### Investor CDP 2014 Information Request Enerplus Corporation

**Module: Introduction** 

**Page: Introduction** 

CC0.1

#### Introduction

Please give a general description and introduction to your organization.

Enerplus' Corporation (Enerplus') has a diversified portfolio of oil and gas properties throughout Western Canada and the United States and produced an average daily production of approximately 90,000 BOE/day, 54% from natural gas and 46% from crude oil and natural gas liquids throughout 2013.

Enerplus' enterprise value is currently estimated at CDN\$5,945,940,280. The head office is located in Calgary, Alberta and the United States office in located in Denver, Colorado. Enerplus' also has twelve field offices located throughout British Columbia, Alberta, Saskatchewan, West Virginia, Montana and North Dakota. As of December 31, 2013, Enerplus' employed a total of 707 people, including full-time benefit and payroll consultants.

Enerplus' continuously improves the efficiency of its energy consumption, strives to reduce our greenhouse gas emissions intensity and provides resources, training and technology to meet our environmental objectives. We have several ongoing environmental initiatives in this regard, including:

- site environmental inspection and audit program;
- facility energy efficiency audits;
- water management planning;
- waste management and waste reduction programs;
- fugitive emissions management program;
- greenhouse gas reduction initiatives; and
- reclamation of disturbed landscapes to equivalent land capability.

Enerplus' reports its key environmental and safety metrics as required as part of the Canadian Association of Petroleum Producers (CAPP) Responsible Canadian Energy (RCE) Program. Enerplus' support and participation in this program demonstrates its commitment to responsible resource development and to continuous improvement in environment, health and safety and social performance.

Enerplus' also reports all of its air emissions, water use volumes and waste handling and disposal metrics as required by the regulatory agencies in the jurisdictions that it operates. Quantitative data on GHG emissions and trends are disclosed annually through the Carbon Disclosure Project. Specific GHG regulations have

been enacted in Alberta and British Columbia to facilitate reporting to the various voluntary and regulatory bodies.

#### CC0.2

#### **Reporting Year**

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

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

#### Enter Periods that will be disclosed

Tue 01 Jan 2013 - Tue 31 Dec 2013

#### CC0.3

#### **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

United States of America

Canada

#### CC0.4

#### **Currency selection**

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

CAD (\$)

#### CC0.6

#### **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, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco 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@cdp.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

#### **Further Information**

**Module: Management** 

Page: CC1. Governance

#### CC1.1

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

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

#### CC1.1a

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

The Board of Directors Safety and Social Responsibility (S&SR) Committee is a committee established by the Board of Directors to assist the Board in carrying out its responsibilities with respect to the development and implementation of an effective S&SR management system, to ensure that Enerplus' activities are planned and executed in a safe and responsible manner, and to ensure there are adequate systems in place to support safety and environmental management, regulatory compliance, emergency response plans, and stakeholder engagement activities. The S&SR Committee reviews the Corporation's performance related to S&SR semi-annually and ensures that long-range preventative programs are in place to limit or mitigate future liability. The S&SR Committee is comprised of at a minimum of three independent Board of Director members which are appointed annually following the annual general meeting of the Corporation. The Enerplus Chief Executive Officer is responsible for Board Liaison. The S&SR Board Committee Chairman presents verbal and/or written reports regarding the Corporation's S&SR performance, Committee meetings and discussions at scheduled meetings of the Board of Directors

#### CC1.2

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

Yes

#### CC1.2a

#### Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator
Chief Executive Officer (CEO)	Monetary reward	The Corporation sets annual goals to improve its Safety and Social Responsibility performance. For example, greenhouse gas emissions reductions are expected through a specific target for the execution of a number of energy performance improvement projects. Also energy performance audits are completed to identify improvement opportunities across the company.
Executive officer	Monetary reward	The Corporation sets annual goals to improve its Safety and Social Responsibility performance. For example, greenhouse gas emissions reductions are expected through a specific target for the execution of a number of energy performance improvement projects. Also energy performance audits are completed to identify improvement opportunities across the company.
Business unit managers	Monetary reward	The Corporation sets annual goals to improve its Safety and Social Responsibility performance. For example, greenhouse gas emissions reductions are expected through a specific target for the execution of a number of energy performance improvement projects. Also energy performance audits are completed to identify

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	
		increase and annual transition of control the control transition of th	
		improvement opportunities across the company.	
Facility managers	Monetary reward	The Corporation sets annual goals to improve its Safety and Social Responsibility performance. For example, greenhouse gas emissions reductions are expected through a specific target for the execution of a number of energy performance improvement projects. Also energy performance audits are completed to identify improvement opportunities across the company.	
Environment/Sustainability managers	Monetary reward	The Corporation sets annual goals to improve its Safety and Social Responsibility performance. For example, greenhouse gas emissions reductions are expected through a specific target for the execution of a number of energy performance improvement projects. Also energy performance audits are completed to identify improvement opportunities across the company.	
All employees	Recognition (non-monetary)	The company recognizes energy performance improvements and greenhouse gas emission management initiatives through a variety of internal and external communications such as, the Corporate website, employee intranet site, and stakeholder engagement communication materials. In addition, employees participating in the 2013 energy performance survey were recognized through cash incentives for their participation. The company also hosts an annual Technical Forum where innovative ideas to improve performance are presented.	

#### **Further Information**

Page: CC2. Strategy

#### CC2.1

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

Integrated into multi-disciplinary company wide risk management processes

#### CC2.1a

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

Frequency of monitoring	To whom are results reported	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Individual/Sub-set of the Board or committee appointed by the Board	All facilities in US and Canada	3 to 6 years	Risks to increased GHG and Fugitive emissions are identified and managed within our environmental management system where environmental aspects which do or can have significant impacts on the environment, including flaring, venting and air emissions are identified and managed. These aspects are then used in consideration of future corporate or site-specific objectives and targets.

