

**Module: Introduction****Page: Introduction**

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**CC0.1****Introduction**

Please give a general description and introduction to your organization.

Emera Inc. is a geographically diverse energy and services company headquartered in Halifax, Nova Scotia, Canada with approximately \$29 billion in assets and 2016 revenues of \$4 billion. The company invests in electricity generation, transmission and distribution as well as gas transmission and utility energy services. Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. Emera has investments throughout North America, and in Caribbean countries. Emera continues to target having 75-85% of its adjusted earnings come from rate-regulated businesses.

Emera has the following subsidiaries that report to CDP:

- **TECO Energy** - Emera closed the transaction with TECO Energy on July 1, 2016. TECO Energy is the parent company of Tampa Electric, Peoples Gas, New Mexico Gas, and TECO Services. Tampa Electric is a vertically integrated utility that has 4,730 megawatts of generating capacity and over 736,000 residential, commercial, and industrial customers in the Tampa Bay area. Peoples Gas provides 374,000 Florida residents and businesses with natural gas products and services. Peoples Gas Co. operates approximately 19,950 km of natural gas mains and 11,265 km of service lines. New Mexico Gas Co. based in Albuquerque, New Mexico, provides natural gas service to more than 522,000 residential, commercial, and transportation customers. The company's maintains approximately 2,600 km of transmission lines and 16,400 km of mains.
- **Nova Scotia Power Inc.** - a fully integrated, regulated electric utility that is the primary electricity supplier in Nova Scotia, Canada. NSPI provides electricity generation, transmission, and distribution services to approximately 511,000 customers and has 2,487 MW of generating capacity. NSPI has a target to achieve

40% of the province's electricity generated by renewable sources by 2020. NSPI also owns approximately 5,000 kilometres of transmission facilities and 27,000 kilometres of distribution facilities.

- Emera Maine - a transmission and distribution electric utility serving approximately 157,000 customers in the state of Maine. Electricity generation is deregulated in Maine, and several suppliers compete to provide customers with the energy delivered through Emera Maine's T&D networks. Emera Maine owns and operates approximately 1,800 kilometres of transmission facilities and 15,000 kilometres of distribution facilities.

- Emera Caribbean - includes the following consolidated and non-consolidated investments: Barbados Light & Power Company Ltd. ("BLPC"), a vertically integrated utility and the provider of electricity on the island of Barbados, serving approximately 126,000 customers. BLPC owns 239 MW of oil-fired generation, 150 kilometres of transmission facilities and 2,800 kilometres of distribution facilities; a 50.0 per cent direct and 30.4 per cent indirect interest in Grand Bahama Power Company Ltd. ("GBPC"), a vertically integrated utility and the sole provider of electricity on Grand Bahama Island. GBPC serves approximately 19,000 customers. GBPC owns 98 MW of oil-fired generation, 138 kilometres of transmission facilities and 860 kilometres of distribution facilities; a 51.9 per cent indirect controlling interest in Dominica Electricity Services Ltd. ("DOMLEC"), an integrated utility on the island of Dominica. DOMLEC serves approximately 36,000 customers and owns 20 MW of oil-fired generation, 7 MW of hydro production, 497 kilometres of transmission facilities and 716 kilometres of distribution facilities.

- Brunswick Pipeline - a 145 kilometre pipeline delivering re-gasified natural gas from the Canaport™ liquefied natural gas ("LNG") import terminal near Saint John, New Brunswick, to markets in the northeastern United States for Repsol Energy Canada.

- Emera Energy – which includes Emera Energy Generation ("EEG"), consisting of a wholly owned portfolio of natural gas and biomass fuelled electricity generation facilities in New England and the Maritime provinces of Canada with 1,435 megawatts of total capacity. Emera Energy also includes Emera Energy Services, a wholly owned physical energy marketing and trading business; and an equity investment (50.0 per cent joint venture ownership) of Bear Swamp, a 600 MW pumped storage hydroelectric facility in northwestern Massachusetts (only EEG assets form part of this CDP report).

Emera also owns Emera Utility Services, a utility services contractor primarily operating in Atlantic Canada and Emera Newfoundland and Labrador, which holds investments in NSP Maritime Link Inc., a \$1.6 billion transmission project, including two 170-kilometre subsea cables, between the island of Newfoundland and Nova Scotia. The transmission project will bring renewable energy from Muskrat Falls hydroelectric to Nova Scotia.

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**CC0.2****Reporting Year**

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

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

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

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

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

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**CC0.3****Country list configuration**

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

Select country
Canada
United States of America

Select country
Bahamas
Barbados
Dominica

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#### CC0.4

##### Currency selection

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

CAD (\$)

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#### CC0.6

##### Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

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#### Further Information

**Module: Management**

**Page: CC1. Governance**

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

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

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

"On July 1, with the closing of the transaction with TECO Energy, Emera became one of the 20 largest North American publicly traded utilities." "As we grow, so does our capacity to support economic growth, enable innovation and build capacity in the communities we serve. We're invested in our communities by making sustainable energy affordable and by supporting the causes that matter to our people and our customers." "In 2017, we will launch Emera's first sustainability report, highlighting our commitment to stakeholders and providing an integrated view of our shared values." (excerpts from the Letter to Shareholders, 2016 Annual Report signed by Jackie Sheppard, Chair, Emera Inc. Board of Directors, and Chris Huskison, President and Chief Executive Officer, Emera).

The President and CEO, in collaboration with executive officers and the Board of Directors, develop a strategic plan. Emera's strategic plan is centered on clean, affordable energy with a focus of transforming our sector from high-carbon to low-carbon energy sources. Under the Board of Directors Charter, oversight and guidance on the Company's strategy is one of the primary roles of the Board. Directors participate in the development of the corporate strategy, which determines the annual and longer-term objectives for the Company. The Directors devote significant time at regular Board meetings to evaluate progress made in executing the Company's strategy.

Management regularly seeks opportunities to update, educate and inform the Board of Directors in areas they request or that management determines are relevant to issues facing the Company. The Board receives regular presentations from senior management and/or external consultants updating Directors about market and industry conditions and trends that may impact the Company's business and influence its strategy. For example, the Board has received presentations on the Paris Climate Agreement and its implications for the gas and power supply sector in North America.

Emera's President and Chief Executive Officer is responsible for implementation of the strategy. The CEO makes regular progress updates to the Board of Directors,

of which he is a member.

The responsibilities of the Chair of the Board of Directors are found in the Emera Incorporated Chair of the Board of Directors Charter. The Charter describes the duties and responsibilities of the Board in matters of independence and integrity, strategic planning, risk responsibility, leadership and succession, financial reporting, corporate communications, public disclosure, and corporate governance.

The Emera's Chief Operating Officer has overall executive responsibility for Emera's operating assets, including initiatives to implement Emera's strategy.

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**CC1.2**

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

Yes

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**CC1.2a**

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

<b>Who is entitled to benefit from these incentives?</b>	<b>The type of incentives</b>	<b>Incentivized performance indicator</b>	<b>Comment</b>
Corporate executive team	Monetary reward	Emissions reduction project	Emera has a corporate scorecard incentive plan which aligns with the Corporate Strategy. Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. To implement Emera's strategy there are several ongoing emission reduction/cleaner energy projects taking place at Emera affiliates, including: implementing the next phase of tidal energy in the Bay of Fundy, Nova Scotia, a joint venture between Emera Inc. and OpenHydro; upgrading of hydro assets at Nova Scotia Power; proposing the construction of an HVdc transmission line that could deliver 900MW of

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
			<p>clean energy from northern Maine and Atlantic Canada directly to southern Massachusetts; continuing construction of renewable energy transmission infrastructure at Emera Newfoundland and Labrador; and continued transformation of Caribbean assets from primarily fossil fuel based generation to more renewable sources such as the 10MW solar farm in St. Lucy Barbados. Efficiency targets are being pursued by Emera affiliates. Emera Energy added efficiency upgrades to its Tiverton plant and Tampa Electric invested in a project to add an additional 460MW of generating capacity to its Polk Power Station which converted four simple cycle units to modern and efficient combined cycle units. Successful implementation of emission reduction/cleaner energy projects and efficiency targets is recognized in employee scorecards. At the corporate Executive team level the Company's pay for performance philosophy and compensation plan resulted in at least 50% of the Named Executive Officers compensation being at risk. The CEO's total pay at risk was 79%, the COO's total pay at risk was 71%.</p>
Business unit managers	Monetary reward	Emissions reduction project Efficiency target	<p>Emera and each affiliate have a corporate scorecard incentive plans which align with the Corporate Strategy. Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. Employees (business unit managers) have individualized incentive plans that are aligned with the corporate scorecard incentive plan on specific emissions reduction projects/efficiency targets. To implement Emera's strategy there are several ongoing emission reduction/cleaner energy projects taking place at Emera affiliates as described in the above section. Successful implementation of emission reduction/cleaner energy projects and efficiency targets is recognized in employee scorecards.</p>
Process operation managers	Monetary reward	Emissions reduction project Efficiency target	<p>Emera and each affiliate have a corporate scorecard incentive plans which align with the Corporate Strategy. Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. Employees (process operation managers) have individualized incentive plans that are aligned with the corporate scorecard incentive plan on specific emissions reduction</p>

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
			projects/efficiency targets. Successful implementation of emission reduction/cleaner energy projects and efficiency targets is recognized in employee scorecards.
All employees	Monetary reward	Emissions reduction project Efficiency target	Emera and each affiliate have a corporate scorecard incentive plans which align with the Corporate Strategy. Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. Employees (non-unionized) have individualized incentive plans that are aligned with the corporate scorecard incentive plan on specific emissions reduction projects/efficiency targets. Successful implementation of emission reduction/cleaner energy projects and efficiency targets is recognized in employee scorecards.

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**Further Information**

**Page: CC2. Strategy**

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**CC2.1**

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

Integrated into multi-disciplinary company wide risk management processes

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**CC2.1a**

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



Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Company-wide risk management processes are implemented in all Emera affiliated companies. Emera operations are located in: Canada, the United States, and the Caribbean.	> 6 years	

### CC2.1b

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

(Company-level): Emera has an enterprise risk management process, monitored by the Board of Directors, to ensure a consistent and coherent approach. The Board oversees the implementation by management of appropriate systems to identify, report, and manage the principal risks of Emera's business. Principal risks are those areas that most significantly impact profitability, quality of income, and cash flow. From a climate change perspective these include changes in environmental legislation and weather. Emera is subject to regulation by federal, provincial, state, regional and local authorities with regard to environmental matters; primarily related to its utility operations. This includes laws setting greenhouse gas emissions standards and air emissions standards. Changes to emission laws could adversely affect Emera's operations and financial performance. Stricter environmental laws and enforcement of such laws in the future could increase Emera's exposure to additional liabilities and costs by impacting earnings and changing the nature and timing of capital investments. Alternatively, these regulatory requirements, new technology, and changing customer expectations, also provide Emera with an opportunity to invest in low-carbon energy sources helping us to transform our energy sector.

