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# CEO Message

The pace of change in the energy industry continues to accelerate, driven by major trends including decarbonization, digitalization and decentralization. At Emera, our proven strategy enables us to continue to be a leader in this change, finding new ways to keep delivering for our customers, investors, communities and the environment.

We've been focused on safely delivering cleaner, affordable and reliable energy for more than a decade. And increasingly, we're finding ways to give customers greater energy choice and control. We're investing in cleaner energy, new technologies and modernized infrastructure. And we're working with regulators, policy makers and industry peers to help shape the constructive regulatory environments needed to meet evolving customer expectations, while ensuring the pace of change is always balanced against affordability.

In this light we see sustainability as fundamental to our strategy. And it's also at the heart of our culture. It drives our key environmental priorities to use less coal and reduce greenhouse gas (GHG) emissions, while increasing our investments in renewables and lower-carbon energy. It reinforces how we deliver social value, through our commitments to safety, to inclusion and diversity, to strong relationships and communities, and to being an employer of choice. And it's supported by strong governance practices across our business, from our Board of Directors and executive leadership teams through to our entire team.

We're proud of the progress we're making, and we're pleased to share it with you in this 2018 Sustainability Update. But we know there is always more to be done - not only because it makes good business sense, but also because it's the right thing to do.

We want to keep hearing your thoughts on the work we do and the information that's important to you. Please feel free to get in touch at [CEO@emera.com](mailto:CEO@emera.com).

**Scott Balfour**  
**President & CEO, Emera**



# Highlights

All data in the 2018 Sustainability Update is as of Dec. 31, 2018, unless otherwise indicated.



**832 MW**

installed renewable capacity (19.5% increase from 2017)



**24%**

reduction in GHG emissions since 2005



**70%**

reduction in coal (as a proportion of total generation mix since 2005)



**\$18.7M**

invested in our communities in 2018



**13.4%**

decrease in OSHA Injury rate from 2017



**Top 100**

One of Canada's Top 100 Employers for 2019



**83%**

employee engagement index - higher than industry norms\*



**Governance Gavel**

**Award winner**

and ranked top 5 in annual *Globe and Mail* Board Games for last 5 years



**33%**

of Emera's Board Directors are women, and 33% of Emera's senior leadership team are women

\* As compared to Willis Tower Watson Energy & Utilities Companies benchmarking

# Emera at a Glance

All data in the 2018 Sustainability Update is as of Dec. 31, 2018, unless otherwise indicated.

**\$32B**  
Assets

**\$6.5B**  
Revenues

**2.5M**  
Utility customers

**7.5K**  
Employees

From our origins as a single electric utility in Nova Scotia, Emera has grown into an energy leader serving customers in Canada, the US and the Caribbean.

Demand for cleaner, affordable, reliable energy delivered safely is steadily increasing. With our strong portfolio of regulated utilities and our approach for developing innovative solutions for current and future energy needs, Emera is well positioned to deliver for customers while also delivering sustainable, growing dividends to our shareholders.

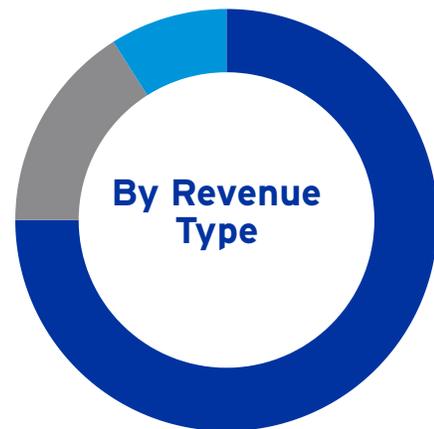
Our companies include electric and natural gas utilities, natural gas pipelines and energy marketing and trading:

## ADJUSTED REVENUE\*

As of December 31, 2018



- Atlantic Canada (23%)
- Florida (51%)
- Other (26%)



- Regulated Electric (75%)
- Regulated Gas (16%)
- Other (9%)

\* Adjusted revenue is a non-GAAP measure which excludes mark-to-market adjustments.

## BY REGION

### Atlantic Canada

#### **Nova Scotia Power**

Vertically integrated electric utility serving 519,000 customers in Nova Scotia.

#### **Emera New Brunswick**

Owns and operates the Brunswick Pipeline, a 145-kilometre natural gas pipeline in New Brunswick.

### Florida

#### **Tampa Electric**

Vertically integrated electric utility serving 764,000 customers in West Central Florida.

### Other

#### **Emera Energy**

Energy marketing and trading, asset management and optimization in Canada and the US.

#### **Emera Maine**

Transmission and distribution electric utility serving 159,000 customers in northern and eastern Maine.\*

#### **Emera Technologies**

A start-up company focused on finding ways to deliver renewable energy to customers.

#### **Emera Newfoundland & Labrador**

Owns and operates the Maritime Link and manages Emera's investments in associated projects.

#### **Peoples Gas**

Natural gas utility serving 392,000 customers across Florida.

#### **New Mexico Gas**

Natural gas utility serving 530,000 customers in New Mexico.

#### **Emera Caribbean**

Vertically integrated electric utilities serving 184,000 customers on the islands of Barbados, Grand Bahama, St. Lucia and Dominica.

\* In March 2019, we entered into an agreement to sell Emera Maine to ENMAX Corporation.

## BY REVENUE TYPE

### Regulated Electric

#### **Tampa Electric**

Vertically integrated electric utility serving 764,000 customers in West Central Florida.

#### **Emera Maine**

Transmission and distribution electric utility serving 159,000 customers in northern and eastern Maine.\*

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## FINANCIAL HIGHLIGHTS

**\$2.88**

adjusted EPS\*, up from \$2.46  
in 2017

**7%**

2018 dividends up 7% to  
\$2.28 from \$2.13 in 2017

**\$1,806M**

operating cash flow\*\*, up  
from \$1,297M in 2017

**90%**

of earnings derived from  
regulated businesses

**\$6.5B**

capital investment plan to  
drive rate base growth  
through 2021

**12%**

five-year annualized total  
shareholder return,  
outperforming the TSX  
Composite and Capped  
Utilities indexes

\* Earnings Per Share

\*\* Before changes in net working capital

# Our Approach



## **SUSTAINABILITY AND STRATEGY**

Sustainability is core to our strategy, helping to shape our commitment to customers, employees, communities and investors. The following initiatives support our strategic focus of safely delivering cleaner, affordable and reliable energy to our customers:

**Carbon Reduction:** Investing to reduce carbon and increase renewables in our energy generation

**Rate Stability:** Placing a sharp focus on cost control and on “Fuel to Asset” and “OM&G to Asset” initiatives as part of maintaining affordability for customers (providing more predictability for customers by making capital investments that reduce fuel and operating costs)

**Innovation:** Exploring new solutions to deliver for customers and meet future energy needs



## GOVERNANCE

We are committed to the highest standard of corporate governance at all levels of our business.

### Highlights

#### Top 5

in *Globe and Mail* Board Games annual assessment of governance practices for the last 5 years

#### 2018

Recipient of the Governance Gavel Award from the Canadian Coalition for Good Governance

Emera's Board of Directors delivers rigorous oversight of strategy, risk management, senior leadership development, succession planning, financial reporting and other disclosures.

Sustainability is a key focus area that's managed day-to-day within each operating company across Emera, feeding into our corporate sustainability program. Reporting to Emera's Chief Executive Officer, our Executive Vice President of Stakeholder Relations & Regulatory Affairs is responsible for Emera's sustainability program, with guidance and oversight provided by the Board of Directors.

More information on Emera's corporate governance practices can be found in our 2018 [Annual Report](#) and [Management Information Circular](#), or on our [website](#).



## STAKEHOLDER ENGAGEMENT

We strive to maintain a culture of integrity, and building strong, trusting relationships is an important part of how we work. We welcome discussion and input from our stakeholders and strive to create opportunities for open communication including, but not limited to:

Stakeholder	The way we engage
<b>Customers</b>	<ul style="list-style-type: none"> <li>● Toll-free customer care centres</li> <li>● One-on-one meetings</li> <li>● Satisfaction surveys</li> <li>● Open-house events</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>● Community events and sponsorships</li> <li>● Business and industry organization events (i.e. conferences and seminars)</li> <li>● Community liaison committees</li> </ul>

Stakeholder	The way we engage
-------------	-------------------

<b>Shareholders and Investment Community</b>	<ul style="list-style-type: none"><li>● Regular investor meetings</li><li>● Annual General Meeting of shareholders</li><li>● Quarterly analyst calls</li><li>● Shareholder mailouts and notifications</li><li>● Investor presentations</li></ul>
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<b>Employees</b>	<ul style="list-style-type: none"><li>● Intranet</li><li>● Ethics hotlines and mailboxes</li><li>● Safety incident reporting</li><li>● Employee memos</li><li>● Team meetings</li><li>● Formal feedback and career planning</li><li>● Town halls</li><li>● Engagement surveys</li><li>● Team social events</li><li>● Union representatives for certain sectors of our team</li></ul>
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<b>Government and Regulators</b>	<ul style="list-style-type: none"><li>● Regular, open communication</li><li>● Technical briefings</li><li>● Formal reporting and disclosure</li><li>● Consultation with industry organizations</li><li>● Meetings with government and regulatory entities</li></ul>
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Stakeholder	The way we engage
<b>Suppliers and Contractors</b>	<ul style="list-style-type: none"> <li>● Request for Proposal (RFP) processes</li> <li>● Open-house events</li> <li>● Regular, open communication</li> <li>● Open and transparent procurement process</li> <li>● Contractor safety and environment training</li> <li>● Supplier registration and classification</li> <li>● Supplier information sessions</li> <li>● One-on-one briefing meetings</li> </ul>
<b>All</b>	<ul style="list-style-type: none"> <li>● Company websites</li> <li>● Toll-free numbers and email</li> <li>● Ethics hotlines</li> <li>● Social media</li> <li>● Annual sustainability report</li> <li>● Annual financial disclosures</li> <li>● Management Information Circular</li> </ul>



**We continue to focus on safely delivering cleaner, affordable and reliable energy by finding the right solutions for each of the regions we serve. We're providing better customer service and more energy choice and control, while also staying focused on reliability and affordability.**

# Highlights

**110%**

increase in installed  
renewable capacity since  
2005

**\$850M USD**

being invested in 600 MW  
of new solar in Tampa,  
Florida

**600 MW**

grid connected wind  
capacity in Nova Scotia -  
one of the highest wind  
integrations in North  
America

**18%**

of Emera's electricity  
customers have smart  
meters. Goal is to reach  
100% by 2022

**1<sup>ST</sup>**

Peoples Gas ranked first  
in customer service by  
J.D. Power for sixth  
consecutive year

# Demand for Renewables and Cleaner Energy



We're investing \$850M USD to install 6 million solar panels across 10 large projects at Tampa Electric. One of these projects is the Payne Creek solar facility pictured here.

We're making energy cleaner, using fewer fossil fuels and reducing GHG emissions while continuing to deliver the energy our customers rely on. We've also been investing to make sure we have the right transmission infrastructure to safely deliver this energy to customers.

For our customers in Tampa, where the sun shines an average of 70 per cent of the year, we're investing in solar generation. In 2018, we began work on an \$850M USD project to install 600 MW of clean, solar generation at Tampa Electric - enough to power more than 100,000 homes. By mid-2019, 405 MW was in-service with the remaining work expected to be complete by early 2021. Once the entire project is operational, nearly 7% of Tampa Electric's energy generation will come from the sun - the highest percentage of solar energy generation of any utility in Florida.

And in the Caribbean, where sunshine is also abundant, we're continuing to invest in solar energy. The team at Grand Bahama Power is investing \$5M USD to build the 3.9 MW Solar Sunrise project, which will generate enough power for roughly 850 homes once completed.

In Atlantic Canada, wind generation has been a focus, currently accounting for approximately 18 per cent of Nova Scotia Power's electricity - a higher percentage than most other provinces and states. Our team is also planning an upgrade of the hydro system across the province to increase efficiency and extend the life of this critical renewable resource.

The right transmission infrastructure is also critical to delivering cleaner, renewable energy. Our team placed the Maritime Link subsea transmission line into service in early 2018, setting the stage for new hydroelectricity to flow between the island of Newfoundland and North America for the first time, displacing carbon-emitting sources.

### INSTALLED RENEWABLE CAPACITY (MW)

**832**  
2018

**696**  
2017

**657**  
2016

# Innovation



A Nova Scotia Power employee at the Intelligent Feeder Project in Elmsdale, Nova Scotia. This pilot project is helping us understand how new technology can improve service for customers.

Adopting new technologies and approaches is critical to driving the transformation to cleaner, affordable and reliable energy.

We're investing in battery storage as a way to support the use of more renewable energy and improve reliability for customers. Batteries help us store renewable energy for later use when it's not readily available and provide a reliable back-up source of energy in the event of an outage. We've launched a number of battery storage pilot projects across Emera including in Nova Scotia, Florida and the Caribbean.

We're also exploring microgrid technology - smaller, distributed generation networks that can operate as part of the larger grid, or independently of it. Microgrids can help us reduce the frequency and duration of outages. They can also play a role in helping us incorporate more renewable energy generation into our grids.

## INNOVATION PROJECTS IN OPERATION OR UNDER CONSTRUCTION ACROSS EMERA

**6**

Battery storage installations

**4**

Microgrid projects

**1**

Community solar program

# Customer Experience



A Tampa Electric team member speaks with customers about their meter - one of the many ways our team is always working to improve customer service.

Increasingly, customers want more energy choice and control.

We're rolling out smart meters across our utilities to give customers the information they need for more control over their energy use, and to allow for faster outage response. We're also providing customers with new and convenient ways to connect with us. Whether it's via text message, mobile applications or through our customer care centres, we're always striving to make it easier to connect and to serve customers more efficiently.

We're also focused on doing all we can to ensure energy remains affordable for our customers. Rate stability plans are helping us avoid cost volatility and provide more predictability to customers.

Through programs, rebates and other incentives, we're encouraging more efficient use of energy. Through energy efficiency and conservation programs we support our customers in managing their consumption and, as a result, cutting energy costs. We also support social programs to assist with energy costs when customers are in need.

## 287,000

smart meters installed in  
2018 - a 37% increase  
from 2017

# Case Studies

## COMMUNITY SOLAR PROGRAM



Tampa Electric customers can now choose to receive some - or all - of their electricity from the sun. Sun Select, the first shared solar program in the state of Florida, allows residential and small-business customers to choose to receive 25 per cent, 50 per cent or 100 per cent of their power from solar energy. Larger commercial customers can subscribe in increments of 1,000 kilowatt hours (kWh).

The innovative program is designed for customers who want renewable energy but are unable to, or don't want to, install solar panels on their home or business. Customers pay no upfront costs, don't sign a contract, and can leave the program at any time.

## EMERA MAINE EMPOWERS CUSTOMERS WITH INFORMATION



Emera Maine launched a new program to provide more control over energy consumption. Customers in the Bangor area can now sign-up to receive weekly emails or text messages with an update on how much electricity they're using.

They can also opt-in to receive an alert if they're at risk of exceeding the previous year's consumption by 50 per cent or more. Weekly energy updates and high bill alerts are helping customers plan ahead, make informed choices, and save money on their power bills.

## MICROGRID PILOT PROJECT AT US AIR FORCE BASE



Emera Technologies, with support from Sandia National Laboratories and its Distributed Energy Test Lab, is developing and testing a proprietary microgrid concept to deliver high levels of renewables and unparalleled reliability to customers. The concept is being developed and deployed in a pilot project underway at Kirtland Air Force Base in Albuquerque, New Mexico.

