AltaGas Ltd. - Climate Change 2018

C0. Introduction

C0.1

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

AltaGas, a Canadian corporation, is a North American diversified energy infrastructure company with a focus on owning and operating assets to provide clean and affordable energy to its customers. AltaGas has three business segments:

- Gas, which transacts more than 2 Bcf/d of natural gas and includes natural gas gathering and processing, natural gas liquids (NGL) extraction and fractionation, transmission, storage, natural gas and NGL marketing, and the Corporation's indirectly held one-third interest in Petrogas Energy Corp. (Petrogas), through which AltaGas' interest in the Ferndale Terminal is held;
- Power, which includes 1,708 MW of gross capacity from natural gas-fired, hydro, wind, and biomass generation facilities, and energy storage assets located across North America; and
- Utilities, serves over 580,000 customers through ownership of regulated natural gas distribution utilities across North America and a regulated natural gas storage utility in the United States, delivering clean and affordable natural gas to homes and businesses.

As at December 31, 2017, AltaGas' enterprise value exceeded $10 billion. With physical and economic links along the energy value chain, together with its experienced and talented workforce of more than 1,600 people, and its efficient, reliable and profitable assets, market knowledge and financial discipline, AltaGas has provided strong, stable and predictable returns to its investors. AltaGas focuses on maximizing the profitability of its assets, adding services that are complementary to its existing business segments, and growing through the acquisition and development of energy infrastructure.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	December 31 2017	No	<Not Applicable>
Row 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 4	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

C0.3

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

Canada
United States of America

C0.4

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

CAD

C0.5

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

Operational control

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation

Other divisions

Battery storage

C-OG0.7

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

Row 1

Oil and gas value chain

Downstream

Other divisions

Grid electricity supply from gas
Grid electricity supply from renewables
Carbon capture and storage/utilization

C1. Governance

C1.1

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

Yes

C1.1a

(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board/Executive board	AltaGas has four standing committees of the Board of Directors: (1) Audit, (2) Governance, (3) Human Resources and Compensation (HRC) and (4) EOH&S. The Board of Directors Environment, Occupational Health and Safety Committee (“EOHS Committee”) is responsible for climate-related issues. The committee makes recommendations to the Board of Directors on AltaGas' policies and procedures with respect to EOH&S.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Board of Directors oversees the development, adoption and implementation of the Corporation's strategies and plans. In addition to its general powers and responsibilities, the Board's responsibilities include: • Establishing a code of business ethics, encouraging a culture of ethical business conduct throughout the organization and monitoring compliance with the code of business ethics by the directors, officers and employees of the Corporation and its subsidiaries; • Participating in the Corporation's strategic planning process on an annual basis, including an examination of the opportunities and risks of the business of the Corporation and its subsidiaries; • Identifying and understanding the principal risks associated with the Corporation's business and reviewing and approving the implementation of systems to manage such risks; • Overseeing management development and succession planning through the Human Resources and Compensation Committee of the Board of Directors; • Establishing policies for communicating with Shareholders and others and for receiving comment from Shareholders and others; • Reviewing the effectiveness of the Corporation's internal control and management information systems; • Developing the Corporation's approach to governance through the Governance Committee of the Board of Directors; • As requested by the Board of Directors, overseeing finance, accounting, audit, financial risk and financial control matters through the Audit Committee of the Board of Directors; • Overseeing environment, occupational health and safety matters through the Environment, Occupational Health and Safety Committee of the Board of the Directors; • The general review of the Corporation's results of operations, including the evaluation of the general and specific performance of the Chief Executive Officer and management; • The review of AltaGas' consolidated financial and operational status and performance; and • Comprehensive review and approval of AltaGas' budget and plan for AltaGas and its affiliates.

C1.2

(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.

The Chief Executive Officer (CEO) is the highest-level management position below the board level. The EOHS committee is responsible for reporting climate related issues to the board, but because the CEO is ultimately responsible to deliver on AltaGas' strategy, overall management of climate related risk and opportunities becomes the responsibility of the CEO.

C1.3

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

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

Who is entitled to benefit from these incentives?

All employees

Types of incentives
Monetary reward

Activity incentivized
Emissions reduction project

Comment
Incentive targets are a combination of business profit and individual performance measures. Individual performance targets are determined by employee role. Individual performance objectives must align to AltaGas Core Values, which are presented below: 1. Safety and Environment 2.People 3. Social Responsibility 4. Business Excellence 5. Growth.

Who is entitled to benefit from these incentives?
All employees

Types of incentives
Monetary reward

Activity incentivized
Emissions reduction target

Comment
Incentive targets are a combination of business profit and individual performance measures. Individual performance targets are determined by employee role. Individual performance objectives must align to AltaGas Core Values, which are presented below: 1. Safety and Environment 2.People 3. Social Responsibility 4. Business Excellence 5. Growth.

Who is entitled to benefit from these incentives?
Environment/Sustainability manager

Types of incentives
Monetary reward

Activity incentivized
Energy reduction project

Comment
A few of the key performance drivers for the Vice President of Environment, Health, Safety, Security and Sustainability included measurement, reporting and compliance (including meeting emission reduction targets) with regional and federal climate change programs, such as: (i)Alberta's Specified Gas Reporting Regulation, (ii) Alberta's Specified Gas Emitters Regulation, (ii)British Columbia's Greenhouse Gas Reduction Act, Reporting Regulation, (iii) Canada's Greenhouse Gas Emissions Reporting Program, and (iv) California's Global Warming Solutions Act and the United States Environmental Protection Agency's Greenhouse Gas Reporting Program. Other drivers included ensuring AltaGas has a strong integrated Environmental Management System in place, along with supporting procedures, policies, and programs to best protect our employees, the environment, and the communities where we work.

Who is entitled to benefit from these incentives?
Environment/Sustainability manager

Types of incentives
Monetary reward

Activity incentivized
Other, please specify (Compliance)

Comment
A few of the key performance drivers for the Vice President of Environment, Health, Safety, Security and Sustainability included measurement, reporting and compliance (including meeting emission reduction targets) with regional and federal climate change programs, such as: (i)Alberta's Specified Gas Reporting Regulation, (ii) Alberta's Specified Gas Emitters Regulation, (ii)British Columbia's Greenhouse Gas Reduction Act, Reporting Regulation, (iii) Canada's Greenhouse Gas Emissions Reporting Program, and (iv) California's Global Warming Solutions Act and the United States Environmental Protection Agency's Greenhouse Gas Reporting Program. Other drivers included ensuring AltaGas has a strong integrated Environmental Management System in place, along with supporting procedures, policies, and programs to best protect our employees, the environment, and the communities where we work.

Who is entitled to benefit from these incentives?
Chief Executive Officer (CEO)

Types of incentives
Monetary reward

Activity incentivized
Emissions reduction project

Comment
Compensation programs and payouts for the Chief Executive Officer are strongly aligned with the achievement of AltaGas' strategy. Performance of executives forms a foundation on which all decisions to award compensation are based. The compensation program is designed to motivate management to operate the business in a safe, environmentally responsible and cost effective manner, focusing on the longer term, and on providing the superior returns and social value that Shareholders expect.

Who is entitled to benefit from these incentives?
Chief Executive Officer (CEO)

Types of incentives
Monetary reward

Activity incentivized
Efficiency project

Comment
Compensation programs and payouts for the Chief Executive Officer are strongly aligned with the achievement of AltaGas' strategy. Performance of executives forms a

foundation on which all decisions to award compensation are based. The compensation program is designed to motivate management to operate the business in a safe, environmentally responsible and cost effective manner, focusing on the longer term, and on providing the superior returns and social value that Shareholders expect.

C2. Risks and opportunities

C2.1

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

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	6	
Long-term	6	10	

C2.2

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

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

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

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	

C2.2b

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

Company Level: Our risk management is governed by the Board of Directors, who are responsible for identifying, and understanding the principal risks associated with AltaGas' business and reviewing and approving the implementation of systems to manage risks. The board of directors receives reports on risk matters from both the committees of the board of directors and from management. The duties and responsibilities of the Board of Directors Audit Committee is the oversight of risk management, including a review of the Corporation's major risks, a review of the method of risk analysis by the Corporation, and review of the strategies, policies and practices in place for risk management. AltaGas actively manages its exposure to risk by focusing on mitigating measures that are required to reduce or eliminate risk to acceptable and manageable levels.