(Asset-level): Climate change risks and opportunities as they relate to storm hardening and opportunities for renewable energy projects are discussed at the project level and within specific departments at Emera affiliates. Shifts in weather patterns affect electric sales volumes and associated revenues and costs. Extreme weather events generally result in increased operating costs associated with restoring power to customers. Affiliate Environmental Management Systems help define asset level objectives and targets to drive continual environmental performance.

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**CC2.1c****How do you prioritize the risks and opportunities identified?**

The Board of Directors Charter requires the Board to consider Emera's risk profile and to oversee Emera's risk management by reviewing:

- (a) the annual identification and assessment of the principal risks of Emera;
- (b) the process for ongoing monitoring and reporting of the principal risks of Emera;
- (c) the effectiveness of Emera's mitigation response to its principal risks; and
- (d) the alignment of risk management with Emera's risk profile, its strategy, and its organizational objectives, including capital and resources allocation.

The Board is also responsible for reviewing Emera's annual insurance program, its uninsured exposure, and its business continuity and disaster recovery plans. The Board receives regular updates on the status of risk management activities and initiatives. Certain risk management activities for Emera are overseen by the Enterprise Risk Management Committee using a risk dashboard. Risks are appropriately assessed, monitored, and controlled within predetermined risk tolerances established through approved policies. A risk inventory has been created and risks are determined using a typical risk assessment of impacts, threats, and likelihood.

Senior management teams at each affiliate also prioritize risks at the affiliate level using similar processes as described above.

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**CC2.1d**

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

Main reason for not having a process	Do you plan to introduce a process?	Comment
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**CC2.2**

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

Yes

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**CC2.2a**

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

i) Description of how the business strategy has been influenced:

Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. Emera has investments throughout North America, and in Caribbean countries. This strategy is publically discussed at investor presentations and meetings. There are various strategic initiatives being developed to implement the strategy. Transitioning to cleaner generation will have associated emissions reductions. In Nova Scotia, the target is to have 40% of electricity generated by renewable sources by 2020. In Barbados, the target is to have 100% renewable generation by 2045. Senior leaders receive regular reports on emissions and the status of business objectives.

ii) One example of how the business strategy has been influenced:

Three substantial business initiatives that are examples of the Emera strategy in action are:

Atlantic Link Project - Emera has proposed a HVdc transmission line that could deliver 900MW of clean energy from northern Maine and Atlantic Canada directly to southern Massachusetts. This project has the potential to provide long-term access to renewable energy at stable prices for the Commonwealth of Massachusetts (and the New England electricity system).

Maritime Link Project: This \$1.6b (CAD) project will bring renewable energy from the Muskrat Falls Hydro project in Labrador to Nova Scotia, creating a new energy loop in Atlantic Canada. The project will both address the regulatory need for Nova Scotia Power to meet its legislated target of 40% renewable electricity by 2020 and will provide an opportunity to deliver renewable energy to New England markets. The Maritime Link Project will reduce Nova Scotia's dependency on coal-fired generation helping Nova Scotia Power to meet Canadian federal regulations requiring a 50 percent reduction in coal emissions by 2030. The project will also help contribute to Canada's greenhouse gas reduction commitment under the Paris Climate Agreement.

TECO Energy acquisition: With its \$10.4b (USD) acquisition of TECO Energy, Emera became one of the top 20 utilities in North America. This acquisition doubled the size of the company. Like Emera, TECO is focused on transitioning to clean energy, while maintaining its traditional focus on delivering energy that is affordable and reliable to its customers. For example, in 2016 Tampa Electric, a TECO subsidiary, worked on converting four single cycle units at its Polk Power Station to modern, more efficient combined cycle units. The expansion will add approximately 460MW of generating capacity while increasing the efficiency of the existing units by 37%.

iii) Aspects of climate change that have influenced the strategy:

Emera sees market opportunities in cleaner generation and delivering that cleaner generation to market. One of the drivers of the strategy is environmental regulations and standards, particularly those associated with climate change.

iv) Short term strategy has been influenced by climate change:

Each year there are specific outcomes that help to implement the long-term strategy. Completion of renewable projects to help Nova Scotia Power meet its renewable targets, efficiency upgrades at Tampa's Electric's Polk Power Station, and investment in solar in the Caribbean are short-term projects advancing our long-term strategy towards low-carbon energy sources. For example, in 2016 Emera completed the 10MW St. Lucy Solar Farm in Barbados, an important step towards our long-term vision of 100 percent renewable electrification of Barbados by 2045.

v) Long term strategy has been influenced by climate change:

Emera's strategy is focused on the transformation of the utility industry to cleaner generation and the delivery of that clean energy to market. For example, Emera's Cape Sharp Tidal, a joint venture with OpenHydro, installed its first 2MW test tidal turbine in the Bay of Fundy in 2016. Emera is excited to lead the way in building a tidal industry into the future, generating economic growth and investing in energy innovation for the region.

vi) Paris Climate Agreement has influenced the business strategy:

Emera is supportive of the Paris Climate Agreement and our existing strategy is in line with goals to reduce greenhouse gas emissions. Our strategy, which has been in place for a number of years, is to move from higher carbon to lower carbon generation sources while meeting the market demand for cleaner, affordable energy. For example, at Nova Scotia Power our rapid transition towards renewable energy, which tripled over the past 10 years, demonstrates our commitment to greenhouse gas reduction.

vii) How is this gaining strategic advantage over your competitors:

Emera continues to be a successful company exceeding its growth and financial targets. In 2016, Emera's adjusted earnings per share grew almost 23 percent and

operating cash flow grew 45 percent to \$1.05 billion. These strong results were driven by the performance of our regulated utilities and the addition of Emera Florida and New Mexico. Realizing robust and long term total shareholder return is an important gauge for our performance. Over the last ten years Emera has delivered consistent TSR totaling 208 percent. That means \$100 invested at the beginning of 2007 is now worth \$308. Over the last five years, Emera has delivered an annualized TSR of 11 percent compared to 8.2 per cent delivered by S&P TSX Capped Utilities Index and 5.5 percent delivered by TSX Composite.

viii) Do you use forward-looking scenario analysis:

Emera completes forward-looking analysis to consider different generation scenarios for different constraints including carbon emissions. These future looking scenarios consider what the energy profiles in the areas that Emera operates will look like many years from now. Modifications to our assets are planned accordingly.

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**CC2.2b**

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

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**CC2.2c**

**Does your company use an internal price on carbon?**

No, but we anticipate doing so in the next 2 years

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**CC2.2d**

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

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**CC2.3**

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

Direct engagement with policy makers

Trade associations

Funding research organizations

**CC2.3a**

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

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Clean energy generation	Support with minor exceptions	Canada and 194 other countries reached the Paris Climate Agreement in December 2015, which calls for significant reductions in GHG emissions to limits to global warming to less than 2°C, and to pursue efforts to limit it to 1.5°C above preindustrial levels. Canada has also submitted a target under the Paris Climate Agreement to reduce its GHG emissions by 30% below 2005 levels by 2030. The Government of Canada has joined in partnership with its provinces and territories to take action on climate change.	Emera is supportive of Canada's commitment to the Paris Climate Agreement and its target to reduce GHG emissions with minor exceptions. Emera believes that flexible cost effective solutions need to be considered to meet Canada's GHG target and that emission reduction targets must be shared fairly and equitably across provinces and territories. Nova Scotia will adopt a province-wide 2030 emission reduction target equal to or greater than Canada's target of a 30-percent reduction from 2005 levels by 2030 using a cap and trade systems.
Clean energy generation	Support	Canada's Federal Reduction of Coal Fired Generation of Electricity Regulations note that all coal fired plants reaching a specific anniversary date should be shut down or meet a specified emission limit target. The Province of Nova Scotia had already set hard CO2 emission caps and Nova Scotia Power had an implementation plan to meet these caps. There was	Emera is supportive of a new legislative equivalency agreement that has been established between the Federal Government and the Province of Nova Scotia to recognize Nova Scotia's greenhouse gas regulations for the electricity sector as equivalent to meeting the requirements of the federal regulation. The new equivalency agreement will enable the

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
		engagement between the federal government and the province to establish a new equivalency agreement to meet these regulations.	Province of Nova Scotia to meet the goals of the legislation to move directly from fossil fuels to clean energy sources. Nova Scotia Power's coal-fired plants will operate at some capacity beyond 2030, which will provide rate stabilization to customers.
Clean energy generation	Support	In early 2007 and updated in 2010, the Province of Nova Scotia created the Renewable Electricity Regulations to help guide the transformation in how Nova Scotia Power generates electricity today, and the mandate targets for the future. Regulations require that each year beginning with the calendar year 2015 until 2020, Nova Scotia Power must supply its customers with renewable electricity in an amount equal to or greater than 25% of the total amount of electricity supplied to its customers as measured at the customers' meters for that year. Beginning in 2020 this amount increases to 40%.	Emera is supportive of this legislation. NSPI is working together with governments, independent power producers, and others, to meet these requirements and putting in place new sources of electricity that reduce our reliance on coal.
Cap and trade	Support	The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory market-based program in the United States to reduce greenhouse gas emissions. RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce CO2 emissions from the power sector.	Emera is supportive of the Regional Greenhouse Gas Initiative (RGGI). Emera Energy's gas plants in Connecticut, Maine and Rhode Island all verify their CO2 emissions annually under the program.

**CC2.3b**

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

Yes

CC2.3c

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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Canadian Electricity Association (CEA)	Consistent	<p>Founded in 1891, the Canadian Electricity Association (CEA) is the national forum and voice of the evolving electricity business in Canada. The CEA emphasizes that the long-term climate change trend is clear. Global greenhouse gas emission levels are expected to rise, and climate impacts are expected to become more frequent and intense. The CEA believes we must prepare for climate change and plan adaptive measures now, because the costs of inaction will exceed the costs of adaptation. The CEA acknowledges that Canada's electricity sector is uniquely positioned to power a clean future that meets the country's ambitious climate change targets.</p>	<p>NSPI is a member of the CEA and is supportive of the CEA's position. NSPI participates in various CEA working groups dealing with climate change issues. Working groups are tasked with various annual work plans that they have to achieve. Positions will be negotiated with working group members. These positions are then communicated to CEA senior leadership. Karen Hutt, President and CEO of Nova Scotia Power, sits on the CEA Board of Directors.</p>
Edison Electric Institute (EEI)	Consistent	<p>Founded in 1993, the Edison Electric Institute (EEI) is an association that represents all US investor-owned electric companies. EEI provides public policy leadership, strategic business intelligence, and essential conferences and forums. The EEI acknowledges that global climate change presents one of the biggest energy and environmental policy challenges in the United States. EEI member companies are committed to</p>	<p>Tampa Electric, as a US-investor owned electric company and Emera Inc., as an international company, are both members of the EEI and are supportive of the EEI's position. Emera Inc. participates on the Environmental Executive Advisory Committee, a subcommittee that meets on climate change issues. Multiple senior level employees sit on this committee.</p>



Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
		addressing this challenge through a wide range of initiatives to reduce, avoid, or sequester GHG emissions. The EEI also emphasizes that policies to address climate change should seek to minimize impacts on consumers and avoid harm to US industry and the economy.	