The system will provide a total power system solution in the neighbourhood for new housing developments and facilities. This innovative local generation system links renewable generation and storage and allows sharing of energy throughout the neighbourhood through a specialized control system using direct current technology.

The unique modular design allows for easy assembly and deployment of the systems. Commercial deployment will follow the pilot project.

## SMART GRID COLLABORATION



Pending approval by the Nova Scotia Utility and Review Board, Nova Scotia Power and NB Power will be joining forces on a Collaborative Smart Grid Innovation project.

Both utilities will work with customers to create a smart energy system with distributed energy resources and enhanced information and controls. They will deploy and test solar, battery, Electric Vehicle (EV) smart-charging and smart thermostat technologies, looking to optimize benefits to customers and the grid.

The project has received funding from the Government of Canada and is expected to be completed early in 2022.

## ELECTRIC VEHICLE FAST-CHARGING NETWORK



With funding support from Emera, Nova Scotia Power installed the province's first electric vehicle fast-charging network. The network includes 12 Level-3 fast chargers, strategically positioned across the province making electric vehicles a more viable option in Nova Scotia. This technology fully charges a vehicle in 15 to 30 minutes compared to most public chargers that take 3 to 8 hours, and home electrical outlets that can take up to 12 hours.

Further contributing to this solution, the Government of Nova Scotia included an additional 12 Level-2 chargers at the same locations - offering service to plug-in hybrid vehicles that are incompatible with the Level-3 chargers.

Building this infrastructure strongly aligns with our commitment to creating a sustainable, low-carbon future and helps us study the effects of electric vehicle fast chargers on the grid.

## PEOPLES GAS LEADS IN CUSTOMER SERVICE FOR SIXTH YEAR IN A ROW

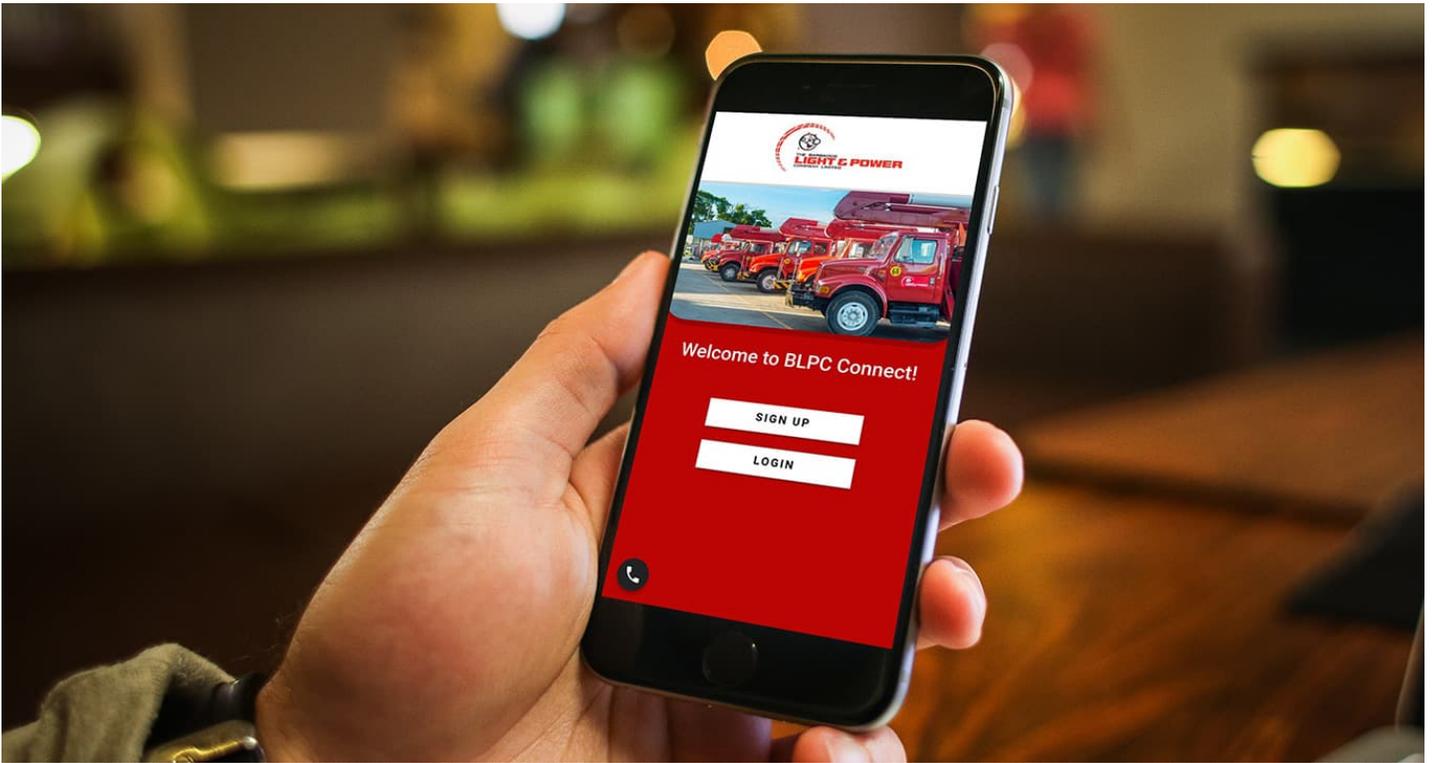


For the sixth consecutive year, Peoples Gas has placed first in customer satisfaction by J.D. Power.

The Peoples Gas team is delivering safe and reliable natural gas to its customers across Florida. The company is committed to providing the highest level of service and has made significant investments in customer service systems and infrastructure including pipeline upgrades and enhanced online account services.

J.D. Power's 2018 Gas Utility Residential Customer Satisfaction Study is based on residential customer responses from 84 of the largest gas utilities across the US.

## CONNECTING WITH CUSTOMERS



The team at Barbados Light & Power has launched the BLPC Connect mobile application. The application provides customers another quick and convenient way to report problems related to poles, trees and streetlights and request service directly from their mobile devices. The app also provides customers with real-time updates on the status of their inquiry.

Nova Scotia Power has also taken significant steps to improve customer service. In 2018, the team launched a new outage reporting tool that lets customers report power disruptions online - including from mobile devices - and immediately receive information about their outage such as estimated restoration time.

## NEW MEXICO GAS RECOGNIZED AS ENERGY EFFICIENCY LEADER



The New Mexico Gas team was proud to be named the 2019 ENERGY STAR Partner of the Year.

The award recognizes leadership, innovation, and commitment to environmental protection through energy efficiency.

The New Mexico Gas team works hard to promote energy efficiency and shares information and advice to help its residential and commercial customers reduce waste, conserve energy and save money.

## SOLAR MICROGRID IN GRAND BAHAMA



Grand Bahama Power has installed a solar-powered microgrid on a small island to provide cleaner, more reliable energy to its residents.

Water Cay is not directly connected to the GBPC grid; instead, its residents have been relying on local diesel-powered generation. The microgrid includes a 30 kW solar array and six batteries to provide renewable energy to Water Cay's residents. A 30 kW propane generator was also installed for additional reliability.

This project is part of GBPC's vision for a cleaner energy future for Grand Bahama customers.

A photograph of a worker in a yellow hard hat and safety glasses, looking up and working on a ceiling fixture. The worker is wearing a dark blue shirt and yellow gloves. The background shows a building with large windows. A large yellow diagonal shape is overlaid on the image, and the word "SAFETY" is written in blue capital letters on the left side of this shape.

# SAFETY

**We are on a journey to achieving world-class safety. This means we are continually enhancing our programs and strengthening our safety culture - getting better every day and keeping each other safe. We are relentlessly focused on achieving an Emera where nobody gets hurt.**

# Highlights

**1.29**

Occupational Safety and Health Administration (OSHA) Injury Rate - 13.4% decrease from 2017

**0.35**

Lost Time Injury Rate - down 16.7% from 2017 (Lost Time injuries are those that lead to employees being unable to work)

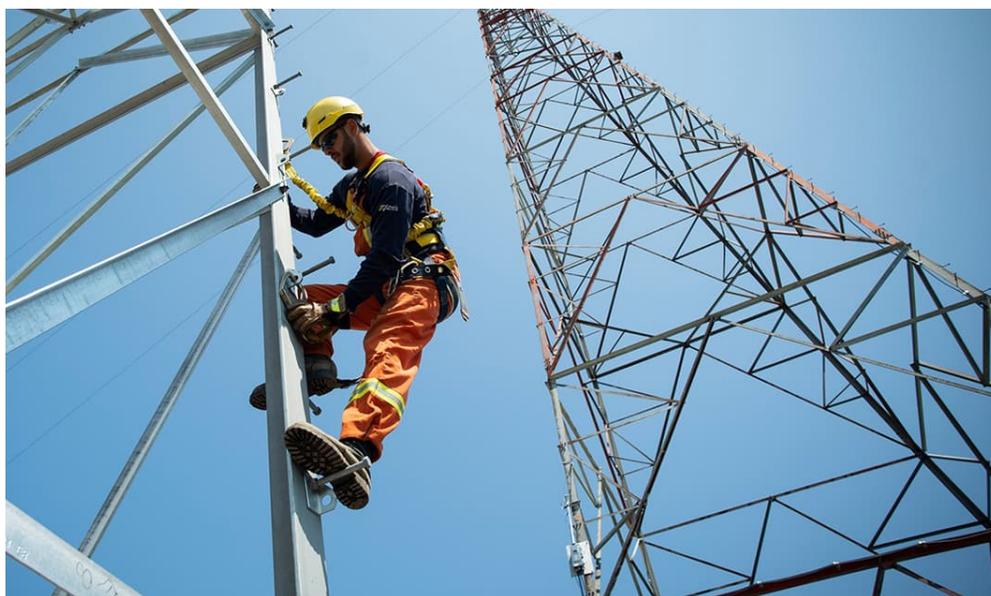
**852**

Proactive Incident reports for every 100 employees - we are seeing continuous improvement in reporting

**100%**

of Emera Operating Companies are aligning their safety systems with Corporate safety management standards

# Safety Culture



Open dialogue and proactive safety reporting are helping us achieve an engaged safety culture. This is critical to keeping our team safe, including this Nova Scotia Power technician working on a transmission tower.

We're committed to a safety culture where our team members feel empowered to speak up and take action when they see potentially unsafe conditions or behaviours and know they will be supported.

This culture starts with visible safety leadership, which is why leaders from across Emera and our operating companies have committed to completing safe work observations, promoting the recognition of safety champions, and participating in various safety activities held across the business.

Corporate-wide events and communications throughout the year also help reinforce our safety culture by keeping safety top-of-mind for every member of the team. In 2018, these included a company-wide Safety Week and a CEO-led Safety Checkpoint which helped to reinforce our commitment to safety across our companies.

In addition, our annual safety summit was focused on Safety Management System development, contractor safety and strong safety culture. Each year our summit continues to grow, with participation from all areas of our operations including union and management leadership.

**89%**

safety engagement score -  
higher than regional and  
industry norms

**1,163**

safety observations,  
conversations and  
activities conducted by  
Senior Leadership in 2018

**852**

Proactive Incident Rate, up  
from 272 in 2017 and 278 in  
2016\*

\* In 2018, PAIR was broadened to include additional categories of safety reports. PAIR for all of Emera was calculated for the first time in 2017.

# Safety Management System



We are implementing consistent safety management programs across our electric and gas utilities, with a focus on proactive measures to prevent incidents from occurring.

Achieving world-class safety requires discipline and consistency. We began rolling out a new, Emera-wide Safety Management System (SMS) in 2018. Our SMS is informed by best practice and standards set by organizations such as the International Organization for Standardization, the American Petroleum Institute, American Gas Association, Canadian Electricity Association and the National Energy Board of Canada. This system is being implemented across all Emera companies.

Consistent policies, procedures and tools ensure the team across Emera is striving to meet the same standards and working toward common objectives.

As we continue implementing the elements of our SMS, the safety team from Emera and our operating companies have developed three-year audit and compliance plans focused on high-risk tasks. We are developing an inventory of areas where elevated risk activities are present such as energized electrical operations, pressurized gas operations, and other areas of significant risk exposure or consequence.

We measure our safety performance using the OSHA IR and Lost Time Injury Rate which are the two most common industry standards. The OSHA IR provides a more comprehensive injury metric and is an aggregated number of work-related incidents that result in injury requiring medical attention, absence from work or restricted work.

	2018	2017	2016
<b>OSHA Injury Rate</b>	1.29	1.49	1.90*
<b>Lost Time Injury Rate</b>	0.35	0.42	0.58

\* Retroactive estimate as Emera transitioned from All Injury Frequency (AIF) to OSHA Injury Rate (IR) in 2017

# Contractor and Public Safety



The safety of our teams and our communities is always a top priority, as it is with this Nova Scotia Power crew working in Halifax.

Our focus on safety starts with our team, and extends to our contractors, partners, customers and the communities where we live and work.

The teams across Emera have made significant progress in improving our contractor safety management procedures and performance. This included a more robust process for assessing potential service providers, including a more comprehensive review of their safety programs, leadership and performance - before they are hired. This additional rigour also extends to contractor training requirements and close monitoring of work sites from the start of a project until it is safely completed.

We continue to focus on public safety as it relates to our business operations and our communities.

We conduct strong public safety campaigns across Emera to raise awareness around electrical safety, power outages and storm preparedness, as well as Call Before You Dig pipeline safety programs. We also work with local first responders to conduct mock emergency exercises to keep emergency response skills sharp, test crisis communications and ensure equipment is in good working order. Our public safety initiatives also include electrical safety education programs for students to provide the knowledge to stay safe around electrical equipment.

We also work to reduce public safety risk near our operations and work sites. This can include security and safety barriers around our facilities, traffic management near active job sites, visible signage along pipeline and transmission routes, and public notification around vegetation management including trimming and spraying. When required, we also provide notification to mariners for any subsea work.

**100%**

of Emera's operating  
companies are reporting  
contractor safety  
performance stats for  
large and high-risk  
contract work, as of  
May 31, 2019

# Case Studies

## THE LANGUAGE OF SAFETY



Like all Emera companies, the team at New Mexico Gas takes public safety very seriously, particularly when it comes to digging near gas pipelines. To make sure this critical safety message reaches as many people as possible, New Mexico Gas shares its Call Before You Dig campaign in English, Spanish and Navajo.

The campaign asks customers to call 811 to schedule a free gas line locator and marker before starting construction or any project requiring digging in the ground. Striking a line can cause serious or life-threatening injury or widespread service disruption and can result in costly damages.

The teams at Peoples Gas in Florida and Emera New Brunswick share similar safety campaigns with their respective communities.

## PIPELINE MOCK EMERGENCY EXERCISE



Emera New Brunswick holds annual mock emergency exercises on the Brunswick Pipeline in collaboration with the New Brunswick Department of Natural Resources, the local fire department and other emergency response agencies. The exercises test the implementation of Brunswick Pipeline's Emergency Response Plan and its effectiveness during a simulated emergency scenario. They also test our communication with external stakeholders during an emergency.

During an exercise in 2018, the local fire department identified a piece of equipment that could improve response in a pipeline emergency situation. Emera New Brunswick was pleased to assist the department in purchasing this equipment.

## FIRE SAFETY IN MAINE



For its commitment to community safety, the team at Emera Maine was honoured with the 2018 Community Impact Award from the Red Cross.

The team volunteered with the Red Cross to install hundreds of smoke alarms in local homes, ensuring that families have the right technology and escape plans to avoid harm in the event of a house fire.

With support from Emera Maine employees, as well as the company's financial and in-kind marketing and advertising contributions, the Red Cross was able to successfully launch its Home Fire/Sound the Alarm program in communities throughout Emera Maine's service territory.