#### CC2.1b

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

Risk and opportunities are identified at both company and asset level

At the company level by senior management and staff utilizing site-specific aspects as reported by internal and external parties through both internal and external site inspections and audits. These reports are documented on our corporate database Sustainability Information Management System (SIMS) and rolled up to both the asset and company levels. SIMS tracks and manages corrective actions and compliance issues associated with environmental aspects and risks in a transparent, effective manner.

Annual internal and third party Risk Assessments are completed that identify climate related risks and opportunities. These assessments include climate risks to and from Enerplus', such as:

- Forest and grass fires
- Flooding (identification of flood risks)
- Windstorm exposures
- Earthquakes
- Fugitive emissions
- Flaring events
- Venting
- Fuel gas use reductions at facilities
- Electrical and energy draws and efficiencies
- Vapour recovery units
- Refrigeration

Risks identified at an asset level are assessed based on the senior management and staff utilizing site-specific aspects as reported by the internal and external parties through site inspection and audit report findings. Site-specific inspections occur regularly by our field operations staff and audits are conducted by internal regulatory and environmental staff with a predetermined schedule. Larger facilities are inspected at least once per year and approximately eight extensive audits are scheduled annually. Approximately 15 to 20 audits are conducted each year by an external third party. The results are recorded within SIMS and are reported company-wide and are available to any staff member that accesses the online system. Additionally, the Manager - S&SR regularly reviews the SIMS results and communicates the results at regular meeting of the Health, Safety, Regulatory and Environment Action and Steering Committees.

#### CC2.1c

#### How do you prioritize the risks and opportunities identified?

Enerplus' prioritizes its identified risk and opportunities through a formal risk assessment process that is a documented systematic review of potential risks, their effects and likelihood. Enerplus' uses a Process Hazard Assessment (PHA) that is a systematic and organized approach to identifying, evaluating and controlling risks. These risks may be associated with events such as fires, explosions, toxic releases due to equipment failures, design errors, natural causes, or human error (e.g., H2S/SO2 exposures, LEL, benzene, NORM's, noise, heat, pressure). The Risk Assessment Matrix is used to identify each risk and to assess the risk with consideration of the severity or potential loss and the likelihood or probability of the risk to people, property, production (e.g., emissions), and environment (e.g., sound, lighting, heat, cold, ventilation, radiation). The potential risk exposure for people, property, production and environment is determined through the matrix. A risk score of one (low) to five (high) is assessed for each category and then a risk ranking is determined.

#### CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

Is o	climate o	change	integrated	into vour	business	strategy?
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Yes

#### CC2.2a

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

(i) Enerplus' business strategy is influenced by the discussions and commitments set forth at the Board of Directors Safety and Social Responsibility (S&SR) Committee, the S&SR Steering Committee and the Health, Safety, Regulatory and Environment Action Committee and the Environment and Sustainability Team. We have a strong value of corporate social responsibility and strive to continue to improve our governance and transparency in this area. We report our environmental performance, including GHG emissions, in our Annual Information Form, the Management and Discussion and Analysis, and voluntarily through the Carbon Disclosure Project, and the Canadian Association of Petroleum Producers Responsible Canadian Energy Stewardship Program.

The Enerplus Board of Directors, leadership, and employees, are committed not only to conducting all of our activities consistent with the environmental regulations that govern the oil and gas industry within each of our operating jurisdictions, but to proactively mitigate our impact on the environment. Our Environment Policy mandates that Enerplus' will "mitigate gas flaring and venting and work to improve the efficiency of our energy consumption and reduce greenhouse gas emissions intensity".

Enerplus' has recognized the need to integrate climate change issues into our business strategy and as a result, we have committed to engaging our internal stakeholders on such issues and ensuring that all of our activities and operations are conducted in compliance with relevant and applicable regulations and with good industry practice. The business strategy is also influenced through Enerplus' Energy Performance Working Group which is directed by a Steering Committee comprised of Executives and Senior Managers.

With respect to management of climate change risks at the operational level, Enerplus has avoidance or mitigative measures in place for the reduction of exposure to and contribution to fugitive emissions, flaring/venting, fuel gas use reductions at facilities, electrical and energy draws and efficiencies, the recovery of vapours during processing. These measures include Standards, Procedures or Process Hazard Assessment with follow through to the Management of Change Process.

- (ii) Aspects of climate change that have influenced this strategy are related to regulatory and operational risk mitigation, improvements in energy performance, and value to various internal and external stakeholders.
- (iii) Enerplus' has several environmental initiatives and programs; many of which either directly or indirectly affect our greenhouse gas emissions inventory. Over the past three years, internal communication and collaboration between business unit functional groups has increased to better understand the GHG inventory, and the parameters in which we can target to reduce GHG emissions. One such change in business processes that occurred in 2013 that affects the GHG inventory is to consider equipment selection from an efficiency and GHG mitigation perspective in the design and construction of new facilities and retrofitting existing facilities (e.g., upgrading flare systems to achieve better combustion efficiency). In addition, we have refined a key information database used to track fugitive emissions information.