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**CC2.3d**

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

Yes

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**CC2.3e**

Please provide details of the other engagement activities that you undertake

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**CC2.3f**

**What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Our strategy on transforming our sector from high-carbon to low-carbon energy sources at Emera is well established and communicated. Senior Leaders at each affiliate make certain that interactions are consistent with the overall strategy. This is also discussed at the Emera Executive and Board of Directors. The strategy is

also currently discussed within the management teams of each affiliate and is part of future strategic business planning sessions. To make certain that the strategy is consistently communicated across all affiliates members of the Emera executive sit on all of the individual affiliate Board of Directors.

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**CC2.3g**

Please explain why you do not engage with policy makers

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**Further Information**

**Page: CC3. Targets and Initiatives**

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**CC3.1**

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

Absolute target

Renewable energy consumption and/or production target

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**CC3.1a**

**Please provide details of your absolute target**

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1	30%	20%	2009	9400000	2020	No, and we do not anticipate setting one in the next 2 years	In 2020, the total annual emissions for Nova Scotia Power must be below 7.5 Mt of CO2e. Nova Scotia Power reached this target in 2014. In 2009, the province of Nova Scotia established greenhouse gas emission regulations which made the province one of the leaders in Canada for setting absolute targets. Nova Scotia Power is a major contributor to greenhouse gas emissions in the province. Emission reduction contributions such as these hard targets will help Canada meet its Paris Climate Agreement commitments.
Abs2	Scope 1	30%	52%	2009	9400000	2030	No, and we do not anticipate setting one in the next 2 years	In 2030, the total annual emissions from Nova Scotia Power must be below 4.5Mt of CO2e, a reduction of 3.0Mt from 2020 targets.

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
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CC3.1c

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

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
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CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
RE1	Electricity	2009		0%	2020	40%	Each year beginning with the calendar year 2020. Nova Scotia Power must

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
	production						supply its customers with renewable electricity in an amount equal to or greater than 40% of the total amount of electricity supplied to its customers as measured at the customers' meters for that year. Nova Scotia Power has achieved the most rapid transition to renewable energy of any utility in Canada tripling its renewable energy in 10 years. The company has integrated proportionately more wind on its system than any utility in Canada.
RE2	Electricity production	2009		0%	2045	100%	In 2016, Emera completed the 10 MW St. Lucy Solar Farm in Barbados. The project is part of a larger vision our company has for the Island with our goal of 100 percent renewable electrification of Barbados by 2045.

**CC3.1e**

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

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	100%	100%	This target was reached by Nova Scotia Power in 2014. The total annual emissions emitted by NSPI were below 7.5Mt of CO <sub>2</sub> e.
Abs2	33%	63%	Nova Scotia Power is well on its way to achieving annual total emissions of below 4.5Mt of CO <sub>2</sub> e by 2030.
RE1	64%	70%	Nova Scotia Power is well on its way to meeting its legislated 40% renewable requirement

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
			that takes effect in 2020.
RE2	19%	4%	Our 10MW solar farm is the first step along our journey towards this renewable energy target. Success of this project sets the stage for future projects on the Island.

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**CC3.1f**

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

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**CC3.2**

**Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?**

No

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**CC3.2a**

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
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**CC3.3**

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

Yes

**CC3.3a**

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

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	
To be implemented*	1	48
Implementation commenced*	6	1288413
Implemented*	3	29819
Not to be implemented	1	

**CC3.3b**

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Low carbon energy installation	In 2016, Barbados Light and Power completed the 10MW St. Lucy Solar Farm in Barbados. The 42-acre solar PV generating station is the first utility-scale solar plant in Barbados.	21000	Scope 1	Voluntary	11610000	58050000	4-10 years	21-30 years	Emera has a vision to achieve 100 percent renewable electrification of Barbados by 2045. Consistent with Emera's approach on renewables, this solar farm will facilitate future energy storage and electric vehicle penetration on the island of Barbados. The project is anticipated to displace 70,000 barrels of oil annually.
Low carbon energy installation	In 2016, Bridgeport Energy, a subsidiary of Emera Energy, completed its 248 kW rooftop solar project. The solar	48	Scope 1	Voluntary	145714	1020000	4-10 years	16-20 years	Success from this project has encouraged the construction of a similar solar roof at Emera



Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	energy will be used to supply power to the plant and increase output without adding emissions.								Energy's Tiverton Plant. Construction of the solar roof will be completed in 2017.
Energy efficiency: Processes	Emera Energy's Tiverton plant completed a 50 day planned major upgrade outage in 2016. The upgrade resulted in an increase generating capacity of approximately 20 MW, a 2-3 percent increase in gas turbine efficiency and plant heat rate reduction of approximately 200 btu/KWh. The technology investments made during the upgrade will improve the emissions profile at the plant as well.	8771	Scope 1	Voluntary	5422222	24400000	4-10 years	21-30 years	The major life-cycle maintenance upgrade included a larger mass flow compressor, new upgraded metallurgy and cooling characteristics of the turbine section as well as state of the art combustion hardware.

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**CC3.3c**

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

<b>Method</b>	<b>Comment</b>
Compliance with regulatory requirements/standards	Emera's strategy is focused on the transformation of the electricity industry to cleaner generation and the delivery of that clean energy to market. Across Emera jurisdictions there are established or emerging requirements for GHG emissions.
Dedicated budget for energy efficiency	Emera affiliates Nova Scotia Power, Emera Maine, Tampa Electric, Peoples Gas, and New Mexico Gas all support energy efficiency programs.

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**CC3.3d**

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

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**Further Information**

**Page: CC4. Communication**

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**CC4.1**

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

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	1-5, 8, 9, 19, 22, 85-86, 179-181	<a href="https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/Emera Inc 2016 Annual Report.pdf">https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/Emera Inc 2016 Annual Report.pdf</a>	Throughout our Annual Report we discuss our strategic focus on transforming our sector from high-carbon to low-carbon energy sources.
In voluntary communications	Complete	1	<a href="https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/NSPI Renewable Electricity and Emissions Regulations.pdf">https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/NSPI Renewable Electricity and Emissions Regulations.pdf</a>	This section of the Nova Scotia Power website discusses our transition towards renewable energy. Nova Scotia Power has achieved the most rapid transition to renewable energy of any utility in Canada.
In voluntary communications	Complete	1-2	<a href="https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/NSPI Today's Power.pdf">https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/NSPI Today's Power.pdf</a>	This website provides real-time information to Nova Scotia Power customers about our electricity generation specifically our renewable generation.
In voluntary communications	Complete	1-3	<a href="https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/Tampa Electric Renewable Energy Annual Update.pdf">https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC4.1/Tampa Electric Renewable Energy Annual Update.pdf</a>	Since 2000, Tampa Electric has been producing electricity from renewable energy available to residential and commercial customers. The company produces a Renewable Energy Annual Update available on its website.

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Underway - this is our first year			In the fall of 2017, Emera will launch its first sustainability report publically on its website.

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**Further Information**

**Module: Risks and Opportunities**

**Page: CC5. Climate Change Risks**

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**CC5.1**

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

Risks driven by changes in regulation

Risks driven by changes in physical climate parameters

Risks driven by changes in other climate-related developments

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**CC5.1a**

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Voluntary agreements	There is uncertainty surrounding the implementation of Canada's commitment under the Paris Climate Agreement to reduce its GHG emissions by 30% below 2005 levels by 2030. In October 2016, the Government of Canada announced that a Pan-Canadian Framework would include a national price on carbon component, implemented by 2018 through either a carbon tax or a cap and trade	Increased operational cost	1 to 3 years	Direct	Virtually certain	Medium	Should more ambitious GHG emission reduction targets be set by the Province of Nova Scotia during the equivalency agreement negotiations, Nova Scotia Power estimates that it will incur increased operational and asset costs. This could be up to and including retirement of thermal plants before their scheduled retirement dates	Nova Scotia Power manages this risk by communicating and negotiating regularly with the Nova Scotia Department of Energy, the Nova Scotia Department of Environment and federally with the Department of Energy and Environment and Climate Change Canada regarding emissions targets and timelines such as through emission reduction agreements with the Province.	Nova Scotia Power has been implementing programs to reduce greenhouse gas emissions while meeting the demand for clean affordable energy. The capital costs associated with meeting current emission reduction targets to 2030 have been forecasted by Nova Scotia Power. Costs to meet the Paris Climate Agreement may not add to these costs.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>system. On November 21, 2016, the Government of Canada announced a second component of the plan that would include an accelerated plan to phase out coal in Canada, to transition Canada's electricity system towards 90 percent non-emitting generation sources by 2030. In response to these announcements, Nova Scotia Power is currently negotiating the details of a new</p>						<p>which could cost up to \$1.3 billion to Nova Scotia Power ratepayers.</p>	<p>Nova Scotia Power is pursuing various renewable energy opportunities and has made one of the fastest transitions to renewable energy of any utility in Canada. We have tripled our renewable energy in 10 years. We have also created a website for our customers that shows them real-time information about our electrical generation, specifically renewable</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>equivalency agreement on greenhouse gas reductions with the Province of Nova Scotia to help contribute to the federal emissions target. These reductions will also be part of the Province's cap and trade program which is currently under development.</p>							<p>generation. The Government of Canada has proposed a national benchmark requirement of \$10/tonnes of CO2 by 2018, which will rise by \$10 each year to \$50/tonne in 2022. As the details of the federal and provincial targets are still being negotiated the magnitude of impact to Nova Scotia Power remains at medium. Nova Scotia Power</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								continues to be on track to transform the company from relying on fossil-fuel based generation to renewable generation and meet its renewable targets for 2020 and regulated GHG targets. The timeframe for this risk was reduced to 1 to 3 years due to the 2018 Canadian CO2 benchmark timeframe.	
Uncertainty surrounding new regulation	There is uncertainty surrounding greenhouse gas	Increased operational cost	>6 years	Direct	Likely	Medium	Emera Energy is making investments to	Emera Energy recognizes that its natural gas	Emera Energy conducts regular updates to its



Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>regulations in the United States now that the proposed Clean Power Plan is being repealed and the Trump administration has pulled out of the Paris Climate Agreement. Individual States continue to develop and/or administer their own greenhouse gas reduction initiatives.</p>						<p>improve the performance of its natural gas generation assets in New England, creating new long-term value.</p>	<p>combined-cycle plants will play a transitional role in the move from high-emitting coal-fired power plants to renewable energy in the short term. Emera Energy manages this risk by participating in the Regional Greenhouse Gas Initiative (RGGI) in the states of Maine, Connecticut and Rhode Island and communicating with state regulators on this initiative. The magnitude of</p>	<p>short term and long term strategy and is closely following developments. It is difficult for Emera Energy to forecast any operational costs associated with changing federal and state regulations until any new regulations are proposed. Costs will be estimated when firm decisions at federal and state level are made.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>impact to Emera Energy was increased to medium and the timeframe remains unchanged. Emera Energy had allowable allowances under the Regional Greenhouse Gas Initiative (RGGI) of 3.28 million tons (2.97 million tonnes) to cover plant CO2 emissions for 2016. Emera Energy was required to use a portion of these allowances to cover 50% of its actual CO2</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								emissions in 2016. Please note that RGGI covers CO2 and not CO2eq emissions.	
Uncertainty surrounding new regulation	There is uncertainty surrounding greenhouse gas regulations in the United States now that the proposed Clean Power Plan is being repealed and the Trump administration has pulled out of the Paris Climate Agreement. Individual States continue to develop and/or administer their own greenhouse gas	Increased operational cost	>6 years	Direct	Likely	Medium	Tampa Electric, a TECO Energy subsidiary, is making investments to improve the efficiency of its some of its existing natural gas assets and is also investing in renewable energy projects. Tampa Electric has been investing in renewable energy options	TECO Energy subsidiaries, in particular Tampa Electric, manage this risk by communicating and negotiating regularly with federal and state regulators regarding and air and greenhouse gas emissions. The magnitude of impact to TECO Energy is medium as specific emission reduction	TECO Energy conducts regular updates to its short term and long term operations strategy and is closely following developments. It is difficult for TECO Energy to forecast any operational costs associated with changing federal and state regulations until any new

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	reduction initiatives.						for residential and commercial customers since 2000. Tampa Electric is aggressively pursuing opportunities to further increase its solar generating capacity.	regulations are not in place. The timeframe for this risk is less than six years.	regulations are proposed. Costs will be estimated when firm decisions at federal and state level are made. When making decisions on efficiency and renewable energy investments Tampa Electric must make certain any decisions align with the demand for clean, affordable energy to customers and that there is not undue burden placed on rate payers.

CC5.1b

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Tropical cyclones (hurricanes and typhoons)	Potential for increased damage to transmission and distribution infrastructure at Barbados Light and Power, Dominica Electricity Services (DOMLEC), Emera Maine, Grand Bahama Power, Nova Scotia Power, and Tampa Electric leading	Inability to do business	>6 years	Direct	More likely than not	Low-medium	Barbados Light and Power, Dominica Electricity Services, Emera Maine, Grand Bahama Power, Nova Scotia Power, and Tampa Electric have incurred significant costs due to increased damage to transmission and	Emera affiliates manage risk by continuing to invest in storm strengthening upgrades to transmission and distribution systems. For example, after Hurricane Matthew devastated the island of Grand Bahama in the fall of 2016, Grand Bahama Power replaced approximately	All Emera utilities have annual programs to consider changes in climate and its impact on infrastructure. For example, Grand Bahama Power spent approximately \$27.5 million dollars in power restoration and storm hardening infrastructure in response to Hurricane

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	to power interruptions and impacts to customers.						distribution infrastructure damaged by storms.	1,600 transmission and distribution poles that came down with stronger class 1 poles. Vegetation management investment to prevent tree contacts with power lines is also a key program for Nova Scotia Power in response to outages caused by vegetation during storms. Nova Scotia Power asset management approach to	Matthew. An application filed by GBPC with the Grand Bahama Port Authority outlined a five-year plan to offset storm restoration costs through prudent cost management and fuel purchase that will result in no rate increase to customers. Nova Scotia Power in its Annual Capital Expenditure report to provincial

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Transmission and Distribution was introduced to protect the company's investments and to maintain system performance levels. Nova Scotia Power has also conducted a vegetation stakeholder review to determine the desired amount of vegetation management spending annually. The magnitude of this risk is expected	regulators expects to spend approximately \$4.5 million dollars annually to widen its 69 kV transmission lines through vegetation clearing. Nova Scotia Power has also proposed increasing vegetation management spending on its distribution system from \$10 million to \$20 million over the next 8 years. Emera Maine has a similar

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								to decrease due to asset and vegetation management initiatives while the timeframe remains unchanged.	capital expenditure approach.
Change in precipitation pattern	Climate change impacts could result in changes in the availability of water for hydro generation by Nova Scotia Power and Dominion Electricity Services (DOMLEC).	Reduction/disruption in production capacity	>6 years	Direct	More likely than not	Low-medium	Failure to manage the risk will result in stranded asset costs to both Nova Scotia Power and Dominion Electricity Services.	To manage this risk Nova Scotia Power is upgrading the dams surrounding hydroelectric facilities to meet the Canadian dam safety guidelines. These upgrades consider an increased probability of flooding. This	Nova Scotia Power will spend approximately \$15 million per year on maintaining dam safety requirements.



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								management method will reduce the magnitude of impact to Nova Scotia Power while the timeframe remains unchanged.	

CC5.1c

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other drivers	Changes in fuel pricing and/or availability of fuel blends have inherent	Increased operational cost	>6 years	Direct	More likely than not	Medium	Fuel costs are affected by commodity costs and generation mix. Fuel contracts may also	Emera manages this risk with a strategy that is focused on the transformation of the electricity industry to	Emera affiliates have fuel adjustment mechanisms that manage fuel risk.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	risks to implementing renewable strategies and meeting emissions targets at Emera.						be exposed to broader global conditions which may include impacts on delivery reliability and price. Not having access to preferential fuel (i.e. natural gas) make achieving emissions targets more complex. Alternatively, extended periods of low oil prices may impact the economics of investment opportunities in renewables. Traditionally, fossil fuels have the lowest cost and renewable energy sources have	cleaner generation and delivery of that clean generation to market. Emera Caribbean is a good illustration of this strategy at work. Progress has been made on improving system reliability and rate stability for customers in Barbados, Dominica and Grand Bahama. At the same time, steps are being made to transition Caribbean utilities to cleaner energy. Barbados commissioned a 10 MW solar installation in St. Lucy in 2016. Emera Caribbean is	These costs have been factored into future generation scenarios. Costs associated with implementing Emera's strategy are also reviewed on a regular basis with senior management. Specific costs are confidential.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							<p>higher costs. However, as technology evolves the cost of renewable energy sources decrease.</p>	<p>pursuing another geothermal opportunity in partnership with Reykjavik Geothermal on the island of St. Vincent. Grand Bahama is collaborating on a biofuel demonstration project. As these strategies get implemented Emera will be less vulnerable to global changes in fuel costs and therefore the magnitude of impact is expected to decrease. The timeframe will remain unchanged.</p>	

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

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CC5.1e

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

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CC5.1f

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

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**Further Information**

**Page: CC6. Climate Change Opportunities**

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CC6.1

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

Opportunities driven by changes in regulation

Opportunities driven by changes in physical climate parameters

Opportunities driven by changes in other climate-related developments

CC6.1a

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other regulatory drivers	Emera sees a business opportunity in the demand for cleaner affordable energy. The focus is on renewables, transmission (renewables to market), gas generation and transmission.	Other: Company growth	1 to 3 years	Direct	Virtually certain	High	Successful implementation of our strategy towards transformation of the electricity industry to cleaner generation and the delivery of that clean energy to market will continue to lead to positive rates of return for	The demand for cleaner energy is transforming New England's electricity market and Emera sees this as an opportunity to deliver solutions for the region. Massachusetts has committed to reducing its carbon emissions by	Operating cash flows continues to be an important driver for our business. It supports our growing dividend and our capital investment plans. In 2016, driven by the addition of Florida and New Mexico

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							<p>shareholders and growth of our company. In 2016, Emera's adjusted earnings per share grew almost 23 percent.. Since 2010, Emera has increased adjusted earning per share at an 8.5 percent compound annual growth rate and has grown the dividend at an 8.8 percent rate over the same period.</p>	<p>80%, economy-wide, by 2050. The region faces a significant retirement of carbon intensive generation facilities, volatile natural gas prices that drive up electricity prices, and electricity transmission constraints. To manage this opportunity, Emera is pursuing new transmission</p>	<p>operations, Emera realized an increase in cash flow from operations, which grew to \$1.05 billion compared to \$726 million in 2015. Emera continues to target having 75–85% of its adjusted earnings come from rate-regulated businesses.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							<p>On July 1, 2016, with the closing of the transaction with TECO Energy, Emera became one of the 20 largest North American publically traded utilities.</p>	<p>projects to bring stably priced, cleaner energy from eastern Canada and northern Maine to customers in southern New England. For example, in 2016 Emera continued to explore the feasibility of the Atlantic Link transmission project, a 560-kilometre underwater transmission project that</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>would join Boston and New Brunswick. Emera Newfoundland and Labrador is investing in the Maritime Link a 500 MW submarine link between the provinces of Newfoundland and Nova Scotia which is expected to be completed by 2017. The Maritime Link will bring hydroelectricity from Muskrat Falls (under</p>	



Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>construction) to Nova Scotia, which will help Nova Scotia Power achieve 40% renewable energy and air emission reduction targets in 2020. Emera's cumulative rate of return has increased over the past number of years. The magnitude of impact of this opportunity continues to be high. The timeframe for</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								this opportunity remains unchanged.	
Fuel/energy taxes and regulations	There is uncertainty surrounding greenhouse gas regulations in the United States now that the proposed Clean Power Plan is being repealed and the Trump administration has pulled out of the Paris Climate Agreement. Individual States continue to develop and/or administer their own greenhouse	Increased demand for existing products/services	3 to 6 years	Direct	Likely	High	In the short term, Emera Energy estimates there will be an increase in demand for generation from its existing combined-cycle natural gas plants resulting in increased revenue.	Emera recognizes that its natural gas combined-cycle plants will play a transitional role in the move from high-emitting coal-fired power plants to renewable energy in the short term. To manage this opportunity at Emera Energy this affiliate participates in	It is difficult for Emera Energy to forecast any increased operational revenue associated with an increase in demand for generation until greenhouse gas reduction initiatives are made by individual states. Costs will be