Asset Level: Risks/opportunities are integrated into long-term and short-term plans as well as the budget for each facility, which includes a price for carbon and regulatory assumptions. This process ensures such costs are included in the planning and or operation of each asset. AltaGas conducts operational assessments at our facilities to highlight emission reduction opportunities and to increase site efficiency. Following annual greenhouse gas reporting, potential improvement opportunities are reviewed and implemented where appropriate.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	AltaGas' businesses are subject to extensive and complex laws and regulations in the jurisdictions in which they carry on business. Regulations and laws are subject to ongoing policy initiatives. Some of AltaGas' significant facilities are subject to current climate change regulations. The direct or indirect costs of compliance with these regulations may have a material adverse effect on AltaGas' business, financial condition, results of operations and prospects. AltaGas' business could also be indirectly impacted by laws and regulations that affect its customers or suppliers; to the extent such changes result in reductions in the use of natural gas by its customers or limit the operations of, or increase the costs faced by producers. To mitigate the risk around current climate change regulation, AltaGas forecasts expected future carbon pricing and incorporate that into its strategic plans. AltaGas also focuses on emissions reductions, energy efficiency and technology deployment to aid with risk mitigation. An example of Current Regulation Considerations impacting AltaGas' Business: Gas - Specified Gas Emitters Regulation (SGER) - The SGER under the Climate Change and Emissions Management Act (Alberta) took effect on July 1, 2007 and was amended in June of 2015. The regulation applied to large emitter facilities with direct emissions totaling 100,000 tonnes or more of carbon dioxide equivalent per annum. AltaGas' Harmattan and the Gordondale Facility were considered large emitters under the SGER and as at December 31, 2017.
Emerging regulation	Relevant, always included	Changes in the regulatory environment may be beyond AltaGas' control and may significantly affect AltaGas' businesses, results of operations and financial conditions. Some of AltaGas' significant facilities may be subject to future provincial or federal climate change regulations or both. The direct or indirect costs of compliance with these regulations may have a material adverse effect on AltaGas' business, financial condition, results of operations and prospects. AltaGas' business could also be indirectly impacted by laws and regulations that affect its customers or suppliers; to the extent such changes result in reductions in the use of natural gas by its customers or limit the operations of, or increase the costs faced by producers. AltaGas continuously monitors proposed changes to climate change policy and regulations in order to identify, quantify, and manage material risks. Where risks are material, we comment on proposals independently, as well as through our industry associations. An example of emerging regulation considerations impacting AltaGas' Business: Carbon Competitive Incentive Regulation (CCIR) - Alberta will transition from the current SGER to a carbon competitive system in January 2018. On January 1, 2018, the CCIR took effect, as a new regulation under the Climate Change and Emissions Management Act, replacing the SGER in Alberta. Under the CCIR, benchmarks are set relative to high-performing industry peers or competitors who produce the same or similar products. Both the Harmattan and Gordondale Facility are considered large final emitters under the CCIR. Details regarding this program are still being defined. AltaGas continues to monitoring developments to determine how its facilities' compliance costs will be impacted.
Technology	Relevant, always included	Technological improvements or innovations that support the transition to a lower-carbon economic system can affect AltaGas customers or suppliers; to the extent such changes result in reductions in the use of natural gas by its customers or limit the operations of, or increase the costs faced by producers. AltaGas mitigates this risk by ensuring diversification of assets across the Gas, Power and Utilities Divisions. AltaGas also under takes extensive studies to support investment decisions. AltaGas has mitigated this risk and recognized the opportunities and financial rewards in developing a green energy business. AltaGas has also made significant investment in cleaner technologies such as cogeneration, natural gas-fired power generation, Carbon Capture and Storage projects, as well as continual operational improvements across the AltaGas Enterprise to help mitigate strict emission requirements across AltaGas businesses. AltaGas' ability to capitalize on changing demand for clean energy products was fully demonstrated in 2016 when AltaGas safely commissioned the Pomona Energy Storage Facility, located at AltaGas' existing Pomona facility in Southern California.
Legal	Relevant, always included	In the course of its business, AltaGas is subject to lawsuits and other claims. Defence and settlement costs associated with such lawsuits and claims can be substantial, even with respect to lawsuits and claims that have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal proceeding could have a material adverse effect on the financial position or operating results of AltaGas. AltaGas mitigates litigation risks through proactive management of lawsuits and other claims, continuous monitoring of defense and settlement cost of lawsuits and claims, maintain a strong in-house legal department, and use of expert third parties when needed.
Market	Not relevant, included	AltaGas is exposed to market risks resulting from fluctuations in commodity prices and interest rates, in both North American markets and, with respect to the LNG and LPG export business, offshore markets. In these markets commodity supply and demand is affected by a number of factors including, without limitation, the amount of the commodity available to specific market areas either from the wellhead or from storage facilities, prevailing weather patterns, the U.S., Canadian and Asian economies, the occurrence of natural disasters and pipeline restrictions. The fluctuations in commodity prices are beyond AltaGas' control and, accordingly, could have a material adverse effect on AltaGas' business, financial condition and cash flow. AltaGas manages this risk through various strategies and organizational capabilities. Some examples would include long term contracts, strategically locate facility operations, and maintain diversification across AltaGas' businesses. This list is not exhaustive for this category. Additional risk factors and mitigation strategies are listed in the AltaGas Annual Information Form, which can be found on our website.
Reputation	Relevant, always included	AltaGas places great importance on establishing and maintaining positive relationships with its stakeholders, including, without limitation, within the communities in which AltaGas operates, local Aboriginal groups and regulators. There is an increasing level of public concern relating to the perceived effect of natural resources activities, including, without limitation, exploration, development, production, processing and transportation, on certain environmental and social aspects such as air and water quality, noise, dust, land and ecological disturbance, employment and economic development opportunities. Opposition to natural resources activities by communities or Aboriginal groups may ultimately impact AltaGas, including its ability to obtain or maintain permits, its operations, and its reputation. Publicity adverse to AltaGas' operations, AltaGas' partners, or others operating in the energy industry generally, could have an adverse effect on AltaGas and its operations. Reputation is central to AltaGas' relationships in the communities that we operate and directly affects our ability to do business, both today and in the future. We mitigate this risk through proactive stakeholder relations and communication and by building strong working relationships with Aboriginal peoples, stakeholders, and regulators.
Acute physical	Relevant, always included	AltaGas' run-of-river hydroelectric power projects may be subject to significant variations in the river flow necessary for power generation. AltaGas relies on hydrological studies and data to confirm that sufficient water flow is available to generate sufficient electricity to determine the economic viability of its projects. There can be no assurance that the long-term historical water availability will remain unchanged or that no material hydrologic event will impact the hydrologic conditions that exist within the watersheds. Annual and seasonal deviations from the long-term average can be significant. AltaGas pays rent for its water rights. Significant increases in rental costs in the future or changes in the way water rights are granted could have a material adverse effect on AltaGas' business, operating results, financial condition or prospects. AltaGas' wind power projects may be subject to significant variations in wind which could affect the amount of power generated. AltaGas relies on wind studies and data to confirm that sufficient wind flows are available to generate sufficient electricity to determine the economic viability of its projects. Ice can accumulate on wind turbine blades in the winter months. Extreme cold temperatures and the accumulation of ice on wind turbine blades, caused by a number of factors, including temperature, ambient humidity and wind, can impact the ability of wind turbines to operate effectively and could result in the wind turbine experiencing more down-time potentially reducing the life expectancy of the wind turbine and generation revenue. There can be no assurance that the long-term historical wind patterns will remain unchanged. Annual and seasonal deviations from the long-term average can be significant. The utilities and natural gas distribution business is highly seasonal, with the majority of natural gas demand occurring during the winter heating season, the length of which varies in each jurisdiction in which AltaGas' utilities operate. Natural gas distribution revenue during the winter typically accounts for the largest share of annual revenue in the Utilities business. There can be no assurance that the long-term historical weather patterns will remain unchanged. Annual and seasonal deviations from the long-term average can be significant.
Chronic physical	Relevant, always included	AltaGas' businesses are subject to the risks normally associated with the operation and development of natural gas, NGL, LNG, LPG and power systems and facilities, including, without limitation, mechanical failure, transportation problems, physical degradation, operator error, manufacturer defects, sabotage, terrorism, failure of supply, weather, wind or water resource deviation, catastrophic events and natural disasters, fires, floods, explosions, earthquakes and other similar events. Unplanned outages or prolonged downtime for maintenance and repair typically increase operation and maintenance expenses and reduce revenues. The occurrence or continuation of any of these events could increase AltaGas' costs and reduce its ability to process, store, transport, deliver or distribute natural gas, NGLs, LNG and LPG, or generate or deliver power. AltaGas manages this risk by having a geographically diverse energy business with a focus on investing in, and operating infrastructure to provide, clean and affordable energy to our customers in North America. Having a well-diversified portfolio of assets across three businesses reduces exposure to chronic physical risks.
Upstream	Relevant, always included	AltaGas businesses are subject to “upstream” risk at various places across its value chain. Maintaining a diversified business across three business division (Gas, Power, and Utilities) helps to mitigate those risks. Upstream risk associated with AltaGas businesses could be related to sufficient water flow available to generate electricity at our run-of-river hydroelectric power projects or sufficient wind flows to generate sufficient electricity at our wind power projects.
Downstream	Relevant, always included	AltaGas businesses are subject to “downstream” risk at various places across its value chain. Maintaining a diversified business across three business division (Gas, Power, and Utilities) helps to mitigate those risks. Downstream risk associated with AltaGas businesses could be related to emerging regulations and the impact that may have on consumer behavior, which could result in the reduction in the use of natural gas or limit the operations of, or increase the costs faced by producers.

C2.2d

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

The Board of Directors participates in the corporation's strategic planning process on an annual basis, including the examination of the opportunities and risks of the Corporation and its subsidiaries. Identifying and understanding the principal risks associated with the Corporation's business and reviewing and approving the implementation of systems to manage such risks are also the responsibility of the Board of Directors. AltaGas seeks to optimize risk and reward, ensuring that returns are commensurate with the level of risk assumed. Risks and opportunities that have been identified at the company and asset level are prioritized by assessing the impact of the risk and opportunity on our overall Strategy. In practice, risks and opportunities are collected and assessed throughout the year following our Risk Management Process and are consulted as the strategic plan is updated. Material risks and opportunities surface as our short-term and long-term strategic plan is updated. High priority is given to opportunities that encourage Strategy implementation. As well, high priority is given to risks that could prevent Strategy implementation.