## EMERA RECEIVES WHITE CROSS AWARD



Emera was proud to receive the White Cross Safety Training Award from St. John Ambulance for exemplary leadership in employee and community health and safety.

Emera announced a partnership with St. John Ambulance to provide first-aid and mental health awareness training for staff and volunteers of charitable organizations throughout Nova Scotia. As a result, St. John Ambulance completed over 6,000 training hours for more than 600 staff and volunteers from 53 not-for-profit organizations throughout the province.

Emera is also supporting first responders by contributing to the Tema Foundation, an organization that provides mental health services to first responders in need. These partnerships highlight Emera's commitment to helping build stronger, safer and more innovative communities.



# RELATIONSHIPS

**We're proud to be part of the communities we serve, and we strive to build productive, collaborative relationships with our regulators, industry and community partners.**

# Highlights

**\$18.7M**

invested in communities  
in 2018

**\$5.3B**

economic value  
distributed in our  
operating markets

**38,400**

hours volunteered by  
Emera employees - a  
20% increase from 2017



Check out Emera's  
[Strong, Innovative  
Communities video](#)

# Community Investment



Emera supports innovation and the leaders of tomorrow through investments in projects such as the Emera Innovation Exchange at Memorial University in St. John's, Newfoundland and Labrador.

Through our community investment program, we're working to make our communities stronger, safer and more innovative. In 2018, we refocused our Community Investment Program to help us make an even greater difference in the communities where we live and work.

We're committed to supporting our future leaders by investing in opportunities for young people to learn and grow. That's why we contributed \$7M to Memorial University in Newfoundland and Labrador to establish the Emera Innovation Exchange, a collaborative facility that is supporting innovation and entrepreneurship programming at Memorial, helping to support the leaders of tomorrow in Atlantic Canada and beyond.

We're also investing in opportunities to help make our communities safer by raising safety awareness and enabling access to safety services and programs.

We know innovation is a key driver of growth for our communities and that's why we're also investing in initiatives that spur economic development, enable new ideas and solutions, and foster the entrepreneurs and leaders of tomorrow.

# Indigenous Relationships



Recipients of the 2019 New Mexico Gas Native American Scholarship Program.

Indigenous communities are important and valued partners across Emera's operations. We are committed to building and maintaining strong, collaborative relationships that are based on trust, open communication and respect.

At New Mexico Gas we take pride in our partnerships with the 17 Native American Pueblos, Tribes and Nations in our service area.

The team maintains business relationships with Pueblos that include land use authorization agreements such as right-of-way easements, distribution licence agreements and permits.

In addition to effective business partnerships, we're also pleased to support Native American students through the New Mexico Gas Native American Scholarship Program. Since 2011, we have supported 137 students pursuing university degrees, trade school programs and specialized technical certifications.

At Nova Scotia Power, we continue to foster meaningful relationships with the Mi'kmaq. In partnership with the Assembly of Nova Scotia Mi'kmaq Chiefs, we conducted open houses in Mi'kmaq communities across Nova Scotia. These open houses provided opportunities for discussion with community members about Mi'kmaq areas of interest, to explore topics such as energy efficiency and renewable energy, and to provide updates on Nova Scotia Power projects and activities.

Through agreements with Mi'kmaq communities and the Assembly of Nova Scotia Mi'kmaq Chiefs, we are building relationships based on understanding and collaboration. The agreements promote training and employment and provide the opportunity for communities to build capacity and meaningfully participate in Nova Scotia Power projects.

Our relationship with the Mi'kmaq of Nova Scotia extends to students as well. We were proud to work with Mi'kmaq schools to provide electrical safety education to Grade 6 students and sustainability and renewable energy education to Grade 11 and 12 students. In 2019, we launched a new scholarship program providing bursaries to Mi'kmaq students, including the opportunity to participate in paid internships, to ensure we are maximizing benefit for students and helping them achieve their goals.

Building diversity and inclusion into our business through workshops, site visits, and celebrations, Nova Scotia Power provides a variety of opportunities for employees to learn about Mi'kmaq history and culture.

The team at Emera New Brunswick collaborates with the MAWIW Council Inc. to create education and employment opportunities for the Council's three First Nations communities. Through a five-year funding partnership, the team supports a Training and Capacity Development Strategy focused on providing career training and scholarships.

During construction of the Maritime Link Project, Emera Newfoundland and Labrador negotiated socioeconomic agreements with the Mi'kmaq of Nova Scotia and Newfoundland and Labrador. These agreements set the framework for strong engagement and dialogue during project construction.

# Regulators and Industry Partners



Emera President & CEO Scott Balfour speaks to energy industry peers at the 2018 Smart Energy Conference in Halifax.

In a rapidly changing industry like ours, we work closely with our regulators to identify innovative opportunities to deliver the choice, control, reliability and affordability that our customers expect from us. We regularly communicate and collaborate with regulators to identify process improvements and opportunities to deliver better results. This includes inviting customer representatives to work with us to find mutually beneficial approaches before we make regulatory filings.

Emera and its companies are also proud to partner with industry peers through organizations such as the Edison Electric Institute (EII), the American Gas Association (AGA), the Canadian Electricity Association (CEA) and the Caribbean Electric Utility Services Corporation (CARILEC). Partnering with industry groups - and directly with our energy peers on different initiatives - helps us share knowledge and deliver even better results.

# Case Studies

## HOMEWARMING MILESTONE



In 2018, the HomeWarming Program, funded by Nova Scotia Power and co-funded with the Province of Nova Scotia, reached a milestone, helping more than 7,500 low-income homeowners with efficiency upgrades. The program is expected to make the 10,000-customer milestone in the fall of 2019.

Upgrades such as improving insulation and draft-proofing can help keep a home warmer in the winter and cooler in the summer. Heating and cooling make up around 60 per cent of energy costs, so reducing these bills can make other household expenses more manageable.

Nova Scotia Power has donated \$3.7M each year since 2015 to the HomeWarming Program. In partnership with Clean Foundation, the donation goes toward upgrading nearly 600 electrically heated homes across the province each year with energy efficiency retrofits. For more information, visit [www.HomeWarming.ca](http://www.HomeWarming.ca).

## LOCAL LOVE FROM THE UNITED WAY



We were proud to receive the United Way of Halifax's Local Love Award in recognition of the significant contribution of Emera employees during our 2018 Emera United Way Campaign.

The campaign raised \$329,000 in 2018. Our annual workplace campaign continues to be the largest in Atlantic Canada. The United Way of Halifax supports hundreds of local charities throughout Nova Scotia.

## BARBADOS LIGHT & POWER SCHOOL SCIENCE EXPO



Each year, the team at Barbados Light & Power (BLP) celebrates the scientific achievements of local students by supporting the annual Electricity & Renewable Energy Science Expo.

In 2018, the students were tasked with developing solutions for real-world energy problems using only repurposed waste materials and their innovative thinking. They came up with a variety of solutions including a wireless charger, a waste-to-energy system and a solar water distillation unit.

In addition to financial support, Barbados Light & Power team members also volunteer their time at the expo, including participation on the judge's panel in 2018.

## INDIGENOUS LEADERS IN CLEAN ENERGY PROGRAM



Nova Scotia Power and Emera Newfoundland & Labrador supported the Indigenous Leaders in Clean Energy program, an initiative of the Indigenous Clean Energy Social Enterprise. The program provides access to tools and resources to remove barriers and build capacity to help Indigenous communities advance clean energy projects.

In 2018, Nova Scotia Power hosted a Clean Energy program in partnership with Acadia First Nation. The weeklong program highlighted Nova Scotia Power's relationship with Acadia First Nation through Mi'kmaq culture, traditions and heritage celebrations, events and activities integrated into program delivery.

## EMERA'S ECONOMIC DEVELOPMENT FUND IN NEW MEXICO



Emera's Economic Development Fund is in its third year at New Mexico Gas.

To date, we have contributed \$3.5M to 54 different innovation and economic development groups across New Mexico. Recipients have included the Arrowhead Center at New Mexico State University, San Juan College and Central New Mexico Community College, the University of New Mexico's Innovation Academy and the New Mexico Institute for Mining and Technology.

This five-year fund was established in 2016. After the latest round of contributions, approximately \$1.5M remains for the fund's final two years.

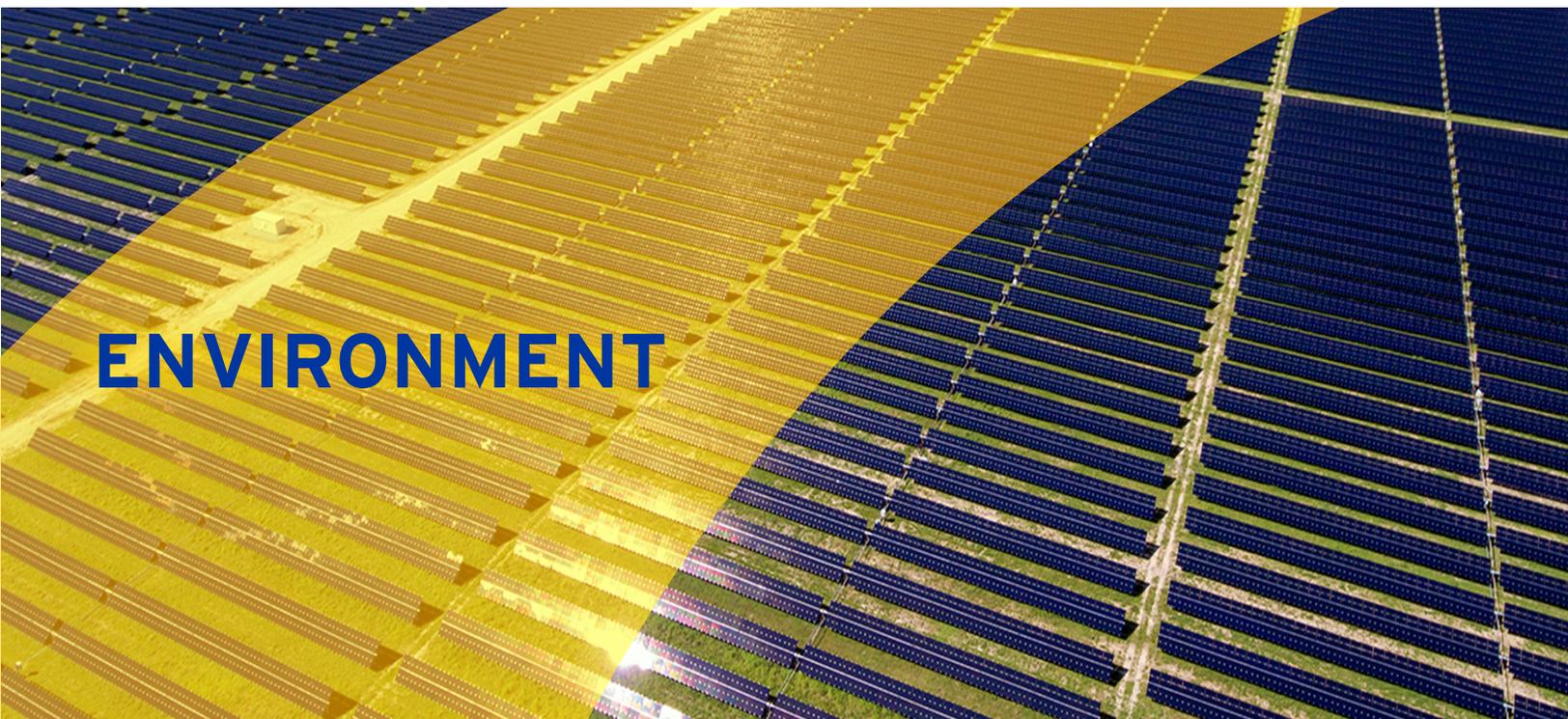
## EMERA ENERGY EMPLOYEES GIVE BACK



Over the last decade, Emera Energy employees have raised funds and personally donated more than \$250,000 to charities, including the Canadian Cancer Society and Ronald McDonald House.

Ronald McDonald House provides a comfortable place to stay for out-of-town families with sick children at the IWK Children's Hospital in Halifax. In addition to making donations, the team at Emera Energy volunteers time to this important charity, doing odd jobs and preparing meals for the resident families and volunteers.

The team at Emera Energy is a great example of the commitment to community we share across Emera's companies.



# ENVIRONMENT

**We're making an important contribution to national, provincial and state-level responses to climate change, reducing greenhouse emissions from our operations and strengthening the resiliency of our energy systems.**

# Highlights

**70%**

reduction in coal as a proportion of total generation fuel mix since 2005 - compared to 60% in 2017

**24%**

reduction in GHG emissions since 2005 - up from 22% in 2017\*

**100%**

of Emera's companies are required to have environmental management systems that conform to the ISO 14001 standard

**Best 50**

One of the 2018 Best 50 Corporate Citizens (the Best 50 list is compiled by Corporate Knights, a leading voice on sustainable business)

\* Based on available information, we reported a 16% reduction in 2017. Since then, new information has become available and we adjusted the value retroactively.

# GHG Emissions



The Peace Creek solar facility in Bartow, Florida is part of the 600 MW of new solar generation that will be installed in Florida by early 2021.

Climate-related action is increasingly the focus of government regulation, driven by initiatives such as the Pan-Canadian Framework on Clean Growth and Climate Change and the U.S. Environmental Protection Agency's Affordable Clean Energy rule.

We're continuing to lead in the transformation to lower-carbon sources of energy - which has been core to our business strategy for over a decade. In 2018, we achieved a 24 per cent reduction in GHG emissions across Emera since 2005. We have also reduced the total amount of coal used as a proportion of our total generation fuel mix by 70 per cent since 2005.

Our investments in renewables, natural gas and more efficient energy generation are making a difference, step by step.

We believe there is no one-size-fits-all approach to reducing GHG emissions. In Florida, the team at Tampa Electric has been working to diversify and add renewables to its energy portfolio since 2010. Solar energy makes a lot of sense in Florida - the "sunshine state" - which is why we're investing in 600 MW of new solar capacity. Over 405 MW of new solar is already in-service, with the remaining capacity expected to be installed in early 2021.

In Tampa, our Big Bend modernization project received regulatory approval in July 2019. The team has started to work on converting one coal-fired unit to lower-carbon natural gas and to retire another coal-fired unit. Once the project is complete, GHG emissions from units 1 and 2 at Big Bend will be reduced by 60 per cent, and the amount of coal used at the plant will be cut in half. This

work will allow the Big Bend plant to remain an important part of the baseload energy solution in Tampa, enabling even more solar in the future.

The conversion project combined with the 600 MW of new solar capacity will reduce Tampa Electric's overall GHG emissions by 36 per cent.

The team is also working to reduce GHG emissions at our Caribbean utilities. At Grand Bahama Power, work has started on Solar Sunrise, the island's first utility-scale solar plant. At Barbados Light & Power, the team has installed a 10 MW solar plant and 5 MW battery storage capacity. The team is also exploring options for wind generation.

Our natural gas utilities are also playing a part in reducing GHG emissions. As a participant in the U.S. Environmental Protection Agency's voluntary Natural Gas STAR Methane Challenge Program, Peoples Gas has a goal of replacing all 772 kms of its cast iron and bare steel pipes with plastic piping by 2021, thereby reducing fugitive emissions. Since 2011, the Peoples Gas team has replaced 70 per cent of its cast iron and bare steel pipes, resulting in a 33 per cent reduction in its GHG emissions.