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>gas reduction initiatives. There is the potential for increased demand for existing clean energy products/services offered by Emera as a result of State initiatives. Emera Energy, an Emera affiliate, runs three combined-cycle natural gas generating units in Maine, Connecticut and Rhode Island.</p>							<p>the Regional Greenhouse Gas Initiative in the states of Maine, Connecticut and Rhode Island and communicates with state regulators on this initiative. In 2016, Emera Energy purchased verified 2,015,774 metric tonnes CO2e emissions under RGGI. Emera Energy also participates in</p>	<p>estimated when firm decisions at the State level are made in response to these initiatives.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>state negotiations regarding greenhouse gas reduction initiatives. Despite the repeal of the Clean Power Plan and United States opting out of the Paris Agreement the magnitude of impact of this opportunity to Emera remains high and the timeframe remains unchanged due to</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								potential state by state initiatives.	
Fuel/energy taxes and regulations	There is uncertainty surrounding greenhouse gas regulations in the United States now that the proposed Clean Power Plan is being repealed and the Trump administration has pulled out of the Paris Climate Agreement. Individual States continue to develop and/or administer their own greenhouse gas reduction	Increased demand for existing products/services	3 to 6 years	Direct	Likely	High	Tampa Electric is predicting an increase in demand for generation in the coming years. Tampa Electric is aggressively pursuing opportunities to further increase it solar generating capacity to provide renewable energy options for its residential and	Since 2010, Tampa Electric has been diversifying its energy portfolio towards renewables. In 2016, the company installed its second large-scale solar array at Legoland contributing 1.8MW to the grid, generated more than 3,000 MWh of	It is difficult for Tampa Electric to forecast any increased operational revenue associated with an increase in demand for generation until greenhouse gas reduction initiatives are made by individual states. Costs will be estimated

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>initiatives. There is the potential for increased demand for existing clean energy products/services offered by Emera as a result of State initiatives. As of December 31, 2016, Tampa Electric, a subsidiary of TECO Energy owned 4,730 megawatts of generating capacity in Florida, of which 60 per cent was natural gas fired units.</p>						commercial customers.	<p>solar energy at its large-scale solar array at Tampa International Airport, continued to offer voluntary purchase of renewable energy for \$5 per block of 200 kWh and began construction of a 23-MW solar array at Big Bend Power Station that will generate enough electricity to power more than 3,300</p>	<p>when firm decisions at the State level are made in response to these initiatives.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>homes. In early 2017, Tampa Electric also completed a conversion of four simple cycle units to more modern and efficient combined cycle units. The expansion added approximately 460MW of generating capacity while increasing the efficiency of the existing units by 37 percent. Despite the</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								repeal of the Clean Power Plan and United States opting out of the Paris Climate Agreement the magnitude of impact of this opportunity to Emera is high and the timeframe is 3 to 6 years due to potential state by state initiatives.	

CC6.1b

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



Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation pattern	Changes in precipitation patterns may change the way that hydro is dispatched by Nova Scotia Power and DOMLEC.	Increased production capacity	>6 years	Direct	Likely	Low-medium	Changes in precipitation patterns would require our hydro systems to be more flexible in their dispatch opportunities. Future planning includes options such as increasing the capacity of existing hydro systems and storage enhancements to facilitate pump storage. Nova Scotia Power estimates that there are over \$500 million in sustaining capital costs required to maintain the operating capability of its existing hydro systems.	This opportunity is managed through specific projects that are included in annual capital expenditure plans. These plans go through regulatory review and approval. Details of hydro projects for Nova Scotia Power are outlined in our Annual Capital Expenditure Plan. Similar capital expenditure planning is conducted at DOMLEC. The magnitude of impact of this opportunity remains low-medium and the timeframe remains unchanged.	The cost of managing this opportunity is currently incorporated into annual budgets at Nova Scotia Power and DOMLEC.

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	Advancements in areas such as electricity storage, smart grids, heat pumps and solar generation provide opportunities for Emera. Emera is working to ensure we are at the forefront of these changes – anticipating and shaping them for the benefit of our customers and shareholders.	New products/business services	>6 years	Direct	Virtually certain	Medium-high	As these new technologies advance so too does the availability and demand for affordable new mechanisms that allow consumers to have more control over their energy usage and for Emera affiliates to introduce more efficient energy solutions for their customers. This includes grid modernization and 'smart grid'	To manage this opportunity Emera stays abreast of advancements in these technologies by participating in conferences, trade shows, membership with the Canadian Electricity Association and the Edison Electric Institute and discussions with our peers. Emera Maine and Nova Scotia Power have	The cost of managing this opportunity is currently incorporated into annual affiliate budgets.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							<p>advances that when combined with in-home products such as heat pumps and electric thermal storage units, have the potential to significantly increase energy efficiency for consumers while allowing Emera affiliates to better manage peak load demand and optimize costs.</p>	<p>recognized the value of heat pumps and have actively marketed the technology. Emera Maine's heat pump pilot project helped hundreds of Emera Maine customers saving them thousands of dollars in heating costs. Nova Scotia Power has created a website for our customers to learn about heat pumps and has developed a heat pump contractor network</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>comprised of professional contractors who have met a list of strict participation criteria and work closely with Nova Scotia Power to ensure compliance. Tampa Electric's Renewable Energy program gives customers the opportunity to purchase renewable energy in 200-kilowatt "block" units at \$5 each per month. Customers have purchased 83 million kWh of</p>	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								renewable energy since 2000. The magnitude of impact of this opportunity remains medium-high and the timeframe remains unchanged.	

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CC6.1d

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

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CC6.1e

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

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CC6.1f

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

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**Further Information**

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

**Page: CC7. Emissions Methodology**

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CC7.1

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

<b>Scope</b>	<b>Base year</b>	<b>Base year emissions (metric tonnes CO2e)</b>
Scope 1	Thu 01 Jan 2009 - Thu 31 Dec 2009	27125365
Scope 2 (location-based)	Thu 01 Jan 2009 - Thu 31 Dec 2009	244638
Scope 2 (market-based)		

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**CC7.2**

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

Please select the published methodologies that you use
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
Other

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**CC7.2a**

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

The carbon dioxide (CO<sub>2</sub>) Scope 1 emissions from stationary combustion are calculated on a monthly basis for each facility within NS Power and annually for Emera Energy facilities. The calculation is a mass balance approach, which includes the mass of fuel consumed, ash disposed, and percent carbons. The CO<sub>2</sub> in the system comes from the combustion of coal, petroleum coke, light fuel oil (LFO), heavy fuel oil (HFO), and natural gas. The total amount produced is then subtracted from the calculated CO<sub>2</sub> potential remaining in the bottom ash and fly ash. The difference is the reported CO<sub>2</sub> emissions from stationary combustion. For Emera Maine, a stack test analysis is used to derive emission factors and annual emission estimates. For Emera Caribbean, IPCC emission factors for CO<sub>2</sub> were used. For Tampa Electric Company, CO<sub>2</sub> emissions are measured by Continuous Electronic Monitoring Systems (CEMS). Peoples Gas and New Mexico Gas emissions are from stationary combustion and equipment leaks. Stationary combustion CO<sub>2</sub> emissions are calculated using the amount of fuel combusted and an emission factor from the EPA Emission Factors for Greenhouse Gas Inventories. CO<sub>2</sub> emissions from equipment leaks are estimated from data collected during field surveys.

Nitrous Oxide (N<sub>2</sub>O) emissions are calculated for all generating stations using emission factors. For Point Aconi, NS Power completed stack testing in 2007, 2008, 2011, 2012, and 2013. This stack testing included instantaneous sampling of N<sub>2</sub>O. The fuel feed rate, moisture content and the calorific value were taken from process data during the time of the stack tests. From the sampling and process data a site specific emission factor for Point Aconi was calculated and used for emissions calculations. Emission factors for the remaining generating stations were taken from the Revised 2006 IPCC Guidelines for National GHG Inventories,

Volume 2, Chapter 2, pg. 2.25, Table 2.6. Tampa Electric Company and Peoples Gas use the emission factor listed in EPA's Emission Factors for Greenhouse Gas Inventories. The N2O tonnes are then multiplied by the global warming potential to determine the CO2eq tonnes. Nitrous oxide emissions are not tracked by New Mexico Gas as this is not a regulatory requirement in the state. Methane (CH4) emissions at Nova Scotia Power are calculated using emission factors. Revised methane emission factors were provided in the Revised 2006 IPCC Guidelines for National GHG Inventories, Volume 2, Chapter 2, pg. 2.25, Table 2.6. Tampa Electric Company, Peoples Gas and New Mexico Gas use the emission factor listed in EPA's Emission Factors for Greenhouse Gas Inventories. The methane tonnes are then multiplied by the global warming potential to determine the CO2eq tonnes. The mass of SF6 released from the substations is determined by weighing the top-up cylinders containing SF6 at the beginning and at the end of the month or year and calculating the difference in weight. The difference in weight is then multiplied by the global warming potential to determine the CO2eq tonnes.

The carbon dioxide equivalent (CO2e) Scope 2 emissions from electricity that is purchased and consumed by Emera affiliates is calculated annually. Purchased electricity for Emera Energy's US gas plants in Connecticut, Rhode Island and Maine were provided by distribution companies whose electricity is supplied from unbundled generation sources. The bulk average emissions rate from the ISO New England Electric Generator Air Emissions Report last updated in 2015 was used for these sources. Purchased electricity for Emera Energy's Canadian plants were provided by NB Power for Bayside Power and Nova Scotia Power for Brooklyn Power. Since Nova Scotia Power provides electricity to Brooklyn Power, the emissions from this electricity production are already included in Nova Scotia Power's Scope 1 emissions. Purchased electricity for Emera Maine was provided by NB Power and TransCanada TransCanada Marketing Ltd. disclosure label was used from April 2017 and provided an air emission intensity factor calculated for emissions between October 2015 and September 2016. The two emission intensity factors were averaged together to calculate the Scope 2 emissions. Finally, Scope 2 emissions calculations were not required for our Emera Caribbean affiliates as these affiliates do not purchase electricity.