Examples of AltaGas' management processes regarding transitional risks and opportunities is the shift towards sources of clean and renewable power generation. Following the termination of the Sundance B PPAs (Coal Power), AltaGas has fully transitioned its Power segment to be a 100 percent clean energy provider. AltaGas' ability to capitalize on changing demand for clean energy products was fully demonstrated in 2016 when AltaGas safely commissioned the Pomona Energy Storage Facility, located at AltaGas' existing Pomona facility in Southern California.

An Example of AltaGas' management process regarding Physical risks and opportunities is the development of our Run-a-River Hydroelectric facilities in the province of British Columbia. As part of its climate change adaptation strategy, British Columbia (BC) Hydro has undertaken internal studies and worked with some of the world's leading scientists in climatology, glaciology, and hydrology to determine how climate change affects water supply and the seasonal timing of reservoir inflows, and what we can expect in the future. The published document titled "the potential impacts of climate change on BC Hydro- Managed Water Resources", predicts Precipitation in winter, spring, and fall will likely increase in all of BC Hydro's watersheds under all emission scenarios, which will likely see a modest increase in annual water supply for hydroelectric generating facilities. When AltaGas designed its Run-a-River Hydroelectric facilities hydrological studies and models were used that incorporated climate change predictions.

C2.3

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

C2.3a

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

Identifier
Risk 1

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

Risk type
Transition risk

Primary climate-related risk driver
Policy and legal: Increased pricing of GHG emissions

Type of financial impact driver
Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description
Following the ratification of the Paris agreement, domestic governments are gearing up to implement regulatory changes that will allow for those countries to meet their committed reduction targets. The Government of Canada formally announced the Pan-Canadian Framework on Clean Growth and Climate Change. As a result, the federal government plans to introduce new legislation and regulations to implement a carbon pollution pricing system, to be applied in provinces and territories that do not have a carbon pricing system that aligns with the federal benchmark. The federal carbon pollution pricing scheme will be composed of two elements, both of which may impact AltaGas' business: • A carbon levy applied to fossil fuels; and • An output based pricing system for industrial facilities that emit above a certain threshold, with an opt-in capability for smaller facilities with emissions below the threshold. The output based pricing system is expected to apply to all industrial facilities that emit 50,000 tonnes or more of carbon dioxide equivalent emissions (CO_2e) per year. AltaGas has two processing facilities that would exceed the 50,000 tonnes of CO_2e per year threshold. These two facilities were previously regulated under the SGER in Alberta; and will continue to be regulated under the CCIR in Alberta. The carbon pricing scheme in Alberta is expected to align to the federal benchmark. The carbon levy and the output-based pricing system will not come into effect before January 1, 2019. Carbon pricing legislation is expected to be introduced by the federal government in 2018; giving the provinces until September 2018 to submit their own carbon pricing plans. The provinces of Ontario, Quebec, Alberta and British Columbia, have already adopted carbon pricing plans, but the current price limit in each of those provinces is well below the minimum $50 per tonne level required in 2023 as proposed by the federal government. The impact of a federal carbon pricing structure is expected to be varied across AltaGas' business segments as the pricing structure catches up with provincial carbon pricing models already in place. The immediate carbon tax impact on AltaGas will mainly impact AltaGas' Gas and Power segments, while AltaGas' utilities are expected to pass-through carbon tax to their customers.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Low

Potential financial impact
4000000

Explanation of financial impact
As International agreements evolve, increased regulation is expected to be the tactic that will be employed by governments to meet its reduction commitments. It remains unclear how federal regulations and provincial/state regulations will interact and which of the two will set precedent. Near impact on AltaGas as a result of the Pan-Canadian Carbon Tax announcement is estimated at less than ~$4M.

Management method
AltaGas continuously monitors proposed changes to environmental policy and regulations in order to identify, quantify, and manage material risks. Where risks are material, we comment on proposals independently, as well as through our industry associations.

Cost of management
0

Comment
There are no incremental costs associated with management of this risk; it is seen as an inherent part of management.

Identifier
Risk 2

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

Risk type
Physical risk

Primary climate-related risk driver
Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact driver
Reduced revenues from lower sales/output

Company- specific description
A change in the amount of precipitation could impact the economic performance of our Northwest Hydro Facilities (195 MW Forrest Kerr hydro facility, 16 MW Volcano Creek hydro facility, 66 MW McLymont Creek hydro facility). A decrease in precipitation will result in lower snowpack and decreased river flows, lowering power production and decreasing financial performance.

Time horizon
Long-term

Likelihood
Unlikely

Magnitude of impact
Low

Potential financial impact
1000000

Explanation of financial impact
Business interruptions resulting from change in mean precipitation could impact revenue and increase operating cost. The exact financial impact depends on the affected facilities, market conditions, etc. The financial impact listed is included to recognize there is a potential financial impact to AltaGas' business but the value should not be considered to be an accurate representation of the financial impact associated with this risk.

Management method
AltaGas designed these facilities based on hydrological studies and models that incorporated climate change predictions. Hydrological studies and data are also used throughout operations to confirm that sufficient water flow is available to generate adequate electricity to determine the economic viability of its projects. We have legal contracts in place that address incidents of Force Majeure, in order to protect AltaGas.

Cost of management
0

Comment
Significant capital investments have been made to diversify our portfolio of assets and reduce our overall exposure to physical climate change risk. In the last few years, AltaGas has made more than $2.0B (est.) in capital investments, to diversify our power generation assets. Generally, the cost of management is integrated into existing operational budgets.

Identifier
Risk 3

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

Risk type
Transition risk

Primary climate-related risk driver
Reputation: Shifts in consumer preferences

Type of financial impact driver
Reputation: Reduced revenue from decreased demand for goods/services

Company- specific description
AltaGas recognizes the importance of its image in the community. Being viewed as part of the community is critical to the organization's success and is a key component of AltaGas' sustainability framework. Reputation is central to AltaGas' relationships in the communities that we operate and directly affects our ability to do business, both today and in the future.

Time horizon
Short-term

Likelihood

About as likely as not

Magnitude of impact
Medium

Potential financial impact
0

Explanation of financial impact
The financial impact is the potential of having reduced operations, the inability to do business, and get new projects permitted and or approved. This has a potentially negative financial impact which is difficult to quantify.

Management method
We manage this risk through increased communication with customers, regulators, investors and our key stakeholders about the company's plans to focus on investing in, and operating infrastructure to provide, clean and affordable energy.

Cost of management
0

Comment
AltaGas devotes a significant number of resources towards building long-term relationships, as well as protecting reputational risks. Costs of these activities are embedded in a wide range of departments, divisions and project management teams across AltaGas.

C2.4

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

C2.4a

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

Identifier
Opp1

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

Opportunity type
Products and services

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

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

Company- specific description
AltaGas falls under regulatory regimes that incentivize investments in projects that reduce carbon emission. AltaGas has been, and continues to be, well positioned to develop a portfolio of offset projects that have provided a supply of emission offsets and emission performance credits (with revenue streams or otherwise net project savings), which are used to reduce AltaGas' annual greenhouse gas compliance cost. Should other jurisdictions advance with similar regulations, AltaGas would be well positioned to take advantage of those offset project opportunities.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium-low

Potential financial impact
2250000

Explanation of financial impact
Greenhouse gas emission regulations provide AltaGas with the opportunity to generate emission offset credits and emission performance credits. AltaGas currently uses internally generated credits to minimize its greenhouse gas compliance costs and exposure. In 2017, AltaGas facilities generated 74,874 tonnes of CO_2e credits (value: ~$2.25M). Over the life cycle of these emission reduction projects AltaGas has generated between 15-20 million dollars' worth of credits.

Strategy to realize opportunity
We manage this opportunity by developing offset projects at facilities that we own and operate. Before construction of a new facility, or retrofitting an older facility, an efficiency review is conducted to best determine operational benefits from emission reduction projects.

Cost to realize opportunity
10000000

Comment
Managing a portfolio of greenhouse gas assets and liabilities requires the time and effort of 3 FTEs (Full Time Equivalents) at a cost of ~$325,000. Offset projects undertaken to date have cost in excess of ~ $10MM.

Identifier

Opp2

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

Opportunity type
Products and services

Primary climate-related opportunity driver
Ability to diversify business activities

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

Company- specific description
As part of its climate change adaptation strategy, BC Hydro has undertaken internal studies and worked with some of the world's leading scientists in climatology, glaciology, and hydrology to determine how climate change affects water supply and the seasonal timing of reservoir inflows, and what we can expect in the future. The published document titled "the potential impacts of climate change on BC Hydro-Managed Water Resources", predicts Precipitation in winter, spring, and fall will likely increase in all of BC Hydro's watersheds under all emission scenarios, which will likely see a modest increase in annual water supply for hydroelectric generating facilities. AltaGas designed its hydroelectric facilities based on hydrological studies and models that incorporated climate change predictions. Hydrological studies and data are also used throughout operations to confirm that sufficient water flow is available to generate adequate electricity to determine the economic viability of its projects.