- (iv) On a longer term scale (i.e., 5 to 10 years) we are continually increasing the accuracy of our data collection systems used to calculate the GHG emissions inventory and to implement, monitor and track the effectiveness of reduction initiatives towards proactively reducing our direct GHG emission intensity. This data accuracy initiative will be driven by the anticipated carbon regulatory requirements.
- (v) The importance of these changes to the business strategy as it relates to climate change is to bring focus and drive value from implementing energy performance initiatives that consider GHG reductions and to help strengthen communication and action on climate change issues both for our internal and external stakeholders including shareholders. Additionally, reducing operational costs through energy performance initiatives will deliver financial value to our shareholders and engage our employees.
- (vi) Substantial business decisions such as the creation of the internal Energy Performance Working group is highly valuable in creating focused efforts in implementing projects that will drive reductions in the GHG emissions intensity and create long term changes in how new construction or equipment retrofit decisions are made going forward.

The most significant business decision in 2013 was a company initiative to focus on its four core asset areas and non-core divestment strategy. The non-core divestments often included the divestment of less efficient infrastructure that had an influence on our GHG emission intensity. Over the longer-term (i.e.,1 to 5 years), Enerplus' will continue its divestment strategy until its focus is 100% on its core assets, where new and upgraded infrastructure will be implemented.

CC2.2b

Please explain why climate change is not integrated into your business strategy

#### CC2.3

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

Trade associations

CC2.3a

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

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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#### CC2.3b

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

Yes

#### CC2.3c

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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
North American Environmental Management (NAEM	Consistent	Greenhouse Gas reduction is an ongoing priority for companies that want to be environmental and sustainability leaders. Members develop strategies for measuring, managing and reducing emissions. NAEMs solicit feedback and participation in the coordination of policy and compliance reviews. Members also are connected to the largest community of EHS and Sustainability decision-makers through peer-led educational conferences and a private, online knowledge-sharing network.	Enerplus' has seven employees that actively participate in NAEMs leadership, policy positions and events. Our Manager of Safety and Social Responsibility sits on the Board of Regents for NAEMs.
Canadian Heavy Oil Association	Consistent	To support the Canadian Heavy Oil community in providing a sustainable energy source for the worlds energy needs. The CHOA provides collective member position papers on climate issues.	Our Manager of Safety and Social Responsibility is the President of this Association.
CAPP Environment Executive Policy Group	Consistent	Promote Climate policy / GHG regulation being underpinned by competitiveness and technology and innovation considerations, and aligned with a broader national policy framework. Alberta has a sound framework in place for GHG regulation. The federal regulations for the oil and gas sector should build on this foundation and be developed in a manner that addresses the competitiveness of the Canadian oil and gas sector and be compatible with the final form of the Air Quality Management System (AQMS).	Enerplus' actively participates in EPG meetings and provides effective feedback for new policies and regulations are relevant, forward thinking and sustainable.
CAPP Air Regulatory Committee	Consistent	This committee's purpose is to actively monitor, engage in and influence air initiatives affecting the oil and gas industry, and to prioritize and establish air strategies for the CAPP membership.	Enerplus' actively participates in EPG meetings and provides effective feedback for new policies and regulations are

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?
			relevant, forward thinking and sustainable.
CAPP Environment Executive Policy Group	Consistent	The Environment EPG addresses CAPP federal and inter-governmental environmental and regulatory policy issues for the upstream oil and gas industry.	Enerplus' actively participates in EPG meetings and provides effective feedback for new policies and regulations are relevant, forward thinking and sustainable.
Fuel Gas Efficiency Benchmark group	Consistent	This committee is responsible for communicating and monitoring fuel gas efficiency/usage in Alberta and supporting the implementation of efforts to improve fuel gas efficiency and reduce fuel gas consumption.	Enerplus' actively participates in EPG meetings and provides effective feedback for new policies and regulations are relevant, forward thinking and sustainable.
Alberta Executive Policy Group	Consistent	This EPG addresses Alberta environmental and regulatory policy issues for the Upstream Oil and Gas Industry in the province.	Enerplus' actively participates in EPG meetings and provides effective feedback for new policies and regulations are relevant, forward thinking and sustainable.

#### CC2.3d

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

#### CC2.3e

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

#### CC2.3f

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

CC2.3g

Please provide details of the other engagement activities that you undertake

#### CC2.3h

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?

Enerplus' participates with Canadian Association of Petroleum Producers (CAPP) on the Environment Executive Policy Group for Alberta, British Columbia and Saskatchewan –and Environment Aboriginal Affairs and Communication EPGs and on various working committees including the Climate Change Working Group and the National Air Issues Committee. Enerplus' participation in regular CAPP committee and working group meetings allows us the opportunity to dialogue with various levels of governments and agencies (e.g., Environment Canada, Alberta Environment, Alberta Energy Resources, British Columbia Ministry of Environment, and Saskatchewan Ministry of Environment) to shape the regulatory framework for climate change. Along with participating in regular meetings, we actively provide verbal and written feedback to regulators primarily through CAPP groups on new regulation or proposed changes to existing regulations. In addition, for our U.S. business unit, we join with state, regional and federal trade associations to engage and advocate for air emissions regulatory clarity. Feedback received and provided on changing climate regulations is coordinated through the Regulatory Team within Enerplus' where input is solicited from Executives, Facility Engineers, leadership in Operations and members from the Environment and Sustainability Team. This approach ensures that all effectual employees within Enerplus' are engaged and contribute to the overall climate strategy.

CC2.3i

Please explain why you do not engage with policy makers

#### **Further Information**

Page: CC3. Targets and Initiatives

CC3.1

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

No

#### CC3.1a

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

#### CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment

#### CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment

#### CC3.1d

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

ID	% complete (time)	% complete (emissions)	Comment

#### CC3.1e

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

- (i) Enerplus' does not have a specific emissions reduction target due to the alignment with the reporting deadlines of other corporate metrics and the lag time associated with GHG data. For example, corporate metrics are normally reported in January to the Board of Directors for the year prior while the full data set to calculate GHG emissions is not normally available until early February with additional time needed for calculations and validation. The timing of corporate metrics is aligned with the employee compensation cycle. Discussions are underway to determine a Corporate GHG target strategy (e.g., internal GHG target based on a June to June) that would allow us to meet the timing and GHG strategy objectives to reduce emissions year over year.
- (ii) If GHG calculation methodologies and boundaries are constant over the next 5 years and there are no significant divestment or acquisition activities during that time, Enerplus' is currently forecasting a base case GHG emissions (Scope 1) increase of approximately 16% over the next 5 years.