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**CC7.3**

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

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



Gas	Reference
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)

#### CC7.4

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
Bituminous coal	32.8	Other: kg N2O per TJ	Nitrous oxide emissions for one generating facility derived from site specific stack tests
Bituminous coal	1.4	Other: kg N2O per TJ	N2O emissions from tangentially fired coal fired plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Bituminous coal	0.5	Other: kg N2O per TJ	N2O emissions from wall fired coal plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Natural gas	0.4	Other: kg N2O per TJ	N2O emissions from gas/diesel oil fired plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Natural gas	1	Other: kg N2O per TJ	N2O emissions from gas/diesel oil fired plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Bituminous coal	0.7	Other: kg CH4 per TJ	CH4 emissions from dry bottom coal fired plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Bituminous coal	1	Other: kg CH4 per TJ	CH4 emissions from circulating bed coal fired plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6

Fuel/Material/Energy	Emission Factor	Unit	Reference
Natural gas	1	Other: CH4 per TJ	CH4 emission from gas fired turbine plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Natural gas	4	Other: CH4 per TJ	CH4 emission from gas fired turbine plants - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.6
Distillate fuel oil No 6	7300	Other: kg CO2 per TJ	CO2 emissions from crude oil fired stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Distillate fuel oil No 6	3	Other: kg CH4 per TJ	CH4 emissions from crude oil fired stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Distillate fuel oil No 6	0.6	Other: kg N2O per TJ	N2O emissions from crude oil fired stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Diesel/Gas oil	74100	Other: kg CO2 per TJ	CO2 emissions from diesel/gas oil fired stationary combustion - 2006 IPCC Guidelines for national GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Diesel/Gas oil	3	Other: kg CH4 per TJ	CH4 emissions from diesel/gas oil fired stationary combustion - 2006 IPCC Guidelines for national GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Diesel/Gas oil	0.6	Other: kg N2O per TJ	N2O emissions from diesel/gas oil fired stationary combustion - 2006 IPCC Guidelines for national GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Jet gasoline	70000	Other: kg CO2 per TJ	CO2 emissions from jet gasoline fired stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Jet gasoline	3	Other: kg CH4 per TJ	CH4 emissions from jet gasoline fired stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Jet gasoline	0.6	Other: kg N2O per TJ	N2O emissions from jet gasoline fired stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-16, Table 2.2
Diesel/Gas oil	0.4	Other: kg N2O per TJ	N2O emissions from diesel/gas oil boilers stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.2

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	0.9	Other: kg CH4 per TJ	CH4 emissions from diesel/gas oil boilers stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.2
Distillate fuel oil No 6	0.3	Other: kg N2O per TJ	N2O emissions from residual fuel oil stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.2
Distillate fuel oil No 6	0.8	Other: kg CH4 per TJ	CH4 emissions from residual fuel oil consumption - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.2
Other: Hog fuel and Sludge	7	Other: kg N2O per TJ	N2O emissions from wood/wood waste boilers stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.2
Other: Hog fuel and Sludge	11	Other: kg CH4 per TJ	CH4 emissions from wood/wood waste boilers stationary combustion - 2006 IPCC Guidelines for National GHG Inventories Volume 2, Chapter 2, Page 2-25, Table 2.2

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#### Further Information

Please note: TECO Energy emissions have been incorporated into Scope 1 and Scope 2 base year emissions. Emissions factors used by Tampa Electric come from the EPA's Greenhouse Gas Inventory Program. Please see the attached document.

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#### Attachments

[https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/EPA Stationary Combustion Emissions Factors.pdf](https://www.cdp.net/sites/2017/19/5519/Climate%20Change%202017/Shared%20Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/EPA%20Stationary%20Combustion%20Emissions%20Factors.pdf)

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

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CC8.1

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

Operational control

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**CC8.2**

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

23424741

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**CC8.3**

**Please describe your approach to reporting Scope 2 emissions**

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have operations where we are able to access electricity supplier emissions factors or residual emissions factors, but are unable to report a Scope 2, market-based figure	

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**CC8.3a**

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

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
5582		We have been incorrectly reporting emissions from generated electricity that is purchased by Nova Scotia Power and sold to end users as Scope 2. These emissions have not been material. These emissions are actually Scope 3 emissions from fuel and energy related activities. Our Scope 2 emissions for 2016 correctly represent electricity that was purchased by remaining Emera affiliates and consumed by these affiliates.

**CC8.4**

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

Yes

**CC8.4a**

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

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Scope 1 emissions from company vehicles	Emissions are	No		Scope 1 emissions from company vehicles across all Emera

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
<p>across all Emera affiliates with transmission and distribution operations are not included in our disclosure. This includes company vehicles at Nova Scotia Power, Emera Maine, Emera New Brunswick (Brunswick Pipeline), Tampa Electric, Peoples Gas, and New Mexico Gas.</p>	<p>relevant but not yet calculated</p>	<p>emissions excluded</p>		<p>affiliates have not been included in our disclosure this year and in our previous years. Although we consider these emissions relevant particularly with Emera's latest acquisition of TECO Energy these emissions are not tracked consistently across all affiliates and are therefore not yet calculated. As our affiliates improve on the data collection of fuel use by company vehicles we will evaluate if these emissions will be included in future submissions. We consider these emissions relevant as we have distribution fleets across many of our affiliates. However, these emissions are not considered material when placed in the context of Scope 1 process/generation station emissions. There are no location-based Scope 2 emissions from this source. Market-based Scope 2 emissions are not applicable from this source.</p>
<p>Scope 1 emissions from the fugitive releases from Brunswick Pipeline are not included in our disclosure.</p>	<p>Emissions are not relevant</p>	<p>No emissions excluded</p>		<p>Emera New Brunswick operates the Brunswick Pipeline, a 145-km natural gas transmission pipeline. Fugitive emissions from the pipeline are tracked but are not considered material to Emera Inc. when placed in the context of Scope 1 process/generation station emissions. Fugitive emissions from Peoples Gas and New Mexico Gas are included in our Scope</p>

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
				1 emissions as the size of these natural gas transmission systems is much larger and their emissions are considered material. There are no location-based Scope 2 emissions from this source. Market-based Scope 2 emissions are not applicable from this source.
Scope 2 location-based emissions from purchased electricity for leased office spaces in Boston and Washington and office spaces for Emera Newfoundland and Labrador, Emera New Brunswick (Brunswick Pipeline), Emera Utility Services, Peoples Gas, and New Mexico Gas are not included in our disclosure.	No emissions excluded	Emissions are not relevant		There are not Scope 1 emissions from this source. Scope 2 location-based emissions from purchased electricity for leased office spaces in Boston and Washington and office spaces for Emera Newfoundland and Labrador, Emera New Brunswick (Brunswick Pipeline), Peoples Gas, and New Mexico Gas are not included in our disclosure. Emera Newfoundland and Labrador has two small leased offices and a field camp in Newfoundland. Emera New Brunswick (Brunswick Pipeline) had a small leased office in Saint John, New Brunswick. Emera Utility Services has a small leased office in Newfoundland. Peoples Gas and New Mexico Gas also do not track electricity usage in leased offices. Electricity is included as part of rental agreements for office spaces and work camps in these locations. The annual kWh used at these locations is not known. Scope 2 location-based emissions from these

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
				leased spaced are not considered material to Emera Inc. when placed in the context of Scope 1 process/generation station emissions. Market-based Scope 2 emissions are not applicable from this source.

**CC8.5**

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

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 5% but less than or equal to 10%	Data Gaps Assumptions Extrapolation	CEMS and stack tests used to calculate Scope 1 emissions at Emera Energy and Tampa Electric plants have measurement and calibration inaccuracies. To avoid such inaccuracies regular maintenance and calibration are conducted according to manufacturer specifications. CEMS and stack tests are also used to calculated Scope 1 emissions at Nova Scotia's Point Aconi Plant and would have similar inaccuracies noted above. All other Nova Scotia Power sites use a mass balance approach to calculate CO2 emissions. The potential source of error in this mass balance approach would be the coal pile



Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
			reconciliation approach, which determines coal burned.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Assumptions	For Emera Maine there were two different energy providers in 2016 whose use differed depending on the rate class and time of year for Emera Maine locations. Different rate classes apply to our facilities depending on their size. Therefore, to simplify the calculation of Scope 2 location-based emissions it was assumed that each of the two electricity providers supplied the same percentage of electricity to Emera Maine. Scope 2 emissions for all other Emera affiliates are based on emissions factors for individual electricity providers e.g., bulk average emissions rates used from ISO New England for our Emera Energy US Gas Plants
Scope 2 (market-based)	Less than or equal to 2%	No Sources of Uncertainty	We are not reporting a Scope 2 (market-based) figure.

**CC8.6**

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

Third party verification or assurance process in place

**CC8.6a**

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Stantec Verification Statement 2016 GHG Emissions Report.pdf">https://www.cdp.net/sites/2017/19/5519/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Stantec Verification Statement 2016 GHG Emissions Report.pdf</a>	pg. 1-5	ISO14064-3	30

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#### CC8.6b

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

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

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#### CC8.7

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

No third party verification or assurance

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#### CC8.7a

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

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
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**CC8.8**

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

Additional data points verified	Comment
No additional data verified	

**CC8.9**

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

Yes

**CC8.9a**

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

458027

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**Further Information**

CC8.2 and CC8.3a TECO Energy emissions have been included in Scope 1 and Scope 2 emissions for 2016. CC8.2 Fossil-fuel based emissions for Port Hawkesbury Biomass (NS Power) and Brooklyn Biomass (Emera Energy) are included in the 2016 submission for completeness. The emissions are below the reporting threshold used by Environment Canada (50,000 tonnes) in 2016. Emera Energy (11% of Emera's Scope 1 emissions) participates in the Regional Greenhouse Gas Initiative where emissions are second party verified. CC8.6a The verification report for NS Power Scope 1 emissions does not include emissions from combustion turbines units and SF6 gas releases from substations in the region. These emissions are below the reporting threshold used by Environment Canada (50,000 tonnes) in 2016. They are included in the Scope 1 emissions in this report for completeness. CC8.6a Emera Energy and Tampa Electric Scope 1 emissions have no third party verification but regulatory CEMS reporting is required with the Environmental Protection Agency who evaluates compliance with CFR 40 Part 75 on Continuous Emissions Monitoring.

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

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**CC9.1**

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

Yes

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**CC9.1a**

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

<b>Country/Region</b>	<b>Scope 1 metric tonnes CO2e</b>
Canada	7751405
United States of America	14592508
Barbados	802216

Country/Region	Scope 1 metric tonnes CO2e
Bahamas	217311
Dominica	61301

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**CC9.2**

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

By business division

By facility

By GHG type

---

**CC9.2a**

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

Business division	Scope 1 emissions (metric tonnes CO2e)
TECO Energy	12573621
Nova Scotia Power	7088222
Emera Energy	2681017
Emera Maine	1053
Barbados Light and Power	802216
Grand Bahama Power Company	217311
Dominica Electricity Services (DOMLEC)	61301

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Bayside (Florida)	3185638		
Big Bend	7650480		
Polk	1603125		
Peoples Gas	72717		
New Mexico Gas	53959		
Tampa Electric T&D	7702		
Lingan	2269676		
Point Aconi	1285108		
Point Tupper	960887		
Trenton	1693033		
Tuft's Cove	532962		
Combustion Turbines	290001		
Port Hawkesbury Biomass	51508		
Nova Scotia Power T&D	5047		
Brooklyn Biomass	2571		
Bayside (New Brunswick)	660612		
Bridgeport	1401448		
Tiverton	449267		
Rumford	167119		
Eastport	25		
Emera Maine T&D	1028		
Spring Garden	564813		
Garrison	11179		
Seawall	226224		
Peel Street Plant	106211		

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
West Sunrise Plant	111100		
Fond Cole	38136		
Sugar Loaf	23165		

---

**CC9.2c**

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	23077177
CH4	151208
N2O	159004
SF6	37352

---

**CC9.2d**

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

Activity	Scope 1 emissions (metric tonnes CO2e)

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**Further Information**

Tampa Electric T&D, Nova Scotia Power T&D, and Emera Maine T&D represent SF6 emissions from substations. Please note that Nova Scotia Power T&D and Emera Maine T&D were labeled Nova Scotia Territory and Maine Territory in previous submissions.