	2018	2017	2016
<b>GHG emissions</b> (tCO <sub>2</sub> e) <sup>1</sup>	21,057,405	21,634,422	23,466,306
<b>Per cent reduction in GHG emissions</b> from thermal generation since 2015	24%	22% <sup>2</sup>	14%
<b>Per cent reduction of coal in Emera's total electricity generation mix</b> <sup>3</sup> (from 2005)	70%	60%	55%

<sup>1</sup> Includes Scopes 1 and 2

<sup>2</sup> In our 2017 Sustainability Update, we reported this as 16% based on available information at the time. Since then, we have new information and this value has been adjusted accordingly.

<sup>3</sup> Based on sources of energy as a percentage of total GWh generated by Emera as compared to 2005

# Meeting and Exceeding Targets



Nova Scotia Power generates approximately 18 per cent of its energy from the wind - one of the highest integrations of wind generation in provinces and states.

Emissions reductions targets provide important clarity to the industry on the required extent and timing of climate-related action.

At Emera, we're not just meeting goals and targets, we're exceeding them, by taking our proven framework for transitioning to lower-carbon energy and applying it everywhere we work. Our companies are also working closely with governments, regulators and industry partners to shape ongoing conversations about climate-related policy.

Over the last decade, Nova Scotia Power has transitioned from primarily coal generation to a diverse generation portfolio, becoming a national leader in reducing carbon emissions, and a North American leader when it comes to the percentage of wind energy incorporated into overall generation.

In addition to the province's substantial wind generation, the new Maritime Link subsea transmission line will allow cleaner hydroelectricity to flow between Nova Scotia and Newfoundland and Labrador for the first time. This will be a critical part of meeting and exceeding emissions reduction targets.

Nova Scotia Power is subject to both federal and provincial GHG emissions requirements. An equivalency agreement between the Province of Nova Scotia and the federal government gives the Nova Scotia Power team the flexibility to continue operating coal plants strategically in order to achieve the same GHG reductions at a lower cost to customers. This strategic use of coal-based and

renewable generation is driving the transformation to lower-carbon energy and, to date, has removed GHG emissions equivalent to the shutdown of three coal generation units.

Since 2005, the Nova Scotia Power team has reduced carbon emissions by 35 per cent, already exceeding the 2030 reduction target of 30 per cent set at the COP 21 Climate Conference. And we're on track to achieve a 58 per cent reduction by 2030, nearly doubling the Government of Canada's target set under the Paris Agreement.

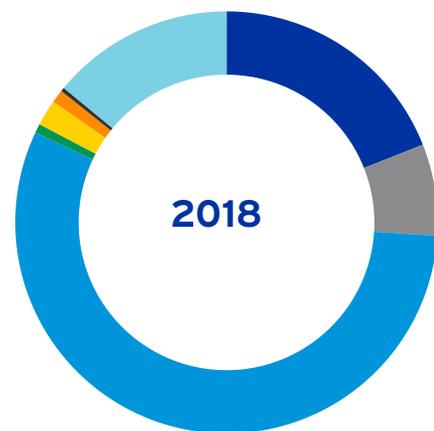
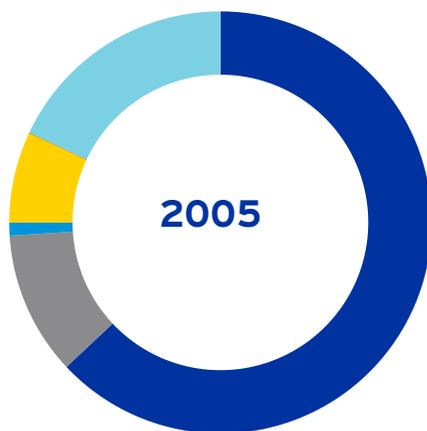
Nova Scotia Power has exceeded these targets while maintaining rate stability for customers. Increases have been kept at, or below, the rate of inflation since 2013.

In 2019, Nova Scotia Power also became part of a provincial cap-and-trade system for GHG emissions that will meet the requirements of the Government of Canada's Pan-Canadian Framework on Clean Growth and Climate Change.

## EMERA'S EVOLVING FUEL MIX 2005-2018 (%)

	2005	2018
● Coal	63	19
● Oil	11	7
● Natural Gas	1	56
● Biomass	0	0.7
● Hydro	7	2
● Wind	0	1
● Solar	0	0.3
● Purchases	18	14

\* Based on sources of energy as a percentage of total GWh generated by Emera in 2005 and 2018, respectively, including purchases. 2005 figures are based on Emera's company structure and assets at that time.



# Resilient Energy Systems



Proactive powerline maintenance such as the tree-trimming pictured here, helps to storm-harden our electrical systems and provide the reliable service our customers depend on.

We recognize that extreme weather is affecting the places we serve more frequently and with greater impact.

We're continuing to invest in our operations and our infrastructure to better withstand more frequent extreme weather conditions. We're investing in forecasting tools and upgrading our infrastructure and processes, so our grids are stronger and more resilient.

We spend time strengthening and upgrading our network to reduce the impact of storms and severe weather. This work includes right-of-way widening, vegetation management, upgrades to older equipment and the introduction of new technology to help improve reliability. Since 2010, Nova Scotia Power has spent \$100M per year maintaining and upgrading its transmission and distribution systems, as well as trimming back trees to widen rights-of-way, in order to improve service reliability.

And Tampa Electric invests approximately \$50M USD annually as part of a 10-point plan to strengthen the grid. In our electric utilities, our increasing investments in grid intelligence - including smart meters, storage and intelligent feeders - mean we have even better insight into the real-time performance of the energy grid, allowing our utilities to pinpoint issues and respond more quickly than ever before.

When storms hit, we work around the clock to restore service to our communities as quickly and safely as possible. Each of our affiliates has emergency services restoration plans that set out the process and standards we work to achieve.

## EMERA-WIDE SYSTEM RELIABILITY

	2018	
<b>Total number of major event days (MEDs)</b>	13	
	<b>All-In</b>	<b>MEDS/ Planned Outages Removed</b>
<b>System Average Interruption Duration Index (SAIDI)</b> Indicates the average duration of outages (hours) that an average customer will experience in one year	8.34	3.15
<b>System Average Interruption Frequency Index (SAIFI)</b> Indicates how often the average customer experiences an outage of longer than one minute within one year	3.45	2.15

# Case Studies

## FRESH CROP



Large-scale solar generation sites typically require large, open fields, which can mean lots of grass to manage in and around the panels. The teams at Tampa Electric and Barbados Light & Power are using an innovative and environmentally friendly way to keep vegetation in check.

At Tampa Electric's Big Bend solar facility, Katahdin sheep have been employed to help trim the grass growing around the 203,300 solar panels at the site. These sheep are bred with hair instead of wool, meaning they are well adapted for Florida's climate. And in 2018, customers and community members were able to view the sheep at work via #TECOLambCam, a live video feed. The same approach is being taken at some of Tampa Electric's other solar facilities as well.

In Barbados, Blackbelly sheep are busy trimming the grass at the 42-acre solar plant in Trents, St. Lucy. The site operates 44,496 solar panels that generate 10 MW to serve the people of Barbados.

## THE REBUILD IN DOMINICA



The team in Dominica has been focused on safely rebuilding its infrastructure after Hurricane Maria devastated the island in the fall of 2017. DOMLEC's entire transmission and distribution (T&D) network was affected.

Most generating units are operational, with the remaining two expected to be returned to service by December 2019. While all customers on the island have access to energy from the grid, there is still some work to be done to fully reconnect a small portion of customers.

The rebuild has been a large undertaking, but the progress made is a testament to the resilience and dedication of the team at DOMLEC.

## NOVA SCOTIA POWER ACHIEVES CLEAN ENERGY MILESTONE



Nova Scotia Power reached a new renewable energy milestone in 2018, generating 30 per cent of its electricity from renewable sources.

Wind power is the largest renewable source, accounting for 18 per cent of total generation - higher than most other provinces and states.

Once hydroelectricity from Newfoundland and Labrador becomes available via the Maritime Link subsea transmission line in 2020, Nova Scotia Power is expected to supply 40 per cent renewable energy.

## ENVIRONMENTAL CHAMPIONS



The Peoples Gas team has been designated an “Environmental Champion” for the fifth year in a row based on high scores in the Environmental Dedication index of Cogent’s annual Utility Trusted Brand & Customer Engagement Study. The award recognizes how the Peoples Gas team is working hard to minimize environmental impacts while making this lower-carbon source of energy available to more customers.

The team at Tampa has been recognized by the National Arbor Day Foundation™ as a Tree Line USA® utility for the 11<sup>th</sup> consecutive year for its efforts to protect the health of trees the company must trim near powerlines.

## GREEN LIGHT



The team at Barbados Light & Power is in the process of upgrading all 24,250 streetlights on the island to light emitting diode (LED) technology.

LED technology provides higher quality light and lasts longer than traditional high-pressure sodium and metal halide streetlights. The light cast by an LED is similar to daylight and provides the most natural colour accuracy of any outdoor lamp. Just as importantly, LEDs use less energy, produce fewer carbon emissions and are better for the environment.

A similar LED upgrade project is underway at Tampa Electric, where the team is in the process of installing 210,000 LED streetlights over the next five years.

## CARING FOR WILDLIFE



Powerlines are sometimes near landfills. As a large number of birds are attracted to landfills, the risk of birds contacting powerlines also increases. In 2018, the team at Nova Scotia Power piloted a new approach at the Guysborough landfill site. They tested cover material on the lines to protect birds and installed perches and deterrents such as triangles and pin covers on the poles.

This kind of approach is typical of Emera companies, which work to ensure all our operations are carried out in ways that are respectful of the environment by mitigating impacts on biodiversity, water and vegetation.

## TUFTS COVE OIL SPILL



In August 2018, the team at Nova Scotia Power discovered an oil leak at the Tufts Cove generating facility. In accordance with Nova Scotia Power's Environmental Management System, the team activated their Environmental Response Plan to immediately contain the release and notify both provincial and federal government agencies.

The oil leak was caused by a small section of pipe that failed due to corrosion hidden under pipe insulation. Approximately 24,300 litres of oil leaked, less than 5,000 of which left the Tufts Cove site and entered Halifax Harbour.

Over the course of four months, a comprehensive clean-up operation was completed, with oversight and final inspection from Environment and Climate Change Canada and Nova Scotia Environment.



**We rely on our high-performing team to keep driving this transformation and delivering for customers. As competition for the best talent increases, we strive to attract and retain the best people by being an employer of choice.**

# Highlights

**33%**

of Emera's Board of Directors are women (30% mandatory minimum established in 2018)

**33%**

of Emera's senior leadership team are women

**83%**

employee engagement index - higher than the industry norm

**Top 100**

One of Canada's Best Employers for the third year running in 2019, and one of Canada's Top 100 Employers for the first time in 2019

**100%**

completion of annual Code of Conduct training in 2019

# Employer of Choice



The team at Barbados Light & Power collaborates to achieve results. Whether in the office or out in the field, we rely on our dedicated team across the company.

Our goal is to be an employer of choice everywhere we work, attracting and retaining the best and the brightest talent in order to continue to be a leader and to deliver value for our customers and shareholders.

To do this, we must be able to offer careers with purpose, opportunities for growth, the most up-to-date technology, innovative tools and a collaborative environment. We must be an organization our team can be proud of - one that is responsible, gives back to the community and provides a safe, respectful and healthy work environment where everyone can achieve success. And our leaders must inspire and motivate, at all levels of the business.

**One of Canada's Top 100  
Employers for 2019**

**One of Atlantic Canada's  
and Nova Scotia's Top  
Employers for 2018**

**Named one of Canada's  
Best Employers by *Forbes*  
for 2018 and 2019**

# Diversity and Inclusion



Nova Scotia Power team members celebrate diversity at the Halifax Pride Parade. We know a diverse and inclusive workplace helps attract and retain the best talent and fosters a more productive team.

We are committed to a diverse, inclusive and respectful workplace where everyone is treated with dignity, fairness and respect. We work to identify and remove barriers from our processes, policies and practices, and we strive to continuously create opportunities for effective and meaningful participation. This starts with our leadership and extends across all levels of the company.

**33%**

of Emera's Board of Directors are women (30% mandatory minimum established in 2018)

**33%**

of Emera's senior leadership team are women

**100%**

of employees completed annual Code of Conduct training in 2019

# Investing in Our People



A Powerline Technician at Grand Bahama Power working in the field in Freeport. Across our business we work hard to provide the tools our people need to excel in their roles and to develop in their careers.

We believe the key to our success is having the right people, focused on doing the right things and doing them well.

Every team member in every position across Emera is critical to our success. We support our team members in developing the skills and attributes they need to become our leaders of tomorrow.

In 2018, we launched an online learning portal for employees, providing access to e-learning programs to support skill development in a range of areas. We also encourage team members to consider new and unique opportunities in the business, allowing them to gain experience and business acumen while developing unique leadership capacity early on.

Emera's Leadership Competencies are a set of skills and attributes outlining the behaviour and actions that are expected of every team member in order to advance our business strategy and deliver results.

Our Leadership Competencies are the result of a year-long, collaborative process involving input from more than 400 team members across Emera. These competencies support our people in delivering results in a way that demonstrates Emera's commitment to customers, shareholders, communities and one another.

# Case Studies

## EMERA PLACE



In 2018, we opened our new corporate headquarters in Halifax. Emera Place is a state-of-the-art facility that provides our team with innovative workspaces and collaborative tools, keeping people safe, connected and equipped to deliver results.

Emera Place is a working demonstration of our strategy in action when it comes to cleaner energy, innovation, sustainability, safety and health, and collaboration. Our new space boasts world-class sustainable building standards and leading innovative technology including Power over Ethernet (PoE) smart devices such as HVAC, white noise generators, cameras and access control.

Emera Place is also equipped with a 50kW solar array on the roof with smart inverters, integrated with a Tesla battery solution.

## NEW LEARNING PLATFORM



In early 2018 we launched eKNOWLEDGECENTRE, an Emera-wide learning platform that was developed based on the experience and best practice of our teams in Florida and New Mexico. The platform gives team members a common tool to complete required training and access to thousands of modules on topics to enrich and advance their careers.

We introduced the eKNOWLEDGECENTRE platform via our annual, mandatory Code of Conduct training. This training helps our team members renew their understanding and commitment to doing the right thing at work. Team members are also encouraged to use the learning platform when creating their annual personal development plans, choosing courses that will help them grow and deliver even stronger results.

## PEOPLES GAS FACILITY BOOSTS SAFETY TRAINING



In 2018, Peoples Gas opened a new education facility, giving new team members the opportunity to learn how to work safely in a controlled environment.

The GasWorX facility features a real-world natural gas training area modelled from a typical Florida residential community with houses, commercial structures and paved streets.

With the ability to onboard 30 recruits annually, the program will provide both classroom-based and hands-on opportunities to learn the latest industry practices and skills to provide customers with safe, reliable energy.

Recruits entering the apprentice program will attend an initial four-week orientation course prior to joining their respective divisions. At six-month intervals, apprentices will return to the GasWorX training facility for continued education and operator qualification.

## NATIONAL INCLUSION AND DIVERSITY RECOGNITION



Nova Scotia Power was proud to be recognized nationally for its work in advancing diversity and inclusion.

Electricity Human Resources Canada (EHRC) presented the 2018 Workplace Diversity and Inclusion Champion Award to Nova Scotia Power and its dedicated team, which strives for diversity and inclusion in the organization and supports the development of diversity strategies.

The team earned the award for its culture of diversity and inclusion extending to customers and all levels of the business - from senior leadership to front-line employees.

# ABOUT THIS UPDATE

This Sustainability Update includes data and information about Emera's wholly owned subsidiaries and entities where Emera has operational control. Unless otherwise stated, data in this update is as of December 31, 2018 and dollar figures are in Canadian dollars. Reporting boundaries for this update are the same as for our [2018 Emera Annual Report](#).