#### CC3.2

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

No

#### CC3.2a

Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party

#### CC3.3

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

Yes

#### CC3.3a

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

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	67	
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	61	3321
Not to be implemented	0	

#### CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Fugitive emissions reductions	Repaired 61 Scope 1 leak and vent fugitive emissions. In parts of our operations, this program is a regulatory requirement while in other jurisdictions, we voluntarily run this program. This is an ongoing initiative with inspections from 3rd parties occurring once per year at each designated facility	3321	42294	137670	<1 year	This is an ongoing process and will continue to reduce fugitive emissions as detected.	

#### CC3.3c

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

Method	Comment
Employee engagement	A survey with employees was conducted to collect energy efficiency ideas in the areas they operate.
Internal incentives/recognition programs	Survey participants competed for a \$500 Visa gift card.
Financial optimization calculations	Employees from across many business units within Enerplus' are members of the Energy Performance Working Group.
Internal finance mechanisms	A Sustainability, Energy and Financial Evaluation Tool has been developed.

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

#### **Further Information**

Page: CC4. Communication

CC4.1

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

Publication	Page/Section reference	Attach the document
In mainstream financial reports (complete)	37-38/ Supplemental Operational Information	https://www.cdp.net/sites/2014/24/5624/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Enerplus AIF2013.pdf
In mainstream financial reports (complete)	38-39/Environmental Regulation	https://www.cdp.net/sites/2014/24/5624/Investor CDP 2014/Shared Documents/Attachments/CC4.1/Enerplus AIF2013.pdf

#### **Further Information**

**Module: Risks and Opportunities** 

Page: CC5. Climate Change Risks

CC5.1

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

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

CC5.1a

Please describe your risks driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	The British Columbia tax on natural gas and oil production and fuels purchased to support this production, is a current and ongoing liability of our B.C. operations as the tax rates rise annually. While we do not currently have a significant amount of production relative to our portfolio in B.C., we do have plans for growth in the	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low- medium	Enerplus' has paid a significant amount in carbon taxes in British Columbia. In 2013, we paid approximately \$967,502 in carbon taxes and we expect this figure to increase slightly over time with the same facility portfolio in BC as the tax rates increase.	To manage this risk, Enerplus' is currently investigating methods in which we can reduce our fuel consumption and increase our energy performance at all sites. One such example would be to use an electricity generating turbine attached to an exhaust stack to reduce dependency on fuel gas used to generate electricity.	The cost associated with these actions is dependent on the specific initiative chosen but could range from a small equipment optimization project (e.g., \$50,000) to a larger scale project such as the electrification of a particular field (e.g., millions of dollars).

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	province and the carbon tax is a consideration of the operational costs associated with new plays.								
Cap and trade schemes	The government of British Columbia is moving towards a cap and trade system although this has been delayed. The allocation of emission allowances below actual emissions and the need to purchase offsets or credits is a risk to Enerplus' and this would increase operational and capital costs (e.g., retrofitting equipment).	Increased capital cost	1 to 3 years	Direct	Likely	Low- medium	It is unknown what the financial implication of the BC Cap and Trade system will be as the government has not yet released information regarding emission allowances and compliance mechanisms	To manage this risk, Enerplus' currently participates with CAPP on the Climate Change Working Group and provides written and verbal feedback on developments towards the BC Cap and Trade model	There is reporting and verification costs associated with the BC GHG regulations but no costs specific to the Cap and Trade system at this time.
Emission reporting obligations	As emission reporting obligations become more complex and detailed, Enerplus' may be required to spend more resources and operational	Increased operational cost	1 to 3 years	Direct	Likely	Low- medium	As emission reporting obligations become more complex, Enerplus' will need to increase staff resources and may need to increase	To manage this risk, Enerplus' has upgraded their GHG emissions database to include all Canadian and U.S. operated facilities as well as to import and track	Depending on the type of data and the level of detail required, this cost may be significant but it remains unknown until there is

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	expenses in the collection of GHG data (including metering and measuring), and analytical data used in calculations. This may significantly increase the administrative burden to Enerplus' and this risk is considered in the alignment of staff and systems management.						the accuracy of data collection technologies. Depending on the type of data and the level of detail required, this cost may be significant but it remains unknown until there is regulatory certainty in particular jurisdictions in which we operate.	data necessary for the source categories. This investment in our database management for GHG emissions had initial costs of approximately \$150,000 with yearly maintenance costs. Beyond this, there have been operational surveys and upgrades of data collection technologies that will continue to be enhanced.	regulatory certainty in particular jurisdictions in which we operate.