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

---

**CC10.1**

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

Yes

---

**CC10.1a**

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

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes 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	447	0	0	0
United States of America	5135	0	0	0

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**CC10.2**

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



By business division

By facility

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**CC10.2a**

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

<b>Business division</b>	<b>Scope 2, location-based (metric tonnes CO2e)</b>	<b>Scope 2, market-based (metric tonnes CO2e)</b>
Emera Energy	4029	0
Emera Maine	1553	0

---

**CC10.2b**

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

<b>Facility</b>	<b>Scope 2, location-based (metric tonnes CO2e)</b>	<b>Scope 2, market-based (metric tonnes CO2e)</b>
Bayside	447	0
Bridgeport	9	0
Tiverton	1099	0
Rumford	2474	0
Emera Maine T&D	1553	0

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**CC10.2c**

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

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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**Further Information**

Caribbean affiliates Barbados Light and Power, Dominica Electricity Services (DOMLEC), and Grand Bahama Power produce all of their own electricity and therefore do not have Scope 2 emissions. We are not reporting Scope 2 (market-based) figures. Please note that Emera Maine T&D was labeled Maine Territory in previous submissions

**Page: CC11. Energy**

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**CC11.1**

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

More than 50% but less than or equal to 55%

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**CC11.2**

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

Energy type	MWh
Heat	0
Steam	0
Cooling	0

---

**CC11.3**

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

33505336

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**CC11.3a**

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

Fuels	MWh
Bituminous coal	13112603
Distillate fuel oil No 6	1583883
Diesel/Gas oil	77706
Natural gas	17952145
Other: Syngas from petroleum coke blend	779000

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**CC11.4**

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

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	0	As an electric utility we have power purchase agreements with renewable energy produced such as wind and biomass. This energy is then resold to end customers. Therefore, there are no Scope 2 market-based emissions associated with this purchase of energy. Transmission and distribution line losses have been accounted for in our Scope 1 emissions.

CC11.5

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

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment

Further Information

CC12.1

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

Decreased

CC12.1a

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

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	0.21	Decrease	Nova Scotia Power saw a reduction in emissions from 2015 to 2016 as we continued to add renewable energy to our generation mix. In 2015, 26.6% of energy used by Nova Scotians came from renewable energy. This amount rose to 28% in 2016. The calculation is as follows: $(\text{Change in Scope 1+2 emissions attributed to the reason described in column 1} / \text{Previous year Scope 1+2 emissions}) \times 100 = ((7,088,222 - 7,141,394) / 24,930,984) \times 100 = -0.21\%$
Divestment			
Acquisitions	6.28	Decrease	Emera acquired TECO Energy on July 1, 2016. TECO Energy emissions have been incorporated into this year's submission as well as our baseline and 2015 data. Changes to our gross global emissions under this category are a result of incorporating TECO Energy emissions into Emera's emission profile. In 2016, Tampa Electric upgraded single-cycle natural gas units to combined-cycle units and added additional steam generation at its Polk Generation Station. During this upgrade Tampa Electric purchased electricity from other generators to sell to its customers. The calculation is as follows: $(\text{Change in Scope 1+2 emissions attributed to the reason described in column 1} / \text{Previous year Scope 1+2 emissions}) \times 100 = ((12,573,621 - 14,139,461) / 24,930,984) \times 100 = -6.28\%$
Mergers			

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Change in output	0.47	Increase	<p>Emera Energy had an increase output from 2015 to 2016 resulting in an increase in emissions. Emera Energy's natural gas plants continue to fulfil a market need for clean energy in the US Northeast using lower carbon generation sources. Emera Energy completed efficiency upgrades to its Bridgeport Plant in 2015 and Tiverton Plant in 2016. Emera Maine had a decrease in output as use of its remaining diesel unit decreased resulting in fewer emissions. This unit is used intermittently for reliability. SF6 releases also decreased from 2015 to 2016. Emera Caribbean had a decrease in output resulting in a decrease in emissions. This was primarily the result of Hurricane Matthew hitting the island of Grand Bahama in October 2016. This resulted in a decrease in output and a decrease in emissions in Q4 2016 as the distribution and transmission system was rebuilt. Renewable energy progress on the island of Barbados continued with more residential solar added and the commissioning of the St. Lucy solar farm by Barbados Light and Power in 2016. The calculation is as follows: (Change is Scope 1+2 emissions attributed to the reason described in column 1/Previous year Scope 1+2 emissions) x 100 = <math>((3,768,480-3,650,129)/24,930,984)*100 = 0.47\%</math>.</p>
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

**CC12.2**

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.00413	metric tonnes CO2e	4277000000	Location-based	7.4	Decrease	Emera is continuing to advance its strategic plan which is centered on clean, affordable energy with a focus of transforming our sector from high-carbon to low-carbon energy sources. Please note that our intensity figure for 2015 was updated from 0.00393 to 0.004456 to reflect a change in Scope 1 emissions for Nova Scotia Power resulting from third party verification of emissions which was in progress during last year's submission. At the advice of CDP's technical group, TECO Energy's 2015 emissions were incorporated into the 2015 intensity figure so that comparison of our 2016 figure to our 2015 figure would be representative of our company profile as it exists today.

**CC12.3**

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.58	metric tonnes CO2e	megawatt hour (MWh)	30660000	Location-based	9.1	Decrease	Emera is continuing to advance its strategic plan which is centered on clean, affordable energy with a focus of transforming our sector from high-carbon to low-carbon energy sources. Please note that our intensity figure for 2015 was updated from 0.532 to 0.6332 to reflect a change in Scope 1 emissions for Nova Scotia Power resulting from third party verification of emissions which was in progress during last year's submission. At the advice of CDP's technical group, TECO Energy's 2015 emissions were incorporated into the 2015 intensity figure so that comparison of our 2016 figure to our 2015 figure would be representative of our company profile as it exists today.

#### Further Information

For CC12.1a please note that TECO Energy Scope 1 and 2 emissions (14,139,461 tonnes CO2e) were added to the 2015 figure provided in last year's submission as this affiliate was acquired in 2016. The 2015 Nova Scotia Power Scope 1 and 2 emissions were also updated based on third party verification completed after the 2016 submission. The original figure was 7,123,239 tonnes CO2e and the updated figure was 7,141,394 tonnes CO2e. Please note that the updated figure also excludes emissions from generated electricity that is purchased from Nova Scotia Power. We had been incorrectly reporting emissions from generated electricity that is purchased by Nova Scotia Power and sold to end users as Scope 2. These emissions were Scope 3 emissions from fuel and energy related activities. These



emissions are not considered material when compared against Scope 1 emissions. Our Scope 2 emissions for 2016 correctly represent electricity that was purchased by remaining Emera affiliates and consumed by these affiliates.

**Page: CC13. Emissions Trading**

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**CC13.1**

**Do you participate in any emissions trading schemes?**

Yes

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**CC13.1a**

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

<b>Scheme name</b>	<b>Period for which data is supplied</b>	<b>Allowances allocated</b>	<b>Allowances purchased</b>	<b>Verified emissions in metric tonnes CO2e</b>	<b>Details of ownership</b>
Regional Greenhouse Gas Initiative	Fri 01 Jan 2016 - Sat 31 Dec 2016	0	0	2015774	Other: These are fully owned by Emera Energy and were purchased from various parties

---

**CC13.1b**

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

Emera Energy is currently the only company in Emera Inc. participating in an emission trading scheme. Emera Energy purchases allowances in the Regional Greenhouse Gas Initiative to offset emissions from its US Gas Plants when needed.

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**CC13.2**

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

No

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**CC13.2a**

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

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
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**Further Information**

Please note that the Regional Greenhouse Gas Initiative (RGGI) covers CO2 and not CO2eq emissions. Also, RGGI compliance is not demonstrated on an annual basis but over a 3 year period with interim compliance targets. Emera Energy typically does not buy allowance annually either. Emera Energy will often get involved in futures contracts that will provide them as needed.

**Page: CC14. Scope 3 Emissions**

---

**CC14.1**

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not evaluated				
Capital goods	Not evaluated				
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	2163869	The carbon dioxide equivalent (CO2e) Scope 3 emissions from generated electricity that is purchased by Nova Scotia Power and Tampa Electric and sold to end users is calculated annually. Purchased electricity for NS Power in 2016 was provided by NB Power and an emission intensity rate was provided from the utility. Purchased electricity for Tampa Electric was provided by multiple generators in the Florida Region. Therefore, Tampa Electric Company used the regional CO2e emission factor listed in EPA's Emissions & Generation Resource Integrated Database (eGRID) to calculate these Scope 3 emissions.	0.00%	Nova Scotia Power and Tampa Electric purchase electricity from other utilities and sell it to their customers.
Upstream transportation	Not				

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
and distribution	evaluated				
Waste generated in operations	Not evaluated				
Business travel	Not evaluated				
Employee commuting	Not relevant, explanation provided				We anticipate that the results would not be material to Emera when placed in the context of process/generating station emissions. As an electric utility employee commuting would be less than one percent of our global emissions.
Upstream leased assets	Not evaluated				
Downstream transportation and distribution	Not relevant, explanation provided				Emera is an energy company and does not technically have a product that would require vehicle transportation. Energy is transmitted through transmission and distribution lines. Line loss has been accounted for in our Scope 1 emissions and therefore there would be zero scope 3 emissions from this source.
Processing of	Not relevant,				Emera is an energy company, mainly electricity,

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
sold products	explanation provided				and although the product would be used by customers as a process input it would not be processed according to the definition. There would be zero scope 3 emissions from this source.
Use of sold products	Relevant, calculated	7308754	The Scope 3 emissions for Peoples Gas and New Mexico Gas are calculated using methodology from the Code of Federal Regulations 98.403 Calculating GHG Emissions part (b). This methodology is part of the federal Greenhouse Gas Reporting Program (GHGRP).	0.00%	Peoples Gas and New Mexico Gas are affiliates that offer local distribution of natural gas. These affiliates track Scope 3 end-user combustion of natural gas in Florida and New Mexico, respectively. The data used for this calculation is the amount of natural gas sold annually by Peoples Gas and New Mexico Gas. The data does not come from suppliers or value chain partners. Please note that Emera's Brunswick Pipeline is a natural gas transmission pipeline. Emera New Brunswick, the owner of Brunswick Pipeline, is not a local distributor of natural gas in New Brunswick and therefore does not calculate Scope 3 emissions.
End of life treatment of sold	Not relevant,				As an energy company, Emera does not sell a

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
products	explanation provided				product that would fall within these parameters and customers impacts associated with the use of the product would be captured under fuel/energy related activities. There would be zero scope 3 emissions from this source.
Downstream leased assets	Not evaluated				
Franchises	Not relevant, explanation provided				Emera does not have franchises. There would be zero scope 3 emissions from this source.
Investments	Relevant, not yet calculated				
Other (upstream)	Not evaluated				
Other (downstream)	Not evaluated				

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

No third party verification or assurance

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**CC14.2a**

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)

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**CC14.3**

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

Yes

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**CC14.3a**

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

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Use of sold products	Change in output	18	Increase	Sales of natural gas distributed by Peoples Gas and New Mexico Gas increased from 2015 to 2016.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Acquisitions	233	Increase	The increase is due to the acquisition of TECO Energy in 2016. Scope 3 emissions at Tampa Electric increased from 2015 to 2016 due to a high summer demand for electricity and electricity purchases required during the Polk Power Station upgrade. Tampa Electric is continuing on a path towards cleaner generation with projects focusing on improving efficiency of its natural gas turbines at Polk Power Station and its 23 MW solar array project at Big Bend Solar.