Emera refers to Emera Inc. and its affiliate companies. For a full description of Emera's structure and investments, see the [2018 Emera Annual Report](#).

We welcome your feedback on our sustainability progress at [sustainability@emera.com](mailto:sustainability@emera.com).

## MATERIALITY

We carefully select the topics and data to include in our sustainability updates based on materiality assessments and the information our key stakeholders are interested in. Our comparative review of sustainability materiality assessments for the electric and natural gas utilities industries includes:

- Canadian Electricity Association (CEA) sustainability materiality matrix for the Canadian electric utility industry
- Edison Electric Institute (EEI) ESG/Sustainability Initiative
- American Gas Association (AGA) ESG/Sustainability metrics
- RobecoSAM Defining What Matters - Mining, Metals and Electric Utilities
- Electric Power Research Institute (EPRI) Material Issues for the North American Electric Power Industry
- Global Reporting Initiative (GRI) G4 Sector Disclosures Electric Utilities
- Sustainability Accounting Standards Board (SASB) Electric Utilities

We have used the GRI Standards methodology and indicators derived from the GRI Standards to inform our approach to report on Sustainability data. In addition, for the first time we are also reporting on data that align with the Edison Electric Institute and American Gas Association ESG/Sustainability template. Our full data and our 2018 ESG Scorecard are available in [Downloads](#).

## **FORWARD-LOOKING INFORMATION**

This document contains forward-looking information within the meaning of applicable securities laws. By its nature, forward-looking information requires Emera to make assumptions and is subject to inherent risks and uncertainties. These statements reflect Emera management's current beliefs and are based on information currently available to Emera management. There is a risk that predictions, forecasts, conclusions and projections that constitute forward-looking information will not prove to be accurate, that Emera's assumptions may not be correct and that actual results may differ materially from such forward-looking information. Additional detailed information about these assumptions, risks and uncertainties is included in Emera's securities regulatory filings, including under the heading "Business Risks and Risk Management" in Emera's annual Management's Discussion & Analysis, and under the heading "Principal Risks and Uncertainties" in the notes to Emera's annual and interim financial statements, which can be found on SEDAR at [www.sedar.com](http://www.sedar.com).

# ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG) SCORECARD

All data is as of December 31, 2018, unless otherwise stated.

Priority Topic	2018	2017	2016
<b>Environment →</b>			
Greenhouse gas emissions (tCO <sub>2</sub> e) <sup>1</sup>	21,057,405	21,634,422	23,466,306
Greenhouse gas emissions - Intensity (tCO <sub>2</sub> e per MWh of total sales)	0.53	0.58	0.58
Reduction in GHG emissions since 2005	24%	22% <sup>2</sup>	14%
NO <sub>x</sub> emissions (t)	22,697	24,105	25,298
SO <sub>2</sub> emissions (t)	78,669	81,521	81,343
Reduction in coal as proportion of total generation since 2005 <sup>3</sup>	70%	60%	55%
Installed generation capacity (MW)	10,264	10,122	9,588
Installed renewable capacity	832 MW	696 MW	657 MW
<b>Safety →</b>			
Occupational Safety and Health Administration (OSHA) Injury Rate <sup>4</sup>	1.29	1.49	1.90
Lost Time Injury Rate	0.35	0.42	0.58

Priority Topic	2018	2017	2016
Employee fatalities	0	1	0
Contractor fatalities	0	5	1
Proactive Incident Rate (PAIR) <sup>5</sup>	852 <sup>6</sup>	272	278

## Team →

Number of employees	7,500	7,500	7,422
Women in workforce <sup>7</sup>	29%	28%	28%
Women on Emera's Senior Leadership team <sup>8</sup>	33%	39%	39%
Employee engagement rate <sup>9</sup>	83%	N/A	74%
Employer of Choice	Canada's Best Employers ( <i>Forbes</i> ) Atlantic Canada's Top Employers Nova Scotia's Top Employers	Canada's Best Employers ( <i>Forbes</i> )	Halifax's Best Large Business Co-op Student employer (Halifax Partnership Game Changers)

## Customers →

Number of customers	1,617,559 (Electric)	1,573,659 (Electric)	1,584,956 (Electric)
	921,705 (Gas)	902,553 (Gas)	895,914 (Gas)
Total number of smart meters installed (electric utilities)	287,000	209,000	-

## Relationships →

Community investment	\$18.7M <sup>10</sup>	\$18.1M <sup>10</sup>	\$8.4M
Employee volunteerism (hours)	38,400	32,000	15,000
Economic value distributed <sup>11</sup> (billions CAD)	\$5.3B	\$5.1B	\$4.1B

Priority Topic	2018	2017	2016
<b>Corporate Governance →</b>			
Independent directors	83%	83%	92%
Women on Emera Inc.'s Board of Directors <sup>12</sup>	33%	33%	33%
Research and development investment (millions CAD)	\$7M	\$5M	\$6.2M
Strategic planning	Oversight and guidance of business strategy is a primary Board role.		
Risk management	The Board has a comprehensive and multi-faceted approach to risk oversight.		
Board and director performance	The Board assesses its effectiveness annually to find ways to improve its performance.		
Compensation	Compensation for the company's senior executives is reviewed annually by the Management Resources and Compensation Committee. Directors' compensation is reviewed annually by the Nominating and Corporate Governance Committee.		
Share/Share equivalent ownership	Directors are required to own a combination of Emera common shares and Deferred Share Units with a market value of three times the annual Board retainer.		
Ethical conduct	The Board is committed to sustaining a culture of integrity and ethical business practices.		
Shareholder engagement	The company conducts regular "say and pay" votes; it is committed to open communication with shareholders.		
Succession planning	The Board is focused on director and senior executive succession to ensure the right leadership for Emera into the future.		

<sup>1</sup> Includes Scopes 1 and 2 GHG emissions.

<sup>2</sup> In 2017, we reported this as 16 per cent based on available information at the time. We've since received new information and have adjusted this value accordingly.

<sup>3</sup> Based on sources of energy as a percentage of total GWh generated by Emera as compared to 2005.

<sup>4</sup> We measure our safety performance using the OSHA IR and Lost Time Injury Rate, which are the two most common industry standards. The OSHA IR provides a more comprehensive injury metric and is an aggregated number of work-related incidents that result in injury requiring medical attention, absence from work or restricted work.

<sup>5</sup> PAIR represents the number of proactive safety incident reports for every 100 employees.

<sup>6</sup> In 2018, PAIR was broadened to include additional categories of safety reports. PAIR for all of Emera was calculated for the first time in 2017.

<sup>7</sup> Across Emera Inc. and operating companies.

<sup>8</sup> Director level and higher, across Emera Inc. and its operating companies.

<sup>9</sup> We track employee engagement through our employee survey, which is conducted every two years.

<sup>10</sup> Community investment for 2018 and 2017 include one-time contributions to establish the Emera ideaHUB at Dalhousie University and the Emera Innovation Exchange at Memorial University.

<sup>11</sup> Includes community investments, capital payments including dividends, employee wages and benefits, and taxes.

<sup>12</sup> Emera's operating companies have their own Boards of Directors or Advisory Boards.

# GRI INDEX

**GRI**  
**Disclosure Description Response**

## 102 GENERAL DISCLOSURES

102-01	NAME OF ORGANIZATION	Emera Inc.
102-02	ACTIVITIES, BRANDS, PRODUCTS AND SERVICES	<a href="#">Emera 2018 Annual Report</a> page 12, 14
102-03	LOCATION OF HEADQUARTERS	Emera Inc. is a geographically diverse energy and services company headquartered in Halifax, Nova Scotia, Canada.
102-04	LOCATION OF OPERATIONS	The data included in this report are relevant to Emera's significant operations located in Canada, the United States, Barbados, Grand Bahama and the Commonwealth of Dominica.  For a full description of Emera's holdings by country see <a href="#">Emera 2018 Annual Report</a> page 2.
102-05	OWNERSHIP AND LEGAL FORM	<a href="#">Emera 2018 Annual Report</a> pages 2, 12
102-06	MARKETS SERVED	<a href="#">Emera 2018 Annual Report</a> pages 1-2, 23-29
102-07	SCALE OF ORGANIZATION	<a href="#">Emera 2018 Annual Report</a>

102-08 INFORMATION ON EMPLOYEES AND OTHER WORKERS

**Percentage of Employees by Employment Contract, by Gender**

(Includes full-time and part-time employees)

	Permanent Employees		Temporary Employees	
	# Employees	% Employees	# Employees	% Employees
Female	2,035	29%	91	31%
Male	5,090	71%	206	69%
<b>TOTAL</b>	<b>7,125</b>	<b>100%</b>	<b>297</b>	<b>100%</b>

**Percentage of Employees by Employment Contract, by Region**

(Includes full-time and part-time employees)

	Permanent Employees		Temporary Employees	
	# Employees	% Employees	# Employees	% Employees
Canada	2,149	30%	201	68%
United States	4,214	59%	22	7%
Caribbean	762	11%	74	25%
<b>TOTAL</b>	<b>7,125</b>	<b>100%</b>	<b>297</b>	<b>100%</b>

**Percentage of Employees by Employment Type, by Gender**

(Includes permanent and temporary employees)

	FTE (Full-Time Equivalent Employees)		<1 FTE (Less than Full-Time Equivalent Employees)	
	# Employees	% Employees	# Employees	% Employees
Female	2,099	28%	27	64%
Male	5,281	72%	15	36%
<b>TOTAL</b>	<b>7,380</b>	<b>100%</b>	<b>42</b>	<b>100%</b>

102-11 PRECAUTIONARY PRINCIPLE OR APPROACH

[Emera 2018 Annual Report](#) pages 57-65

<b>GRI Disclosure</b>	<b>Description</b>	<b>Response</b>
102-12	EXTERNAL INITIATIVES	<p>Emera, through its membership in the Edison Electric Institute and the American Gas Association, supports the ESG/Sustainability Initiative.</p> <p>Emera also supports the principles of the Canadian Electricity Association Sustainable Electricity™ Program.</p>
102-13	MEMBERSHIP OF ASSOCIATIONS	Emera has affiliates that are members of the Canadian Electricity Association (CEA), the Edison Electric Institute (EEI), the American Gas Association (AGA), and the Caribbean Electric Utility Services Corporation (CARILEC).
102-14	STATEMENT FROM SENIOR DECISION-MAKER	<a href="#">2018 Sustainability Report: CEO Message</a>
102-15	KEY IMPACTS, RISKS AND OPPORTUNITIES	<a href="#">Emera 2018 Annual Report</a> pages 6-10, 12-14, 57-64
102-16	VALUES, PRINCIPLES, STANDARDS AND NORMS OF BEHAVIOUR	<p><a href="#">Emera Code of Conduct</a></p> <p><a href="#">Emera: Our Story</a></p>
102-17	MECHANISMS FOR ADVICE AND CONCERNS ABOUT ETHICS	<a href="#">Emera Code of Conduct</a>
102-18	GOVERNANCE STRUCTURE	<p><a href="#">Management Information Circular 2019</a></p> <p><a href="#">Emera Inc. Executive Team</a></p>
102-19	DELEGATING AUTHORITY	<p><a href="#">Management Information Circular 2019</a> page 40</p> <p><a href="#">HSE Charter</a></p>
102-20	EXECUTIVE-LEVEL RESPONSIBILITY FOR ECONOMIC, ENVIRONMENTAL AND SOCIAL TOPICS	There are several executive positions at Emera Inc. that hold responsibility for economic, environmental and social topics. These include the Executive Vice President, Stakeholder Relations and Regulatory Affairs, the Chief Operating Officer, and the Chief Financial Officer. These positions report to the President and Chief Executive Officer and report to the Emera Board of Directors.
102-21	CONSULTING STAKEHOLDERS ON ECONOMIC, ENVIRONMENTAL AND SOCIAL TOPICS	<a href="#">Management Information Circular 2019</a> page 84
102-22	COMPOSITION OF THE HIGHEST GOVERNANCE BODY	<a href="#">Management Information Circular 2019</a> pages 8-20
102-23	CHAIR OF THE HIGHEST GOVERNANCE BODY	<a href="#">Management Information Circular 2019</a> pages 8-20
102-24	NOMINATING AND SELECTING THE HIGHEST GOVERNANCE BODY	<a href="#">Management Information Circular 2019</a> page 27
102-25	CONFLICTS OF INTEREST	<a href="#">Management Information Circular 2019</a> pages 26-32
102-26	ROLE OF THE HIGHEST GOVERNANCE BODY IN SETTING PURPOSE, VALUES AND STRATEGY	Emera Senior Executives are responsible for the development of the company's purpose, strategies, policies and mission statements related to ESG issues. The Emera Board of Directors also provides oversight and guidance on the strategic issues facing Emera.

<b>GRI Disclosure</b>	<b>Description</b>	<b>Response</b>
102-27	COLLECTIVE KNOWLEDGE OF THE HIGHEST GOVERNANCE BODY	<a href="#">Management Information Circular 2019</a> page 35
102-28	EVALUATING THE HIGHEST GOVERNANCE BODY'S PERFORMANCE	<a href="#">Management Information Circular 2019</a> pages 30-31
102-29	IDENTIFYING AND MANAGING ECONOMIC, ENVIRONMENTAL AND SOCIAL TOPICS	<a href="#">Management Information Circular 2019</a> page 40
102-30	EFFECTIVENESS OF RISK MANAGEMENT PROCESSES	<a href="#">Board of Director's Charter</a> page 2 <a href="#">Management Information Circular 2019</a> pages 38-39
102-31	REVIEW OF ECONOMIC, ENVIRONMENTAL AND SOCIAL IMPACTS	<a href="#">Management Information Circular 2019</a> page 40
102-32	HIGHEST GOVERNANCE BODY'S ROLE IN SUSTAINABILITY REPORTING	Emera CEO
102-33	COMMUNICATING CRITICAL CONCERNS	<a href="#">Emera Code of Conduct</a> pages 35-36
102-35	REMUNERATION POLICIES	<a href="#">Management Information Circular 2019</a> pages 46-82
102-36	PROCESS FOR DETERMINING REMUNERATION	<a href="#">Management Information Circular 2019</a> pages 46-82
102-37	STAKEHOLDERS' INVOLVEMENT IN REMUNERATION	<a href="#">Management Information Circular 2019</a> page 43
102-41	COLLECTIVE BARGAINING AGREEMENTS	Approximately 38 per cent of Emera's employees were represented by a union in 2018.
102-45	ENTITIES INCLUDED IN THE CONSOLIDATED FINANCIAL STATEMENTS	<a href="#">Emera 2018 Annual Report - Management's Discussion &amp; Analysis</a> pages 12-75
102-46	DEFINING REPORTING CONTENT AND TOPIC BOUNDARIES	<p>The Emera Sustainability Report is based on corporate performance for 2018, unless otherwise stated. Emera applies the same reporting boundaries as the Emera 2018 Annual Report. The report contains consolidated data and stories covering Emera's wholly owned affiliates and subsidiaries where Emera has operational control.</p> <p>We have used the GRI Standards methodology and indicators derived from the GRI Standards to inform our approach to report on sustainability data. In addition, for the first time we are also reporting on data that align with the Edison Electric Institute and American Gas Association ESG/Sustainability template.</p>

GRI Disclosure	Description	Response
102-47	LIST OF MATERIAL TOPICS	<p>Emera selects the topics and data to include in the sustainability report based on the issues that we understand are important to our stakeholders and business strategy. Emera also draws on the opinions and insights shared by our stakeholders, including (but not limited to) customers, shareholders, team members, communities, regulators and government, industry associations, business partners, suppliers and NGOs.</p> <p>Emera conducted a review of sustainability materiality assessments for the electric utility industry, many of which were developed using multi-stakeholder input including: the CEA sustainability materiality matrix for the Canadian electric utility industry, SASB Electric Utilities Research Brief, the Edison Electric Institute (EEI) ESG/Sustainability Initiative, the American Gas Association (AGA) ESG/sustainability metrics, RobecoSAM Defining What Matters – Mining, Metals and Electric Utilities, EPRI Material Issues for the North American Electric Power Industry, and GRI G4 Sector Disclosures – Electric Utilities.</p> <p>Based on this approach, Emera developed the following topic areas: Customers, Safety, Relationships, Environment and Team.</p>
102-48	RESTATEMENTS OF INFORMATION	Based on available information, we reported a 16 per cent reduction in Scope 1 Greenhouse Gas Emissions (GHG) in 2017. Since then, new information has become available and we adjusted the value retroactively to a 22 per cent GHG reduction in 2017 (from 2005 levels).
102-49	CHANGES IN REPORTING	No significant changes.
102-50	REPORTING PERIOD	Data are from January 1, 2018 – December 31, 2018.  Stories and case studies are from 2018 and 2019.
102-51	DATE OF MOST RECENT REPORT	2018
102-52	REPORTING CYCLE	Annual
102-53	CONTACT POINT FOR QUESTIONS REGARDING THE REPORT	<p>We welcome feedback on our sustainability progress at <a href="mailto:sustainability@emera.com">sustainability@emera.com</a>, or at any of the following:</p> <p><b>Mailing address:</b> 1223 Lower Water Street Halifax, Nova Scotia B3J 3S8</p> <p><b>Phone:</b> 902-450-0507 <b>Toll free:</b> 1-888-450-0507</p> <p><b>Fax:</b> 902-428-6112</p>
102-54	CLAIMS OF REPORTING IN ACCORDANCE WITH GRI STANDARDS	The Emera Sustainability Report has been informed by the GRI Standards methodology.
102-55	GRI CONTENT INDEX	This table serves as the GRI Content Index.
102-56	EXTERNAL ASSURANCE	The report has not been externally assured.