## CC5.1b Please describe your risks that are driven by change in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average)	In some of the areas in which we operate, we depend	Increased operational cost	Up to 1 year	Direct	About as likely as not	Low	It is unknown what the financial implication of the	To manage this risk, Enerplus may be required to	There are no costs associated

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
temperature	on cold conditions to allow for vehicular access to our sites via ice roads. Increasing temperatures can reduce the length of time in frozen conditions which will limit winter access to some of our sites						changes in mean temperature will be on our operations as both the weather and activity level of the particular field will change on a daily basis. However, it is expected that operational costs would increase significantly as we access the sites differently and within a more constrained access schedule.	manage a more constrained schedule for service, drilling and completions activities on applicable sites. Additionally, Enerplus may have to provide increased use of other methods of transport to the sites including, for example, the use of helicopters.	with this risk at this time.
Change in precipitation extremes and droughts	Extreme weather conditions such as flooding and drought from extreme changes in precipitation is a risk to Enerplus' operations. Flood conditions prevent access to our sites for normal operation or drilling and completion activities. Additionally, droughts can lead to conditions conducive to	Increased operational cost	Up to 1 year	Direct	Likely	Low	It is unknown what the financial implication of the changes in precipitation extremes and droughts will be on our operations as both the weather and activity level of the particular field will change on a daily basis.	To manage this risk, Enerplus' will have to manage a more constrained schedule for service, drilling and completions activities on sites if applicable. Additionally, Enerplus' has diligently updated Emergency Response Plans and is continually training corporate and field staff on emergency	There are no costs associated with this risk at this time.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	wildfires and this is a significant health and safety risk for our operations.							response procedures	

CC5.1c

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
Changing consumer behaviour	Increasing costs related to the mitigation or adaptation of climate change could impact consumer demand for petroleum products. This is a risk to Enerplus' as we may need to adapt our natural gas and oil relative ratio production amounts to reflect changing consumer demand.	Reduced demand for goods/services	Up to 1 year	Direct	Likely	Low- medium	It is unknown what the financial implication of the changes in consumer behaviour will be as it relates to climate change and petroleum product demand.	To manage this risk, Enerplus' has formed an internal Energy Performance Working Group that is committed to generating viable Energy Performance initiatives as well as increasing communication both internally and externally to our stakeholders.	There are no costs associated with this risk at this time.
Reputation	There is general investor concern	Reduced stock price (market	Up to 1 year	Direct	Likely	Low- medium	It is unknown what the	To manage this risk, Enerplus' has	There are no costs

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
	around GHGs and the oil and natural gas industry as contributors to the global climate change issue. Enerplus' has several programs and initiatives in place to manage GHG data and sources as well as to reduce GHG emissions intensity, but general investor concern in this area remains a source of climate change related risk for Enerplus'.	valuation)					financial implication of reputational risk related to climate change is.	formed an internal Energy Performance Working Group that is committed to generating viable Energy Performance initiatives as well as increasing communication both internally and externally to our stakeholders.	associated with this risk at this time.

#### CC5.1d

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

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

#### CC5.1f

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

#### **Further Information**

Page: CC6. Climate Change Opportunities

#### CC6.1

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

Opportunities driven by changes in regulation

Opportunities driven by changes in physical climate parameters

Opportunities driven by changes in other climate-related developments

#### CC6.1a

Please describe your opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	Emission reporting obligations have increased in the number and complexity over the last several years. This has prompted Enerplus' to invest more time and funds in a comprehensive data management system. This action has enabled increased internal awareness of climate change regulations and risks as well as transparency in data management and calculations.	Other: Increased data quality and internal stakeholder engagement	Up to 1 year	Direct	Virtually certain	Medium- high	Financial benefits derived from opportunities related to emission reporting obligations are not explicit and we are unable to estimate at this time. However, due to the various reporting requirements and the level of engagement necessary to complete these reports, there has been a large amount of interest from various employees to participate in the internal energy performance working group where data generated from these obligations analysed and opportunities for	Enerplus' continues to ensure a high level of quality assurance and checks with regard to emissions data management. This allows for regular engagement with internal employees regarding regulatory changes and preparedness. In addition, as stated above, there has been a large amount of interest from various employees in participating in the energy performance working group to help drive improvement.	Not including internal staff time, maintaining the emissions database and producing emission reports costs approximately \$120,000 annually.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							improvement are identified.		
Carbon taxes	Being taxed on purchased fuels in BC has prompted Enerplus' to improve fuel gas management and to look at ways in which we can reduce purchased fuel amounts or business vehicle travel. One such example is investigating the feasibility of cogeneration of electricity on site. We have also replaced our truck fleet vehicles across the company to vehicles that consume less fuel.	Reduced operational costs	Up to 1 year	Direct	Virtually certain	Low- medium	The financial benefit of generating electricity on sites in BC with a micro-turbine as opposed to utilizing fuel gas has not been quantified at this time as market conditions have changed and this project is still under consideration. However, implementing the change of the fleet vehicles has saved a significant amount of fuel cost for our operations.	Enerplus' continues to look for opportunities across all operations to improve energy performance especially in areas where carbon taxes are increasing operational costs. Through the energy performance working group, we now have a systemized approach to identify, evaluate, implement and track energy performance initiatives.	There was a reduction in the cost of securing ½ ton trucks as opposed to ¾ ton trucks but this quantification isn't currently available

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in temperature extremes	Increased intensity and frequency of weather related issues could disrupt global supply sources and increase the value and demand of Enerplus' oil and gas production in U.S. and Canada.	Increased demand for existing products/services	Up to 1 year	Direct	About as likely as not	Medium	The financial implications of this opportunity are unknown as the likelihood a global disruption in supply beyond North America is about as likely as not. However, the value of the product Enerplus' produces would likely increase in this event.	Given this macro-scale scenario, Enerplus' does not currently manage this potential opportunity.	There are zero costs associated with this potential opportunity.