Time horizon
Current

Likelihood
Virtually certain

Magnitude of impact
Medium-high

Potential financial impact
2600000000

Explanation of financial impact
AltaGas Northwest British Columbia Hydro Electric Facilities has a fair market value of over 2.6 billion (as of June 13, 2018).

Strategy to realize opportunity
AltaGas designed these facilities based on hydrological studies and models that incorporated climate change predictions. Hydrological studies and data are also used throughout operations to confirm that sufficient water flow is available to generate adequate electricity to determine the economic viability of its projects.

Cost to realize opportunity
1000000000

Comment
AltaGas has invested approximately $1 billion in the Northwest Hydro Facilities, which includes numerous operational and mechanical facility improvements focused on increased efficiency and reliability. The continued improvements particularly at Forrest Kerr enhance value by positioning the assets to operate under a wider variety of environmental conditions.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Customer

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

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

Company- specific description
Consumers, driven by increased awareness of climate change and other environmental issues, are gradually making a shift to cleaner burning fuel and/or renewable energy for their energy choices. As consumers make a switch to cleaner burning fossil fuels and/or renewable energy, AltaGas is well positioned to take advantage of the increasing demand for these types of energy across our diversified asset portfolio.

Time horizon
Current

Likelihood
About as likely as not

Magnitude of impact
Medium

Potential financial impact
0

Explanation of financial impact
AltaGas is positioned to meet growing energy demand by supplying the market with clean, renewable electricity generation as well as deliver clean and affordable natural gas to our end-use customers. It is difficult at this time to provide an exact monetary figure associated with this opportunity.

Strategy to realize opportunity
To take advantage of this opportunity, AltaGas continues to make investments in renewable energy in Canada and the United States, as part of a long term strategy to reduce the carbon intensity of our power generation. Heritage Gas offers customers the ability to switch from CO2e intensive heating fuel (bunker crude) to clean energy, such as natural gas.

Cost to realize opportunity
1300000000

Comment
AltaGas will continue to diversify its energy business with a focus on investing in, and operating infrastructure to provide, clean and affordable energy to our customers in North America. In the last few years AltaGas has invested ~(1.3 B)in capital investments in renewable power generation assets and has various projects ongoing or being evaluated.

C2.5

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

	Impact	Description
Products and services	Impacted	Risk - AltaGas recognizes the importance of its image in the community. Being viewed as part of the community is critical to the organization's success and is a key component of AltaGas' sustainability framework. Reputation is central to AltaGas' relationships in the communities that we operate and directly affects our ability to do business, both today and in the future. The financial impact is the potential of having reduced operations, the inability to do business, and get new projects permitted and or approved. This has a potentially negative financial impact which is difficult to quantify. AltaGas devotes a significant number of resources towards building long-term relationships, as well as protecting reputational risks. Costs of these activities are embedded in a wide range of departments, divisions and project management teams across AltaGas. Opportunity - AltaGas falls under regulatory regimes that incentivize investments in projects that reduce carbon emission. AltaGas has been, and continues to be, well positioned to develop a portfolio of offset projects that have provided a supply of emission offsets and emission performance credits (with revenue streams or otherwise net project savings), which are used to reduce AltaGas' annual greenhouse gas compliance cost. Should other jurisdictions advance with similar regulations, AltaGas would be well positioned to take advantage of those offset project opportunities. Greenhouse gas emission regulations provide AltaGas with the opportunity to generate emission offset credits and emission performance credits. AltaGas currently uses internally generated credits to minimize its greenhouse gas compliance costs and exposure. In 2017, AltaGas facilities generated 74,874 tonnes of CO2e credits (value: ~$2.25M). Over the life cycle of these emission reduction projects AltaGas has generated between 15-20 million dollars' worth of credits. We manage this opportunity by developing offset projects at facilities that we own and operate. Before construction of a new facility, or retrofitting an older facility, an efficiency review is conducted to best determine operational benefits from emission reduction projects.
Supply chain and/or value chain	Not yet impacted	Extreme weather events could impact AltaGas' supply chain which would limit our ability to secure product supply. The magnitude of the impact could be medium. The timeline of impact is long-term
Adaptation and mitigation activities	Not yet impacted	A change in the amount of precipitation could impact the economic performance of our Northwest Hydro Facilities (195 MW Forrest Kerr hydro facility, 16 MW Volcano Creek hydro facility, 66 MW McLymont Creek hydro facility). A decrease in precipitation will result in lower snowpack and decreased river flows, lowering power production and decreasing financial performance. Business interruptions resulting from change in mean precipitation could impact revenue and increase operating cost. The exact financial impact depends on the affected facilities, market conditions, etc. The impact of 1 M is estimated but shouldnt be considered an accurate estimate. AltaGas designed these facilities based on hydrological studies and models that incorporated climate change predictions. Hydrological studies and data are also used throughout operations to confirm that sufficient water flow is available to generate adequate electricity to determine the economic viability of its projects. We have legal contracts in place that address incidents of Force Majeure, in order to protect AltaGas.
Investment in R&D	Not yet impacted	As technology advances AltaGas may be required to invest in R&D but this has not been impacted to date. Magnitude of impact is low and the timeline is long term.
Operations	Impacted	The impact of a federal carbon pricing structure is expected to be varied across AltaGas' business segments as the pricing structure catches up with provincial carbon pricing models already in place. The immediate carbon tax impact on AltaGas will mainly impact AltaGas' Gas and Power segments, while AltaGas' utilities are expected to pass-through carbon tax to their customers. As International agreements evolve, increased regulation is expected to be the tactic that will be employed by governments to meet its reduction commitments. It remains unclear how federal regulations and provincial/state regulations will interact and which of the two will set precedent. Near impact on AltaGas as a result of the Pan-Canadian Carbon Tax announcement is estimated at less than ~$4M. AltaGas continuously monitors proposed changes to environmental policy and regulations in order to identify, quantify, and manage material risks. Where risks are material, we comment on proposals independently, as well as through our industry associations.
Other, please specify	Please select	

C2.6

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

	Relevance	Description
Revenues	Impacted	AltaGas has also recognized the opportunities and financial rewards in developing a green energy business. AltaGas is invested in a diversified portfolio of renewable energy assets that reduce the corporations overall carbon footprint and are focused on meeting North America's increasing demand for clean energy. The magnitude of impact is medium.
Operating costs	Impacted for some suppliers, facilities, or product lines	AltaGas falls under regulatory regimes that incentivize investments in projects that reduce carbon emission. AltaGas has been, and continues to be, well positioned to develop a portfolio of offset projects that have provided a supply of emission offsets and emission performance credits (with revenue streams or otherwise net project savings), which are used to reduce AltaGas' annual greenhouse gas compliance cost. Should other jurisdictions advance with similar regulations, AltaGas would be well positioned to take advantage of those offset project opportunities. Magnitude of impact is medium-low.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	In the last few years AltaGas has invested ~(1.3 B)in capital investments in renewable power generation assets and has various projects ongoing or being evaluated. Magnitude is medium.
Acquisitions and divestments	Not yet impacted	The Corporation continually assesses the macro and micro-economic trends impacting its business and seeks opportunities to generate value for shareholders, including through acquisitions, dispositions or other strategic transactions. Magnitude of impact medium. Timeline is medium to long term.
Access to capital	Not impacted	Integral to AltaGas' strategy is maintaining financial strength and flexibility, an investment grade credit rating, and ready access to capital markets. Financial discipline and effective risk management are fundamental cornerstones of the Corporation's strategy. Magnitude of impact could be medium to high. Timeline is medium to long term.
Assets	Not impacted	Assets are not currently impacted. Magnitude is estimated to be medium with a timeline of medium to long-term.
Liabilities	Not impacted	Liabilities are not currently impacted. Magnitude is estimated to be medium with a timeline of medium to long-term.
Other	Please select	