## 103 MANAGEMENT APPROACH

103	MANAGEMENT APPROACH	<p>Information relating to our management approach with respect to our priority topics can be found in the following:</p> <p><a href="#">Emera 2018 Annual Report</a> pages 14, 57-63</p> <p><a href="#">Management Information Circular 2019</a> page 25</p> <p><a href="#">2018 Sustainability Report: Governance</a></p> <p><a href="#">Code of Conduct</a></p>
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## 201 ECONOMIC PERFORMANCE

201-01	DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED	\$5.3B in economic value distributed in our operating markets. This includes our community investments, capital payments, including dividends, employee wages and benefits, and taxes.
201-02	FINANCIAL IMPLICATIONS AND OTHER RISKS AND OPPORTUNITIES DUE TO CLIMATE CHANGE	Emera has disclosed information on the risks and opportunities posed by climate change for the company as part of Emera's 2018 CDP submission (sections 2.3a and 2.4b). This submission includes a description of the risk or opportunity, the impact and financial implications, and methods and costs used to manage the risks and opportunities.
201-03	DEFINED BENEFIT PLAN OBLIGATIONS AND OTHER RETIREMENT PLANS	<a href="#">Emera 2018 Annual Report</a> page 56

## 302 ENERGY

302-01	ENERGY CONSUMPTION WITHIN THE ORGANIZATION	Emera's 2018 CDP submission, sections 8.3a and 8.3b
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## 303 WATER AND EFFLUENTS

303-01	INTERACTION WITH WATER AS A SHARED RESOURCE	<p>At Emera, water is an integral part of our energy generation operations. Water withdrawal for thermal generation is primarily from seawater sources, as noted in GRI 303-03, and Emera affiliates discharge water to a variety of different water bodies, as noted in GRI 303-04 and G4-EN22. G4 DMA Water provides examples of approaches to managing water at the watershed level.</p> <p>Emera is compliant with water use regulations at our facilities, and our operations have not been impacted by any material water storages. Alternatively, Emera's water use or water discharge has not impacted other local water stakeholders.</p>
303-02	MANAGEMENT OF WATER DISCHARGE-RELATED IMPACTS	Emera thermal generation facilities discharge water effluent as part of their operations. All discharges are monitored and reported in accordance with operating approvals or permits and/or federal, provincial or state legislation requirements.

303-03 WATER WITHDRAWAL

**Total Water Withdrawal**  
(megalitres)

	Freshwater	Other Water
Groundwater	1,164	-
Seawater	-	2,555,485
Surface water	1,280	-
Third party water	1,986	8,939
<b>TOTAL</b>	<b>4,430</b>	<b>2,564,425</b>

**Total Water Withdrawal from Water-Stressed Areas**  
(megalitres)

	Freshwater	Other Water
Groundwater	1,000	-
Seawater	-	2,318,318
Third party water	461	2,031
<b>TOTAL</b>	<b>1,461</b>	<b>2,320,349</b>

303-04 WATER DISCHARGE

**Total Water Discharge**  
(megalitres)

	Freshwater	Other Water
Groundwater	2,379	92
Seawater	-	2,557,311
Surface water	1,169	1,090
Third party water	-	933
<b>TOTAL</b>	<b>3,548</b>	<b>2,559,426</b>

303-05 WATER CONSUMPTION

In 2018, Emera affiliates Emera Energy, Tampa Electric, Peoples Gas, BLP and DOMLEC consumed approximately 12,000 megalitres of water as part of their operations. Depending on the operational activity, water consumption is either sourced from direct measurements or invoices, or estimated.

## 304 BIODIVERSITY

304-02	SIGNIFICANT IMPACTS OF ACTIVITIES, PRODUCTS AND SERVICES ON BIODIVERSITY	<p>Emera's operations do not have a significant impact on biodiversity either directly or indirectly; however, Emera recognizes that its operations can contribute to negative impacts including habitat fragmentation, loss of wetlands and forested areas through clearing activities, the creation of access corridors, and conversion of riverine habitat from hydro development.</p> <p>Emera mitigates its impact through avoidance and site-specific environmental protection procedures that include (but are not limited to): water management, sedimentation control, wetland protection and wildlife and species of conservation concern.</p>
304-03	HABITATS PROTECTED AND RESTORED	<p>Some restoration work completed by our affiliates is as follows:</p> <ul style="list-style-type: none"> <li>● Emera Newfoundland and Labrador (ENL) continued to monitor the rock reefs created in Big Lorraine to offset the construction of the grounding electrode site for the Maritime Link project. These reefs were built in 2017 and are gradually being colonized by local wildlife and create more complex habitat to increase local biological productivity. Monitoring will be ongoing in 2019. In addition, ENL completed remediation of access trails and watercourse crossings associated with the Maritime Link transmission line construction. Areas will continue to be monitored in 2019.</li> <li>● Emera New Brunswick remediated wetlands and water courses along the pipeline Right of Way. Repairs were required due to recreational ATV traffic. Work was completed in 2018 but requires ongoing monitoring to correct any additional damage.</li> <li>● New Mexico Gas restores impacted habitats to pre-construction conditions by reseeding rangelands and conducting post-construction monitoring. The 2018 work plan was completed.</li> <li>● Nova Scotia Power provided support to a local organization called the "Turtle Patrol" with their efforts to provide viable habitat for snapping turtles on a spot of shoreline at an NSPI reservoir. NSPI provided material in an area where snapping turtles were attempting to nest but were struggling with larger-sized rocks. The Turtle Patrol spread the gravel as desired and removed larger material.</li> </ul> <p>In addition, the island of Dominica was devastated by Hurricane Maria in 2017. In 2018, DOMLEC executed an extensive island-wide line restoration. The lines and accessories had to be recovered and rebuilt. Vegetation is now returning to pre-hurricane conditions.</p>

## 305 EMISSIONS

305-01 DIRECT (SCOPE 1) GHG EMISSIONS

### GHG Emissions Response

Emera has a strong track record of reducing GHG emissions through investments in renewables and lower carbon energy alternatives. Emera had a 24 per cent reduction in Scope 1 GHG emissions (MtCO<sub>2</sub>e) since 2005. Emera has chosen 2005 as the base year for emissions calculations, as it aligns with the 2005 base year used by the Government of Canada for national GHG reduction targets. Operational control is the consolidation approach for emissions used at Emera.

Scope 1 emission calculations include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and SF<sub>6</sub>. Scope 2 and 3 emissions include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O. Emera used the IPCC 4th Assessment Report as the source for emission factors, and global warming potential (GWP) rates and regional emissions factors for Nova Scotia, Emera Maine and Tampa Electric. Emera's Scope 3 emissions include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O, as calculated using regional emissions factors for Nova Scotia, Emera Maine and Tampa Electric. Emera does not report market-based energy indirect (Scope 2) GHG emissions.

Emera's GHG intensity ratio in 2018 was 0.53 metric tonnes CO<sub>2</sub>e/MWh. This ratio is calculated using total MWh energy sold, and Scope 1 and 2 GHG emissions (CO<sub>2</sub>e).

For further information, see Emera's 2018 CDP submission.

#### GHG Emissions

(tonnes CO<sub>2</sub>e)

	Scope 1	Scope 2	Scope 3
2018	21,056,995 <sup>1</sup>	410	9,904,221
2005 Base Year	27,770,819 <sup>2</sup>	4,683 <sup>3</sup>	-

<sup>1</sup> In addition to the above, Emera's CO<sub>2</sub> emissions from biomass generating facilities were 509,311 metric tonnes in 2018.

<sup>2</sup> Emera affiliate NSPI provided updated verification of 2005 emissions (from 10,200,000 metric tonnes CO<sub>2</sub>e to 10,648,422 metric tonnes CO<sub>2</sub>e), and Emera's base year emissions were adjusted accordingly.

<sup>3</sup> Please note that Scope 2 base year emissions have been adjusted from 244,638 metric tonnes CO<sub>2</sub>e to 4,683 metric tonnes CO<sub>2</sub>e. This adjustment is to account for an error in the base year, where Nova Scotia Power's Scope 3 emissions were incorrectly included; they have subsequently been removed.

305-02 ENERGY INDIRECT (SCOPE 2) GHG EMISSIONS See response to GRI 305-01.

305-03 OTHER INDIRECT (SCOPE 3) GHG EMISSIONS See response to GRI 305-01.

305-04 OTHER INDIRECT (SCOPE 3) GHG EMISSIONS See response to GRI 305-01.

305-05 REDUCTION OF GHG EMISSIONS See response to GRI 305-01.

GRI Disclosure	Description	Response
305-07	NITROGEN OXIDES (NO <sub>x</sub> ), SULFUR OXIDES (SO <sub>x</sub> ) AND OTHER SIGNIFICANT AIR EMISSIONS	In 2018, Emera's other emissions for NO <sub>x</sub> , SO <sub>2</sub> and Mercury (Hg) were as noted in the following table. Persistent organic pollutants (POP), volatile organic compounds (VOC), hazardous air pollutants (HAP), particulate matter (PM) and other standard categories of air emissions identified in relevant regulations are included in NPRI reporting for NSPI and in TRI reporting for Tampa Electric.

Other Emissions	
NO <sub>x</sub>	22,697 tonnes
SO <sub>2</sub>	78,669 tonnes
Hg	75 kilograms

## 306 EFFLUENTS AND WASTE

306-02	WASTE BY TYPE AND DISPOSAL METHOD	<p>Emera companies are focused on reducing waste at its source and minimizing the amount of non-hazardous and hazardous waste that is produced and in need of disposal. All waste is managed and disposed of in accordance with applicable regulations and at approved facilities. As Emera's Sustainability Program continues to progress, efforts are being made to improve data collection related to waste metrics.</p> <p>In 2018, Emera companies disposed of approximately 69 tonnes of PCB-contaminated solid waste, 22,825 litres of PCB-contaminated liquid waste, and approximately 51 tonnes of other hazardous waste.</p> <p>In 2018, Emera companies produced a total of 527,081 tonnes of fly ash. Approximately 4 per cent (23,585 tonnes) was repurposed for other industrial uses. Tampa Electric conducted a number of closure projects in accordance with the Disposal of Coal Combustion Residuals from Electric Utilities Rule that came into effect in 2015. As a result, reported quantities of accumulated ash for repurpose was higher in previous years.</p>
306-03	SIGNIFICANT SPILLS	<p>Emera Inc. has an internal program for tracking and reporting environmental incidents. There were 27 moderate incidents and one significant incident in 2018.</p> <p>In 2018, approximately 5,000 litres of oil was released from the Nova Scotia Power Tufts Cove generation plant into the Halifax Harbour. Over the course of four months, a comprehensive cleanup operation was completed, with oversight and final inspection from Environment Canada and Climate Change Canada and Nova Scotia Environment.</p> <p><i>Moderate Environmental Incident - Includes regulatory non-conformances with a low risk of sanction, and releases that may cause some off-site environmental impacts but do not result in public or regulatory attention.</i></p> <p><i>Significant Environmental Incident - Includes sanctions or non-conformances that pose a risk of sanction, and releases that cause off-site environmental impacts with heightened regulatory or public attention.</i></p>
306-04	TRANSPORT OF HAZARDOUS WASTE	<p>At Emera, we focus on reducing waste at its source and minimizing the amount of non-hazardous and hazardous waste that is produced. All waste, including hazardous waste, is disposed of in accordance with regulatory and legal requirements.</p> <p>In 2018, Tampa Electric, Peoples Gas and Emera Maine disposed of approximately 51 tonnes of hazardous waste at various waste facilities within the United States.</p>

<b>GRI Disclosure</b>	<b>Description</b>	<b>Response</b>
306-05	WATER BODIES AFFECTED BY WATER DISCHARGES AND/OR RUNOFF	No water bodies were significantly affected by discharges from Emera's facilities. All discharges are monitored and reported in accordance with regulatory requirements. Our facilities discharge to the following water bodies:

<b>Emera Company</b>	<b>Generating Station</b>	<b>Water Body</b>
Barbados Light & Power	Spring Garden Operations	Atlantic Ocean
DOMLEC	Hydroelectric Station	Freshwater Lake
DOMLEC	Sugar Loaf	Sugar Loaf River
DOMLEC	Fond Cole	Atlantic Ocean
Grand Bahama Power Co.	Peel Street and West Sunrise	Hawksbill Creek and Freeport Harbour
Emera Energy	Bridgeport Energy	Bridgeport Harbour, Atlantic Ocean
Emera Energy	Bayside Power	Courtenay Bay, Atlantic Ocean
Emera Energy	Brooklyn Power	Herring Cove, Atlantic Ocean
Nova Scotia Power	Point Aconi Generating Station	Atlantic Ocean
Nova Scotia Power	Lingan Generating Station	Indian Bay, Atlantic Ocean
Nova Scotia Power	Point Tupper Generating Station	Strait of Canso, Atlantic Ocean
Nova Scotia Power	Port Hawkesbury Generating Station	Strait of Canso, Atlantic Ocean
Nova Scotia Power	Trenton Generating Station	East River Estuary
Nova Scotia Power	Tufts Cove Generating Station	Halifax Harbour, Atlantic Ocean
Nova Scotia Power	Lequille Generating Station	Allains River, NS
Nova Scotia Power	Annapolis Tidal Generating Station	Annapolis River, NS
Nova Scotia Power	Avon Generating Stations	Avon River, NS
Nova Scotia Power	Gulch and Ridge Generating Stations	Bear River, NS
Nova Scotia Power	Hell's Gate, Hollow Bridge, Lumsden and Methals Generating Stations	Black River, NS
Nova Scotia Power	Dickie Brook Generating Station	Dickie Brook, NS
Nova Scotia Power	Malay and Ruth Falls Generating Stations	East River, Sheet Harbour, NS
Nova Scotia Power	White Rock Generating Station	Gaspereau River, NS

**GRI  
Disclosure Description**

**Response**

<b>Emera Company</b>	<b>Generating Station</b>	<b>Water Body</b>
Nova Scotia Power	Fall River Generating Station	Fall River, NS
Nova Scotia Power	Gisborne Generating Station	Indian Brook, NS
Nova Scotia Power	Upper Lake, Lower Lake, Big Falls, Cowie Falls, Deep Brook and Lower Great Brook Generating Station	Mersey River, NS
Nova Scotia Power	Nictaux Generating Station	Nictaux River, NS
Nova Scotia Power	Mill Lake and Tidewater Generating Station	North East River, NS
Nova Scotia Power	Paradise Generating Station	Paradise River, NS
Nova Scotia Power	Sissiboo Falls, Weymouth and Fourth Lake Generating Stations	Sissiboo River, NS
Nova Scotia Power	Tusket Generating Station	Tusket River, NS
Nova Scotia Power	Wreck Cove Generating Station	Wreck Cove Brook, NS
Tampa Electric	Big Bend Power Station	Hillsborough Bay
Tampa Electric	Bayside Power Station	Hillsborough Bay
Tampa Electric	Polk Power Station	Unnamed Lake

## 307 ENVIRONMENTAL COMPLIANCE

307-01 NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS Emera is in material compliance with environmental laws and regulations.