## CC6.1c Please describe the opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Enerplus' is committed to the responsible development of energy resources in a way that ensures the health and safety of our workers,	Wider social benefits	Up to 1 year	Direct	Very likely	Medium- high	Enerplus' cannot quantify the financial benefits from an enhanced reputation at this time however, it is recognized that	To manage this opportunity, Enerplus' is committed to continually improving both internal and external	It is difficult to provide costs associated with these actions as this is mostly related to the time and dedication of

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	respects the environment, and builds positive, long- term relationships in the community. Increased awareness, communication and engagement in GHG emissions management and energy performance is received positively by our stakeholders and continues to improve Enerplus' social license to operate.						the benefits from this opportunity may include enhanced employee engagement and retention, enhanced social license to operate, and value back to our shareholders.	communication on all environmental initiatives including that of climate change. Last year, we over hauled our entire website to be more user friendly and to include more comprehensive materials regarding safety and social responsibility.	many individual employees and teams at Enerplus'.

#### CC6.1d

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

#### CC6.1e

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

#### CC6.1f

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

#### **Further Information**

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

Page: CC7. Emissions Methodology

CC7.1

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

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Fri 01 Jan 2010 - Fri 31 Dec 2010	486275	192847

#### CC7.2

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

# Please select the published methodologies that you use ISO 14064-1

#### CC7.2a

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

#### CC7.3

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

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other:			

#### **Further Information**

The specific calculation methodologies are taken from the American Petroleum Institute (API) Compendium (2009) as well as the CAPP guide for Calculating Greenhouse Gas Emissions (2003) and the CAPP National Inventory Publication that was produced by Clearstone Engineering (2004). The U.S. GHG values were calculated using the U.S. Environmental Protection Agency GHG reporting rule methodology

Page: CC8. Emissions Data - (1 Jan 2013 - 31 Dec 2013)

CC8.1

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

Operational control

CC8.2

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

616536

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

229564

#### CC8.4

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

Yes

#### CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded
Gaps in our data due to recent acquisitions or capital expenditures on new or existing facilities.	Emissions excluded due to a recent acquisition	Emissions excluded due to a recent acquisition	Enerplus' has a number of facilities across Canada and the U.S. ranging from very small to mid-size. Enerplus' believes that we have captured an accurate representation of facilities necessary for GHG emissions calculations however; there may be gaps in the data due to recent acquisitions or capital expenditures on new or existing facilities. While Enerplus' works diligently at updating this data in a timely manner, there is a potential uncertainty during the calculation of our GHG emissions.
Diesel/propane combustion emissions from drilling/completions activities outside of British Columbia.	Emissions are not evaluated	Emissions are not evaluated	Except for facilities located in British Columbia and in the United States, diesel and propane combustion data for drilling and completions activities is not available in our current data tracking systems.

#### CC8.5

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

Scope 1 emissions: Uncertainty range		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 5% but less than or equal to 10%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management Other: Published Emission Factors	In addition to methodological uncertainty in calculating GHG emissions, there can also be gaps in the data due to recent acquisitions or the investment in new, more efficient equipment. Also, the fugitive and venting emissions remain a source of uncertainty as these volumes are often engineer estimates from equipment specifications rather than metered flows. Emission factors may change due to the gathering of increasingly accurate scientific data. Significant changes to emission factors will change the overall CO2e footprint of Enerplus' operations and as such, Enerplus' strives to maintain a consistent approach in calculating GHG emissions. However, as Provincial, State and Federal regulations on climate change are adopted Enerplus' will comply with the methodology outlined in the specific jurisdiction to calculate GHG emissions.	Less than or equal to 2%	Metering/ Measurement Constraints	There can be some estimation required in Scope 2 emissions as the electrical consumption data may be metered at one location but consumed at several locations elsewhere. Additionally, there can be divisions necessary for non-operated and operated electrical consumption data on the same pad with one meter station.

Third party verification or assurance complete

#### CC8.6a

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

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Reasonable assurance	https://www.cdp.net/sites/2014/24/5624/Investor CDP 2014/Shared Documents/Attachments/CC8.6a/BC Verification Statement 2013 op year.pdf	Verification Statement for 2013, Pg1-13	ISO14064-3	8

#### CC8.6b

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

#### CC8.7

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

No third party verification or assurance

#### CC8.7a

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance  Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 2 emissions verified (%)
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#### CC8.8

Please identify if any data points other than emissions figures have been verified as part of the third party verification work undertaken

Additional data points verified	Comment
No additional data verified	Not verified or assured.

#### CC8.9

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

No

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

#### **Further Information**

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)

CC9.1

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

Yes

#### CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
Canada	359856
United States of America	256680

#### CC9.2

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

By business division By GHG type

# CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)
British Columbia, Canada	48848
Alberta, Canada	218617
Saskatchewan, Canada	92391
Montana, USA	65167
North Dakota, USA	191513

# CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	445785
	6780
	4.1

# CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)

# CC9.2e

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

Legal structure	Scope 1 emissions (metric tonnes CO2e)

# **Further Information**

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)

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

Yes

# CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

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 accounted for CC8.3 (MWh)
Canada	217260	226435	0
United States of America	12304	28629	0

# CC10.2

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

By business division

# CC10.2a

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

Business division	Scope 2 emissions (metric tonnes CO2e)
British Columbia, Canada	0
Alberta, Canada	182740
Saskatchewan, Canada	34520
Montana, USA	11256
North Dakota, USA	1048

# CC10.2b

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

Facility	Scope 2 emissions (metric tonnes CO2e)

# CC10.2c

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

Activity	Scope 2 emissions (metric tonnes CO2e)

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

Legal structure	Scope 2 emissions (metric tonnes CO2e)

# **Further Information**

Page: CC11. Energy

# CC11.1

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

More than 10% but less than or equal to 15%

# CC11.2

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	1371093
Electricity	255064
Heat	0
Steam	0
Cooling	0

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

Fuels	MWh
Propane	4365.1
Diesel/Gas oil	92285.0
Natural gas	1274442.5

# CC11.4

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

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	No purchases or generation of low carbon electricity, heat steam or cooling.

# **Further Information**

**Page: CC12. Emissions Performance** 

# CC12.1

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

Decreased

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	3.19	Decrease	Decreased electrical usage which led to reduction in gross global emissions.
Divestment			
Acquisitions			
Mergers			
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

# CC12.2

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

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e	unit total revenue		N/A	Cannot provide metric as it is difficult to match total revenue to the boundaries of the GHG Inventory.

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric % change from previous denominator year		Direction of change from previous year	Reason for change
1196	metric tonnes CO2e	FTE employee	4	Increase	Intensity increased due to decrease in number of employees.

# CC12.4

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	
0.378	metric tonnes CO2e	unit of production	0.9	Increase	There was a slight increase in intensity as our emission decreased slightly	

**Further Information** 

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No.	and we	do	not	currently	antici	pate	doing	so ir	the	next 2	vears

# CC13.1a

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

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

# CC13.1b

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

# CC13.2

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

# CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

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 cancelled	Purpose, e.g. compliance
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# **Further Information**

Page: CC14. Scope 3 Emissions

# CC14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Relevant, not yet calculated				Enerplus' provides its employees with glasses and mugs to promote waste reduction which relates to reduced emissions.
Capital goods	Relevant, not yet calculated				Where possible, Enerplus' purchases solar panels to operate infrastructure such as chemical injection pumps.
Fuel-and-energy- related activities (not included in Scope 1 or 2)	Relevant, not yet calculated				Where possible, Enerplus' purchases solar panels to operate infrastructure such as chemical injection pumps.
Upstream transportation and distribution	Relevant, not yet calculated				Difficult to obtain this data.
Waste generated in operations	Relevant, not yet calculated				Enerplus' audited it's corporate and field operations for waste generation and will implement a recycling program in its field and corporate offices in 2014.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Business travel	Relevant, calculated	123.3	GHG Protocol's Corporate Value Chain Scope 3 Accounting and Reporting Standard		In 2013, Enerplus' rolled out a Journey Management Standard to its employees. Employees are encouraged to reduce travel by utilizing technology's such as webcam meetings, lync meetings, webinars and other means of communications.
Employee commuting	Relevant, not yet calculated				Enerplus' corporate office is on the C-train line and employees are strongly encouraged to take transit. Enerplus also subsidizes secure bike parking. Employees also participate in the Calgary Corporate Challenge in which some competitors do not use vehicles to commute to work during the event.
Upstream leased assets	Relevant, calculated	3085	Emission factor of 0.01079 tonnes per square feet of office space occupied.		In Calgary we lease 205,000 square feet of office space. Canadian field offices we occupy 30,288. In Denver we lease 39,374 square feet of office space. US field offices occupy 9,347 square feet
Downstream transportation and distribution	Not relevant, explanation provided				This data would be extremely difficult to obtain and quantify.
Processing of sold products	Not relevant, explanation provided				This data would be extremely difficult to obtain and quantify. Additionally, the refinery operator would report the emissions associated with this activity.
Use of sold products	Not relevant, explanation provided				This data would be extremely difficult to obtain and quantify.
End of life treatment of sold products	Not relevant, explanation provided				This data would be extremely difficult to obtain and quantify.
Downstream leased assets	Not relevant, explanation provided				We do not have downstream leased assets.
Franchises	Not relevant, explanation provided				We do not have franchises in our business.
Investments	Not relevant, explanation provided				Although we have working interest in other companies, the operator reports those emissions as emissions are a consequence of the activity of the company, but occurs from sources not owned or controlled by the company.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Other (upstream)	Not evaluated				Not evaluated
Other (downstream)	Not evaluated				Not Evaluated

# CC14.2

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

No third party verification or assurance

# CC14.2a

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

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)
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# CC14.3

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

### CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Other: Reduce business travel through increased IS technology (e.g., online meetings).		Decrease	Emission reduction activities were undertaken by reducing business travel and having more online meetings which let to decrease in emissions

### CC14.4

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

Yes, our suppliers

### CC14.4a

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

Our methods of engagement consist of soliciting relevant information from our suppliers and applying our weighted decision criteria to make a selection. We do not currently engage suppliers on their greenhouse gas emissions and climate change strategies outside of making a product or service decision.

Our strategy for prioritizing engagement with suppliers is based on purchasing on the best overall value to Enerplus for each of the specific high value commodities

we require. This goes beyond the price of acquisition to include the total cost for services including energy components or to operate, maintain and disposal of tangible equipment. To measure success, we build decision criteria specific to the commodity which can include the amount of energy required to operate equipment such as a pick-up truck or a rig, the amount of product required to do a specific job, or the distance material / equipment has to be trucked or services have to be mobilized.

### CC14.4b

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

Number of suppliers	% of total spend	Comment
		Approach of engagement is focused on purchasing high value commodities, not on an ongoing reporting basis by supplier.

### CC14.4c

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
Other	We do not currently engage suppliers on their greenhouse gas emissions and climate change strategies outside of making a product or service decision.

### CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

### **Further Information**

**Module: Sign Off** 

Page: CC15. Sign Off

# CC15.1

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

Name	Job title	Corresponding job category
Kym Fawcett	Manager, Safety and Social Responsibility	Environment/Sustainability manager

# **Further Information**

Module: Oil & Gas

Page: OG0. Reference information

# OG0.1

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

Hydrocarbon group	Gas types in this group
-------------------	-------------------------

# OG0.2

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

Hydrocarbon group	Oil types in this group

OG0.3

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

Hydrocarbon group

Oil types in this group

Page: OG1. Production & reserves by hydrocarbon type - (1 Jan 2013 - 31 Dec 2013)

OG1.1

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

OG1.2

Please provide values for annual production by hydrocarbon type (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization. The values required for 2014 are forward-looking estimates

Product	Production (BOE) - Reporting year	Production (BOE) - 2014 estimate

OG1.3

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

Product	Country/region	Reserves (BOE)	Date of assessment	Proved/Probable/Proved+Probable

- 4	-	0	-	4		à
- (	. )	ι	÷	1	- 4	

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

### OG1.5

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

Hydrocarbon/project	Breakeven cost/BOE	Comment

### OG1.6

Do you conduct any scenario analysis based on a low-carbon scenario consistent with reducing GHG emissions by 80% by 2050 to achieve the 2°C goal in your assessment of the economic viability of proved undeveloped and undeveloped reserves?

### OG1.6a

Please describe your analysis and the implications for your capital expenditure plans

### OG1.6b

Please explain why you have not conducted any scenario analysis based on a low-carbon scenario

# Page: OG2. Emissions by segment in the O&G value chain - (1 Jan 2013 - 31 Dec 2013)

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 Consolidation basis for reporting Scope 1 emissions Scope 2 emissions

### OG2.2

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

### OG2.3

Please provide masses of gross Scope 1 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations by value chain segment. The values required for 2014 are forward-looking estimates

Segment	Gross Scope 1 emissions (metric tonnes CO2e) - Reporting year

Gross Scope 1 emissions (metric tonnes CO2e) - 2014 estimate

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 2014 are forward-looking estimates

Segment	Gross Scope 2 emissions (metric tonnes CO2e) – Reporting year	Gross Scope 2 emissions (metric tonnes CO2e) – 2014 estimate

Page: OG3. Scope 1 emissions by emissions category - (1 Jan 2013 - 31 Dec 2013)

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	

OG3.2

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

### OG3.3

Please provide masses of gross Scope 1 GHG emissions released into the 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 2014 are forward-looking estimates

Category Gross Scope 1 emissions (metric tonnes Gross Scope 1 emissions (metric tonnes CO2e) – Reporting year tonnes CO2e) – 2014 estimate

Page: OG4. Transfers & sequestration of CO2 emissions - (1 Jan 2013 - 31 Dec 2013)

### OG4.1

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

### 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

### 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)

#### 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	CO2 transferred – Reporting year

### 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

### 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

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

### 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)

### 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

Page: OG5. Sales and emissions intensity of production by hydrocarbon type - (1 Jan 2013 - 31 Dec 2013)

### 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 2014 are forward-looking estimates

Product Sales (BOE) - Reporting year Sales (BOE) - 2014 estimate

### OG5.2

Please provide estimated emissions (Scope 1 + Scope 2) intensities for the a) exploration, production and gas processing, b) storage, transportation and distribution, and c) refining associated with different hydrocarbon types based on the current production and operations

Year ending Hydrocarbon type Emissions intensity: exploration, Emissions intensity: storage, transportation & distribution (metric tonnes CO2e per thousand BOE) Emissions intensity: refining (metric tonnes CO2e per thousand BOE)

### OG5.3

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

### OG5.3a

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

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

Page: OG6. Development strategy - (1 Jan 2013 - 31 Dec 2013)

OG6.1

For each relevant capital allocation area, please provide financial information for the reporting year

Capital allocation area Sales generated	Earnings Before Interest, Taxation, Depreciation, Amortization (EBITDA)	Net assets	Capital expenditure	Comment
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### OG6.2

Please describe your future capital expenditure plans for different capital allocation areas

Capital allocation area	Capital Expenditure	Total return expected from capital expenditure investments	Comment

# OG6.3

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

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

### OG7.1a

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

### OG7.2

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

### OG7.2a

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

OG7.3	a			
	Please describe any qu	uantitative or qualitative goals for reducing m	ethane leakage and venting	
OG7.4	ļ			
	Has your organization	published a policy position on the regulation	of methane emissions?	
OG7.4	ła			
	Please attach your orga	anization's published policy position on the r	egulation of methane emissions	
OG7.5	3			
	Does your organization	n inventory and quantify the methane emissio	ns associated with your operations?	
OG7.5	ia			
	Please indicate the pro	portion of methane emissions inventory estin	mated using the following methodologie	s (+/- 5%)
	Methodology	Proportion of total methane emissions estimated with methodology	What area of your operations does this answer relate to?	

Has your organization set quantitative or qualitative goals for reducing methane leakage and venting?

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

### OG7.5c

Please use the following table to report the proportion of your organization's natural gas production that is emitted into 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

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

### OG8.1

Are reduced emission completions relevant to your operations?

### OG8.1a

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

What proportion of completions and work-overs in the reporting year used reduced emission completion technology for these wells?

If gas is not utilized via reduced emission completion technology, please explain if it is flared or vented

What area of your operations does this answer relate to?

### OG8.2

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

### OG8.2a

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

What proportion has technologies in place that reduce methane venting from the liquids unloading process?

If you wish, please add context to this figure

What area of your operations does this answer relate to?

### OG8.3

Does your organization 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)?

### OG8.3a

Please complete the table on high-bleed rate pneumatic controllers

What proportion of the organization'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?

### OG8.4

Are natural gas compressors relevant to your operations?

Please complete the table on natural gas compressors

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?

OG8.4b

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

### OG8.5

### Is associated gas relevant to your organization?

OG8.5a

What is your organization's overall approach for dealing with associated gas in terms of its relative use of venting, flaring and capture (e.g. for sale, reinjection or use as a fuel)? Organizations may differentiate their approach between circumstances where there is/is not a market

OG8.5b

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

CDP