C3. Business Strategy

C3.1

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

Yes

C3.1a

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

No, but we anticipate doing so in the next two years

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

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

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

C3.1c

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

The Corporation's long-term strategy is to grow in attractive areas and maintain a long-term, balanced mix of energy infrastructure assets across its Gas, Power, and Utilities business segments. AltaGas' business strategy is underpinned by the growing demand for clean energy with natural gas as a key fuel source. The core of our Strategy is responding to regulatory and market changes that have resulted from Climate Change and Climate Change management efforts. The reference to "growing demand for clean energy…" in the AltaGas Strategy is a reference to the demand for lower carbon and low pollution energy. Therefore, climate change is literally integrated into our business Strategy, which assumes regulators and customers will value lower carbon energy (natural gas, Natural Gas Liquids (NGL's) or renewable energy) over higher carbon-intensive energy. This strategy informs all business decisions. The Corporation's overall objective is to generate superior economic returns by investing in low-risk, long-life energy assets. Therefore, AltaGas' strategic direction must be based on an understanding of the short and long-term viability of clean energy in our Gas, Power and Utility segments. AltaGas' strategic direction is reviewed and approved by the Board of Directors on an annual basis. Our annual strategic plan is based on key objectives, quantifiable operational and financial targets, and processes for the identification, monitoring, and mitigation of principal business risks. Throughout the year and across all businesses, AltaGas continuously assesses economic trends impacting its business and seeks opportunities to generate value for shareholders. Carbon prices (either identified by regulatory bodies, or assumed based on conservative models), changing regulatory requirements, and customer trends are identified by our project teams and incorporated into business and financial models. In the Gas segment, AltaGas' strategy is to provide a fully-integrated midstream service offering to its customers across the energy value chain. The strategy assumes that lower carbon fuels will be valued by regulators and customers over higher carbon fuels. Therefore, we intend to develop and operate larger gas infrastructure projects, as well as seek to move natural gas and NGL's to key markets. AltaGas is uniquely positioned to establish a western energy hub in northeast British Columbia, through the Ridley Island Propane Export Terminal (currently under construction), allowing for delivery of cleaner burning fuels to overseas markets. On January 25, 2017, the Corporation announced its pending acquisition of Washington Gas and Light. WGL has a growing midstream business with investments in gas gathering infrastructure and regulated gas pipelines in the Marcellus/Utica gas formation located in the northeast United States with capabilities for connections to marine-based energy export opportunities via the North American Atlantic coast through the Cove Point LNG Terminal in Maryland being developed by a third party, which is currently in the final stages of commissioning. The combined enterprise will be uniquely positioned with key gas midstream assets in both the Marcellus/Utica and Montney gas formations, which are two of North America's most prolific gas basins. However, because business in natural gas and NGL's are not without carbon emissions, AltaGas assumes compliance costs related to mitigating climate change. These compliance costs are generally represented by a carbon price being incorporated into the projects.

In the Power segment, AltaGas has also recognized the opportunities and financial rewards in developing a green energy business. AltaGas is invested in a diversified portfolio of renewable energy assets that reduce the Corporation's overall carbon footprint and are focused on meeting North America's increasing demand for clean energy. Following the termination of the Sundance B PPA (Coal Power), AltaGas has fully transitioned its Power segment to be a 100 percent clean energy provider. In the fourth quarter of 2016, AltaGas safely commissioned the Pomona Energy Storage Facility, located at AltaGas' existing Pomona facility in Southern California. This site is well suited for the future development of additional battery storage. The Corporation expects further development and expansion opportunities for battery storage to arise from existing AltaGas sites. In the Utility segment, the Corporation is focused on finding innovative ways to continue to safely and reliably deliver clean and affordable natural gas to more customers. AltaGas focuses on growing rate base by adding customers, including serving power plants within service jurisdictions, and through consumers fuel switching as abundant natural gas supply provides a clean low-cost energy alternative. In addition, the Utility segment continues to invest in existing distribution systems through pipeline replacement and system betterment programs to ensure safe, reliable service for AltaGas' customers as well as to meet increased residential and commercial demand.

Regulatory compliance plays a significant role in influencing climate change strategy at AltaGas. Strict emission requirements at our Gas and Power facilities have prompted investment in cleaner technologies such as cogeneration, natural gas-fired power generation, Carbon Capture, and Storage projects, as well as continual operational improvements across the AltaGas Enterprise. The most important component of the short-term strategy that has been influenced by Climate Change has been the increased value that AltaGas puts on flexibility. While this is not a new value in our strategy, its importance is growing as climate change strategies by regulators are quickly evolving. The most important components of the long-term strategy that have been influenced by Climate Change is our decision to invest in larger natural gas infrastructure projects, as well as seek to move natural gas and NGL's to key markets, including Asia. Global environmental concerns around greenhouse gas emissions from activities such as burning coal are driving the increase in demand for cleaner burning fuel. This decision is influenced by recent announcements in various jurisdictions that we operate for increased reliance on natural gas and NGL's to address climate change.

C3.1g

(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

Although AltaGas has not used Climate-related Scenario Analysis to inform its business strategy it has implemented an effective Risk Management process. AltaGas' risk management is governed by the Board of Directors, who are responsible for identifying, and understanding the principal risks associated with AltaGas' business and reviewing and approving the implementation of systems to manage risks. The board of directors receives reports on risk matters from both the committees of the board of directors and from management. The duties and responsibilities of the Board of Directors Audit Committee is the oversight of risk management, including a review of the Corporation's major risks, a review of the method of risk analysis by the Corporation, and review of the strategies, policies and practices in place for risk management. AltaGas actively manages its exposure to risk by focusing on mitigating measures that are required to reduce or eliminate risk to acceptable and manageable levels. AltaGas understands that Scenario Analysis is recommended practice by CDP for corporate climate governance. AltaGas is continuing to evaluate and is expecting to implement Climate Related Scenario analysis in the next two years.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Intensity target

C4.1b

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

Target reference number
Int 1

Scope
Scope 1

% emissions in Scope
5

% reduction from baseline year
7

Metric
Metric tons CO2e per unit of production

Base year
2015

Start year
2015

Normalized baseline year emissions covered by target (metric tons CO2e)
0.09489

Target year
2017

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

% achieved (emissions)
14

Target status
New

Please explain
This target applies to our Gordondale Gas Plant within the Gas Division. This a regulatory target in Alberta. The 2017 annual overall facility emissions intensity increased by2.5% from the 2016 reporting year. The production increased by 3.6% from the 2016 year.

% change anticipated in absolute Scope 1+2 emissions
2

% change anticipated in absolute Scope 3 emissions
0

Target reference number
Int 2

Scope
Scope 1

% emissions in Scope
32

% reduction from baseline year
20

Metric
Metric tons CO2e per unit of production

Base year
2014

Start year
2007

Normalized baseline year emissions covered by target (metric tons CO2e)
1

Target year
2017

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

% achieved (emissions)
85

Target status
New

Please explain
This target applies to our Harmattan Gas Plant within the Gas Division. This a regulatory target in Alberta. The 2017 annual overall facility emissions intensity increased by 4.37% from the 2016 reporting year. The total GHG emissions from the facility increased by 1.35% in the 2017 reporting year compared to 2016 and production decreased by 4.55% from the 2016 year.

% change anticipated in absolute Scope 1+2 emissions
0.32

% change anticipated in absolute Scope 3 emissions
0

C4.2

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

Target
Methane reduction target

KPI – Metric numerator
Metric tonnes CO2e

KPI – Metric denominator (intensity targets only)
per unit of production

Base year
2014

Start year
2007

Target year
2017

KPI in baseline year
5

KPI in target year
20

% achieved in reporting year
85

Target Status
New

Please explain
All AltaGas' targets mentioned above are for total greenhouse gas emissions including methane. Approximately 5% of those targets is comprised of Methane.

Part of emissions target
Int2

Is this target part of an overarching initiative?
Other, please specify (SGER)

C-OG4.2a

(C-OG4.2a) Explain, for your oil and gas production activities, why you do not have a methane-specific emissions reduction target or do not incorporate methane into your targets reported in C4.2; and forecast how your methane emissions will change over the next five years.

Information provided in 4.2 for methane.

C4.3

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

Yes

C4.3a

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

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	71322
To be implemented*	1	1208
Implementation commenced*	1	11034
Implemented*	1	74875
Not to be implemented		

C4.3b

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

Activity type
Low-carbon energy installation

Description of activity
Carbon Capture & Storage

Estimated annual CO2e savings (metric tonnes CO2e)
74875

Scope
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
2225000

Investment required (unit currency – as specified in CC0.4)
3000000

Payback period
1-3 years

Estimated lifetime of the initiative
>30 years

Comment
The cost of implementing AGI is estimated at 3 MM. AltaGas has AGI wells in operation at their gas plants that eliminate the release of CO2 and sulfur compounds to the atmosphere. Acid Gas streams are injected and geologically sequestered. The offset incentive programs in place for AGI in the province of Alberta have been discontinued and following the 2017 operating year AltaGas will no longer recieve credit in the form of offsets for AGI. Although, we have only provided "annual monetary savings" for current AGI projects creating offsets, AltaGas has multiple AGI wells in operations and sequestered >120,000 tonnes of CO2e in 2017.

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Compliance is the foundation of how we do business. In addition to complying with laws and regulations, AltaGas has a set of core values that applies to all areas of our organization. AltaGas tries to meet and exceed emission reduction activities that are required by regulators.
Internal finance mechanisms	At AltaGas we are always looking at opportunities to improve shareholder value, while effectively managing risk. Carbon prices employed by internal finance mechanisms can signal considerations for emissions reduction activities.
Financial optimization calculations	AltaGas' objective is to generate superior economic returns by investing in low-risk energy assets.
Employee engagement	All employees are welcome to identify GHG reduction efforts.
Internal incentives/recognition programs	Financial incentives are linked to GHG reduction targets.

C4.5

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

C4.5a

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

Level of aggregation
Product

Description of product/Group of products
102-megawatt Bear Mountain Wind Park

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (EcoLogo Certification)

% revenue from low carbon product(s) in the reporting year
0.9

Comment
Bear Mountain Wind Park provided 169,259 MWh to BC Hydro in British Columbia in 2017. This facility is an Ecologo certified for Green Power.

Level of aggregation
Product

Description of product/Group of products
195 megawatt Hydroelectric facility

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Ecologo Certification)

% revenue from low carbon product(s) in the reporting year
4.5

Comment
The Forrest Kerr Hydroelectric facility provided 881,321MWh to BC Hydro in British Columbia in 2017. The project is EcoLogo certified for green power.