## 401 EMPLOYMENT

401-01 NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

Age Group	#	Hires		Turnover	
		Rate	#	Rate	
Under 30	240	3.2%	71	1.0%	
30-50	333	4.5%	204	2.7%	
Over 50	113	1.5%	295	4.0%	
<b>Gender</b>					
Female	182	2.5%	181	2.4%	
Male	504	6.8%	389	5.2%	
<b>Region</b>					
Canada	276	3.7%	209	2.8%	
United States	359	4.8%	340	4.6%	
Caribbean	51	0.7%	21	0.3%	
<b>TOTAL</b>	<b>686</b>	<b>9.2%</b>	<b>570</b>	<b>7.7%</b>	

Rates are calculated using total employee count at end of reporting period.

401-02 BENEFITS PROVIDED TO FULL-TIME EMPLOYEES THAT ARE NOT PROVIDED TO TEMPORARY OR PART-TIME EMPLOYEES

Emera companies provide a comprehensive range of benefits for our eligible employees, which include health and dental insurance, life insurance, disability insurance, parental leave, wellness programs, pension plans and stock ownership. Eligibility terms of benefits vary by company and in compliance with the local jurisdiction's legal requirements.

401-03 PARENTAL LEAVE

Parental leave with employment position security upon return from leave is offered to all full-time Emera employees.

## 403 OCCUPATIONAL HEALTH AND SAFETY

403-01 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

Emera Inc. has developed a framework for the development and implementation of a Safety Management System (SMS). The SMS has been developed utilizing identified best practices from various safety standards associations, industry regulatory authorities, and safety associations, including: the National Energy Board (NEB), American Petroleum Institute API 1170, CEA, Pipeline and Hazardous Materials Safety Administration (PHMSA), and ISO 45001. Emera is in the process of fully implementing the SMS.

The Emera SMS applies to Emera Inc. and its affiliate group of companies. Emera and each of the affiliates have developed a Corporate Safety Policy that is kept updated and is signed off by the affiliate CEO or affiliate lead.

Work activities of contractors are addressed primarily within the Contractor Safety Program (CSP), a sub-section (element) of the SMS.

GRI	Disclosure	Description	Response
403-02	HAZARD IDENTIFICATION, RISK ASSESSMENT AND INCIDENT INVESTIGATION	<p>Emera affiliates have developed Hazard Risk Registers (HRRs) to identify the hazards associated with the basic/root activities that their organizations perform. Affiliates, in collaboration with Emera Safety, have assessed these common activities to arrive at consistency for severity levels of activities contained within the HRR.</p> <p>After the development of a consistent hazard register, the affiliates created Task Inventories, which list work tasks or jobs commonly performed by the organization. The ability to relate hazard information contained within the risk register to the task allows the organizations to make certain that effective controls are implemented. Once operational tasks have been identified, affiliates make certain that processes, policies and procedures, inclusive of safe work practices, safety rules, and job safety analyses, are aligned. Regular safety audits and other assurance practices review the effectiveness.</p> <p>Emera has instituted common processes for incident reporting, including near-miss and proactive reporting. Emera and its affiliates are increasingly focused on proactive leading indicators, such as proactive reporting, and promote a “speak up”, “say something, do something” culture. Employee safety committees have been instituted, where employees have an opportunity to raise safety concerns, discuss these amongst peers and determine recommended courses of action. Recognition of the identification and reporting of safety hazards and concerns is promoted by all levels of management within the business by various forms of positive employee recognition programs. Under Emera’s Code of Conduct, managers and supervisors are responsible for encouraging open communication and ensuring that employees are not retaliated against for reporting concerns in good faith.</p> <p>Employees across Emera and affiliates have the right to refuse unsafe work practices. These practices allow for employees to identify when they have concerns about working safely, report concerns to management so they can be addressed, and communicate concerns so that others are made aware of the status, refusals, or work modifications. Emera’s Code of Conduct safeguards employees from retaliation for reporting concerns in good faith.</p> <p>Employees are made aware of their responsibilities under the SMS through education and training. This includes incident reporting and investigation processes, identification of effective corrective actions, and consideration of continual improvement opportunities. Learnings are shared across Emera.</p>	
403-03	OCCUPATIONAL HEALTH SERVICES	<p>Emera affiliates have health and wellness resources that provide information and services to employees in areas including, but not limited to, ergonomics, strength and mobility assessments, physical and psychological wellness programs, and confidential post-incident debriefing discussions and support.</p> <p>Some Emera affiliates have programs that allow for early access to assessment and treatment to eliminate or minimize lost time associated with an incident, or other measures to improve the well-being of employees.</p> <p>Where regular hazard exposure is known, Emera affiliates have health monitoring programs, such as audiometric testing and respiratory fit testing programs.</p>	
403-04	WORKER PARTICIPATION, CONSULTATION AND COMMUNICATION ON OCCUPATIONAL HEALTH AND SAFETY	<p>As part of the Safety Management System, Emera affiliates have various processes in place for employee participation and consultation, including Emera’s “speak up” safety culture, regular corporate-wide safety checkpoints, pre-shift/meeting safety talks, annual safety initiatives, communication of safety incidents, and Occupational Health and Safety bulletin boards.</p> <p>Occupational Health and Safety Committees (OHSC) have been established at operational levels within each Emera affiliate, and all Emera employees are represented by a safety committee. Safety committee meetings are held regularly throughout the year. Representation on committees include unionized and non-unionized employees, as well as management and non-management employees.</p>	

GRI Disclosure	Description	Response
403-05	WORKER TRAINING ON OCCUPATIONAL HEALTH AND SAFETY	<p>There are various mechanisms through which safety information/training is provided to employees, visitors or contractors, depending on job requirements and different learning techniques within Emera. These include:</p> <ul style="list-style-type: none"> <li>● Safety moments at the start of meetings;</li> <li>● Site orientations where work-related safety considerations are reviewed;</li> <li>● Regular review of Emera safety policies and requirements;</li> <li>● Training and awareness requirements under the Emera Safety Management System; and</li> <li>● Job-specific safety training.</li> </ul> <p>A process for identification and tracking of training requirements for each affiliate is an aspect of Emera's Safety Management System. The effectiveness of communication and training is reviewed through regular inspections and audits.</p>
403-06	PROMOTION OF WORKER HEALTH	<p>Emera is committed to providing a safe and healthy workplace and a culture that supports leadership effectiveness, respectful workplace practices and employee health and wellness. Emera offers a range of services, programs and incentives in an effort to promote safe and healthy living, reduce lifestyle risk factors and prevent injury/illness.</p> <p>Emera organizes quarterly health challenges - friendly competitions that encourage positive, healthy habits. These initiatives have increased awareness of the importance of overall wellness across Emera. In 2018, the Employee Assistance Program expanded to include employees across Emera, allowing Emera employees and their families to receive high-quality support services for a variety of service offerings.</p>
403-07	PREVENTION AND MITIGATION OF OCCUPATIONAL HEALTH AND SAFETY IMPACTS DIRECTLY LINKED BY BUSINESS RELATIONSHIPS	<p>Emera and its affiliates are in the process of implementing a Safety Management System (SMS) that addresses safety performance and injury prevention for employees and contractors. The effectiveness of the SMS and of Emera's overall safety performance are reviewed regularly.</p>
403-08	WORKERS COVERED BY AN OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM	<p>The Emera Safety Management System (SMS) includes all employees. Contractor requirements are also covered as part of the Emera SMS.</p>
403-09	WORK-RELATED INJURIES	<p>In 2018, for Emera employees, there were no fatalities and 93 OSHA recordable injuries, with a rate of 1.29, based on approximately 14.4 million hours. For contractors, there were no fatalities and 42 OSHA recordable injuries, with a rate of 1.04, based on an estimate of approximately 8.1 million hours worked. All rates for Emera employees and contractors are based on a 200,000-hour conversion. Please note that consultants' exposure hours are not included within the contractor data provided. However, incident reports associated with consultants working at Emera locations are captured.</p> <p>Hazard identification and the development of the appropriate procedures/mitigations are part of the Emera Safety Management System. This includes using the hierarchy of controls.</p>

## 404 TRAINING AND EDUCATION

404-02	PROGRAMS FOR UPGRADING EMPLOYEE SKILLS AND TRANSITION ASSISTANCE PROGRAMS	<p>Emera works hard to attract top-quality talent and to provide people the tools they need to achieve greater success. Emera offers many opportunities for employees to grow in their careers by taking on new roles in different parts of the business. Emera's annual performance plan (MAPP) process provides an opportunity for employees, in conjunction with their leaders, to identify development areas and formal and informal training opportunities. Emera affiliates offer longer-term career planning to employees through the Employee Development Assistance program for Canadian affiliates and other tuition assistance programs, which allows employees to apply for funding for training outside their current role.</p> <p>Emera is focused on developing leaders within the business. In 2018, Emera launched an online learning portal and learning management system. The system provides all employees with access to e-learning programs to support skill development in a variety of areas, including leadership competencies. Emera also offers several in-house leadership development programs, which are available to all Emera company employees.</p> <p>Emera provides transition assistance to employees to facilitate continued employability.</p>
404-03	PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT REVIEWS	<p>Employees of all Emera companies complete an annual performance and career development review. The program includes employees and leaders working together to set goals and measures of success, and identify development areas to be reviewed and evaluated throughout the year.</p>

## 405 DIVERSITY AND EQUAL OPPORTUNITY

405-01	DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES	<p>In 2018, 29 per cent of Emera's total workforce, 33 per cent of Emera Senior Executives and 33 per cent of the Emera Board of Directors were female.</p>
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## 411 RIGHTS OF INDIGENOUS PEOPLES

411-01	RIGHTS OF INDIGENOUS PEOPLES	<p>Indigenous communities are an important and valued partner across Emera's operations. We are committed to building and maintaining strong, collaborative relationships that are based on trust, open communication and respect. We know that by working together we can create a more collaborative future for all, everywhere we work. We acknowledge and respect the culture, heritage and traditions of indigenous peoples.</p> <p>The Emera 2018 Sustainability Report provides examples of engagement activities and business relationships between indigenous peoples and Emera affiliates. There have not been any legal cases involving the rights of indigenous peoples associated with Emera operations.</p>
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## G4 SECTOR DISCLOSURES

EU1 INSTALLED CAPACITY

### Installed Capacity (MW)

Energy Source	Canada	United States	Caribbean	TOTAL
Coal	1,225	1,823	-	3,048
Natural gas*	439	5,016	-	5,455
Petroleum	560	2	368	930
Biomass	93	-	-	93
Hydroelectric	407	-	6	413
Solar	-	168	10	178
Wind	147	-	-	147
<b>TOTAL</b>	<b>2,871</b>	<b>7,008</b>	<b>384</b>	<b>10,264</b>

\* Unit 1 at Polk included with natural gas.

EU2 NET ENERGY OUTPUT

### Net Generation (GWh) by Energy Source and Region

Energy Source	Canada	United States	Caribbean	TOTAL
Coal	6,038	3,534	-	9,572
Natural gas*	1,427	21,675	-	23,102
Petroleum	137	-	1,155	1,292
Biomass	189	105	-	294
Hydroelectric	940	-	24	964
Solar	-	119	18	137
Wind	262	-	-	262
<b>TOTAL</b>	<b>8,994</b>	<b>25,432</b>	<b>1,197</b>	<b>35,623</b>

\* Unit 1 at Polk included with natural gas.

