels Q3).

9.8

Please explain why not.

9.9

Please provide any other information you consider necessary to describe your emission reduction activities.

Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?

Yes

9.11

Please describe.

Teekay Petrojarl President and CEO, Senior VP Operations and VP Health, Safety and Environment participate in quarterly meeings on different levels in Norwegian Shipowners Association. These fora allow for discussion and provides direct input on behalf of the offshore industry to Norwegian policymakers related to legislation and climate change. On the corporate level Teekay works with various associations to propose, debate, and advocate for various regulatory options to reduce GHG emissions. Teekay is a member of, or in routine discussion with organizations such as the International Association of Independent Tanker Owners (Intertanko), the International Chamber of Shipping (ICS), regional chambers of shipping, and the Oil Companies International Marine Forum (OCIMF). In addition, Teekay will discuss or provide feedback on proposals directly with policymakers when asked for comment. In the past, Teekay submitted a proposal with Intertanko, to better define a rolling average in the Energy Efficiency Operational Indicator (EEOI). The EEOI is a proposed tool to measure the efficiency of existing vessels.

Further Information

Attachments

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

Page: Emissions Boundary - (1 Jan 2009 - 31 Dec 2009)

10.1

Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which operational control is exercised

10.2

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

Yes

10.3

Please complete the following table.

Source	Scope	Explain why the source is excluded
Teekay	Scope	Emissions

Source	Scope	Explain why the source is excluded
Petrojarl Offices	2	from the generation of purchased electricity are not included. In future CDP submissions, attempts may be made to estimate this source of emissions.
Cargo venting	Scope 1	The loading and transport of hydrocarbon products produces vapors that are normally released when cargo tanks have to be vented due to the build up of pressure. Cargo vapors consist mostly of volatile organic compounds (VOC). Currently, no systems exist to accurately monitor these emissions, and are therefore not included at this time. In future CDP submissions, attempts may be made to estimate this source of emissions.
Refrigerant gases	Scope 1	Leaks or escapes of HFC and HCFC gases from onboard refrigerant

Source	Scope	Explain why the source is excluded
		plants contribute to our overall greenhouse gas inventory. In future CDP submissions, attempts may be made to estimate this source of emissions.

Further Information

Attachments

Page: Methodology - (1 Jan 2009 - 31 Dec 2009)

11.1a

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 and/or describe the procedure you have used (in the text box in 11.1b below).

Please select the published methodologies that you use.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

ISO 14064-1

11.1b

Please describe the procedure that you use.

Teekay has voluntarily adopted the Greenhouse Gas Protocol and ISO 14064-1 to guide the development of our greenhouse gas inventory and management system. At this time, we are not externally audited against the GHG Protocol or the ISO standard. Vessels submit data through onboard software that connects with centralized onshore databases. The Environmental Advisor collects data from databases and input the data into a database which manages all GHG related data, and which can calculate and report aggregated emissions based on conversion factors.

Please also provide the names of and links to any calculation tools used.

Please select the calculation tools used.
GHG Protocol - CO2 emissions from business travel 1.2 August 2005
GHG Protocol - Indirect CO2 emissions from purchased electricity 3.0 March 2008

11.3

Please give the global warming potentials you have applied and their origin.

Gas	Reference	GWP
Other: CO2- equivalents (as used by the Norwegian Oil Producers Association (OLF))	Other: CO2 + 21*CH4 + 3*nmVOC [tons]	

11.4

Please give the emission factors you have applied and their origin.

Fuel/Material	Emission Factor	Unit	Reference
Other: Field specific emission factors or industry standard factors (OLF) used.			

Further Information

Attachments

Page: Emissions Scope 1 - (1 Jan 2009 - 31 Dec 2009)

Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO2-e.

709781

ż

Is question 12.2 relevant to your company?

Yes

12.2

Please break down your total gross global Scope 1 emissions in metric tonnes CO2-e by country/region.

Country	Scope 1 Metric tonnes CO2-e
Other: Norway	138045
Other: United Kingdom	515849
Other: Brazil	55886

12.3

Please explain why not.

12.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)

Business Division	Scope 1 Metric tonnes CO2-e
Floating, Production , Storage and Offloading vessels (FPSOs)	660468
Tankers	49312

12.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by facility. (Only data for the current reporting year requested.)

Facilities Scope 1 Metric tonnes CO2-e

ż

Is question 12.6 relevant to your company?

Yes

12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO2-e)
CO2		681298
CH4	850.00	17857

12.7

Please explain why not.

ż

Is question 12.8 relevant to your company?

Yes

12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

12.9

Please explain why not.

ż

Is question 12.10 relevant to your company?

Yes

12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh

12.11

Please explain why not.

12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
More than 10% but less than or equal to 20%	Other: See comments	- Inaccurate volume and flow measurements offshore Human error. Staff onboard and ashore routinely record and submit environmental data. While data is routinely checked to ensure reliability and accuracy, data errors can still occur. These errors are likely to be random, and should not result in any over or under reporting of actual emissions Emissions are estimated using emissions

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
		factors. Reported emissions therefore likely diverge from actual emissions (overestimate or underestimate of actual emissions).