Level of aggregation
Product

Description of product/Group of products
66 megawatt Hydroelectric facility

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Ecologo Certification)

% revenue from low carbon product(s) in the reporting year
1.1

Comment
The McLymont Creek Hydroelectric Facility provided 217,334 MWh to BC Hydro in British Columbia in 2017. The project is EcoLogo certified for green power.

Level of aggregation
Product

Description of product/Group of products

16 megawatt Hydroelectric facility

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Ecologo Certification)

% revenue from low carbon product(s) in the reporting year
0.3

Comment
The Volcano Creek Hydroelectric Facility provided 52,544 MWh to BC Hydro in British Columbia in 2017. The project is Ecologo certified for green power.

Level of aggregation
Group of products

Description of product/Group of products
Hydrocarbon based products (NGLs, LPG's, Pentane, etc.)

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Comparing carbon intensity to coal)

% revenue from low carbon product(s) in the reporting year
36

Comment
AltaGas' wide array of hydrocarbon based products provides the opportunity for third-party users to choose less carbon-intensive products which can directly lower the amount of GHG emissions.

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your electricity generation activities.

This question is not scored for AltaGas' disclosure

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from oil and gas production activities.

AltaGas is targeting vent gas and fugitive emissions to reduce methane emissions. AltaGas is working to inventory all of equipment that would routinely vent to identify project opportunities for replacement or upgrade to existing high bleed devices with no or low bleed alternatives. Currently, AltaGas tests compressor seals that emit vent gas annually in the province of British Columbia to ensure seal integrity and to reduce vent gas leakage. AltaGas also completes systematic leak detection and repair of fugitive emission leaks across its operations. Regular screening of sites reduces fugitive emissions and helps to reduce methane emissions associated with unintentional leaks.

COG4.7

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

C-OG4.7a

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

AltaGas completes fugitive emissions surveying, using infrared fugitive emission detection and or acoustic leak detection devices when necessary. AltaGas' Fugitive Emission Management Program identifies potential sources of fugitive emissions in the Methane value chain, accurately quantifies emissions/leak rates, completes cost/benefit analysis per leak source and tracks repairs using corrective action tracking. AltaGas' Leak Detection and Repair Program procedure was developed to:

• Ensure all applicable components are being tested, reported and tracked on an annual basis;

• Track all repairs using a "Repair Tracking Form" provided in the LDAR Report, and;

• Confirm all regulations and best management practices are being followed.

Leak Detection is executed across AltaGas' operations annually and a decision tree is used to determine how leaking components are addressed. For facilities that do not have a regulatory commitment to conduct leak surveys annually, AltaGas has instituted a rolling schedule to ensure all facilities are visited within an appropriate timeframe. It is estimated that annually 50% or more of the assets in the Gas segment are covered under this program.

All areas in which the Gas Division operates have regulatory requirements associated with the management of fugitive emissions. AltaGas' LDAR procedure was developed to meet or exceed jurisdictional requirements.

C-OG4.8

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

AltaGas follows regulatory targets of 0.5% of throughput at each individual facility. In addition to applicable regulatory targets AltaGas also reviews findings associated with Emission Verification. In 2017, our Harmattan Gas plant reduced flare volumes again by increasing flare awareness amongst operations.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start
January 1 2008

Base year end
December 31 2008

Base year emissions (metric tons CO2e)
1178156

Comment

Scope 2 (location-based)

Base year start
January 1 2013

Base year end
December 31 2013

Base year emissions (metric tons CO2e)
244256

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009
Canadian Association of Petroleum Producers, Calculating Greenhouse Gas Emissions, 2003
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Mandatory Greenhouse Gas Reporting Rule
Other, please specify

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

Specified Gas Emitters Regulation; Western Climate Initiative: Quantification Method 2013 Addendum to Canadian Harmonization Version; California Mandatory Greenhouse Gas Reporting Regulation.

C6. Emissions data

C6.1

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

Row 1

Gross global Scope 1 emissions (metric tons CO2e)
2144940

End-year of reporting period
<Not Applicable>

Comment

C6.2

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

Row 1

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

Scope 2, market-based
Please select

Comment

C6.3

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

Row 1

Scope 2, location-based
239782

Scope 2, market-based (if applicable)
<Not Applicable>

End-year of reporting period
<Not Applicable>

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) 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
SEMCO Energy Gas Company

Relevance of Scope 1 emissions from this source
No emissions excluded

Relevance of location-based Scope 2 emissions from this source
Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)
Please select

Explain why the source is excluded
Location based scope 2 emissions for SEMCO Energy Gas Company are not material. Using revenue to express data coverage AltaGas is able to report ~81% coverage of scope 2 emissions.

C6.5

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

Purchased goods and services

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
AltaGas' strategy for greenhouse gas management is to continuously reduce GHG emissions from our operating facilities. Measurement and monitoring at facilities that are under our operational control are the focus so we can apply new technology and find energy efficiency improvements.

Capital goods

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Tracking these emissions is not material to our GHG management efforts. Scope 3 emissions from major capital goods on an annual basis is not a meaningful metric for our business.

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

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Our 50% interest in the Power Purchase Agreement for the Sundance Units 3 and 4 was terminated in 2016. Therefore this emission source is no longer relevant to AltaGas.

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
At AltaGas, our business activities are services offered within the upstream transportation and distribution location. Management of our Scope 1 emissions plays a large role in the management of Scope 3 emissions for users further down the value chain. Scope 3 GHG emissions associated with upstream transportation and distribution of AltaGas' energy resources are not material.

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
AltaGas is required to track all waste generated in operations. The waste generation information has been reviewed and the emissions associated with waste generation are not material to our GHG management efforts.

Business travel

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
AltaGas has historically reported in error its fleet vehicle emissions as business travel. The emissions associated with our fleet comes from a third party company that manages our fleet information. The associated emissions from our fleet have been included in Scope 1 emissions summary.

Employee commuting

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Tracking these emissions is not material to our GHG management efforts.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Tracking these emissions is not material to our GHG management efforts.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Tracking these emissions is not material to our GHG management efforts.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Our products are generally consumed by downstream users and are typically not processed

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
6875294

Emissions calculation methodology
EPA Mandatory Greenhouse Gas Reporting Subpart NN reporting rules for US based Utilities. WRI GHG protocol tool for stationary combustion was applied to Canadian based Utilities. Calculated by multiply natural gas volumes supplied to customers by relevant emission factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation
Emissions are calculated based on the quantity of gas sold to residential and business customers (energy units) by our Utility Businesses (fully owned subsidiaries of AltaGas).

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Our products are generally consumed by downstream users. Therefore typically there is no product to be considered at the "end of life."

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
We do not lease downstream assets.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
We do not have franchises.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Tracking these emissions is not material to our GHG management efforts.

Other (upstream)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Other (downstream)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

C6.7

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

C6.10

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

Intensity figure
0.00093

Metric numerator (Gross global combined Scope 1 and 2 emissions)
2384722

Metric denominator
unit total revenue

Metric denominator: Unit total
2556000000

Scope 2 figure used
Location-based

% change from previous year
7.86

Direction of change
Increased

Reason for change
The percent change in the emission intensity figure is primarily due to a slight increase in the gross S1 and S2 emissions from 2016 to 2017. Gross revenue from 2016 to 2017 also increased but the change in gross S1 and S2 emissions slightly outpaced gross revenue growth. The slight increase can be attributed to increased output from our Power Generating assets in California and also the commissioning of two Gas Division facilities in the province of British Columbia.

C-OG6.12

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

Unit of hydrocarbon category (denominator)
Other, please specify (Thousand barrels Oil Equivalent)

Metric tons CO2e from hydrocarbon category per unit specified
7.6

% change from previous year
1

Direction of change
Decreased

Reason for change
Generally speaking AltaGas volumes growth outpaced the slight increase in total emissions

Comment
Emissions totals from the Gas Division were summed then divided by thousand BOE (total Gas dispositions from AltaGas facilities).

C-OG6.13

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

Oil and gas business division
Downstream

Downstream was selected as the business segment based on the definitions provided in the guidance document. To be clear AltaGas Gas Division processes third party natural gas.