#### CC14.4

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

Yes, our customers

Yes, other partners in the value chain

#### CC14.4a

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

Emera affiliates talk to their customers via formal routes such as AGMs and responding to customer inquiries. We provide information to our customers on our strategy towards cleaner, affordable energy and solicit their feedback. We engage with other partners in the value chain through regular communication with shareholders and developing positive relationships with regulators (utility review boards, government officials, politicians) to communicate our strategy.



The engagements are prioritized based on how best we can communicate our strategy to our customers. Our goal is to engage with as many customers as possible through meetings with community groups, being more engaged in social media, and attending community events. We measure success based on positive response and understanding of our strategy. We also measure success by an increase in share price, growth of the company and reputation in the media.

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CC14.4b

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

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
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CC14.4c

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

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**Further Information**

**Module: Sign Off**

**Page: CC15. Sign Off**

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CC15.1

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

Name	Job title	Corresponding job category
Scott Balfour	Chief Operating Officer, Emera Inc.	Chief Operating Officer (COO)

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**Further Information**

**Module: Electric utilities**

**Page: EU0. Reference Dates**

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**EU0.1**

Please enter the dates for the periods for which you will be providing data. The years given as column headings in subsequent tables correspond to the "year ending" dates selected below. It is requested that you report emissions for: (i) the current reporting year; (ii) one other year of historical data (i.e. before the current reporting year); and, (iii) one year of forecasted data (beyond 2021 if possible).

Year ending	Date range
2016	Fri 01 Jan 2016 - Sat 31 Dec 2016
	Thu 01 Jan 2015 - Thu 31 Dec 2015

Year ending	Date range

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**Further Information**

**Page: EU1. Global Totals by Year**

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**EU1.1**

In each column, please give a total figure for all the countries for which you will be providing data for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emission intensity (metric tonnes CO <sub>2</sub> e/MWh)
2016	9511	34895	23284287	0.67
2015	9498	36371	24920946	0.69

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**Further Information**

**Page: EU2. Individual Country Profiles - Bahamas**

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**EU2.1**

Please select the energy sources/fuels that you use to generate electricity in this country

Oil & gas (excluding CCGT)

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EU2.1a

**Coal - hard**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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EU2.1b

**Lignite**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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EU2.1c

**Oil & gas (excluding CCGT)**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	98	329	217311	0.66
2015	98	372	231889	0.62

---

**EU2.1d**

**CCGT**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

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**EU2.1e**

**Nuclear**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)

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**EU2.1f****Waste**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1g****Hydro**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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**EU2.1h****Other renewables**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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**EU2.1i**

**Other**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1j**

**Solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1k**

**Total thermal including solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
2016	98	329	217311	0.66
2015	98	372	231889	0.62

---

**EU2.11****Total figures for this country**

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
2016	98	329	217311	0.66
2015	98	372	231889	0.62

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**Further Information**

**Page: EU2. Individual Country Profiles - Barbados**

---

**EU2.1**



**Please select the energy sources/fuels that you use to generate electricity in this country**

Oil & gas (excluding CCGT)

---

**EU2.1a**

**Coal - hard**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1b**

**Lignite**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1c**

**Oil & gas (excluding CCGT)**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	252	1049	802216	0.76
2015	252	966	799373	0.83

---

**EU2.1d****CCGT**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1e****Nuclear**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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**EU2.1f**

**Waste**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1g**

**Hydro**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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**EU2.1h**

**Other renewables**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
-------------	-------------------------	------------------

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**EU2.1i**

**Other**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1j**

**Solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1k****Total thermal including solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	252	1049	802216	0.76
2015	252	966	799373	0.83

---

**EU2.1l****Total figures for this country**

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	252	1049	802216	0.76
2015	252	966	799373	0.83

---

**Further Information**

EU2.1

Please select the energy sources/fuels that you use to generate electricity in this country

Coal - hard

Oil & gas (excluding CCGT)

CCGT

Hydro

Other renewables

EU2.1a

Coal - hard

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	1244	6101	6208704	1.02
2015	1244	6363	6175372	0.97

EU2.1b

Lignite

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1c**

**Oil & gas (excluding CCGT)**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	536	831	536867	0.65
2015	531	1032	680602	0.66

---

**EU2.1d**

**CCGT**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	439	2279	946708	0.42
2015	439	2167	937550	0.43

---

**EU2.1e**

**Nuclear**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)

---

**EU2.1f**

**Waste**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

---

**EU2.1g**



### Hydro

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	414	820
2015	414	1016

---

### EU2.1h

#### Other renewables

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	82	261
2015	82	260

---

### EU2.1i

#### Other

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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#### EU2.1j

##### Solid biomass

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	93	269	54079	0.20
2015	93	273	32447	0.12

#### EU2.1k

##### Total thermal including solid biomass

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	2312	9480	7746350	0.82

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2015	2307	9835	7825971	0.80

## EU2.11

### Total figures for this country

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	2808	10561	7746350	0.73
2015	2803	11111	7825971	0.70

## Further Information

2015 absolute emission numbers were updated to reflect adjustments to Nova Scotia Power Scope 1 emissions based on the third party verification report received after the 2016 submission. Only emissions from combustion are included. SF6 and fugitive emission releases are not included.

**Page: EU2. Individual Country Profiles - Dominica**

## EU2.1

Please select the energy sources/fuels that you use to generate electricity in this country

Oil & gas (excluding CCGT)

Hydro

---

**EU2.1a**

**Coal - hard**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1b**

**Lignite**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1c**

**Oil & gas (excluding CCGT)**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	18	75	61301	0.81
2015	18	83	67160	0.81

---

**EU2.1d****CCGT**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1e****Nuclear**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)

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**EU2.1f**

**Waste**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

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**EU2.1g**

**Hydro**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	6	36
2015	6	24

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**EU2.1h**

**Other renewables**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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**EU2.1i****Other**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1j****Solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1k**

**Total thermal including solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	18	75	61301	0.81
2015	18	83	67160	0.81

**EU2.1l**

**Total figures for this country**

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	24	111	61301	0.55
2015	24	107	67160	0.63

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**Further Information**

**Page: EU2. Individual Country Profiles - United States of America**

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**EU2.1**

**Please select the energy sources/fuels that you use to generate electricity in this country**

Coal - hard

Oil & gas (excluding CCGT)

CCGT

Other renewables

Other

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**EU2.1a**

**Coal - hard**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	1823	7012	7344461	1.05
2015	1823	6650	4940882	0.74

#### EU2.1b

##### Lignite

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

#### EU2.1c

##### Oil & gas (excluding CCGT)

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	1055	2815	1746589	0.62
2015	1067	3813	2854801	0.74

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**EU2.1d****CCGT**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

<b>Year ending</b>	<b>Nameplate capacity (MW)</b>	<b>Production (GWh)</b>	<b>Absolute emissions (metric tonnes CO<sub>2</sub>e)</b>	<b>Emissions intensity (metric tonnes CO<sub>2</sub>e/MWh)</b>
2016	3124	12235	4853052	0.40
2015	3104	12126	7317070	0.60

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**EU2.1e****Nuclear**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

<b>Year ending</b>	<b>Nameplate capacity (MW)</b>	<b>Production (GWh)</b>

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**EU2.1f****Waste**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1g**

**Hydro**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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**EU2.1h**

**Other renewables**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	2	3
2015	2	6

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**EU2.1i****Other**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	326	779	513000	0.66
2015	326	1190	883801	0.74

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**EU2.1j****Solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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**EU2.1k****Total thermal including solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	6328	22841	14457101	0.63
2015	6320	23779	15996554	0.67

## EU2.11

### Total figures for this country

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	6330	22844	14457101	0.63
2015	6322	23785	15996554	0.67

### Further Information

Please note: Tampa Electric emissions have been added for 2016 as the company was acquired by Emera in 2016. For comparison purposes Tampa Electric emissions were added for 2015 as well. Only emissions from combustion are included. SF6 and fugitive emission releases are not included.

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**EU3.1**

In certain countries, e.g. Italy, the UK, the USA, electricity suppliers are required by regulation to incorporate a certain amount of renewable electricity in their energy mix. Is your organization subject to such regulatory requirements?

Yes

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**EU3.1a**

Please provide the scheme name, the regulatory obligation in terms of the percentage of renewable electricity sourced (both current and future obligations) and give your position in relation to meeting the required percentages

Scheme name	Current % obligation	Future % obligation	Date of future obligation	Position in relation to meeting obligations
Canadian province scheme – Nova Scotia	25%	40%	2020	Nova Scotia Power's transition strategy is designed to achieve these obligations and plans and initiatives are underway to achieve compliance for our 2020 obligation. In 2016, Nova Scotia Power set a renewable energy record in 2016 with 28% of the electricity used by Nova Scotians coming from renewable resources. This amount exceeded the legislated requirement of 25% and is above our previous high of 26.6% set in 2015.

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**Further Information**

The load-serving entity must have 40% of energy from renewables but this target allows the use of existing older renewable energy sources as well as new low impact sources in the compliance determination.

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**EU4.1**

Please give the contribution of renewable electricity to your organization's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) in the current reporting year in either monetary terms or as a percentage

Please give:	Monetary figure	%	Comment
Renewable electricity's contribution to EBITDA			

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**EU4.2**

Please give the projected contribution of renewable electricity to your organization's EBITDA at a given point in the future in either monetary terms or as a percentage

Please give:	Monetary figure	%	Year ending	Comment
Renewable electricity's contribution to EBITDA				

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**EU4.3**

Please give the capital expenditure (capex) planned for the development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan

Please give:	Monetary figure	%	End year of capex plan	Comment
Capex planned for renewable				



Please give:	Monetary figure	%	End year of capex plan	Comment
electricity development				

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**Further Information**

CDP 2017 Climate Change 2017 Information Request