Further Information

Attachments

Page: Emissions Scope 2 - (1 Jan 2009 - 31 Dec 2009

13.1

Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.

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Is question 13.2 relevant to your company?

No

13.2

Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.

Country Metric tonnes CO2-e

13.3

Please explain why not.

Emissions from the generation of purchased electricity are not included. In future CDP submissions, attempts may be made to estimate this source of emissions.

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)

Business Metric tonnes CO2-

13.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by facility. (Only data for the current reporting year requested.)

Facility name	Metric tonnes CO2-e

ż

Is question 13.6 relevant to your company?

13.6

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.

13.7

Please explain why not.

13.8

Please estimate the level of uncertainty of the total gross global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
rungo	•	in your

Uncertainty range

Main

Sources of uncertainty in your data

Main

Please
expand on
the
uncertainty in your data.

Furth	er Information
	hments
Page	: Emissions Scope 2 Contractual
14.1	Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?
14.2	You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2-e.
14.3	Explain the origin of the alternative figure including information about the emission factors used and the tariffs.
14.4	Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?
14.5	

Please provide details including the number and type of certificates.

Type of Number of certificate certificates Comments

Furth	er Information	1			
	hments				
Page	: Emissions	Scope 3			
ė	Is question 1	5.1 relevar	nt to your compa	ny?	
15.1	Please provi	de data o	n sources of So	cope 3 emissi	ions that are relevant to your organization.
	Sources of Scope 3 emissions	Metric tonnes of CO2-e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.	
15.2	Please expla	in why no	ot.		
Furth	er Information	1			
	hments				
Page	: Emissions	7			
16.1					

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

16.2

Please provide details including the anticipated timescale over which the emissions are avoided, in which sector of the economy they might help to avoid emissions and their potential to avoid emissions.

ż

Is question 17.1 relevant to your company?

No

17.1

Please provide your total carbon dioxide emissions in metric tonnes CO2 from the combustion of biologically sequestered carbon i.e. carbon dioxide emissions from burning biomass/biofuels.

17.2

Please explain why not.

Teekay Petrojarl does not combust biomass or biofuels for energy generation. A portion of garbage incinerated onboard vessels will contain sources of biologically sequestered carbon (e.g., paper, cardboard, wood debris) or biomass (e.g., some food stuffs). However, given that waste incinerated onboard will contain a variety of materials, it is not possible to accurately estimate these emissions.

Further Information

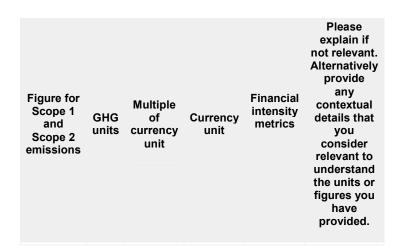
Attachments

Page: Emissions 8

18.1a

Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.



18.1b

Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

Oil and gas sector companies are also asked to report activity-related intensity metrics in answer to table O&G1.3.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity- related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
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19.1

Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?

We do not have sufficient emissions data to answer the question.

19.2

Please explain why they have varied and why the variation is significant.

20.1A

Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
More than 80% but less than or equal to 100%	Not verified	Not verified

20.1B

I have attached an external verification statement that covers the following scopes:

Further Information

Our scope 1 GHG emissions are reported partly based on our customers' (licence holder on the fields where we produce oil) calculations. Some of these companies have performed a third party verification of their numbers. Approximately 92 % of our scope 1 emissions are externally verified through these processes.

Attachments

Page: Emissions 9 Trading

21.1

Do you participate in any emission trading schemes?

No, we don't participate nor do we currently anticipate participating in any emissions trading scheme within the next two years.

21.2

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 - number	Verified emissions - units	Details of ownership
	Mon 01 Jan 0001 - Mon 01 Jan 0001					

21.3

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

21.4

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

No

21.5

Please complete the following table.

	eject URL link to ication project documentation	Verified to which standard?	Number of credits (metric tonnes of CO2- e)	Credits retired?	Purpose e.g. compliance
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Further Information

Teekay Petrojarl owns and operates FPSOs which fall under the EU ETS. We operate however on behalf of oil companies (StatoilHydro, Talisman, BP, CNR and Petrobras) and these are the companies holding allowances and trading quotas.

Attachments

Module: Climate Change Communications

Page: Communications 1

22.1

Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?

Yes

22.2

In your Annual Reports or other mainstream filing? (If so, please attach your latest publication(s).)

Yes

22.3

Through voluntary communications such as CSR reports? (If so, please attach your latest publication(s).)

Yes

Further Information

We publish details of our emissions in our annual GRI certified Teekay Petrojarl sustainability report. The report for 2009 will be issued in June 2010. The 2008 Teekay Petrojarl sustainability report has been attached.

Attachments

https://www.cdproject.net/Sites/2010/16/18416/Investor CDP 2010/Shared Documents/Attachments/InvestorCDP2010/Communications/Teekay Petrojarl Sustainability Report 2008.pdf

Carbon Disclosure Programme