Estimated total methane emitted expressed as % of natural gas production or throughput at given division
0.08

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division
0.08

Comment

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?
Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	1881254	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	256774	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	6912	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	0	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	0	0	0	
Combustion (Electric utilities)	1116645	21	0	1117770	
Combustion (Gas utilities)	0	0	0	0	
Combustion (Other)	0	0	0	0	
Emissions not elsewhere classified	0	0	0	0	

C-OG7.1b

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

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives (Oil:Total)	0	0	0	
Fugitives (Oil: Venting)	0	0	0	
Fugitives (Oil: Flaring)	0	0	0	
Fugitives (Oil: E&P, excluding venting and flaring)	0	0	0	
Fugitives (Oil: All Other)	0	0	0	
Fugitives (Gas: Total)	32254	5014	157621	
Fugitives (Gas: Venting)	0	0	0	
Fugitives (Gas: Flaring)	0	0	0	
Fugitives (Gas: E&P, excluding venting and flaring)	0	0	0	
Fugitives (Gas: Midstream)	0	0	0	
Fugitives (Gas: All other)	0	0	0	
Combustion (Oil: Upstream, excluding flaring)	0	0	0	
Combustion (Gas: Upstream, excluding flaring)	696029	1165	742358	Combustion activities reported for all Gas Division related work. AltaGas is a midstream company that process natural gas.
Combustion (Refining)	0	0	0	
Combustion (Chemicals production)	0	0	0	
Combustion (Electricity generation)	0	0	0	
Combustion (Other)	0	0	0	
Process emissions	0	0	0	Formation CO2 has been included in the combustion values noted above.
Emission not elsewhere classified	0	0	0	

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Canada	972044
United States of America	1172896

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
AltaGas - Gas Division	900859
AltaGas - Power Division	1117770
AltaGas - Utilities	126311

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

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

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility generation activities	1117770	<Not Applicable>	
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	0	<Not Applicable>	
Oil and gas production activities (downstream)	906960	<Not Applicable>	
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Canada *2187,05 MWh purchased and consumed from BC Hydro. the emissions are calculated using location based emission factors.*	236947	0	484518	218705
United States of America	2835	0	12495	0

C7.6

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

By business division

C7.6a

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

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
AltaGas - Gas Division	234661	0
AltaGas - Power Division	2316	0
AltaGas - Utilities	2805	0

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

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

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	0	0	
Oil and gas production activities (downstream)	234661	0	
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

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

Increased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities	74874	Decreased	4	In 2017 AltaGas applied for 74874 Offset credits from the Government of Alberta as a result of emission reduction activities. AltaGas' combined S1 and S2 emissions from the previous year was 1894322 tCO2e. Therefore, 74874/1894322*100=3.95. The value in Emissions value % has been rounded to 4 %.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	483418	Increased	25.52	Overall, across each business there were relative changes in output. There was a 25.52 percent increase in output across the Power, Gas and Utilities. Calculated as such, 2377740.42-1894322/1894322*100=25.52
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

Location-based

C8. Energy

C8.1

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

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

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	6478503	6478503
Consumption of purchased or acquired electricity	<Not Applicable>	218705	278308	497013
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	6517	<Not Applicable>	6517
Total energy consumption	<Not Applicable>	225222	6756811	6982033

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
6442262

MWh fuel consumed for the self-generation of electricity
5506079

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
936183

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
5159

MWh fuel consumed for the self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
0

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
31082

MWh fuel consumed for the self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

MWh fuel consumed for self- cogeneration or self-trigeneration
0

C8.2d

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

Diesel

Emission factor
0.0026

Unit
metric tons CO2e per liter

Emission factor source
Canada National Inventory Report

Comment

Motor Gasoline

Emission factor
0.0023

Unit
metric tons CO2e per liter

Emission factor source
Canada National Inventory Report

Comment

Natural Gas

Emission factor
0.00189

Unit
metric tons CO2 per m3

Emission factor source
Canada National Inventory Report

Comment

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	4473000	144582	1629000	6517
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-EU8.2e

(C-EU8.2e) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
This questions is not scored.

Lignite

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
This question is not scored

Oil

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not scored

Gas

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not scored

Biomass

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not scored

Waste (non-biomass)

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not scored

Nuclear

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

Geothermal

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

Hydroelectric

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

Wind

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

Solar

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not scored

Other renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

Other non-renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

Total

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
Not Scored

C8.2f

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

Basis for applying a low-carbon emission factor
Contract with suppliers or utilities (e.g. green tariff), not supported by energy attribute certificates

Low-carbon technology type
Hydropower

MWh consumed associated with low-carbon electricity, heat, steam or cooling
218705

Emission factor (in units of metric tons CO2e per MWh)
0.12

Comment
Power purchased and consumed from BC Hydro, the utility provider in the province of British Columbia is low carbon generated electricity. 98 percent of grid electricity in British Columbia is generated from clean power sources.

C-EU8.4

(C-EU8.4) Does your electric utility organization have a global transmission and distribution business?
No

C9. Additional metrics

C9.1

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

Description
Please select

Metric value

Metric numerator

Metric denominator (intensity metric only)

% change from previous year

Direction of change
<Not Applicable>

Please explain
We have no other metrics to report.

C-OG9.3a

(C-OG9.3a) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per year.

	Total refinery throughput capacity (Thousand barrels per day)
Capacity	0

C-OG9.3b

(C-OG9.3b) Disclose feedstocks processed in the reporting year in million barrels per year.

	Throughput (Million barrels)	Comment
Oil	0	We do not process oil
Other feedstocks	9999	The reporting cell in column 2 would not allow for reporting greater than 9,999. AltaGas processes more than 9,999 million barrels of Natural Gas and Natural Gas Liquids in the Gas Division.
Total	9999	The reporting cell in column 2 would not allow for reporting greater than 9,999. AltaGas processes more than 9,999 million barrels of Natural Gas and Natural Gas Liquids in the Gas Division.

C-OG9.3c

(C-OG9.3c) Are you able to break down your refinery products and net production?

Yes

C-OG9.3d

(C-OG9.3d) Disclose your refinery products and net production in the reporting year in million barrels per year.

Product produced	Refinery net production (Million barrels) *not including products used/consumed on site
Other, please specify (this question is not applicable) *AltaGas does not own or operate refineries.*	0

C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Please select				Not Scored

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Please select *This is not scored for AltaGas*	Not Scored			

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

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

Investment start date
August 16 2016

Investment end date
December 31 2016

Investment area
Equipment

Technology area
Energy storage

Investment maturity
Large scale commercial deployment

Investment figure
45000000

Low-carbon investment percentage
100

Please explain
AltaGas built, owns and operates the Pomona Energy Storage Facility. With 20 MW of capacity, it is among the largest battery storage facilities in North America and is able to provide 80 MWh of electricity over a continuous four hour period.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.
0

This questions is not applicable for AltaGas' business.

C-OG9.8

(C-OG9.8) Is your organization involved in the sequestration of CO2?
Yes

C-OG9.8a

(C-OG9.8a) Provide, in metric tons CO2, gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis).

	CO2 transferred – reporting year (metric tons CO2)
CO2 transferred in	0
CO2 transferred out	0

C-OG9.8b

(C-OG9.8b) Provide gross masses of CO2 injected and stored for the purposes of CCS during the reporting year according to the injection and storage pathway.

Injection and storage pathway	Injected CO2 (metric tons CO2)	Percentage of injected CO2 intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO2 injected and stored (metric tons CO2)
Acid gas injection (CO2 and H2S co-injected into a production reservoir)	74875	100	January 1 2005	1105034
Acid gas injection (CO2 and H2S co-injected into a production reservoir)	28797	100	January 1 2009	307166
Acid gas injection (CO2 and H2S co-injected into a production reservoir)	1200	100	January 1 2010	21998

C-OG9.8c

(C-OG9.8c) Provide clarification on any other relevant information pertaining to your activities related to transfer and sequestration of CO2.

AltaGas has operational control of the sequestration of CO2 emissions. AltaGas has no transfers of CO2 in or out of the organization. All transfers of CO2 occur between AltaGas facilities. All sequestration activities are carried out at AltaGas operated Acid Gas Injection wells. AltaGas owns the sequestered emissions and associated potential liabilities.

The acid gas injection schemes all have Class III disposal approvals that are issued by the Alberta Energy Regulator (AER). Injection and disposal wells are classified to identify those wells that require increased levels of monitoring and surveillance based on the type of the fluids injected. Class III disposal wells are required to: - hydraulically isolate host zone - cement across all useable groundwater zones - Conduct casing logs to confirm isolation and cement returns - Complete annulus pressure test - Complete annual packer isolation test - monitor wellhead pressure and follow pressure limitations Each approval also requires an annual acid gas disposal report be submitted to AER which captured disposal volumes and operating pressures.

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

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

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
BC Linear Facilities Verification.pdf

Page/ section reference
See pages 1 thru 8. In each box there were two places to attach documents. In order to ensure these documents were attached we attached them in both places.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
9
BC Linear Facilities Verification.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
GD 2017 Verification.pdf

Page/ section reference
See pages 1 thru 3

Relevant standard
Alberta Specified Gas Emitters Regulation (SGER)

Proportion of reported emissions verified (%)
5

GD 2017 Verification.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Harmattan 2017 verification.pdf

Page/ section reference
See pages 1 thru 3

Relevant standard
Alberta Specified Gas Emitters Regulation (SGER)

Proportion of reported emissions verified (%)
18
Harmattan 2017 verification.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Verification_Statement_AltaGas_RIpon_EY2017exec.pdf

Page/ section reference
Page 1 of 1

Relevant standard
California Mandatory GHG Reporting Regulations (CARB)

Proportion of reported emissions verified (%)
1
Verification_Statement_AltaGas_RIpon_EY2017exec.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Verification+statement_Blythe+Energy_2018-07-20IRexec.pdf

Page/ section reference
Page 1 of 1

Relevant standard
California Mandatory GHG Reporting Regulations (CARB)

Proportion of reported emissions verified (%)
32
Verification+statement_Blythe+Energy_2018-07-20IRexec.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Verification+Statement+-+Altagas+Hanford+RY2017.pdf

Page/ section reference
Page 1 of 1

Relevant standard
California Mandatory GHG Reporting Regulations (CARB)

Proportion of reported emissions verified (%)
1
Verification+Statement+-+Altagas+Hanford+RY2017.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Verification+Statement+-+Altagas+Henrietta+RY2017.pdf

Page/ section reference
Page 1 of 1

Relevant standard
California Mandatory GHG Reporting Regulations (CARB)