GRI Disclosure	Description	Response																																				
EU3	NUMBER AND TYPE OF CUSTOMER ACCOUNTS	<p><b>Retail Electric Customer Count (at end of year)</b></p> <table border="1"> <tr> <td>Commercial</td> <td>156,969</td> </tr> <tr> <td>Industrial</td> <td>6,005</td> </tr> <tr> <td>Residential</td> <td>1,434,670</td> </tr> <tr> <td>Other</td> <td>19,741</td> </tr> </table> <p><b>The number of utility connections at Emera in 2018 was 1,616,000.</b></p>	Commercial	156,969	Industrial	6,005	Residential	1,434,670	Other	19,741																												
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EU4	LENGTH OF ABOVE AND UNDERGROUND TRANSMISSION AND DISTRIBUTION LINES	<table border="1"> <thead> <tr> <th></th> <th>Total (km)</th> <th>Aboveground (km)</th> <th>Underground (km)</th> </tr> </thead> <tbody> <tr> <td><b>Transmission lines</b></td> <td><b>10,344</b></td> <td><b>10,228</b></td> <td><b>116</b></td> </tr> <tr> <td>Canada</td> <td>5,669</td> <td>5,669</td> <td>0</td> </tr> <tr> <td>United States</td> <td>3,952</td> <td>3,938</td> <td>14</td> </tr> <tr> <td>Caribbean</td> <td>723</td> <td>621</td> <td>102</td> </tr> <tr> <td><b>Distribution lines</b></td> <td><b>65,268</b></td> <td><b>56,156</b></td> <td><b>9,112</b></td> </tr> <tr> <td>Canada</td> <td>27,389</td> <td>27,020</td> <td>369</td> </tr> <tr> <td>United States</td> <td>33,750</td> <td>25,055</td> <td>8,695</td> </tr> <tr> <td>Caribbean</td> <td>4,129</td> <td>4,081</td> <td>48</td> </tr> </tbody> </table>		Total (km)	Aboveground (km)	Underground (km)	<b>Transmission lines</b>	<b>10,344</b>	<b>10,228</b>	<b>116</b>	Canada	5,669	5,669	0	United States	3,952	3,938	14	Caribbean	723	621	102	<b>Distribution lines</b>	<b>65,268</b>	<b>56,156</b>	<b>9,112</b>	Canada	27,389	27,020	369	United States	33,750	25,055	8,695	Caribbean	4,129	4,081	48
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EU12	TRANSMISSION AND DISTRIBUTION LOSSES	<table border="1"> <thead> <tr> <th></th> <th>% of Annual Load</th> </tr> </thead> <tbody> <tr> <td>Transmission losses</td> <td>3.5</td> </tr> <tr> <td>Distribution losses</td> <td>5.6</td> </tr> </tbody> </table>		% of Annual Load	Transmission losses	3.5	Distribution losses	5.6																														
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GRI Disclosure	Description	Response																														
EU13	BIODIVERSITY OF OFFSET HABITATS	<p>Nova Scotia Power Inc. (NSPI) was required by the federal Department of Fisheries and Oceans to offset 5,220 m<sup>2</sup> of fish habitat associated with the proposed Tusket Hydro main dam upgrade. This number was calculated from 1,740 m<sup>2</sup> of fish habitat that could be impacted from the new permanent dam footprint, multiplied by three. NSPI submitted a plan to meet this requirement in 2017. The Clean Annapolis River Project (CARP) group was contracted in late 2017 to perform habitat restoration in the Annapolis and Fales Rivers candidate sites, as per their proposal. In 2018, CARP targeted 5,280 m<sup>2</sup> of fish habitat on the Fales River for restoration. This was exceeded as restoration took place in a 356 m stretch of river with an average width of 17.2 m, totalling approximately 6,116 m<sup>2</sup>. This habitat restoration was designed to benefit salmonids.</p> <p>Tampa Electric also conducts some work on 107 acres (approximately 43,000 m<sup>2</sup>) in the Grange Hall Solar conservation area. The area has a forested floodplain and contains a tributary to the Little Manatee River. Species that will benefit include the bald eagle, the gopher tortoise, wading birds and osprey.</p>																														
EU15	PERCENTAGE OF EMPLOYEES ELIGIBLE TO RETIRE IN THE NEXT 5 AND 10 YEARS	<p><b>Retirement Eligibility by Region and Category</b></p> <table border="1"> <thead> <tr> <th></th> <th>0-5 Years</th> <th>6-10 Years</th> </tr> </thead> <tbody> <tr> <td><b>Canada</b></td> <td><b>24%</b></td> <td><b>16%</b></td> </tr> <tr> <td>Unionized employees</td> <td>11%</td> <td>6%</td> </tr> <tr> <td>Non-unionized employees</td> <td>14%</td> <td>10%</td> </tr> <tr> <td><b>United States</b></td> <td><b>52%</b></td> <td><b>20%</b></td> </tr> <tr> <td>Unionized employees</td> <td>14%</td> <td>3%</td> </tr> <tr> <td>Non-unionized employees</td> <td>38%</td> <td>17%</td> </tr> <tr> <td><b>Caribbean</b></td> <td><b>4%</b></td> <td><b>9%</b></td> </tr> <tr> <td>Unionized employees</td> <td>2%</td> <td>7%</td> </tr> <tr> <td>Non-unionized employees</td> <td>1%</td> <td>2%</td> </tr> </tbody> </table> <p>Note: Percentages are based on permanent full-time employee totals by region.</p>		0-5 Years	6-10 Years	<b>Canada</b>	<b>24%</b>	<b>16%</b>	Unionized employees	11%	6%	Non-unionized employees	14%	10%	<b>United States</b>	<b>52%</b>	<b>20%</b>	Unionized employees	14%	3%	Non-unionized employees	38%	17%	<b>Caribbean</b>	<b>4%</b>	<b>9%</b>	Unionized employees	2%	7%	Non-unionized employees	1%	2%
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EU17	DAYS WORKED BY CONTRACTOR AND SUBCONTRACTOR EMPLOYEES	Emera and its affiliates utilize contractors as part of their business. This is often in areas where specialized training, scope of work or equipment is required as part of the work.																														
EU18	PERCENTAGE OF CONTRACTOR AND SUBCONTRACTOR EMPLOYEES THAT HAVE UNDERGONE RELEVANT HEALTH AND SAFETY TRAINING	<p>Persons working for, or on behalf of, Emera or an Emera affiliate are required to participate in basic health and safety orientation/training/awareness of hazards of the work being performed and of the workplace prior to commencement of work.</p> <p>Emera and its affiliates utilize contractors as part of their business. These are often in areas where specialized training, scope of work, or equipment is required as part of the work. Contractors are hired through the company procurement process and are informed of hazards associated with their scope of work. The scope and related job tasks dictate the contractor training and competency requirements. There are instances where contractors require more specialized training than employees. No contractors are allowed to undertake work at Emera facilities for which they are not competent.</p>																														
EU26	PERCENTAGE OF POPULATION UNSERVED	Within the service areas of Emera's regulated utilities, there are no material areas that are unserved. All customers have access to electricity service.																														

GRI Disclosure	Description	Response
EU28	POWER OUTAGE FREQUENCY	For 2018, Emera's Report System Average Interruption Frequency Index (SAIFI) was 3.45 (All-in) and 2.15 (MEDS & Planning Outages not included). SAIFI is calculated using the total number of customer interruptions (over one-minute long) against the average number of customers for the specific reporting period.
EU29	AVERAGE POWER OUTAGE DURATION	For 2018, Emera's Report System Average Interruption Duration Index (SAIDI) was 8.34 (All-in) and 3.15 (MEDS & Planning Outages not included). SAIDI is calculated using the total customer interruption duration (over one-minute long) against the average number of customers for the specific reporting period.
G4-11	CONTRACTOR WORKFORCE COVERED UNDER COLLECTIVE BARGAINING AGREEMENTS	Emera does not track the number of contractors that are covered by collective bargaining agreements.
G4-EN8	TOTAL WATER WITHDRAWAL BY SOURCE	Addressed in response to GRI 303-03

G4-EN15 DIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 1)

#### 2018 Scope 1 Emissions per MWh

Country	Net Generation (MWh)	CO <sub>2</sub> e Total (tonnes)	CO <sub>2</sub> e/MWh	Net Generation from Fossil Fuel (MWh)	CO <sub>2</sub> e from Fossil Fuel (tonnes)	CO <sub>2</sub> e/MWh from Fossil Fuel
Caribbean	1,196,960	1,002,327	0.84	1,154,884	1,002,327	0.87
Canada	8,993,596	6,963,607	0.77	7,602,820	6,963,607	0.92
United States	25,432,384	12,877,425	0.51	24,658,821	12,877,425	0.52

Note: Gases included in CO<sub>2</sub>e include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and SF<sub>6</sub>.

G4-EN16 ENERGY INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 2)

#### 2018 Scope 2 Emissions per MWh

Country	Net Generation (MWh)	CO <sub>2</sub> e Total (Scope 2) (tonnes)	CO <sub>2</sub> e/MWh
Caribbean	0	0	-
Canada	0	0	-
United States	1,029	410	0.40

**GRI**

**Disclosure Description**

**Response**

G4-EN21 NO<sub>x</sub>, SO<sub>x</sub> AND OTHER SIGNIFICANT AIR EMISSIONS

<b>2018 Other Emissions per MWh</b>			
	<b>Emissions</b>	<b>Per MWh Net Gen - All Generating Capacity</b>	<b>Per MWh Net Gen - Combustion Power Plants</b>
NO <sub>x</sub> (tonnes)	22,697	0.0006	0.0007
SO <sub>2</sub> (tonnes)	78,669	0.0022	0.0023
Hg (kg)	75	0.0000021	0.0000022

G4-EN22 TOTAL WATER DISCHARGE BY QUALITY AND DESTINATION

Emera affiliates discharge water in compliance with regulatory and operating permits. Water plays a critical role at our hydro and thermal power plants, and every effort is made to avoid unplanned discharges. In 2018, no water bodies were significantly impacted by discharges from Emera facilities.

G4-LA1 TOTAL NUMBER AND RATES OF NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

<b>Average Length of Tenure of Leaving Employees, by Gender and Age Group (years)</b>		
	<b>Female</b>	<b>Male</b>
Under 30	2.0	2.2
30-50	5.8	4.8
Over 50	19.1	26.1

Note: Hire and turnover rates are noted in GR1 401-01.

G4-LA6 TYPES OF INJURY AND RATES OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS, AND ABSENTEEISM AND WORK-RELATED FATALITIES

	Employees	Contractors	Units
Medical Aid (MA)	22	20	Number
Restricted Work (RW)	46	8	Number
Lost Time (LT)	25	14	Number
Fatality	0	0	Number
Injury Rate (IR)	1.29	1.04	Injuries per 200,000 hours worked or per 100 employees
Lost Time Frequency (LTF) Rate	0.35	0.35	Lost time incidents per 200,000 hours worked or per 100 employees
Lost Day Rate/Lost Time Severity	10.97	n/a	Lost time days per 200,000 hours worked or per 100 employees
Hours	14.4 million	8.1 million <i>(estimated)</i>	Hours

G4 DMA AVAILABILITY AND RELIABILITY

Customers count on us for energy to power every moment of every day, and for solutions for a sustainable tomorrow. Emera affiliates operating in rate-regulated markets are required to have processes in place to ensure short- and long-term availability. With respect to long-term planning, this includes Integrated Resource Planning to anticipate long-term generation and demand requirements and investment in assets to meet future energy needs. With respect to short-term availability, this includes appropriate maintenance practices, including vegetation management to minimize outages, coordinated responses to events, including storms, and continual monitoring and improvement of reliability metrics.

G4 DMA DEMAND-SIDE MANAGEMENT

In 2018, Tampa Electric continued operating within the 2015-2024 DSM Plan, which supports the approved Florida Public Service Commission (FPSC) goals, which are reasonable, beneficial and cost-effective to all customers as required by the *Florida Energy Efficiency and Conservation Act*. As such, Tampa Electric files an annual summary of its Demand-Side Management program accomplishments and Form EIA-861. Examples of these programs at Tampa Electric include free energy audits, numerous energy rebate and incentive programs, and energy education, awareness and outreach. In 2018, Tampa Electric's conservation programs reduced the use of energy by 69.2 GWh.

In Nova Scotia, DMS programs are funded by NSPI pursuant to legislation requirements within the *Public Utilities Act*. This legislation requires that NSPI purchase electricity efficiency and conservation activities from EfficiencyOne, which is a public utility regulated by the Nova Scotia Utility and Review Board. Examples of these activities include home energy assessments, numerous energy rebate and incentive programs, free energy efficient products, and energy efficiency education and advice. In 2018, the energy savings achieved was 151 GWh.

Utilities in the state of New Mexico are required to offer energy efficiency programs to customers through the *Efficient Use of Energy Act*. New Mexico Gas Co. (NMGC) provides energy efficiency programs designed to incentivize residential and commercial customers to purchase or install high efficiency measures that decrease the use of natural gas in their homes or businesses. The NMGC 2018 program was expected to save approximately 1.1 million therms.

GRI Disclosure	Description	Response
G4 DMA	WATER	<p>Water plays a critical role in generating electricity at our hydro and thermal power plants. Whether we are drawing water to turn hydro turbines, to create steam, or to cool water in our thermal plants, we take care not to impact plants or animals in the area.</p> <p>NSPI operates 33 hydro generating stations, located in 17 watersheds throughout the province of Nova Scotia. Each hydro system is operating in accordance with a “Water Approval for Storage/Withdrawal of Water” under the <i>Nova Scotia Environment Act</i>, and is required to undergo a relicensing process for renewal of these approvals generally every 10 years, which involves engagement with stakeholders, a full suite of environmental studies, and assessment of the effects of water management strategies. NSPI facilities are operated to meet the Dam Safety Guidelines and conducts flood studies, along with a comprehensive review of hydrology of the watershed, as part of the dam safety review every seven years. All NSPI hydro systems are run-of-river, and water management is driven by seasonal availability of water. As such, the provision of fish passage for diadromous and resident fish population is an environmental risk. In 2018, NSPI completed a watershed risk assessment exercise to identify high-priority hydro systems for further studies into migration options for any impacts that hydroelectricity generation may have on the river system.</p> <p>At Tampa Electric’s Big Bend and Bayside power stations, water is used to cool steam by circulating saltwater from Tampa Bay through a “once through cooling” process that returns water back to the bay. This return also serves as the intake for the Tampa Bay Seawater Desalination facility, a drought-proof, alternative water supply that provides up to 25 million gallons per day of drinking water to the region. At both plants, the plant drainage system collects and diverts rainwater to an industrial wastewater pond or collection system. Through a partnership with the Florida Department of Environmental Protection and the Tampa Bay Estuary Program’s Nitrogen Management Consortium, TECO Energy’s investments to reduce NO<sub>x</sub> emissions and total nitrogen discharges to the bay have helped improve water clarity, fostering sea grass recovery.</p> <p>Due to the innovative siting of the Polk Power Station on previously mined lands, Tampa Electric was able to modify existing mine cuts on the site to serve as the plant’s cooling water reservoir, which allows the facility to treat and recycle this water continuously to reduce overall water consumption, as well as reducing the need to discharge effluent from the site. The plant’s design maximizes plant water recycling and reuse and minimizes groundwater withdrawal and off-site discharges. The Reclaimed Water Project allows Tampa Electric to collect reclaimed water from the cities of Lakeland and Mulberry as well as Polk County, treat it and use it for cooling water at the Polk Power Station. This project is a co-operative partnership between Tampa Electric, the city of Mulberry, Polk County and the Southwest Florida Water Management District (SWFWMD). It is jointly funded by Tampa Electric and SWFWMD.</p>
G4 DMA	MATERIALS	<p>Emera companies are focused on the removal of in-service PCB equipment. All PCB in-service equipment has been phased out at Tampa Electric. NSPI is on track to remove all in-service PCB equipment by 2025, as required by federal regulations. Other Emera companies have programs in place and are on track with the phase-out of PCB equipment.</p>
G4 DMA	EMPLOYMENT	<p>Emera’s ability to deliver service to its customers and to execute its growth plan depends on its ability to attract, develop and retain a skilled workforce. As such, Emera’s workforce planning programs function to understand the required skillsets and competencies to successfully execute on the company’s business strategy. Emera places emphasis on identifying future leaders and building leadership talent within the company. In 2018, all company leaders and high-potential leaders were fully assessed and included in the Emera Talent Review and Succession Planning activities.</p> <p>Emera companies contribute to apprenticeship programs, participate in co-op student programs and support scholarship and bursary programs to attract top talent early. NSPI offers scholarships and bursaries including those for emerging leaders, women in trades, engineering, technology and innovation, African Nova Scotians and Mi’kmaq.</p> <p>In 2018, Emera was named one of Canada’s Best Employers (<i>Forbes Magazine</i>), one of Atlantic Canada’s Top Employers and one of Nova Scotia’s Top Employers.</p>

<b>GRI Disclosure</b>	<b>Description</b>	<b>Response</b>
G4 DMA	EMPLOYMENT	<p>Emera and its affiliates are in the process of implementing a Safety Management System, which requires employees to understand their responsibilities under the program. Training requirements are dependent on the technical requirements of job tasks and identified hazards and risks. Hazards and risks are identified as part of the Safety Management System, and these are integrated into Job Safety Analyses and safe work procedures.</p> <p>Health and safety training is embedded into many programs including onboarding, Code of Conduct training, site orientations, mentoring programs, safety programs and on-the-job training programs. Training and awareness can be conducted in a variety of ways (e.g., on-site, off-site, formal, informal, internal training or training provided by external organization) and is dependent on the type of training being provided.</p> <p>Emera and its affiliates provide all their employees with the equipment required to complete their jobs safely. Contractors are required to ensure their employees have all the equipment needed to complete their jobs while on Emera sites. Safety observations and other similar inspection activities are carried out to ensure proper equipment is being used.</p> <p>A process for identification and tracking of training requirements and completion for each affiliate is an aspect of Emera's Safety Management System. The effectiveness of training is reviewed through regular inspections and audits.</p>
G4 DMA	FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING	Emera respects the rights of bargaining agreements. Emera and its affiliates adhere to the collective bargaining process, including the right to bargain and strike, and observe all regulatory requirements.
G4 DMA	DISASTER/EMERGENCY PLANNING AND RESPONSE	Emera and its affiliates have processes in place to address disaster/emergency planning and response, which are reviewed regularly.

# CONTACT

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