Proportion of reported emissions verified (%)
1
Verification+Statement+-+Altagas+Henrietta+RY2017.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Verification+Statement+-+Altagas+Tracy+RY2017.pdf

Page/ section reference
Page 1 of 1

Relevant standard
California Mandatory GHG Reporting Regulations (CARB)

Proportion of reported emissions verified (%)
18
Verification+Statement+-+Altagas+Tracy+RY2017.pdf

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
17 PNG - Emission Report Verification Statement & Conflict of Interest R....pdf

Page/ section reference
Pages 1 thru 11

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
2
17 PNG - Emission Report Verification Statement & Conflict of Interest R....pdf

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Scope

Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
Harmattan 2017 verification.pdf

Page/ section reference
Pages 1 thru 3. Cogeneration power is verified as per the attached.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
46
Harmattan 2017 verification.pdf

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope
Scope 3- at least one applicable category

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Attach the statement
VerS-Heritage Gas-Ruby Canyon Engineering-August 29 2018-Version 2.0.pdf

Page/section reference
Pages 1 thru 2

Relevant standard
ISO14064-3

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

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

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
Alberta carbon tax
Alberta SGER
BC carbon tax
California CaT

C11.1b

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

Alberta SGER

% of Scope 1 emissions covered by the ETS
23

Period start date
January 1 2017

Period end date
December 31 2017

Allowances allocated
0

Allowances purchased
0

Verified emissions in metric tons CO2e
491845

Details of ownership
Facilities we own and operate

Comment

California CaT

% of Scope 1 emissions covered by the ETS
52

Period start date
January 1 2017

Period end date
December 31 2017

Allowances allocated
0

Allowances purchased
689000

Verified emissions in metric tons CO2e
1117770

Details of ownership
Facilities we own and operate

Comment

C11.1c

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

Alberta carbon tax

Period start date
January 1 2017

Period end date
December 31 2017

% of emissions covered by tax
12

Total cost of tax paid
263000

Comment
Its worth noting that although AB Carbon tax is intended to be inclusive many upstream and midstream organization are currently exempt from the Carbon Tax until January 1, 2023 while the province works to reduce methane emissions.

BC carbon tax

Period start date
January 1 2017

Period end date
December 31 2017

% of emissions covered by tax
10

Total cost of tax paid
735000

Comment

C11.1d

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

AltaGas applies a multi-pronged strategy for complying with the schemes in which we participate. -First, AltaGas has made significant investments in energy efficiency and sequestration projects (in Alberta) which generate a long-term supply of emission offset credits and emission performance credits, which we use to offset a portion of our greenhouse gas compliance costs. Second, the commercial agreements we put in place to purchase third party generated emission offsets or emission performance credits include language that requires the seller to either compensate or replace any offset(s) and/or credit(s) that are revoked by the Regulator. Third, we include language in our commercial agreements requiring third parties to deliver their emission offsets or emission performance credits just a few weeks prior to the actual GHG compliance deadline in order to reduce our inventory carrying costs. Fourth, all activities associated with emissions trading and compliance, are managed internally, rather than through third parties.

C11.2

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

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase
Credit origination

Project type
Other, please specify (Acid Gas Injection)

Project identification
AltaGas Turin Acid Gas Injection Offset Project

Verified to which standard
Other, please specify (ISO 14064 Part 3)

Number of credits (metric tonnes CO2e)
74874

Number of credits (metric tonnes CO2e): Risk adjusted volume
74874

Credits cancelled
Not relevant

Purpose, e.g. compliance
Compliance

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price
Navigate GHG regulations
Stakeholder expectations
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope
Scope 1
Scope 2
Scope 3

Application
AltaGas uses internal prices on carbon that pertain to various aspects of our business and includes Scope 1, Scope 2, and Scope 3 emissions. AltaGas employs internal prices of carbon in our budgeting and forecasting in each of the regulatory jurisdictions where we own and/or operate assets. Carbon tax costs to our business are included project budgets and forecasts.

Actual price(s) used (Currency /metric ton)
50

Variance of price(s) used
Different carbon prices are used over time and across geographies. When carbon prices are uncertain, we will employ scenarios that consider varying carbon prices that range from current price of $30 per tonne up to future prices of $50 per tonne.

Type of internal carbon price
Shadow price
Internal trading

Impact & implication
AltaGas uses internal prices on carbon that pertain to various aspects of our business and includes Scope 1, Scope 2, and Scope 3 emissions. AltaGas employs internal prices of carbon in our budgeting and forecasting in each of the regulatory jurisdictions where we own and/or operate assets. Carbon tax costs to our business are included in affected project budgets and forecasts. The carbon prices that reflect credits towards our financial exposure to greenhouse gas compliance costs (e.g., offsets) are accounted for and retained following best practice policies. Different carbon prices are used over time and across geographies. When carbon prices are uncertain, we will employ scenarios that consider varying carbon prices. Scenarios have included British Columbia's CO_2e carbon tax and Alberta's increasing carbon prices, and the Pan-Canadian carbon pricing scheme ($30 in 2018 and rising to $50 in 2022). AltaGas' carbon credit pricing in the offset and the California Cap and Trade markets are subject to confidentially. Our Commercial teams, in consultation with our Environmental and Regulatory staff, determine the carbon price on a project by project basis. Carbon compliance pricing is internalized (i.e., it is a budget line item) in the economics of the investment decisions that AltaGas makes.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our customers
Yes, other partners in the value chain

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement
Education/information sharing

Details of engagement
Run an engagement campaign to education customers about your climate change performance and strategy

Size of engagement
30

% Scope 3 emissions as reported in C6.5
30

Please explain the rationale for selecting this group of customers and scope of engagement
AltaGas engages with its customers to communicate the environmental benefits of fuel switching from more carbon intensive fossil fuels to natural gas. The carbon footprint of Natural Gas is about 1/3 lower than the fuels mentioned above.

Impact of engagement, including measures of success
Active engagement with our customers, particularly in Eastern Canada, has positively impacted our Utilities customers base. The carbon savings just from Heritage Gas distribution in 2017 is equivalent to operating 88 wind turbines in the province or taking 48,000 cars off the road every year.

C12.1c

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

Engagement is prioritized for our stakeholders that are presented an opportunity to avoid GHG emissions (such as customers of our renewable electricity, or new natural gas customer's fuel switching from heating oil). In addition, priority is given to engagement with customers and suppliers that could be indirectly impacted by GHG laws and regulations, to the extent such changes result in reductions in the use of natural gas by customers or limit the operations of, or increase the costs of goods and services acquired from AltaGas suppliers, such as pipelines and natural gas producers.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	Participate in a committee composed of gas plant owner and operators across Alberta to provide guidance and validation of the recommended emissions intensity and calculation methods.	Alberta will transition from the current SGER system to a carbon competitive incentive regulation system (CCIR) effective January 2018. This system will use an output-based emission allocation (OBA) approach for emissions-intensive, trade-exposed industries. The OBA system will incentivize producers to invest in facility efficiencies that will reduce emissions below current levels.

C12.3b

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

Yes

C12.3c

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

Trade association
Independent Power Producers Society of Alberta

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
IPPSA's position is supportive of market based solution to reduce GHG emissions from generator in a non-discriminatory way that does not distort the price signal for energy.

How have you, or are you attempting to, influence the position?
AltaGas is not attempting to influence the IPPSA's position on climate change

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Trade association
Clean Energy BC

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
CEBC is advocating (via website publications and speeches) the following with respect to new climate change policy in BC: Ensure there is opportunity for the Clean Energy sector in BC's new Climate Action Plan; increase demand for electricity. 1. Advocate for increasing use of electricity to power BC industries, transportation, transit, buildings, and homes because it is climate friendly power. 2. Inform the government, opposition parties and public in BC about the value of the clean and renewable energy sector to BC's economy and society. 3. Capitalize upon the new federal government's commitment to green infrastructure and clean energy by working to secure investments helpful to BC.

How have you, or are you attempting to, influence the position?
Via active membership on the board, AltaGas helped develop and approve this position.

Trade association
BC LNG Alliance

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The Alliance's position on climate change legislation supports those mechanisms that promote the reduction of GHG emissions in other jurisdictions (such as Asia) through the future use of LNG from BC rather than other hydrocarbons such as coal. This is communicated in speeches and website publications.

How have you, or are you attempting to, influence the position?
Via active membership on the board, AltaGas helped develop and approve this position.

C12.3f

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

Statements or positions communicated by AltaGas in direct and indirect activities that influence policy are managed by our use of Key Messages. Key Messages are developed by multi-disciplinary teams including communications staff, senior staff, subject matter experts, impacted or informing business divisions, etc. Key Messages that relate to our climate change strategy are reviewed and approved by team members accountable to the climate change strategy.

C12.4

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

Publication
In mainstream reports in accordance with the CDSB Framework

Status
Complete

Attach the document
Proxy Circular - AltaGas Ltd - 2017 - FINAL_0.PDF
AIF 2017 (Final).pdf
Annual Report 2017_0.pdf

Content elements
Governance
Strategy
Risks & opportunities

C14. Signoff

C-FI

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

No additional content to upload.

C14.1

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

	Job title	Corresponding job category
Row 1	Vice President of Environment, Health, Safety, Security, and Sustainability	Business unit manager

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms