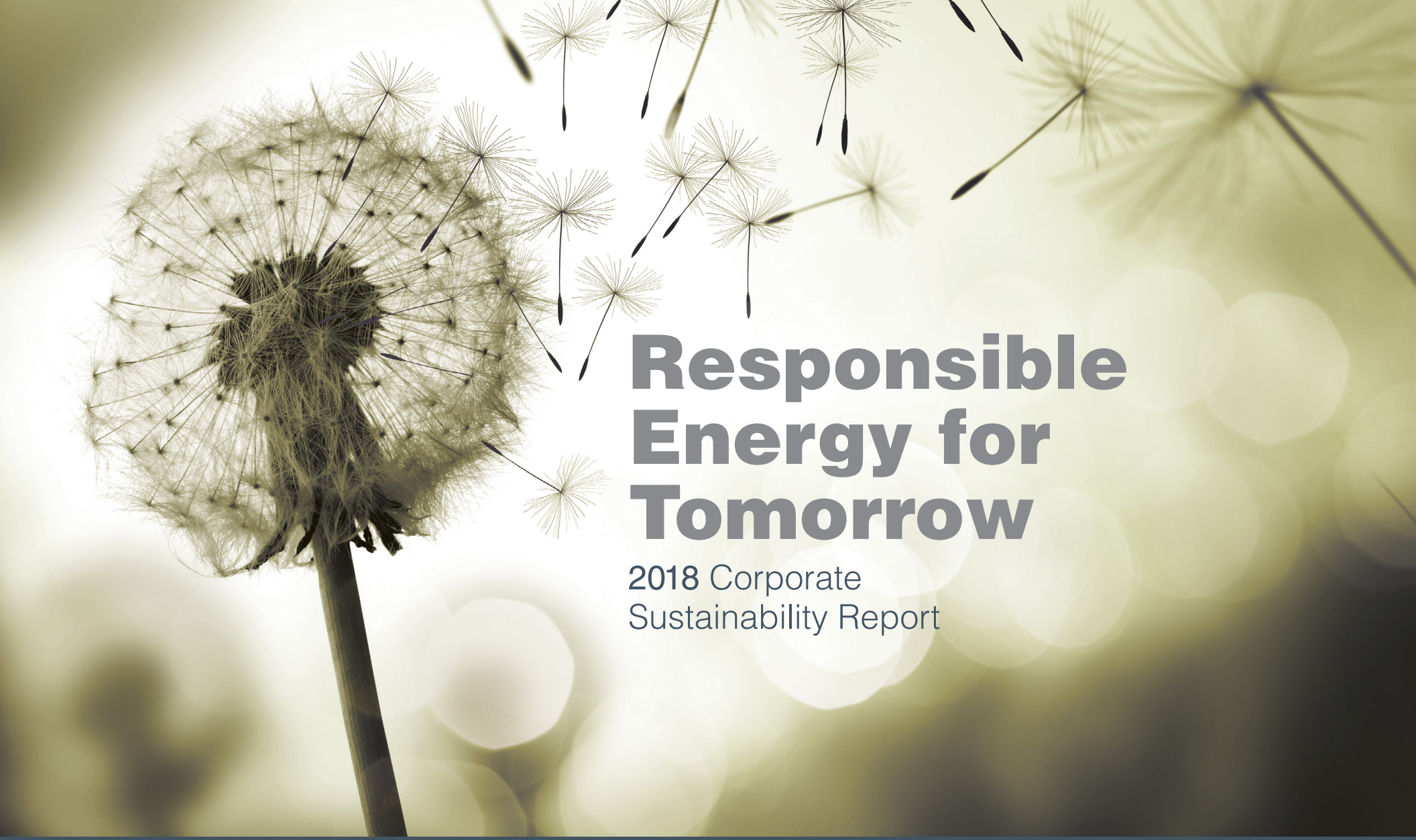


Responsible Energy for Tomorrow

2018 Corporate Sustainability Report

Capital Power

2018

A Year of Innovation and Engagement

At Capital Power, we are proud of the work that we do each year to build a sustainable future for all. We act with integrity, meaningfully engage our stakeholders, empower our employees and connect with our communities. Some examples that demonstrate the depth and breadth of our engagement activities in 2018 include:

JANUARY

- Winner of the 2018 Intranet Design Annual Award by Nielson Norman Group
- Hosted the conservation group Society for Range Management at Macho Springs Wind facility

FEBRUARY

- Participated as a panelist in the University of Alberta's Energy and the Environment Speaker Series
- Received Alberta's Top 70 Employers Award for third consecutive year
- Reviewed our Genesee Generating Station co-firing initiative with the House of Commons' Standing Committee on Natural Resources
- Finance and Sustainability Initiative recognized our 2016 Corporate Responsibility Report with the 2018 Best Sustainability Report in the infrastructure category

MARCH

- Began offering the Community Renewable Energy Benefit program to landowners associated with Whitla Wind and Halkirk 2 Wind projects
- Members of Executive and senior management participated as panelists at the Independent Power Producers' Society of Alberta (IPPSA) Conference
- Hosted Whitla Wind project vendor information session and open house for local landowners and service providers
- Generosity of Edmonton and Genesee Capital Power employees recognized at the United Way's Red Tie Gala

APRIL

- Halkirk 2 Wind Project (148 MW) approved by the Alberta Utilities Commission for construction
- Completion of contracts for Cardinal Point Wind (150 MW) in Illinois
- Edmonton employees assemble care kits for homeless shelters during National Volunteer Week
- Shared insight on effective stakeholder engagement at the Canadian Wind Energy Association's Spring Forum
- Roxboro Power Plant wins Gold Safety Award from North Carolina Department of Labor
- 'Power Pairs' mentorship program for employees launched
- Appointed SVP Kate Chisholm as Chief Legal and Sustainability Officer

MAY

- Innovation to cut GHG emissions at our Genesee Generating Station recognized by the Canadian Electricity Association and showcased as part of their Centre of Excellence
- 35,000 trees planted at Genesee as part of land reclamation efforts
- Acquired 5% equity interest in C2CNT, a technology company participating in the NRG COSIA XPRIZE that transforms CO_2 emissions into carbon nanotubes
- The Alberta Carbon Conversion Technology Centre officially opened at the Shepard Energy Centre and is hosting the NRG COSIA XPRIZE finalists
- Executive team and employees pledge support for mental health as part of the Canadian Not Myself Today campaign
- Built relationships with peers, policy makers and other industry participants at the American Wind Energy Association's Wind Power 2018 conference in Chicago
- Annual Summer Work Experience Program for students begins

Environmental stewardship | Social engagement | Governance | Operations and Growth | Innovation and industry engagement | Awards

2018: A Year of Innovation and Engagement

Some examples that demonstrate the depth and breadth of our engagement activities in 2018 include:

JUNE

- For World Environment Day, Southport Power Plant employees volunteered as a team to clean up litter along local community roads
- Additional physical natural gas delivery capacity for Genesee Generating Station secured, enabling increased co-firing capability
- Village of Warburg and Leduc County Council tours Genesee Generating Station
- First wind turbine foundation completed for New Frontier Wind in North Dakota
- Hosted local students from Stettler Outreach School for a tour of Halkirk Wind
- Genesee community members tour Genesee Mine to view our ongoing reclamation and reforestation initiatives
- Participated in 4th Annual Canadian Energy Infrastructure Conference in London, England to promote Capital Power as an investment opportunity in the European market
- Capital Power named one of Canada's 50 Best Corporate Citizens for eighth consecutive year

JULY

- Celebrated safety success with Capital Power President's Safety Awards
- Announced 7% dividend increase for common shares for 5th consecutive year
- Peregrine falcon chicks born in the nesting box on Genesee Unit 3's stack were banded by Alberta Environment and Parks

AUGUST

- Published 2017 Corporate Sustainability Report
- Completed annual submission to the Carbon Disclosure Project (CDP)

SEPTEMBER

- Panelist at 6th Annual Alberta Power Symposium focused on navigating the transition to a capacity market in Alberta
- Whitla Wind project in Alberta approved for construction
- Arlington Valley (580 MW) natural gas contracted facility acquired in Arizona
- Partnered with Tree Canada to plant trees in the Village of Warburg, a neighbouring community to our Genesee Generating Station
- Supported the community rebuilding efforts after Southport Power Plant operations and employees affected by Hurricane Florence

OCTOBER

- Offered insights on Canadian provincial and federal carbon pricing frameworks at the Argus Media Biofuels and Carbon Markets Summit
- Employees volunteered at Habitat for Humanity as part of annual company-wide 'Capitalize on your GENerosity' campaign
- Spoke on the future of electricity grids at the 2018 Canadian Wind Energy Association (CanWEA) conference
- Hosted New Frontier Wind landowners for dinner and project review
- Sponsored and participated in the University of Alberta's School of Business 2018 Energy Symposium focused on the future of Alberta's electricity system and evolving market and policy framework
- Presenting sponsor of the Pembina Institute's Alberta Climate Summit focused on energy and climate-related policy in Alberta
- Hosted advocacy event at Queen's Park in Toronto to showcase our Ontario assets and introduce Capital Power to the new Members of Provincial Parliament

NOVEMBER

- Security and contingency planning team featured in international magazine, "Security Management"
- Recognized for safety excellence by the Canadian Electricity Association for 5th consecutive year
- Announced sale of minority interest in K2 Wind for ~$160M pre-tax gain
- Hosted Halkirk Wind landowners for dinner and project update

DECEMBER

- New Frontier Wind (99 MW) begins commercial operation in North Dakota
- Shared expertise on Carbon Capture, Utilization and Storage at Emissions Reduction Alberta workshop
- Ontario Attorney General tours York Energy Centre to learn how peaking plants contribute to grid stability and reliability
- Hosted 10th annual Investor Day, themed "Delivering a Sustainable Future"
- Third year as presenting sponsor of the annual holiday fundraiser, Magical Christmas Music Gala featuring the Huron Carole, in support of Edmonton's Food Bank

Environmental stewardship | Social engagement | Governance | Operations and Growth | Innovation and industry engagement | Awards

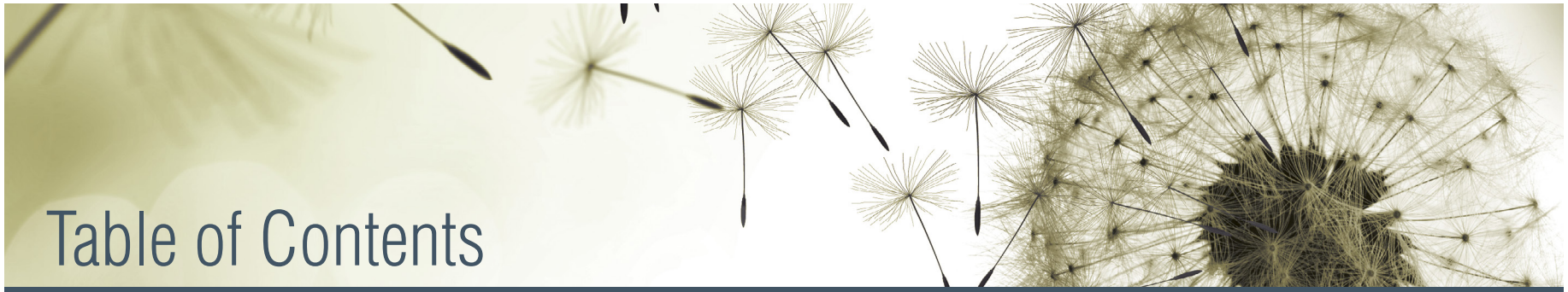


Table of Contents

Letter from Brian Vaasjo, President and CEO

Responsible Energy For Tomorrow

At Capital Power, we're driven by our purpose which is to create responsible energy for tomorrow. Beyond providing dependable and cost-effective solutions to meet our existing power needs, we're focused on our long-term vision for a future powered by sustainable energy sources and the road to net-zero emissions by 2050.

We're global citizens who understand the critical role we play in shaping the world we'll leave to our grandchildren. As leaders in environmental stewardship and innovation in energy, we're committed to delivering value for our shareholders by facilitating the transition to a future powered by responsible energy.

Our long-term sustainable strategy, strong track record of innovation and dedicated and collaborative employees set us up to lead our industry in a responsible and realistic way. We deliver on our goal of stable and competitive returns to our shareholders without sacrificing our environmental and social commitments, including:

- Constructing all new natural gas generation units to be carbon capture and/or hydrogen-ready;
- Reducing our actual CO_2 emissions at Genesee by 50% by 2030 from 2005 levels;
- Reducing our actual CO_2 emissions by 10%, and our emission intensity by 65%, by 2030 from 2005 levels*, in spite of increasing our generation by 145%, and;
- Investing in carbon capture and utilization (CCU) technology, such as C2CNT, to eventually decarbonize our natural gas fleet.

**Based on our current fleet*

We're committed to working collaboratively with all stakeholders to continuously improve our environmental, social and governance performance. Over the last year, we consulted with some of our most knowledgeable stakeholders, including decision makers, watchdogs, suppliers, unions, employees, community representatives, landowners, investors and analysts, to help us prioritize Capital Power's sustainability challenges and inform our sustainability strategy. Not surprisingly, climate change and innovation were overwhelmingly confirmed to be our most important areas of focus, but this obviously wasn't news to us.

We've been generating power from waste, like landfill gas, residual wood waste and chipped recycled tires, for over a decade. We've also historically proposed three different carbon capture and sequestration projects – all of which proved to be perfectly technically viable but unfortunately uneconomic because of the unmitigated cost of capture. For the last five years, we'd begun investing in our $35 million Genesee Performance Standard (GPS) program to improve the environmental efficiency of our coal units by 10% by 2021 and we've commenced plans to co-fire natural gas at our coal units on an interim basis until we convert them completely to natural gas which will cause a further 40% reduction. In short, like many energy companies, we've been working on this problem for a long time.

We're also continuing to invest in renewable projects in both Canada and the United States. In 2018, we began construction at Whitla Wind (Alberta) and brought New Frontier Wind (North Dakota) online in December. Cardinal Point Wind (Illinois) began construction in May 2019 and is expected to commence commercial operations in March 2020.

Recognizing the long-term value of natural gas and carbon capture, utilization and storage (CCUS)
Of course, renewable energy sources alone can't meet the increasing reliability needs of a growing population. Natural gas generation's operating flexibility and low cost are needed to enable greater absorption of renewables into the grid by ensuring there's a sufficiently nimble and affordable support system to keep the lights on whenever the wind isn't blowing or the sun isn't shining. We're therefore working hard to decarbonize our emissions so natural gas can continue to provide reliability benefits beyond 2050. With this in mind, we acquired Arlington Valley in 2018, a well-positioned natural gas asset in Arizona which uses best-in-class technology to deliver power to the Desert Southwest power market, and Goreway in 2019, an 875 MW natural gas combined cycle facility in Ontario that is equipped with state-of-the-art emission controls.

Experts like the Intergovernmental Panel on Climate Change recognize that Carbon Capture Utilization and Storage (CCUS) will be a necessary element of the world's electricity and energy mix in the years ahead if we're going to contain climate change to below 2°C. Incorporating natural gas with CCUS alongside renewables, batteries and nuclear power, will give society the greatest opportunity to succeed in combating climate change. This "all-of-the-above" solution will need to incorporate technologies that maintain the flexibility, cost competitiveness and baseload capabilities of natural gas generation while also converting its carbon waste stream into a valuable product.

NRG and Canada's Oil Sands Innovation Alliance's (COSIA) Carbon XPRIZE, with its home at the Shepard Energy Centre that Capital Power co-owns with ENMAX Corporation, has provided a real catalyst for converting captured CO_2 emissions into other useful products. This is a material benefit because the revenue realized from the sale of these products offsets the cost of capturing the carbon. The XPRIZE's Alberta Carbon Conversion Technology Centre (ACCTC), situated at Shepard and opened in May 2018, is a hub for CCU technology developers. Shepard is the only operating natural gas-fueled power plant in the world at which advanced carbon utilization technologies can be demonstrated in a full-scale production environment - a critical next step for innovators toward bringing their CCU technology to market. The NRG COSIA XPRIZE, the launch of the ACCTC, along with provincial and federal programs established to support and encourage CCUS projects position Alberta and Canada to be leaders in the growing CCU industry.

Capital Power's investment in C2CNT, an XPRIZE finalist whose technology captures and transforms CO_2 into carbon nanotubes, provides one potential alternative for changing how the energy industry uses and eventually eliminates CO_2 from its waste streams. Now in at-scale testing at Shepard, C2CNT could capture carbon from our flue gas, while also reducing emissions from downstream industrial processes that incorporate the nanotubes, like steel and cement making and aluminum smelting.

It's been famously said that we don't inherit the world from our ancestors; we borrow it from our children.

At Capital Power, we also take this sentiment seriously in other aspects of our physical operations. Beyond the use of technology to reduce carbon emissions, we're very committed to the support of research and implementation of reclamation efforts on our land. For example, at our Genesee Mine, some of our current land reclamation activities include:

- planting spruce, aspen and willow seedlings to create a more diverse landscape and multiple land uses;
- supporting research into live root transfer, aspen seedling selection and the establishment of hybrid poplar plantations as sustainable ways to reforest areas quickly;
- carefully protecting our wetlands by re-establishing creeks and maintaining drainage, and;
- proactively safeguarding wildlife corridors.

We produce competitive, future-focused energy that reflects our people: trustworthy, diverse, reliable and real.

We're proud of our organization of experts and innovators. Our people have many functions and responsibilities and all of them are important, critical, and focused on creating responsible energy for tomorrow. From administration to site foreman, from clerks to engineers, our organization has been built on a foundation of honesty, hard work, grit and comradery. This is why we were named one of the 2019 World's Most Ethical Companies by the Ethisphere Institute.

We're very optimistic about the future of low-carbon, low-cost and reliable generation and are excited to be involved in the development and implementation of sustainable solutions that will make it a reality. As leaders in environmental stewardship and innovation in energy, we're committed to delivering value for our shareholders by facilitating the transition to a future powered by responsible energy.

Brian Vaasjo
President and Chief Executive Officer

About our report

In keeping with our commitment to produce an accurate annual record of our performance, we have been publicly reporting our sustainability progress since our inception in 2009. Reporting in this transparent way ensures that our operations align with the expectations of our stakeholders and allows us to continually monitor our progress.

Our demonstrated track record of transparent reporting reflects our belief in the sustainability of our business strategy as we transition to a low-carbon economy, and enhances understanding of our business among our stakeholders. Our disclosure and reporting practices are a key pillar of our sustainability strategy.

Capital Power

RESPONSIBLE ENERGY FOR TOMORROW

Contact Us:
Capital Power Corporate Headquarters
1200-10423 101 St NW, Edmonton, AB T5H 0E9
info@capitalpower.com | **capitalpower.com**

Framework and format

Our past sustainability reports have been prepared with reference to the GRI 3.1 reporting standard. In our pursuit of ongoing improvement to transparency and clarity, and with a commitment to sustainable operations, this report is our first to meet the most current GRI reporting standard, the GRI Standards. Accordingly, this report has been designed to more clearly highlight our material topics and our management approach to them.

Forward-looking information

Forward-looking information or statements included in this Corporate Sustainability Report are provided to inform readers about management's assessment of Capital Power's future plans and operations. This information may not be appropriate for other purposes. The forward-looking information in this Corporate Sustainability Report is generally identified by words such as "will," "anticipate," "believe," "plan," "intend," "target" and "expect" or similar words that suggest future outcomes. By their nature, such statements are subject to significant risks, assumptions, and uncertainties, which could cause Capital Power's actual results and experience to be materially different than the anticipated results. Readers are cautioned not to place undue reliance on any such forward-looking statements. The Company does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in the Company's expectations or any change in events, conditions, or circumstances on which any such statement is based, except as required by law.

Scope

The scope of this report highlights our company-wide environmental, economic, social and safety performance and goals from January 1, 2018 through December 31, 2018. We report only on assets that we operate (unless otherwise noted) and provide year-over-year trending where possible.

Data from each plant represents the entire plant; not only our financial share of the operation including: York Energy Centre (50/50 joint venture), Genesee 3 (co-owned with TransAlta) and Genesee 1 and 2 whose plant capacity and output is sold under an Alberta Power Purchase Arrangement currently held by the Alberta Balancing Pool. Energy production and emissions data from Keephills 3, Joffre, Shepard Energy Centre, and our former K2 Wind and power purchase arrangement (PPA) facilities are generally not included because we do not hold the operating permits. To overcome the challenge of needing to synthesize data from numerous jurisdictions, some of which have different reporting requirements, methods and standards, we have consolidated information where possible – for example, greenhouse gas emission data for our facilities in Canada and the United States. In other areas, information is presented separately or from a single jurisdiction.

Greenhouse gases from our landfill gas and biomass facilities are reported separately in aggregate greenhouse gas emission totals or emission intensity calculations. This approach aligns with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (World Resources Institute and World Business Council for Sustainable Development). We aim to report in a manner that presents a holistic view of our business and shows the connection between our business strategy and our corporate sustainability initiatives. Building on our past reports, we aim to provide accurate and balanced information about our people, facilities, performance (including emissions), and our contributions to the communities in which we do business. All dollar figures are in Canadian funds.

Defining materiality

An important aspect of defining content for this report was to identify the sustainability priorities for our business and stakeholders. Materiality, in the sustainability context used for this report, refers to the relative significance of environmental, social, governance and economic priorities and their impacts (both positive and negative) on our business and stakeholders. To help define the sustainability topics most urgent and relevant for our business, we initiated a comprehensive process in 2018 that included engaging expert sustainability consultants and undertaking surveys with key stakeholders.

Identifying our priority topics

As a first step, we referenced reporting guidelines and frameworks such as the Global Reporting Index and the Task Force for Climate-related Financial Disclosures (TCFD), as well as those identified through non-profit industry organizations such as the Electric Power Research Institute. We established a cross-functional Sustainability Committee, led by our Chief Sustainability Officer which engaged directly with 110 individual stakeholders to help us define our priority topics. Twenty-six sustainability topics of potential relevance to Capital Power were identified through this review, four of which stood out as priorities for us. We divided the topics into three categories: those that we have well under control, those that will require continuous improvement and those of which will require constant focus to achieve our vision.

This report has been prepared in accordance with the GRI Standards: Core option. This report adheres to the GRI Standards content and quality principles : Stakeholder inclusiveness, Sustainability context, Materiality, Completeness, Accuracy, Balance, Clarity, Comparability, Reliability, and Timeliness.

This report is available in English and is publicly available on our website at ***www.capitalpower.com*** *as a downloadable PDF.*

Our priority topics

2018

Climate change and carbon footprint:

Critical thinking, conversation and action regarding our lower-carbon energy future are becoming increasingly important across the energy industry. **See pg. 27**

Innovation:

This is the key to creating responsible, sustainable energy for future generations. This includes both investment in and support for new technologies as well as innovative thinking and approaches to existing systems and processes. **See pg.32**

Sustainable sourcing:

An emerging material topic for us. We are committed to having a formal sustainable sourcing strategy in place by the end of 2020.

Water management:

An emerging material topic for us. We are committed to taking a proactive approach to water management and having a formal water management strategy in place by the end of 2021.

2021

Through our engagement efforts with stakeholders, the four priority topics that were identified are:

1. Climate change and carbon footprint
2. Innovation
3. Water management
4. Sustainable sourcing

This report focuses on the first two topics, climate change and carbon footprint and innovation, and we will incorporate additional information on water management and sustainable sourcing in future reports as they evolve.

Our 2018 materiality matrix

Our 26 stakeholder-identified topics of interest were mapped on a materiality matrix for their impact on our business against stakeholder interest.

Information on 22 other significant social, environmental and business topics identified through our stakeholder engagement is also included in this report:

- Air pollution
- Biodiversity
- Board and CEO succession
- Board diversity
- Community and stakeholder relations
- Community involvement and volunteering
- Compliance
- Cyber and asset security
- Diversity and inclusion
- Employee engagement and retention
- Energy use and conservation
- Ethics and integrity
- Labour relations
- Noise
- Pay equity
- Pay for performance
- Physical footprint and waste management
- Reclamation
- Risk management
- Shareholder rights
- Transparency and reporting
- Worker health and safety

Strategy and governance

Future-focused power generator

We strive to be recognized as one of the most respected, reliable and competitive owners and operators of wholesale power generation facilities in North America. We are future-focused and actively developing innovative solutions for a low-carbon future.

Our **vision** is to power a sustainable future, and as a power generator we are a trusted resource in addressing one of the most important issues facing society today - how to reduce our carbon footprint and power a sustainable future for all. We work to meet the evolving electricity needs of society responsibly and sustainably.

It is our **mission** is to create dependable, cost-effective and future-ready electricity solutions.

Our values

Our business is rooted deeply in our values which form the foundation of our culture, driving everything we do.

Committed to safety

We maintain the highest standards of safety for all our employees and the communities in which we work. Our safety campaign, 'Zero Means Everything', is a core value of our culture and operations, and all employees know they have the right to get home safe and healthy every day.

Work together as a diverse and inclusive team

Our team is made up of strongly passionate, committed and talented people from diverse backgrounds. We respect each other and are committed to maintaining a supportive and inclusive environment for all employees to thrive and deliver exceptional results.

Accountable to our stakeholders

We are accountable for our work and the impacts it has. We act with integrity, pursue opportunities to engage and give back, and always strive to do what is right by all our stakeholders including investors, local communities and employees.

Deliver excellence

We promote a culture of excellence driven by our passion for what we do. We are excited about the future of power and the role we play in the transition to a low-carbon economy. We strive to execute our strategy in a way that creates value for our shareholders and neighbouring communities.

Powering with purpose

Building on the foundation our values have set, we produce power by acting deliberately through our business practices to:

Strengthen the economy

Our overall asset fleet is young, and with our strong positioning in Alberta and the continual growth of our contracted gas and renewable capacity throughout North America, we contribute to local markets and the overall strength of the economy.

Protect the environment

We protect our environment through responsible business practice and work in partnership with experts supporting research and environmental initiatives.

Build strong and safe communities

Being a 'neighbour of choice' means earning the respect of our fellow community members and building a legacy of trust. We work to develop strong relationships and support meaningful local initiatives and programs that promote and strengthen the quality of life for all community members.

Innovate for tomorrow

Our commitment to sustainability drives our passion for innovation. We developed and are implementing our world-leading Genesee carbon reduction program, and support and invest in technology solutions that will deliver a low-carbon energy future.

Capital Power Board of Directors

Corporate governance

Capital Power believes in the strength of good governance to support our ability to effectively address risks and create long-term shareholder value. Our Board of Directors (the "Board") is directly accountable for overseeing our long-term strategy, and for laying a strong foundation for management accountability to execute and achieve our corporate priorities. The Board is directly responsible for all material risk factors, including those related to sustainability.

Leadership approach:
The Canadian Coalition on Good Governance
Our Board takes a principles-based approach to its governance practice which evaluates sustainability, including environment and social factors, as part of our overall business strategy and risk-evaluation processes. The following categories identified by *The Canadian Coalition on Good Governance* outline our management approach for sustainability as governed by the Board:

Corporate culture – The Board culture supports a constructive approach to health and safety, community relations and environmental impacts and sets the tone for management in driving the behaviours and attitudes needed to support a corporate-wide, aligned sustainability culture.

Risk management – We utilize Enterprise Risk Management to identify and assess risks related to sustainability as a specific and integral part, and not separate from, the overall risk management strategy.

Corporate strategy – The annual Corporate Long-Term Plan developed by management and approved by the Board identifies environmental and social factors with the potential to have significant impact, positive and negative, to the business.

Board composition – To enable constructive contribution and governance oversight, members of our Board are assessed and selected using a skills matrix to maintain a broad balance of relevant education, experience, geographic and gender diversity as set out in our Board Diversity Policy.

Board structure – The Health, Safety and Environment committee of the Board oversees the impact of our operations on the environment and on workplace health and safety. The committee reviews strategies, goals and policies relating to environment, health and safety, monitors performance, reviews and recommends key operational performance metrics, and provides guidance to the Board in cases of material operational events.

Board practices – The Board reviews the corporate risk register biannually, conducts regular site visits during annual meetings and consults regularly with shareholders for first-hand perspectives of their key topics of interest.

Performance evaluation and incentives – Management's remuneration is linked to social and environmental targets including worker safety, employee retention and achieving lower GHG emissions at our Genesee Generating Station. The targets and remuneration framework are reviewed and approved annually by the Board.

Disclosures to shareholders – The Audit Committee and the Board approve our annual financial reporting materials including the Management Discussion and Analysis and Annual Information Form which provide information on risks and significant events including those related to environmental and social factors. Our annual disclosures now reference our inaugural Climate Change Disclosure released in 2019.

Our Board is governed by several policies which set out requirements for performance and conduct including the Board Diversity Policy, Corporate Governance Policy and the Independent Compensation Consultant Policy. As of December 31, 2018, Capital Power's Board consisted of nine directors, eight of whom are independent according to the standards of independence established under Canadian securities laws.

We see the value of engagement with our shareholders as an important component of good governance. Our Board Shareholder Engagement Policy outlines the process and protocol for shareholder engagement with the Board on issues such as strategy, compensation, succession, structure, oversight of risk, accounting, auditing and internal controls, and our governance practices and policies. The Board regularly engages shareholders to ensure their voice is heard in the board room

Capital Power's governance structure
Our corporate structure reflects our holistic approach to the management of environmental and social sustainability issues. Key components of this structure include:

- Our Board and its committees, each with terms of reference specific to their roles in ensuring values and rights of shareholders are protected;
- The Health, Safety and Environment committee oversees matters relating to the impact of our operations on the environment and on the workplace health and safety of employees, and;
- Our Executive Management Team which includes our chief legal and sustainability officer (CSO).

Risk management

At Capital Power, we believe that strong risk management encompasses culture, capabilities, practices, strategy-setting and performance. Together, they are key to our success. We aspire to operational excellence through the consistent use of standards, processes and procedures to continually improve our performance, safety and reliability. Our framework of controls enables us to operate in a cost-effective and environmentally responsible way by:

- managing risks;
- ensuring safe and reliable operations;
- providing plans to mitigate environmental and social impacts;
- developing and sharing best practices, and;
- supporting continuous improvement.

We use an Enterprise Risk Management Program (ERM Program) and an Occupational Health and Safety Management System (OHS MS) to support our overall risk monitoring and management.

Risk management approach

We view risk management as an ongoing process and continually look for ways to enhance our risk management programs and procedures. Our company-wide ERM Program embeds the principles of risk management into all aspects of our operations and ensures risks are effectively managed across the entire organization. Our ERM Program is aligned with the Committee of Sponsoring Organizations standard for enterprise risk management (COSO II ERM, Integrated Framework) and is supported by our Enterprise Risk Management Policy Framework (ERM Policy).

Key risks

We use an ERM Program to identify, assess, categorize, respond to, report on and monitor key risks that may affect the achievement of our strategic and related business objectives. Key risks are identified in a risk register and assessed in a risk matrix which is updated twice per year. We use various controls and procedures for reducing controllable risks to acceptable levels and to identify appropriate actions in cases of risks outside of management's control.

Risk governance

Our ERM Program is governed by our ERM Policy, which is reviewed annually by the Board of Directors ("the Board"). The Board also approves our risk tolerance levels which govern our decisions and policies associated with risk. We undertake risk assessment in conjunction with core corporate processes; formally, risks are reported to the Board twice per year, as part of the budgeting process and as part of the Corporate Long-Term Plan. The assessment process assigns identified risks to executive owners who are accountable for providing risk management action plans. Under the ERM policy, all employees are also expected to understand the risks they are responsible for, manage them within approved tolerance levels, and disclose new risks as they appear.

Occupational Health and Safety Management System (OHS MS)

As a wholesale power generator, we are focused on developing, constructing, operating, optimizing and maintaining power generating and related facilities. This set of activities can present significant risks and impact human health and safety if not properly managed. Safety is a core company value, a fundamental principle of how we operate.

The management approach is to provide an overall framework for operations, while providing flexibility for plant-specific procedures. This is managed through our OHS MS which outlines the roles and responsibilities involved, how standards for the organization are developed, a comprehensive training matrix, and an audit process by which compliance with jurisdictional requirements is measured.

Occupational health and safety impacts occur at all construction and operational facilities where we have control of the workplace and associated work activities. On projects where we do not control the workplace and activities, we conduct due diligence as an owner through a robust contractor management process which includes regular reviews to ensure all health, safety and contract obligations are met.

Consistent with our long-term Health, Safety and Environment (HSE) strategy, we use an HSE Performance Index (the "Index") that measures performance against a target of 1.00 by using a combination of leading and lagging performance indicators. Where lagging indicators measure the "end-results", leading indicators recognize and focus attention on proactive activities and continuous improvement.

Oversight of the management system is provided by the Health, Safety and Environment committee of the Board, who monitor, advise and make recommendations to the Board on matters relating to the establishment, maintenance and review of our health and safety strategies, goals and policies, due diligence, and the achievement of excellent corporate performance. They also review the HSE policy annually.

Policy engagement and advocacy

Capital Power's corporate Ethics Policy applies to all employees including Board of Directors, management, consultants and contractors, and sets out expectations for conduct and guides interactions with all external parties including elected officials, suppliers and staff.

We engage in public policy dialogue on issues relevant to our core business strategy and regularly advocate policy positions with appropriate levels of government where we have operations or business interests. We believe that constructive communication with government and external stakeholders can create balanced and meaningful policies that benefit our shareholders and our communities. Education and lobbying activities with government officials inform policymakers about Capital Power's perspectives and create opportunities for increased sustainable energy investment.

The following table highlights key issues and our positions on them that are currently the focus of our public policy development and advocacy efforts.

Significant issues	Capital Power's position
Energy Market Policy	**Alberta, Canada** We are engaged and active in discussions regarding the design of Alberta's wholesale power market through: • participation in technical working groups established by the Alberta Electric System Operator (AESO) • providing substantive and detailed comments on draft proposals and discussion papers • reviewing and commenting on the Government of Alberta's Bill 13 (the enabling legislation for capacity market implementation) • participation in the Alberta Utilities Commission (AUC) regulatory proceeding to review the final capacity market design proposal
Carbon Pricing Policy	**Alberta, Canada** We operate and manage our facilities in accordance with Alberta's Carbon Competitiveness Incentive Regulation (CCIR) that came into effect in January 2018, and we participated in the process initiated by the Government of Canada regarding design features of the Federal backstop framework for large emitters. We are also participating in consultations regarding the design of Alberta's new Technology Innovation and Emissions Reduction (TIER) Program. **Oregon, U.S.** We provided input on proposed carbon pricing legislation and support for market-based mechanisms and frameworks directly as well as through our membership in industry associations.
Clean Technology Policy	We believe a broad suite of technologies and approaches is necessary for jurisdictions to achieve climate change objectives while continuing to maintain electricity systems that generate and provide electricity reliably and at affordable and competitive rates. We regularly meet with officials at the provincial, state and federal levels to discuss our initiatives to power a sustainable future through: • pursuing efficiency improvements at our thermal facilities • investing in renewable generation and efficient natural gas facilities • supporting development and deployment of innovative technologies that will achieve near-zero emissions from natural gas used in power generation and other industrial processes

Membership disclosures

We are a participating member in industry organizations that advocate interests on behalf of the power industry and in some circumstances, broader business community. These organizations generally promote public policy goals consistent with our strategy, values and shareholder interests as a condition of our participation. The list of associations in which we maintain memberships and take an active role can be found in **Disclosure 102-13, p.58**

Our business

Organizational profile

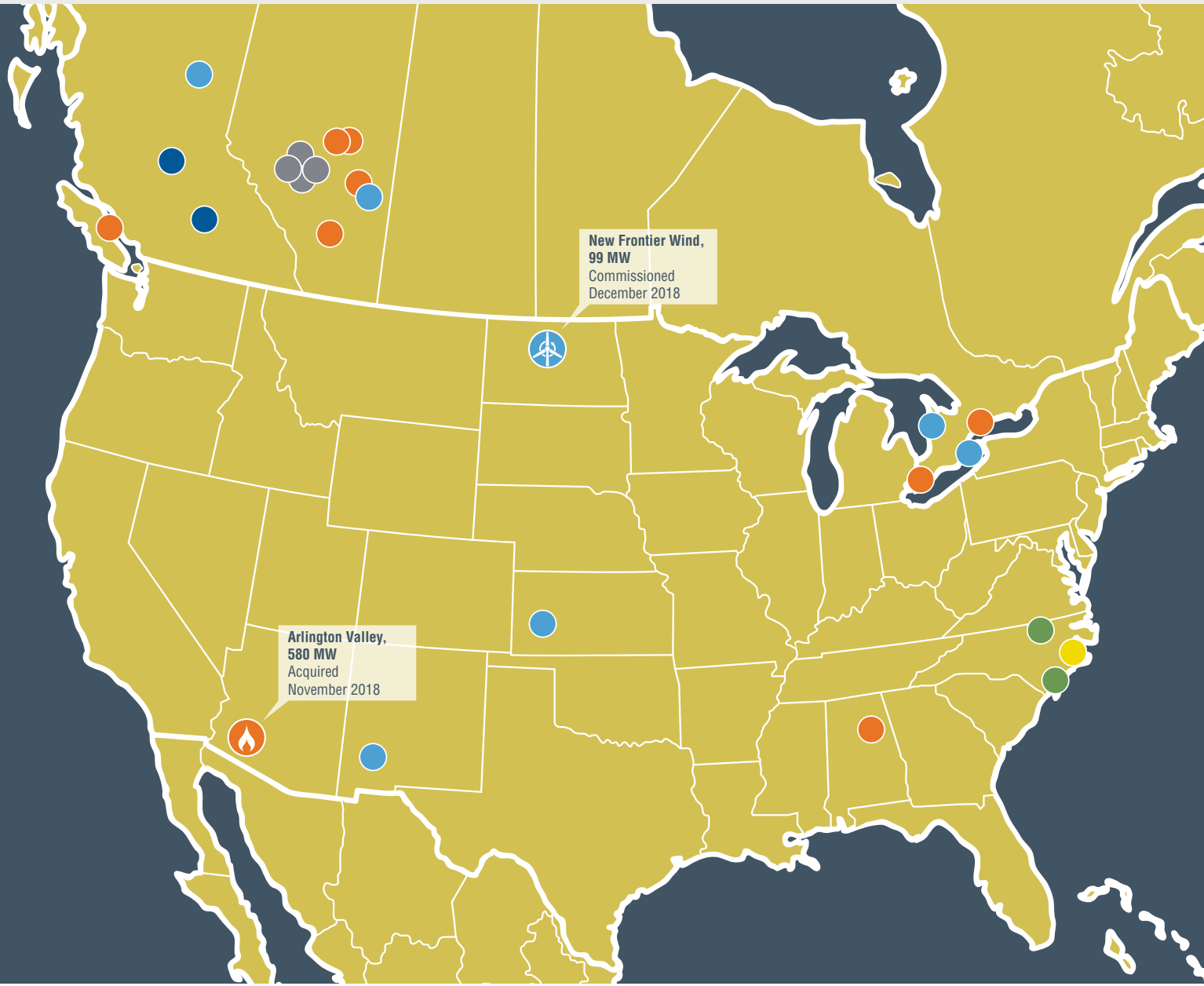
Facilities:
25*

Plant Availability:
95%

Owned Megawatt Total:
5,073*

*As of December 31, 2018

- Solar
- Waste heat
- Wind
- Biomass / solid fuels
- Coal
- Natural gas



Power Pairs: Everyone has something to give. Everyone has something to learn.

In April 2018, we introduced our employee mentorship program, Power Pairs. Based on a foundation of meaningful and collaborative relationships, the program encourages employees to reach their full potential with guidance from a fellow Capital Power employee in personal and/or professional development. All permanent employees with a minimum of one-year experience with Capital Power are eligible to participate. Program participants are matched based on their goals and career aspirations and, over the course of one year, the mentor focuses on helping the mentee in a variety of areas such as how to grow or advance core competencies, develop a roadmap to achieve career goals, establish better work/life balance or take steps to transition to a leadership role. In its first year, there were 18 mentoring pairs matched through the program, with that number expected to grow in 2019 as the program becomes more firmly established.

Our people

At Capital Power, our people are our most valuable assets and we believe in investing in them. We have a responsibility to continually develop and retain the skills and talents of our teams. To help us do this, we deliver a number of required and voluntary training programs to all employees and contractors. By promoting a culture of learning, we help ensure a safe, healthy and compliant work environment, increase productivity and retention, and engage our workforce in the professional training they desire to further their careers.

A culture of learning

Corporate training

All employees who join the organization are required to take our corporate onboarding program which introduces them to the company, our operations, policies they must comply with, and the resources that are available to them. Health and Safety training is required for all our sites, and technical and professional development courses are offered to employees if they desire additional skills to assist them within their current role, or to help them progress into another role within the organization.

Employees are assigned training specific to the safety sensitivity of their position, their work location and individual role. Additionally, all employees are required to take corporate training which includes education on ethics, diversity and inclusion, purchasing, security, life safety critical rules, alcohol and drug training, and health and safety orientation. Compliance-based courses are recorded and reported weekly, to all key internal stakeholders who use the metrics to track against their targets and goals. This also ensures that all employees are receiving the right training for their role, and that we remain compliant with regulatory requirements in all our jurisdictions. Courses are delivered both online and in person.

Leadership training

To ensure that we are preparing leaders for tomorrow, we provide specialized programs to employees that are moving into leadership roles or have been identified as an emerging leader through our talent development program. As part of onboarding, all new managers are provided an orientation on how to onboard new employees, the After-hours Personal Development Program, talent development programs and processes, and iLead – Capital Power's in-house leadership program. Our leadership programing helps to develop a leader's style to maximize the performance of their team, gives them the confidence they need to do their job, creates a culture of cohorts who are engaged and committed to their teams and the organizational vision, and creates a path for future leaders.

After-hours Personal Development Program

For all full- and part-time permanent employees looking to continue with their education during their personal time, we offer funding towards courses taken at accredited institutions and professional associations as part of our After-hours Personal Development Program.

Career development

Our strategy is only as powerful as the people who implement it, and for this reason, our Talent Development Program is a critical component to ensure the sustainability of our future. These programs aid in the development of core skills and provide employees with the opportunity to further enhance their knowledge to meet the needs of our ever-changing work environment. They also:

- Assist leaders to identify, develop and retain talent;
- Ensure we have the right talent in place to meet our corporate objectives;
- Ensure employees have an opportunity to grow in their current roles and move to different areas of the business;
- Motivate and engage employees to take an active role in their career development plans, and;
- Make the organization more competitive.

The programs focus on career development plans and succession planning. We promote '360 Assessments' which use peer feedback to help individuals identify areas of strength and opportunities to assist them in their current role and support their career development path.

Growing and retaining talent

Career development planning generally begins with an awareness of a current or future need and the motivation to do something about it. This might come from self-awareness, feedback or experiences. Participation in the Talent Development Program allows employees to realize potential gaps or reinforce strengths, align their career aspirations with development activities and outline a framework for ongoing development discussions. The Talent Management Team supports the program by offering team and individual career development workshops.

Succession planning

To ensure continued success of the organization, yearly talent reviews and a succession planning process are used to identify successors and critical talent. All leaders across the organization participate in talent review discussions.

"A diverse and inclusive culture provides a safe, open-minded, and accepting environment that allows each of us to be our best, bring our best and deliver our best every day – producing exceptional results with endless possibilities."

– Jacquie Pylypiuk, Vice President, Human Resources

Performance Program

At Capital Power, it's important to ensure that all of our permanent employees are provided the opportunity to receive regular performance reviews. Our annual performance program runs from January to December and sets out a schedule for informal discussions and formal reviews between employees and their managers on both business and behavioural objectives. Both the employee and the company benefit from the performance program by:

- Helping employees understand their job responsibilities in line with Capital Power's strategic vision;
- Helping employees consider the results they want to strive for;
- Motivating employees to improve their performance;
- Focusing on results and behaviours instead of personalities;
- Ensuring equitable treatment of all employees, and;
- Promoting employee engagement.

The results of the reviews also help determine annual employee incentive payments, and calibration discussions between leaders facilitated by Human Resources help ensure all employees are rated fairly across the organization. Final ratings are presented to the Board of Directors for approval.

All employees participate in "Powering Up", an onboarding program which assists with goal setting for a quick and efficient integration into their role over their first 100 days.

Transition Assistance Programs

We partner with Toombs Inc., a talent management company, which provides transition support and assistance to all employees who are part of a non-voluntary termination. Services for each employee are customized depending on their individual needs, and can include assistance to cope with change, personal career focus, effective job search strategies, marketing tools and career evaluation.

By the numbers in 2018

Overall training taken by employees (full- and part-time permanent) including Corporate, Health and Safety, Technical and Professional Development courses	
Total in-classroom courses taken	2,719
Total online classes taken	7,994
Courses taken by employee category	
Leader	976
Individual contributor	9,181
Contingent	556
Total	10,713

Annual employee funding for After-hours Personal Development Program (CAD)	
Full-time	$3,000
Part-time	$1,500
After-hours program	
Number of employees participating	42
Number of times the program was used	74

Performance management	
Percentage of permanent employees who received a performance review	97% (509/525 employees)
Ineligible to receive a rating*	3% (16/525 employees)
360 Assessments and talent reviews	127

*The 16 employees who did not receive formal performance reviews were with the company for less than three months prior to December 31, 2018 and would have participated in the "Powering Up" program.

Ethics and integrity

Capital Power is committed to maintaining a culture focused on trust and respect, with integrity being viewed as one of our most important and valuable assets. The foundation of this culture is our Ethics Policy which applies to our Board of Directors, all Capital Power employees, as well as consultants and contractors. Compliance with this policy is a material condition of ongoing employment and relationship with Capital Power.

Ethics Policy

We meet our commitment to conducting legal and ethical business practice through our Ethics Policy which sets out various guidelines, processes and procedures related to our expected standards of conduct and management of any policy contraventions.

Topics addressed in further detail in the Ethics Policy include:

- Accounting and auditing concerns;
- Fraud;
- Maintaining confidentiality;
- Social media;
- Theft and inappropriate use of company assets and resources;
- Conflict of interest, and;
- How to report ethics concerns and steps for investigating those concerns.

Senior Management creates, cultivates, models and sustains a work environment that reinforces the importance of ethical and legal behaviour. All employees, including members of the Executive Team, Board and agents, are required to certify that they have received, read, understand and will comply with the Policy when hired or when entering into an agency relationship with Capital Power. Ethics training is conducted no less than biennially.

We expect any company or individual providing services to or on behalf of Capital Power to demonstrate strong ethical values and standards of behaviour. They must either agree to comply with our Ethics Policy, or certify in writing that have a binding policy that contains all the elements of our Ethics Policy.

Our Ethics Policy:

- Is reviewed and updated annually by our Chief Compliance Officer, unless a law, regulation or internal guidance or policy necessitates an earlier update;
- Is updated by the Chief Compliance Officer under the direction of the SVP, Chief Legal & Sustainability Officer, who is responsible for the Ethics Policy elements, and;
- Is reviewed and approved by Capital Power's Audit Committee and Board.

Reporting concerns and investigations

As part of our employee education program, training is provided to all employees on how to report an ethics concern. The program:

- Provides direction on how and when to report a concern;
- Ensures consistency in the filing and handling of ethics complaints, and;
- Communicates the importance of maintaining confidentiality and our No Retaliation Policy.

Training on how to report a concern is provided to employees in our biennial ethics training program.

We use an external reporting system (Ethics Point) to manage and track ethics-related concerns which allows employees to post concerns anonymously. The system is also used to track issues, manage active files and gauge risk in order to modify our program and/or training if trends on actual or potential ethics breaches are identified.

Employees are expected to report suspected policy or legal violations through any one of a number of available channels including:

- A third-party-monitored 'Integrity Hotline', available 24/7 for anonymous reporting;
- Their direct supervisor;
- Our Chief Compliance Officer;
- Human Resources Business Partner or Senior Manager, Business Partners and Labour Relations;
- Any member of our Executive Team, and;
- Chair of our Audit Committee or the Chair our Board of Directors.

We do not tolerate and will not pursue retaliation against any individual for reporting ethical concerns, potential policy and/or legal violations in good faith, or for participating in an investigation. Retaliatory behaviour directed towards any individual for reporting a concern in good faith is considered a violation of our Ethics Policy and could result in disciplinary action up to and including termination.

Discrimination and harassment

We take pride in providing a safe, supportive, fair and equitable workplace. We treat others with dignity and encourage open communication, trust and mutual respect by:

- Promoting and maintaining a common understanding of the expectations and behaviours considered appropriate in our workplaces, and;
- Taking action to prevent and/or address incidents of inappropriate behaviour, discrimination, and harassment wherever our business is conducted.

We do not tolerate and will investigate and take corrective action to address all incidents of workplace discrimination, harassment and sexual harassment.

We continually assess the effectiveness of our Ethics Policy through our biennial employee engagement survey, and through employee feedback. Results are reviewed with each business unit and questions and concerns are addressed by the Chief Compliance Officer. Identified and emerging risks are addressed by Compliance and Ethics, with adjustments made to training and/or the compliance program as required.

Regulatory compliance

We comply with all legal and regulatory requirements applicable to the electricity sector in our various Canadian and U.S. jurisdictions. We investigate all potential compliance events related to contraventions of market rules and reliability standards in a fair, equitable and objective manner to determine if they constitute a reportable event. When required, we work expediently to develop resolutions directly with our regulators.

We maintain an active compliance monitoring program to identify incidents of non-compliance and develop training and awareness on various risk areas and changes to applicable laws and regulations. When non-compliance events occur, we take immediate action to identify and address the root cause to prevent future incidents. Mitigation plans and focused training are developed and conducted as required.

All events determined to be non-compliant are investigated and filed through a self-report with the appropriate regulatory body to:

- Mitigate future risk;
- Improve our internal processes;
- Mitigate risk to the electric grid, and;
- Manage potential reputational damage.

One of the world's most ethical companies

Early in 2019, we were proud to be recognized with an award from the Ethisphere Institute, a global leader in defining and advancing the standards of ethical business practices.

The World's Most Ethical Companies® award is presented to companies who show exemplary stewardship in the areas of ethics and compliance programming, ethics culture, corporate citizenship and responsibility, governance, leadership and reputation.

We were one of only three companies in Canada, the only energy company in Canada, and one of six energy and utility companies worldwide to receive this honour in 2019.

2019 WORLD'S MOST ETHICAL COMPANIES® ™
WWW.ETHISPHERE.COM

Safety and security

Asset Protection

"At Capital Power, we not only consider our operations as assets, but also our people, our reputation and our brand. We work with business partners through consultation, cooperation, honesty and integrity, to secure our operating environments. We consider the resulting innovative and cost-effective security solutions as one of our competitive advantages."

Scott Yost - Sr. Manager, Security and Contingency Planning

Our Security Management Program (SMP) is based on industry guidelines and best practices including:

- The North American Electric Reliability Corporation (NERC) Physical Security Guidelines for the Electricity Sector;
- The Electricity Information Sharing and Analysis Center (E-ISAC) Guideline for Security Management in the North American Electricity Subsector, and;
- Security Management for Petroleum and Natural Gas Industry Systems (CSA Z-246.1).

Certain aspects of our SMP are governed by the following regulatory requirements:

- NERC Critical Infrastructure Protection standards;
- Alberta Electric System Operator (AESO) standards related to critical infrastructure protection, and;
- AESO ISO (Independent System Operator) rules related to the security of critical facilities in relation to the Alberta Counter Terrorism Crisis Management Plan.

Ensuring the safety of our people

Protecting our personnel and assets is an important part of our culture. Employees and contractors are trained to report all security-related incidents through one of the many available reporting paths. All new employees and contractors are subject to various levels of background screening and are required to complete online security training. They also have access to an internal website that houses information and awareness tips on various security topics.

Our Security Policy Statement reinforces our commitment to provide a safe and secure work environment for our employees, contractors, visitors and people in the communities in which we work and live. This policy is approved by the Vice President, Risk Management and Internal Audit, and is supplemented by numerous standards, procedures and guidelines to reflect our ongoing obligation toward asset protection.

Managing the security of our operations

Operational asset security is managed on a site-by-site basis and is driven by on-site security assessments conducted by certified security professionals as part of our internal Integrated Site Assessment Team (ISAT) review.

These assessments consider numerous threat-based components and are completed every two to three years for all facilities, though critical sites with higher-level procedural complexities may be reviewed annually. Once the assessment is complete, risk-based security measures are reviewed and mitigation measures are recommended. Minor security issues are conveyed formally to site management who determines the appropriate action, and higher-risk security issues are elevated to our Board and Audit Committee who oversee the required corrective action.

Our physical security team is in regular contact with numerous intelligence agencies and peer companies who together continually monitor the threat environment of our assets. Integration with these agencies ensures we have timely and relevant threat information so that we can immediately identify and implement mitigation strategies. Some examples of agencies we collaborate with include the:

- RCMP Critical Infrastructure Criminal Intelligence team (Federal and Provincial);
- Canadian Security Intelligence Service (Federal);
- Canadian Communication Security Establishment (Federal);
- North American Electricity Reliability Corporation Critical Infrastructure Protection Committee (Canada and U.S.);
- Canadian Electricity Association Security and Infrastructure Protection Committee (National), and;
- Department of Homeland Security – Energy Sector Information Sharing and Analysis Center (U.S.).

Our corporate security team works collaboratively with our cyber and industrial control system security groups to ensure response to threat-based intelligence is swift and coordinated. As a team, we continue to look for new and more innovative ways to effectively monitor our environment and will continue our efforts to be an industry leader in this area.

Managing our cyber security risk

Cyber security risk has become increasingly important to manage across the power industry. Our information technology services are vitally important to our business and therefore critical to maintain. We take a holistic approach to cyber security management which balances evaluated risk against solution and cost.

In November 2018, a dedicated cyber security manager was appointed to run our Cyber Security Program (CSP) which assesses and manages risks related to our business and industrial controls networks. Overseeing the program is our Cyber Security Leadership Team (CSLT) comprised of senior managers and vice presidents from across the organization. The CSLT provides overall approvals based on actions recommended by our information services security team and maintains a cyber security "roadmap" to ensure we are well-positioned to respond to threats in the ever-changing cyber landscape. Representatives from the CSLT provide regular updates to the Board.

Some of the key components of our CSP include:

- Network protections including Rogue Detection and multiple network-level safe guards;
- Regular reviews of network and system audit logs;
- Stringent change management controls with security reviews;
- Project deployment controls that include cyber security reviews;
- Documented and tested processes for Disaster Recovery (DR) and Cyber Incident Response;
- End-user (employee) awareness training;
- Enterprise-level malware and anti-virus system deployment and maintenance;
- Regular internal and external system audits, and;
- Continual scanning of the environment for vulnerabilities.

In addition to close linkage with our corporate security team, our cyber security team maintains relationships with several external parties to share and verify threat information.

In 2018, a process was completed that allows threat intelligence gathered externally by partners to be automatically integrated into our system. The system scans the information in relation to our cyber environment to determine a risk rating and will enable safeguards against threats determined to be a high risk to us. This process is fully automated and requires no user intervention.

The cyber security team is always assessing innovative ways to monitor our cyber environment and will continue to strive to be an industry leader in this critically important area.

Disaster relief and resiliency planning

Risks to our physical assets, including exposure to extreme weather events, are assessed as part of our overall risk assessment program. Many of our facilities are in natural disaster-prone areas and must be prepared in the event of a weather emergency. We manage these risks through facility design and operational procedures, as well as through the development and maintenance of site-specific emergency plans.

Contingency planning is also an important aspect of our overall emergency management program and is based on two voluntary standards: Canadian Standards Association Z1600 – Emergency Management and Business Continuity (Canada), and National Fire Protection Association 1600 – Standard on Disaster/Emergency Management and Business Continuity (U.S.). These standards were chosen as they provide a comprehensive approach to emergency management using a risk-based, all hazards method. This includes preparation, prevention and mitigation strategies, along with response and recovery components of emergency management.

To support our facility-specific resiliency plans, our Crisis Management Team is guided by our corporate Crisis Management Plan to ensure timely response and recovery.

The safety of our people is our first priority.

Resilience in the face of a hurricane

On September 14, a Category 1 hurricane made landfall near Wilmington, North Carolina threatening our Southport Power Plant employees and our generation facility. Hurricane Florence was monitored by our Crisis Management Team (CMT) and as the storm intensified, they activated the emergency site plan. Fortunately, everyone got out safely and the facility sustained only minor damage.

Our CMT was instrumental in the coordination of employee support before, during and after the hurricane which involved efforts from Human Resources, Community Relations, Security and operations staff.

In recognition of the crisis, an employee assistance program was developed to support our Southport Power Plant employees and their families which included the continuation of pay and benefits, a non-taxable disaster relief payment for personal family and living expenses, and a 24/7 employee assistance telephone line to help direct employees to community resources. We remained in contact with all employees following their return to the facility, and during the clean-up efforts at both the operation site and their homes.

Mass Casualty Incident (MCI): Crisis Management Team exercise

In late 2018, our CMT collaborated with the mass casualty cell at Alberta Health Services (AHS) to test their new industrial liaison procedure in the event of an MCI. This provided an opportunity for our CMT to practice their emergency management roles and use of the Incident Command System (ICS) in response to a simulated emergency at our Gulf Canada Square office location in Calgary, Alberta.

We were the first company in our industry, and only the second in Alberta, to invite AHS to participate in an exercise of this type.

The exercise validated that our Crisis Management Plan works and that our personnel know their responsibilities and how to act in a similar 'real' event. The exercise also identified some improvements we are implementing, including communications and training initiatives.

Diversity and inclusion

We believe that our ability to execute our strategy and maximize shareholder value can only be achieved by bringing together talented employees from diverse backgrounds to work collaboratively on challenges and capture business opportunities. This is how we avoid “group think”. We therefore strive to develop diverse and unified teams who collectively make better decisions and deliver outstanding performance.

We recognize that a diverse and inclusive work environment increases employee engagement and fulfillment. By fostering open mindedness, and being aware of hidden biases, we provide a stimulating, innovative and supportive work environment for all employees to do their best work and build their careers.

Promoting diversity at all levels

Board of Directors

- In 2019, we added a fourth female director to our Board. Females now represent 44% of our Directors.
- The Board Diversity Policy stipulates:
  - At least 50% of the slate of director candidates presented to the CGCN Committee in every search for new directors must be women, and extra weight will be given to qualified female candidates in final nomination decisions;
  - 30% female representation at minimum for both our Board and Executive team;
  - Annually, the CGCN Committee is required to consider the balance of skills, experience, independence, knowledge of Capital Power, and diversity as part of the performance review of the board, its committees, and individual directors. The Board Diversity Policy has been integrated with other board processes, including assessment and succession planning, and;
  - The effectiveness of the Board Diversity Policy will be measured based on our goal of women representing at least 30% of our directors, and the policy is reviewed as part of audits conducted of all corporate policies approved by the Board.

Executive

Our goal with respect to recruiting executives is to have women represent at least 30% of our executive team. We will recruit candidates who best meet the requirements, giving extra weight to women who meet the criteria. There are currently two female executives who represent one third of our Executive Team.

Workforce

We have an Executive-sponsored and employee-led Diversity and Inclusion (D&I) Committee that is responsible for developing a company-wide strategy for integrating and embedding diversity and inclusion across our culture and work environment, including appropriate initiatives and metrics for the short and long-term. The results of two employee surveys, one completed as part of our company-wide engagement survey and one specific to D&I led by KPMG, were used to guide the D&I Committee in its efforts.
We promote and continually work to build an inclusive, engaged and diverse culture in which individual differences and the contributions of all employees are recognized and valued. This fosters creative thinking, innovation and problem solving which give us the competitive advantage we need to consistently meet and exceed our business goals.

Climate change, carbon footprint, and commitments

The United Nations (UN) has set out 17 Sustainable Development Goals (SDG's) that establish the context for the global conversation on sustainability. We are focusing on goals number seven, *Affordable and Clean Energy*, and number 13, *Climate Action*, to help guide and frame our own objectives and strategies to grow and operate our business, support our employees and communities and continually improve our environmental performance. This begins with our commitment to reduce our CO_2 emissions intensity of our current fleet by 65% by 2030 from 2005 levels.

Doing our part for a sustainable future

Sustainability requires a global solution; everyone must do their part to think sustainably and take actions that reduce their impact on the environment and create a better future.
At Capital Power, we believe doing our part starts with measuring and understanding our environmental impacts. From there, we identify the actions we are taking to reduce those impacts and outline a plan to move our business forward through innovative thinking, creative solutions and sustainable investments.

Our sustainability targets:

- Constructing all new natural gas generation units to be carbon capture and/or hydrogen-ready;
- Reducing our actual CO_2 emissions at Genesee by 50% by 2030 from 2005 levels;
- Reducing our actual CO_2 emissions by 10%, and our emission intensity by 65%, by 2030 from 2005 levels*, in spite of increasing our generation by 145%, and;
- Investing in carbon capture and utilization (CCU) technology such as C2CNT to eventually decarbonize our natural gas fleet.

*Based on our current fleet

Proactive innovation

As the need for power continues to rise and the requirement to reduce emissions from power continues to be a priority across the industry, we are taking a proactive approach with low-carbon initiatives to be a leader in transforming our energy future. See Innovation for more information.

Taking a leadership role in climate policy

We view our role within the energy industry not only as a producer of power but as an advocate and leader for the progress needed on the policy front to promote awareness and management of climate-change issues.

We look for opportunities to work alongside policy makers, industry peers, governments and regulators, and our history and expertise in the power market often makes us a trusted resource to those responsible for developing new energy market, carbon pricing and clean technology policies.

We participated in a wide range of political and industry events in Canada and the U.S. We were invited to express our views and share the progress of our work and involvement with resolving some of the most key climate-change issues facing our industry and society. Following are some examples of how we contributed in 2018.

Environmental market influence

We are active in carbon and renewable markets throughout North America including Alberta's carbon market, the Western Climate Initiative and the Regional Greenhouse Gas Initiative. Our participation in environmental markets not only enables us to create value for our shareholders but supports a mechanism that reduces emissions. In 2018, we reviewed the Canadian federal and provincial carbon pricing frameworks at the Argus Media Biofuels and Carbon Markets Summit.

We spoke about climate finance and the shifting landscape for global energy systems including the growing need for clean energy capital investments and the increased attention on carbon disclosures at Pembina Institute's Alberta Climate Summit.

We also discussed the role that predictability and consistency in carbon pricing for large emitters plays in supporting investor confidence in longer-term investments in innovative technologies and approaches.

Investment in renewable generation

Part of our commitment to leadership in support of a low-carbon economy is our continued pursuit of investment in renewable power generation. We started construction on three new wind facilities in 2018, including the Whitla Wind project that was selected in late 2017 as one of the successful projects in the first round of Alberta's competitive Renewable Electricity Program (REP). We were proud to be the only successful Canadian-based company chosen amongst global competitors. At the University of Alberta's Energy and the Environment Speakers Series in February 2018, we shared our views on the future of renewables in Alberta and how the REP program contributes to it.

We regularly attend and speak at Canadian Wind Energy Association's (CanWEA) events. At the 2018 Spring Forum, we shared our insights and successes on the importance of productive community partnerships and relationships during wind energy development projects in rural communities. At the 2018 Conference, we spoke about how the future electricity grid will involve a mix of clean, affordable and reliable generation, and its alignment with our own growth, investment, and sustainability strategies.

In the United States, we attend the annual American Wind Energy Association Wind Power Conference which provides a forum for thought leaders in the energy sector to network, strategize and engage in discussion on key policy and market issues. With our continued interest in renewable development and investment in the United States, we know it's important to stay engaged with peers, policy makers and industry focused on responsible development.

Carbon reduction initiatives

Carbon Capture, Utilization and Storage (CCUS) will be a key element of Alberta's and Canada's electricity and energy mix in the near future. We see it enabling a decarbonized, reliable and competitively priced electricity system, supporting reduced emissions from industrial processes, allowing natural gas to continue to reliably support new renewables growth and encouraging new industries and markets to utilize the recovered carbon in innovative ways. The NRG COSIA XPrize, the Alberta Carbon Conversion Technology Centre, and previous provincial and federal programs in support of both CCUS and carbon capture, storage and sequestration position Alberta and Canada to be leaders in the growing market for CO_2-based products while achieving climate policy objectives.

We shared our support for and our initial efforts to advance low-carbon technology which includes our equity interest in C2CNT **(see p.35)** as part of a panel discussion at the Carbon Capture, Utilization and Storage Workshop hosted by Emissions Reduction Alberta in Calgary.

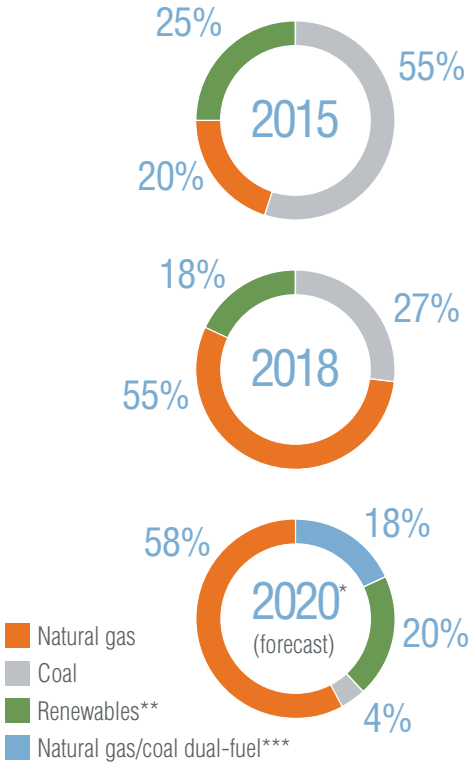
The future of Alberta's electricity system

We also participated in the University of Alberta's School of Business 2018 Energy Symposium, the 6th Annual Alberta Power Symposium and the annual Independent Power Producer's Society of Alberta conference. All were focused on the future of Alberta's evolving energy market and climate-related policy framework and how industry is navigating the transition while creating a lower-carbon energy future.

Focused on renewables and natural gas

We're focusing our growth on natural gas and renewable opportunities. One of our key commitments is to build only natural gas with carbon capture and utilization and/or hydrogen-ready plants moving forward to support a zero-carbon energy future.

Our generation percentage by fuel type (based on MW capacity):



*Includes projects currently under construction expected to be completed by or in 2020.
**Wind, biomass/solid fuels, solar, waste heat.
***All Genesee units are included based on dual-fuel capability.

Using our market expertise

We utilize a range of mechanisms and approaches to reduce our emissions and ensure compliance with our carbon compliance obligations. These mechanisms include investing in capital improvements in our generation assets and purchasing real and verified greenhouse gas (GHG) emission offsets.

We have been active in the offset market for many years, with our first investments being voluntary and prior to the introduction of regulations requiring it. We have since extended our market expertise to several organizations including municipalities, utilities, school districts, industrials, oil and gas, merchant bankers and traders, real estate and government agencies, and provide them with tools to green their energy consumption, offset their carbon footprint and optimize their energy consumption. We offer structured products from our unhedged renewable assets and manage a large portfolio of GHG offsets and Renewable Energy Certificates developed or under contract from sources such as solar, wind, hydro, biomass, landfill gas, low tillage agriculture, forestry, $N_2$0 abatement, composting, biofuel and acid gas injection.

By the end of 2018, we owned one of the largest emission offsets inventories in Alberta, and continued to actively participate in Alberta's carbon market under the Carbon Competitiveness Incentive Regulation (CCIR), which took effect on January 1, 2018.

Offsetting our carbon emissions

Our facilities must comply with legislated emission regulations, which set emission standards based on fuel type for existing and new generation. In Canada, programs are increasing in cost and stringency, which is contributing to an acceleration of the transition to cleaner electricity sources, including renewables.

In 2018, our Alberta compliance obligation was regulated by the CCIR which requires Alberta generators to reduce or offset GHG emissions or purchase fund credits to meet the "best gas standard" benchmark for electricity sector emissions. To meet our compliance obligation in 2018, we retired GHG offsets and Emission Performance Credits for 50% of our compliance obligation (the maximum allowed under the regulation).

We invested over $20 million in Alberta-based offsets and Emission Performance Credits in 2018 that reduced local GHG emissions, and which can be used to meet future GHG emission reduction requirements under CCIR. These offsets come from a broad portfolio of projects, including: landfill gas, energy conservation, waste-heat recovery, wind generation, biomass energy, nitrous oxide ($N_2$0) abatement, fed cattle and conservation cropping. See Performance data for more details.

In 2019, the Alberta Government advised it would be developing a new carbon management regime for large industrial emitters, the Technology Innovation and Emissions Reduction (TIER) Program that would replace the CCIR effective January 1, 2020. The specifics of TIER are unknown at this time but we anticipate that existing offsets and credits will continue to be recognized as compliance mechanisms to meet reduction requirements under this new regime.

Reducing emissions at our Alberta operations

In Alberta, we began complying with the CCIR on January 1, 2018 when it replaced the Specified Gas Emitters Regulation (SGER). The following table summarizes the compliance requirements for the regulated facilities we own and operate in Alberta.

	SGER	CCIR[0]	
	2017	**2018-2030[1]**	**2031**
Genesee 1 and 2 (subcritical coal)	Reduce or offset GHG emissions intensity by 20% or pay $30 per tonne to an emissions management fund	Reduce or offset GHG emissions or purchase fund credits to meet the CCIR "best gas standard" benchmark for electricity sector emissions[4]. Represents ~62% of facility emissions in 2018	Reduce coal-fired electricity emissions by 100%[5]
Genesee 3[2] (supercritical coal)	Reduce or offset GHG emissions intensity by 20% or pay $30 per tonne[3] to an emissions management fund. Additional reduction to 54% through offsets	Reduce or offset GHG emissions or purchase fund credits to meet the CCIR "best gas standard" benchmark for electricity sector emissions[4]. Represents ~58% of facility emissions in 2018	Reduce coal-fired electricity emissions by 100%[5]
Clover Bar Energy Centre (natural gas)	Reduce or offset GHG emissions intensity by 20% or pay $30 per tonne to an emissions management fund	Reduce or offset GHG emissions or purchase fund credits to meet the CCIR "best gas standard" benchmark for electricity sector emissions[4]. Represents ~28% of facility emissions in 2018	

[0] The Technology Innovation and Emissions Reduction (TIER) Program is expected to replace CCIR in Alberta effective January 1, 2020.

[1] Canadian Federal Government regulations require all coal-fired electricity operations to physically achieve a GHG emissions intensity of 0.42 t/MWh, equivalent to that of a natural gas facility, after December 31, 2029.

[2] In 2017, Genesee 3 was required to meet two GHG emission reduction targets. In aggregate, the two targets require Genesee 3 emissions to be reduced or offset 54% from the facility's original baseline emissions intensity. The Specified Gas Emitters Regulation required a 20% reduction in 2017; this reduction was achieved through improved facility performance, the retirement of qualifying Alberta-based offsets, the application of emission performance credits, and/or payment to an emissions management fund. The Genesee 3 facility license also requires that any remaining emissions be offset to the level of a combined cycle natural gas unit.

[3] Payment to an emissions management fund was only available as a compliance option for the portion of the reduction required by the Specified Gas Emitters Regulation (20% in 2017). The remaining reduction requirement was met through either improved facility performance or the retirement of qualifying offsets.

[4] CCIR establishes product-based GHG emissions-intensity benchmarks, which decrease at 1% per year starting in 2020. For the electricity sector, the benchmark was set at 0.37 TCO2e/MWh for 2018.

[5] Under Alberta's Climate Leadership Plan, all emissions from coal-fired electricity must be phased out by 2030.

Climate disclosure

Task Force on Climate-related Financial Disclosures (TCFD): Our Climate Change Disclosure (CCD)

As part of our commitment to evolving our current reporting and disclosure of climate-related risks and opportunities through increased transparency, we released our inaugural CCD that identified elements of our governance, strategy, risk management and metrics and targets that we address through our existing disclosure and reporting, and outlined three climate scenarios that provide the basis for our strategy assessment going forward.

Carbon Disclosure Project (CDP)

Since 2012, we have been disclosing our climate-related risks, opportunities, actions and plans as part of our response to the annual CDP Climate-change survey. As our sustainability strategy continues to evolve and grow and as government climate policy evolves, we anticipate our responses to the survey to strengthen and become less qualitative.

Innovation

Our approach to innovation

We recognize innovation as the key to creating a responsible, sustainable energy future for generations to come. Through investments in technology and building a culture of innovative thinking, we are advancing low-carbon power and transforming our energy future.

For more than a decade, we have developed a track record of investing in leading-edge and best-in-class technology in Alberta:

- We built two of Canada's cleanest coal-fired power generating units;
- We have been developing carbon capture, utilization and storage (CCUS) initiatives since 2007;
- We introduced the use of high-efficiency LMS 100 turbines at our Clover Bar Energy Centre;
- Shepard Energy Centre, jointly owned with ENMAX, uses the most efficient combined cycle technology available, and;
- Approval for Genesee 4 and 5 was received which would make them the most efficient natural gas combined cycle units in Alberta.

Today, focusing on new technologies, new ways of operating, and new ways of thinking remain at the forefront of how we do business. We focus on growth, development, and acquisitions that:

- Expand and continually improve our operations (company-wide) by increasing efficiencies, and reducing or eliminating emissions
- Are 'game-changer' technologies that have the potential to change the way power is generated and/or opens the door to new business in the industry

In 2018, we invested approximately $14 million (CAD) in technology development and implementation to support our vision of powering a sustainable future.

We also joined Energy Futures Lab 2.0 (EFL) as a funding partner. Our Chief Sustainability Officer represents Capital Power on the Steering Committee, and we have representation on and participate at the Partner's Council and at the Fellowship level. EFL brings together diverse stakeholder groups to find pragmatic solutions that enable energy system transformation while supporting the environment.

"Creating a sustainable energy future for generations to come is a big, complex topic that requires collaboration and expertise from across the board. The EFL brings together this diversity of leadership to work on advancing and deploying the range of innovations that will be required in Alberta and nationally to achieve responsible, future-ready power. These include operational innovations to improve the performance of existing investments as well as more transformational innovations such as carbon capture and utilization that can mark a step-change towards addressing environmental objectives across multiple sectors and support the creation of new industries."

Kate Chisholm, Senior Vice President, Chief Legal & Sustainability Officer

OUR CARBON CAPTURE, UTILIZATION AND STORAGE INITIATIVES SINCE 2007:

- **2007: Canadian Clean Power Coalition studies on carbon capture options**
- **2008-2009: Design, engineering and cost estimate for G4 which included a 90% carbon capture – has since been reconfigured for Genesee 3 retrofit**
- **2009-2012: Front-end engineering design study using integrated gasification combined cycle for Genesee expansion. We also partnered with TransAlta for a carbon capture and storage retrofit at Keephills 3**
- **2017: Began hosting COSIA Carbon XPRIZE at Shepard Energy Centre**
- **2018: Acquired an equity interest in C2CNT**

Preparing for change: reducing emissions and improving thermal generation efficiency

Improving environmental performance through reduced emissions

At our Decatur Energy Center, a 795 MW natural gas combined cycle facility in Alabama, we discovered an issue with the rotor that required significant maintenance – $12-14M (USD). We determined that for an incremental cost we could repair and upgrade the rotors to decrease fuel costs, increase output and improve the emissions intensities of all three units. All units are expected to be upgraded by 2021 resulting in an overall 4% increase in combined cycle efficiency and increased capacity rating of 100 MW.

Creating maximum flexibility with dual-fuel capability

We are creating dual-fuel capability with natural gas at our existing coal-fired Genesee Generating Station. The ability to use two fuel sources allows for increased operational flexibility and reduced emissions, and an enhanced ability to manage operations in response to key market dynamics such as carbon pricing and natural gas prices. To advance this expanded capability, in 2018 we entered into agreements to expand the natural gas pipeline capacity delivering to the facility to support the future natural gas needs of our Genesee units. The expanded pipeline capacity is currently expected to be in service by early 2020.

Genesee Performance Standard (GPS)

At Genesee, we are continually striving to reduce our emissions and improve our environmental performance ahead of the mandated phase out of coal emissions by 2030 through efficiency and dual-fuel initiatives.

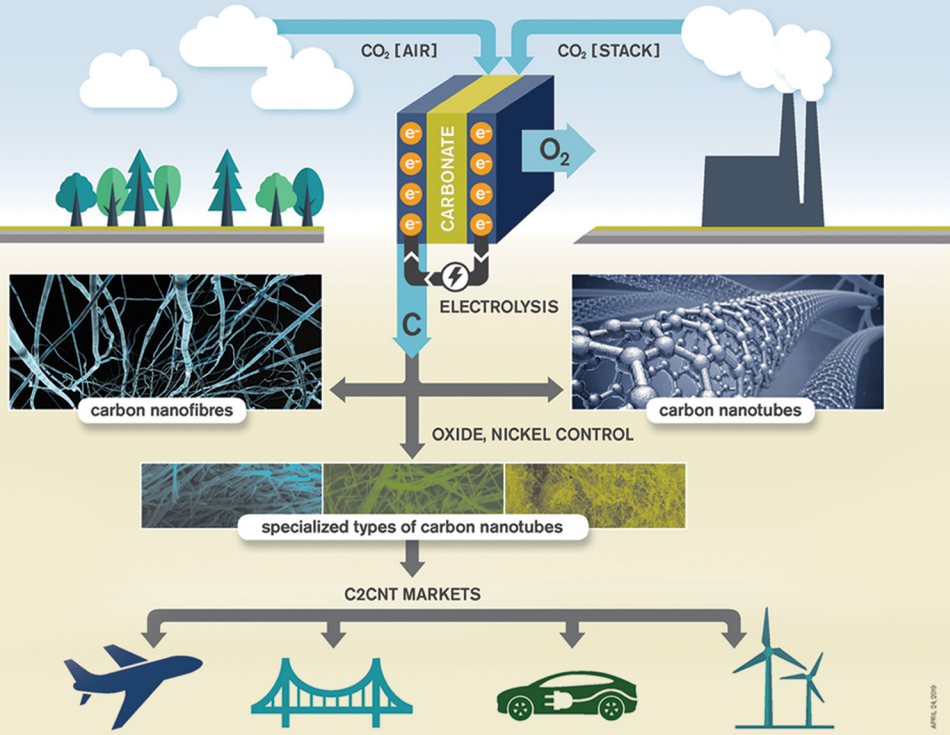
In 2018, we completed the second year of our innovative five-year Genesee Performance Standard (GPS), a $35 million efficiency improvement program to reduce our carbon footprint by 10% by 2021, and by a further 40% after conversion to natural gas. As part of this, we increased the amount of natural gas that we co-fire in the units and took steps to further increase our capability. Work also included upgrades to the air heaters on Units 2 and 3 and the addition of combustion optimization software to Units 1 and 2 to improve their heat rate. We achieved an estimated reduction in energy consumption in 2018 of 3,195,464 GJ as a direct result of the program and additional improvements are planned for each of the remaining three years.

We work to turn challenges into opportunities. Increasing efficiency at our facilities reduces emissions and improves performance.

Transforming carbon emissions into leading-edge products with C2CNT

In 2018, we acquired an equity interest in C2CNT, a company that has developed and is now applying at scale an innovative technology that captures carbon dioxide (CO_2) from industrial process streams and transforms it into carbon nanotubes. Nanotubes are a useful and high-value product already used in bullet-proof and taser-proof suits, carbon composites in jet airliners, and as a lighter-weight alternative to metals for use in industrial structural materials. We believe this technology has the potential to be a game-changer in the treatment and management of CO_2 from energy and industrial operations.

C2CNT can be a transformative technology in the materials sector, which has the potential to move the needle on climate change worldwide.



The science behind it: simple electrolysis

1. CO_2 is captured from the atmosphere and industrial processes
2. CO_2 is split by molten carbonate electrolysis into high-value carbon nanotubes (75,000 times smaller than a human hair) and O_2
3. Captured O_2 mixes with air to produce oxygen-enriched combustion air resulting in ~26% decrease in fuel consumption
4. Oxide and nickel control is applied to render specialized types of carbon nanotubes
5. Specialized carbon nanotubes are used for various industrial materials applications

C2CNT is among five finalists competing in the natural gas track of the NRG COSIA Carbon XPRIZE competition. As part of the XPRIZE competition, C2CNT will start testing their technology at demonstration scale at the Alberta Carbon Conversion Technology Centre located in Calgary at the Shepard Energy Centre (co-owned with ENMAX).

Exploring decarbonization

The energy industry is changing at a rapid pace – faster than ever before in history. Creating a cleaner energy future means learning, listening, looking beyond trends and exploring what other experts are doing in our field. We explore new technologies that have the potential to advance power generation and the industry.

As a power producer, we have facilities that use combustion-turbine technology and we're learning about new advancements that may shape the future of generation, such as:

- Efficiency improvements resulting from advancements in metallurgy and/or aerospace industries where materials are developed to effectively withstand the increased temperatures that come with increased efficiency;
- Zero-emission combustion turbine technology is being tested at a demonstration plant in Houston, Texas. Different from conventional gas-fired generation, this technology uses pressurized CO_2 instead of steam to power the turbine. This results in better efficiency and containment of CO_2, which can be sold and used to manufacture plastics, chemicals, and building materials. It also eliminates the need for water in the power generation process, and;
- The use of hydrogen instead of natural gas for combustion, which produces zero CO_2, is also being explored.

Investing in technology doesn't always have an immediate payback. Innovation is iterative and builds on learnings from our experience and creative ways to make our business more effective.

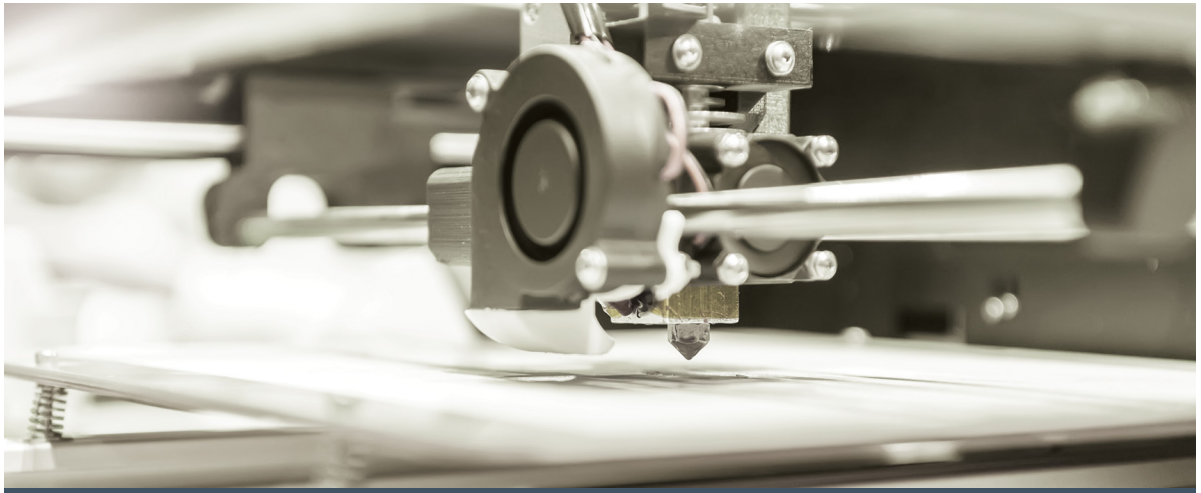
Thinking outside the box

Innovation reaches across our organization and beyond, through our leadership, our people, our ways of thinking and doing, and our partnerships. Exploring opportunities and supporting collaboration and development are critical for us to transform and develop our industry.

Our Energy Management Operations Centre (EMOC) employs talented individuals who have diverse skills and backgrounds, a strong desire to learn more about the company, and flexibility to do support work during their 12-hour shifts.

To maintain engagement, support learning and growth and provide talent to other areas of the business, EMOC partners with engineering and other departments to offer 6-8-month rotations for team members. These projects and rotations contribute to individual development and assist teams across the organization meet their business and succession planning objectives.

It's a win-win situation for the company. Costs generally remain within EMOC, so it's similar to getting professional support from a consulting service at no additional cost for other business units.



3D PRINTER OPENS OPPORTUNITIES

Out of a passion for 3D printing, a senior mechanical maintenance engineer at our Genesee Generating Station inspired others to think bigger. The idea was born out of the complicated geometry of the custom-molded ceramic wear tile used to protect burner rope breakers from pulverized coal erosion and the need to ensure they fit properly before ordering dozens. A 3D printer was purchased and "rapid prototyping" (i.e. replicating parts using 3D printing) got underway for various facility parts, including the ceramic wear tiles. A simple replacement part for a small water pump was also made and installed without dismantling the pump. Not only has the simple investment in a 3D printer saved on replacement costs, we've discovered that polylactic acid, a biodegradable thermoplastic that comes from renewable biomass (e.g. fermented plant starches like corn, sugarcane or sugar beet pulp), works best for producing parts.

> It's important we keep ourselves abreast of the innovation happening around us. Although it may not be immediately obvious how we can implement these innovations into every day practice, opportunities may present themselves down the road if we remain open to new possibilities.

We believe in our industry's power to promote environmental stewardship, and in our duty to undertake initiatives that ensure our efforts to power the planet now don't come at a cost later. Guided by our Health, Safety and Environment Policy and innovative efforts and partnerships with experts, we reduce our impacts on the environment, improve our performance, and cultivate a future for low-carbon power generation.

Environment

Water use and management

Water is a necessary component to the operation of our thermal facilities and an essential part of daily life for our communities. It is therefore becoming more important than ever to manage the resource carefully for our communities and operations, and for the future generations that will rely on it.

We use water at our thermal generation facilities for two major purposes: cooling and steam production. In general, our steam systems are close-looped to conserve water. Cooling water systems are similar but may withdraw from and discharge to a local water source. Standards for the quality and quantity of effluent discharges are determined by applicable regional regulatory agencies. In all cases, our approvals include regulatory requirements which involve studies, limits, monitoring and reporting. We comply with all conditions in our operating water approvals, and participate in watershed alliances and regional biomonitoring programs for some of our facilities.

Sources of water for our operations include municipal, recycled and river. Most of our water consumption occurs in Alberta where the majority of our thermal operations are located.

Our facilities that require water for operations include:

Facility name	Location	Fuel
Genesee Generating Station and Mine	Warburg, AB	Coal/ Natural gas
Clover Bar Energy Centre	Edmonton, AB	Natural gas
East Windsor Cogeneration Centre	Windsor, ON	Natural gas
Island Generation	Campbell River, BC	Natural gas
York Energy Centre	Township of King, ON	Natural gas
Arlington Valley	Phoenix, AZ	Natural gas
Decatur Energy Center	Decatur, AL	Natural gas
Roxboro Power Plant	Roxboro, NC	Solid fuels
Southport Power Plant	Southport, NC	Solid fuels

Water management is a focus area for us in 2019 and we will include additional information regarding water usage, data and reporting in future years. By the end of 2021, we will have a formal water management strategy.

Land reclamation and biodiversity

We conduct detailed environmental monitoring and assessments for wildlife, plant and other area-specific species at all of our sites to safeguard the biodiversity of the area. For example, bird and bat surveys help us understand the impact of wind power generation on species living and traveling nearest to our operations. In 2018, we installed 4,000 bird diverters on the overhead wires at our New Frontier Wind facility to help birds identify and avoid the aerial cables in-flight.

Genesee Generating Station (GGS) and Mine

Genesee is the largest and most diverse land base we manage as part of our operations. It demands a high level of monitoring and a number of our research initiatives and innovation involving reclamation and restoration take place on the land in and around it.

We are involved in a biomonitoring program that measures and assesses potential changes in environmental concentrations of chemicals of potential concern associated with aerial and water emissions from the Genesee Mine. Ongoing testing results have shown no appreciable increases.

In 2018, we reclaimed 60 hectares at the Genesee Mine, bringing the total amount of reclaimed land to 1,142 hectares which now includes farmland, reforested and wetland areas. This previously mined area is now fully productive farmland and wildlife habitat. See Performance data and 304-3 in the GRI Content Index for more detail, **p.71**.

Highlights and initiatives undertaken in 2018

Restoration and research

Northern Alberta Institute of Technology (NAIT) Centre for Boreal Research

The end of 2018 marked the third year of a five-year study lead by researchers at the Northern Alberta Institute of Technology (NAIT). The goal of the study is to find ways to reduce agricultural weed competition with trees when reclaiming mine land to forested area. A variety of strategies are being tested, including planting desirable companion plants with trees, and the use of different mulches and herbicide.

As part of this research 35,000 trees were planted in the Genesee Mine and included Spruce, Aspen, Balsam Poplar and native plants such as Goldenrod and Fireweed. The Boreal Forest Research Institute helps develop scientifically proven and cost-effective reclamation methods, products, and information to ensure that reclaimed areas meet all regulatory requirements. We are proud to provide our land to further research efforts in mine reclamation.

Supporting student programs

Olds Community College

We continued our support of Olds Community College for a second year by developing a field exercise and providing safe access to our land for students studying reclamation and reforestation practices. The experience gives the students practical hands-on field experience, a firsthand look at the active mine and an opportunity to ask questions about the operation and how the land is managed.

Supporting University of Alberta students

We provide access for students at the University of Alberta who require land to conduct research related to forestry, wetlands, habitat restoration and wildlife studies. In 2018, we began hosting one PhD student conducting research on invertebrates.

Partnerships for habitat and land use

Alberta Conservation Association (ACA)

The Alberta Conservation Association promotes the conservation, protection and enhancement of Alberta's fish and wildlife populations and their habitats for all Albertans to value and enjoy. As part of our partnership in 2018, we provided land at Genesee for a pheasant hunting site. Opening our land as part of ACA programing provides an opportunity for local hunters to participate in the sport while ensuring it is safely and appropriately managed.

We also provide the live stream video of our Genesee Peregrine Camera to the ACA which features the birds alongside other provincial wildlife camera feeds.

Alberta Hunting Education Instructors Association (AHEIA)

The AHEIA has successfully managed public access for hunting on our extensive land base at Genesee for over 10 years through a program called Hunting for Tomorrow. This program focuses on sustainable wildlife conservation and using hunting as a wildlife management tool. Hunting for Tomorrow promotes access to our land for local hunting enthusiasts and each fall, we open some of our land for low-velocity hunting of deer, elk, moose and pheasants. We also provide periodic donations to AHEIA to help continue the management of the Hunting for Tomorrow program and maintain local access to our land.

Leduc County

We assisted Leduc County with the development of a camping site at the local Heritage Park located near our Genesee operations. The community-improvement project aimed to promote the recreational use of their land by local residents and other groups interested in the area.

Genesee's Peregrine falcon chicks

In June, four three-week old Peregrine Falcon chicks called "eyasses", who were born in the nesting box on our Genesee Unit 3's stack, were banded by Alberta Environment and Parks. The identification bands allow scientists to learn more about the threatened species' movements and behaviour. After banding and a quick check-up, the eyasses were deemed healthy and were safely returned to their nesting box. After their first flight, they are referred to as fledglings, but still depend on adult falcons until they can hunt for themselves.

BIRD'S EYE VIEW

The nesting site at Genesee has been part of the recovery and maintenance of the Peregrine Falcon population in Alberta since the early 1990's. It is estimated that almost 30 falcons have fledged at the site since 2005, contributing to the re-establishment of the species in Alberta. Since 2005, we have been streaming live images of the falcons to help viewers understand falcon life and how they survive and thrive in nature.

Social responsibility

In 2018, Capital Power contributed over $1M to local community organizations, including $171,000 in employee charitable contributions matched, resulting in $342,000 being directed to charities across North America.

Neighbour of choice

Generosity is not just about the money we give. It's also about how we give our time.

We work to be welcomed in the communities in which we operate. Our long-standing community investment program guides contributions to local community programs and initiatives that promote and strengthen the quality of life for community neighbours.

In 2018, we contributed over $1 million to organizations in our local communities through a range of programs. For example, our EmPowering Communities Program provides employees who volunteer at least 35 hours in a calendar year $500 to direct to a qualifying community organization of their choice. In 2018, employees directed almost $80,000 to 133 organizations as part of this program. All full- and part-time employees are eligible to participate, and many employees are long-time participants. Most recipient organizations operate within our communities and support employees and their families. The program also encourages volunteerism among family members of employees, whose volunteer time counts towards the 35 required hours to receive a grant.

Employees also have access to a matched giving program whereby their financial donations made to registered charities are matched by Capital Power up to $500 each year, with additional matching funds available for employee donations to the United Way as part of our annual giving campaign.

Supporting community initiatives

Each year, we are proud to support a variety of initiatives and events run by local organizations in our communities. In 2018, we participated in and/or provided funding to several community-led initiatives. Some examples include:

New Frontier Wind, ND – We provided a contribution to the **McHenry County Sheriff's Department** in support of their new K9 unit. We also worked with local organizations to support other community initiatives including funding support for children's events, Christmas gifts for low-income families, and contributions to the local food pantry.

Decatur Energy Center, AL - For the entire month of December, we sponsored the **Enchanted Forest of Decatur**, an annual holiday experience that features over 70 Christmas trees decorated by community members in a public park. This exciting community festival donates proceeds to various local causes. Over $20,000 in proceeds went to the Leukemia and Lymphoma Society.

Roxboro Power Plant, NC and Cardinal Point Wind, IL - We supported the **Shop with a Cop** program in each community which provides an opportunity to local children to shop for Christmas gifts with a uniformed officer. In 2018, the program provided meaningful interaction with local officers for approximately 20 children from each community.

Macho Springs Wind, NM - Noted as the biggest event in southern New Mexico, over 10,000 people attend the **Great American Duck Race** each year. Our support provided funding for the entertainment stage featuring popular local-area bands.

Island Generation, BC - We are a major supporter of the annual **Campbell River Hospital Foundation Timebenders Dinner & Dance** fundraiser. The 2018 event was a huge success with 450 people in attendance, a 25% increase from 2017, and $45,000 raised to support important services provided by the Hospital Foundation.

Kingsbridge 1 Wind, ON – We sponsored the **Huron Multicultural Festival** in Ontario, the only community event with a multicultural theme supporting the efforts of both the Local Immigration Partnership Council and The Multicultural Association of Perth-Huron as well as refugee sponsorship groups located in Huron. The event provides free vendor space to community groups and organizations that provide newcomer services in Huron-Perth. Nearly 2,500 visitors attended the 2018 Festival.

Head Office, Edmonton AB – For the second time in 8 years, during the Canadian Football League's Grey Cup Festival, we hosted the **Capital Power Zipline**. Free to festival-goers with donations accepted to the Edmonton Garrison Military Family Resource Centre (MFRC). Over 2,200 visitors experienced the exhilarating ride into Edmonton's river valley, and we matched all donations which totaled nearly $14,000 in funds to the MFRC.

Practicing community inclusiveness

Engaging with local communities is a vital component of our work to develop, construct and run power generation facilities. Community engagement may involve a range of activities from formal consultation programs required for regulatory approvals to on-going engagement with local stakeholders near established facilities.

Our local community engagement approach reflects the range and diversity of our operations (facility size, location, etc.), regulatory and resource requirements, and local values. Consistent elements of our community engagement include:

- Access to company staff through multiple channels;
- Direct engagement with local stakeholders by operations staff to address concerns, and;
- Our community investment program.

In some cases, we will undertake the following to help understand local communities and potential impacts of our operations:

- Socio-economic studies;
- Benefits agreements;
- Identification of, and direct engagement with, vulnerable groups, and;
- Participation in community forums or committees to discuss operational impacts or effects.

Engaging our stakeholders

We consider a stakeholder to be any person or group that is, or believes they are, potentially impacted by our operations and/or those parties whose business or actions directly impact our company. These individuals and groups include shareholders, local community members, Indigenous peoples, employees, contractors, suppliers, regulatory agencies, environmental organizations and government (federal, state/province, local) representatives. We identify these stakeholders through community research, consultation with subject matter experts, input from regulators or regulatory requirements, requests for engagement directly from stakeholders, informal discussion with stakeholders, and other methods.

Community stakeholder engagement

Our community stakeholder engagement practice involves a broad range of contact with external stakeholders including direct public consultation and community relations activities. Engagement activities typically begin when a project is in its development phase, however, this process generally continues throughout a facility's life. Overall, the process takes into account:

- Our business interests and drivers;
- Stakeholder values and perspectives;
- Potential project impacts to stakeholders;
- Corporate risks including financial and reputation;
- Regulatory requirements related to stakeholder engagement, specifically public consultation and notification, and;
- Indigenous interests and perspectives.

Our project teams are continuously learning from the engagement efforts they undertake. Team debriefings allow us to review "lessons learned" and explore potential process improvements. These learnings are incorporated into our stakeholder engagement practice that is used to inform future consultation processes.

The table below identifies our stakeholder categories and their main concerns that we work to address.

Stakeholder group and key topics/concerns	Response efforts
Decision-makers (Regulators and Government)	
Ensuring our operations comply with all laws, especially those relating to the environment, health and safety Payment of appropriate taxes	Regular engagement • Effective governance and policy oversight by the Board of Directors • Comprehensive environmental and safety policies • Compliance with environmental, health and safety regulations in all operational jurisdictions • Effective operations and oversight processes • Effective training process • Taxes paid on time and in full
Watchdogs, influencer's and non-governmental organizations	
Ensure Capital Power remains accountable to their commitments	Engage as required
Supply chain	
Capital Power follows through on contract commitments	Engage as required
Off-takers	
Power is provided at competitive prices and is delivered according to contract requirements	Provide open and transparent disclosures
Capital Power has a strong social, environmental and governance reputation often to support or align with theirs	Engage as required
Community representatives and landowners, including Indigenous groups	
Operational health and safety Contributing member of the community Jobs and contracting opportunities related to our operations Respectful use and management of the land and environment	Frequent and regular engagement • Compliance with environmental, health and safety regulation in all of the jurisdictions we operate within • Active engagement with community members and representatives of communities who are directly or indirectly impacted by our operations • Active community investment program • Where possible, the company seeks local expertise directly or encourages contractors to access local services • See also: Indigenous engagement, **p.47**

Employees	
Sustainable operations, financially and environmentally Strong health and safety culture Ethical approach to conducting business Appropriate pay and benefits packages Opportunities for career growth	Frequent and regular engagement • Effective governance and policy oversight by the Board of Directors • Comprehensive environmental and safety policies including ongoing training • Multiple health and safety committees within the company • Compliance with environmental, health and safety regulations in all of the jurisdictions we operate within • Effective operations and oversight process • Active Ethics Policy and Respectful Workplace Policy • Competitive pay and benefit package
Unions	
Collective bargaining agreements are negotiated fairly	• Maintain collective agreements and engage with unions in good faith • Only Canadian employees are subject to labour unions which include IBEW 1007, CSU 52, UNIFOR 829 and UNIFOR 1123. Collectively, they represent less than 40% of our labour force in Canada and less than 30% of our overall workforce
Investors	
Financial returns for investors Sustainable operations, financially and environmentally Appropriate governance practices Ethical approach to conducting business	Frequent and regular engagement • Annual direct engagement by the Board of Directors • Annual General Meeting • Annual Report and Corporate Sustainability Reporting • Investor meetings throughout the year • Executive participation at institutional investor conferences • Direct engagement by investor relations as required • Quarterly results webcasts • Annual Investor Day event • Annual Information Form • Proxy circular
Research analysts	
Frequent updates provided on operations and financials for reporting to investors Responsiveness to questions	Frequent and regular engagement • Annual Report and Corporate Sustainability Reporting • Quarterly results webcasts • Direct engagement by investor relations as required • Investor meetings throughout the year • Executive participation at institutional investor conferences • Annual Investor Day event • Annual Information Form • Proxy circular

Indigenous engagement

Indigenous consultation is given special consideration at Capital Power. Canada's Indigenous peoples hold a unique place in society, culture, history and law, and we pursue our business interests in a manner that respects constitutionally protected Indigenous and treaty rights and the distinct cultures, perspectives and interests of specific Indigenous communities. We work to build respectful and mutually beneficial relationships, while meeting the legal and regulatory requirements of our projects and operations.

Our approach to Indigenous consultation is guided by the following principles:

- Mutual respect;
- Open, honest and transparent communication and sharing of information in a timely manner;
- Building respectful long-term relationships;
- Facilitating and supporting Indigenous involvement in projects;
- Engaging in dialogue and working cooperatively;
- Respecting distinct identities, interests and priorities while exploring common interests and opportunities to work together for mutual gain;
- Engagement and consultation processes that are meaningful and results-oriented;
- Sharing information about projects and facilities, with the aim of seeking meaningful input;
- Sharing of ideas and commitment to joint problem solving;
- Protecting the intellectual property of Indigenous communities, and;
- Addressing the substance of the Indigenous community's concerns, and wherever possible, integrating such concerns into a proposed plan of action.

Managing impacts and risk

In addition to managing potential risks to local communities associated with our operations through our practice of community inclusiveness, risks are also managed and mitigated by specific policies and a range of technical and workplace practices, many of which are measured and quantified.

Our strong health and safety culture means that employees are continually monitoring risks and seeking ways to further reduce the potential for impacts to health and safety. For example, in addition to the Board of Director's Committee on Health, Safety and Environment Committee, we have four other safety committees and safety representatives at all of our sites. See GRI 403: Occupational Health and Safety 2018, **p.87**

The following table outlines actual and potential negative impacts of our operations on communities, grouped by fuel type, and what we are doing to address the impacts.

Risk / Impact	How we mitigate the risk or impact
Thermal facilities – coal and natural gas	
Emissions / pollutants CO_2 emissions / climate-change impacts Operational noise General safety	• Maintaining excellent operations through regular preventative maintenance programs • Emission abatement technology to reduce emissions at source • Tracking and reporting overall emissions • Carbon offset acquisition program • Investments in innovative technology • Noise mitigation technology • Safety policies and programs
Thermal facilities – mixed fuel	
Operational noise Dust and particulate matter Debris on roadways from operations	• Noise mitigation technology • Modification of operational starts to reduce noise impacts • Dust mitigation measures, where possible • Implement clean-up process for local roads
Renewable operations – wind energy	
Sound impacts Dust during construction Human health impacts Impacts to birds/bats Local employment and contracting opportunities Structural failures/fires Ice-throw from turbine blades	• Use noise-impact modeling to develop project layouts and verify during environmental assessment phase • Sound-level testing • Dust mitigation processes such as watering roads during dry periods • Apply setbacks from homes and other structures • Continue to monitor scientific research on relevant wind generation topics of concern • Monitor for actual impacts through wildlife mortality studies • Consider operational changes to reduce impacts during peak seasons, for example, scheduling maintenance around peak migratory seasons, where possible • Participate in industry-wide research initiatives to learn more about relevant issues • Hold information sessions for local businesses about available employment opportunities • Execute ongoing maintenance program, including full turbine blade inspections • Install systems to stop operations when turbine blades become imbalanced due to the presence of ice
Renewable operations - solar	
Loss of productive farmland for solar panels	• Work with participating landowners to mitigate impact when selecting land appropriate for solar energy equipment
Local employment/contracting opportunities	• Hold information sessions for local businesses about available employment opportunities

IN THE PATH OF HURRICANE FLORENCE

From time to time, extraordinary events test our commitment and ability to limit risks to local communities from our operations. In September 2018, Hurricane Florence made landfall near our **Southport Power Plant** in North Carolina. We are proud of employees who volunteered their time to the community clean-up and rebuilding process following the storm. To assist with the effort, we provided a $25,000 contribution to the **Brunswick Family Assistance Agency** to support those affected by Hurricane Florence.

Staged demonstration to show consequences of a collision

COMMUNITY MINE TOUR EMPHASIZES TRAFFIC SAFETY

In the summer of 2018, we co-hosted with Westmoreland Coal Company, a barbecue and mine tour for 130 local residents of Genesee. The tour was an opportunity for operations staff to meet and socialize with the community that surrounds Genesee and share some of our operations and ongoing activities with our neighbours.

Typically an opportunity to showcase our reclamation and reforestation initiatives, this tour started with an emphasis on road safety. Unique to our Genesee operation, some local roads intersect with haul-roads within the active mine. Last year, a new county road was opened to the public which crosses a mine haul road. Although the intersection is clearly marked with stop signs, unfortunately, traffic sometimes continues straight through. To emphasize the importance of safety and the need to stop, we staged a traffic-safety demonstration. Attendees were able to view a pick-up truck that was purposely crushed by a mine haul truck earlier in the day to show the real consequences of a collision within an active mine.

Performance data

The following table provides year-over-year company-wide data for key performance areas.

Indicator	GRI Standard	2011	2012	2013	2014	2015	2016	2017	2018
Operational Indicators									
Number of facilities at year-end[1]									
	102-7	16	16	14	15	18	18	24	25
Facility availability (percentage)									
	102-7	92	91	93	95	95	94	96	95
Net production by energy source and generation percentage									
Coal	N/A	9,887,000 (62%)	9,366,000 (60%)	10,034,000 (82%)	9,770,000 (80%)	10,519,000 (80%)	10,114,000 (80%)	10,249,000 (77%)	9,086,000 (56%)
Natural gas[2]	N/A	5,375,000 (34%)	5,468,000 (35%)	588,000 (5%)	450,000 (4%)	338,000 (3%)	386,000 (3%)	567,000 (4%)	4,421,000 (27%)
Hydro[3]	N/A	139,000 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Solar[4]	N/A	0 (0%)	0 (0%)	0 (0%)	0 (0%)	300 (0.002%)	29,000 (0.2%)	27,000 (0.2%)	27,000 (0.2%)
Biomass	N/A	279,000 (2%)	412,000 (3%)	392,000 (3%)	410,000 (3%)	397,000 (3%)	421,000 (3%)	377,000 (3%)	378,000 (2%)
Wind	N/A	102,000 (0.6%)	192,000 (1%)	1,005,000 (8%)	1,221,000 (10%)	1,377,000 (11%)	1,339,000 (11%)	1,787,000 (13%)	2,053,000 (13%)
Tire-derived fuel	N/A	125,000 (0.8%)	157,000 (1%)	263,000 (2%)	356,000 (3%)	428,000 (3%)	405,000 (3%)	284,000 (2%)	301,148,000 (2%)
Landfill gas	N/A	32,000 (0.2%)	32,000 (0.2%)	15,000 (0.1%)	13,000 (0.1%)	7,000 (0.1%)	6,000 (0.05%)	17,000 (0.1%)	303 (0.002%)
Net production[5] (MWh)	N/A	15,939,000	15,626,000	12,297,000	12,220,000	13,066,000	12,701,000	13,308,000	16,264,000
Gross production (MWh)	N/A	16,949,000	16,610,000	13,461,000	13,146,000	14,062,000	13,665,000	14,291,000	17,266,000
Electricity consumed by station services (MWh)	N/A	1,010,000	984,000	1,164,000	926,000	996,000	963,000	982,000	1,001,000
Facility operating and maintenance expenses ($M)									
	201-1	-[6]	208	192	185	192	205	224	238
Environmental Indicators									
Land reclamation – Genesee Mine (Hectares)									
Fully reclaimed[7]	304-3	680 (26%)	763 (29%)	847 (31%)	906 (33%)	944 (33%)	984 (34%)	1,082 (36%)	1,142 (37%)
Reclamation in progress[8]	304-3	320 (13%)	264 (10%)	298 (11%)	274 (10%)	296 (11%)	322 (11%)	344 (12%)	294 (10%)
Land required for safe and efficient mining	304-3	1,581 (61%)	1,629 (61%)	1,566 (58%)	1,555 (57%)	1,600 (56%)	1,557 (55%)	1,561 (52%)	1,645 (53%)
Total land use	304-3	2,581 (100%)	2,656 (100%)	2,711 (100%)	2,735 (100%)	2,840 (100%)	2,863 (100%)	2,987 (100%)	3,081 (100%)

Indicator	GRI Standard	2011	2012	2013	2014	2015	2016	2017	2018
Water and waste									
Ash recycling and disposal (tonnes)									
Created	306-2	1,300,000	1,226,000	1,372,000	1,207,000	1,164,000	1,192,000	1,107,000	992,000
Recycled	306-2	215,000	231,000	221,000	196,000	178,000	170,000	200,000	247,000
Landfilled	306-2	27,000	38,000	56,000	73,000	85,000	105,000	69,000	70,000
Mine-filled[9]	306-2	1,058,000	957,000	1,095,000	938,000	901,000	917,000	838,000	674,000
Water withdrawals and discharges (Megalitres)									
Withdrawn	303-3	38,600	40,800	35,200	36,700	33,300	25,400	28,700	52,000
Discharged	303-4	29,000	32,600	23,600	28,900	20,700	14,700	14,700	31,000
Consumed (withdrawn less discharged)	303-5	9,600[10]	8,200	11,600[11]	7,800[12]	12,600[13]	10,700[14]	14,000[15]	21,000[16]
Reportable spills to land or water									
	306-3	1	3	4	0	0	0	1	0
Air emissions									
Emissions intensity[17]									
CO_2e/MWh (tonnes)	305-4	0.75	0.73	0.79	0.81	0.83	0.82	0.79	0.68
NO_x/MWh (kg)	305-4	1.06	0.96	1.28	1.25	1.17	1.15	1.22	0.95
SO_2/MWh (kg)	305-4	1.27	1.25	1.74	1.78	1.74	1.70	1.65	1.27
PM/MWh (kg)	305-4	0.09	0.10	0.13	0.13	0.11	0.14	0.16	0.10
Hg/MWh (mg)	305-4	4.34	4.16	4.75	2.46	2.28	2.52	1.92	1.42
Total air emissions[18]									
CO_2e (tonnes)	305-7	11,919,000	11,397,000	9,744,000	9,859,000	10,843,000	10,451,000	10,521,000	11,023,000
NO_x (tonnes)	305-7	17,000	15,000	15,800	15,200	15,300	14,600	16,300	15,510
SO_2 (tonnes)	305-7	20,200	19,500	21,400	21,800	22,800	21,600	21,900	20,666
PM (tonnes)	305-7	1,455	1,560	1,540	1,600	1,500	1,800	2,200	1,644
Hg (kg)	305-7	69	65	58	30	30	32	26	23

Indicator	GRI Standard	2011	2012	2013	2014	2015	2016	2017	2018
Energy and greenhouse gas (GHG)									
Energy consumption (Gigajoules)[19]									
Coal	302-1	101,776,000	94,917,000	97,696,000	99,039,000	108,772,000	104,091,000	103,627,000	90,692,000[20]
Natural gas	302-1	42,096,000	43,021,000	5,621,000	4,297,000	3,250,000	3,776,000	5,670,000	38,169,000[20]
Biomass	302-1	4,514,000	5,952,000	5,996,000	6,572,000	6,295,000	6,866,000	6,937,000	6,972,000
Tire-derived fuel	302-1	2,030,000	2,279,000	4,050,000	5,690,000	6,843,000	6,630,000	5,215,000	5,615,000
Landfill gas	302-1	360,000	371,000	233,000	244,000	281,000	283,000	296,000	397,000
Carbon offsets									
Annual compliance obligation[21] (MT CO_2e)	305-5	1.6	2.1	2.0	1.9	2.2	1.4	1.8	2.1
Offset usage[22] (MT CO_2e)	305-5	1.6	2.1	1.7	1.9	1.6	0.9	1.8	1.0
Paid to emissions management fund (MT CO_2e)	305-5	0.0	0.0	0.3	0.0	0.6	0.5	0	1.0
Economic Indicators									
Revenues and other income($M)[23]	201-1	1,736	1,296	1,393	1,218	1,241	1,214	1,146	1,394
Adjusted funds from operations (AFFO)($M)[24]	201-1	N/A	N/A	N/A	N/A	N/A	291	361	397
Net cash flows from operating activities($M) [25]	201-1	461	242	497	391	419	375	372	450
Dividends declared per common share	201-1	1.26	1.26	1.26	1.31	1.41	1.51	1.62	1.73
Sustaining CAPEX($M)	201-1	71	102	79	75	62	55[26]	59[27]	79[28]
Community investments($M)[29]	201-1	1.20	1.15	1.17	1.00	1.20	1.00	1.03[30]	1.00
Health and safety Indicators									
Total recordable injury/illness frequency (TRIF), Lost-time injury/illness frequency (LTIF) and Lost time injury/illness severity (LTIS)[31]									
TRIF	403-9	1.44	1.46	0.96	0.16	0.10	0.68	0.61	0.74
LTIF	403-9	0.54	0.22	0.21	0.08	0.00	0.00	0.17	0.08
LTIS	403-9	14.7	8.7	9.0	0.99	0.00	0.00	0.00[32]	0.00

Indicator	GRI Standard	2011	2012	2013	2014	2015	2016	2017	2018
Workforce Indicators									
Full and part-time permanent employees									
Total number of employees[33]	102-8	892	910	697	698	679	668	685	745
Permanent full-time employees	102-8	878	899	684	686	666	652	666	724
Permanent part-time employees	102-8	14	11	13	12	13	16	19	21
Permanent new hires by country (#/%)									
Canada	401-1	115/80	106/79	69/86	112/89	67/84	23/70	60/86	51/44
U.S.	401-1	28/20	29/21	11/14	14/11	13/16	10/30	10/14	64/56
Company-wide turnover rates for permanent employees (%)									
	401-1	11.5%	12.2%	38.3%	11.7%	10.9%	5.8%	7.7%	7.9%

Footnotes:

[1] In November 2011, the Capital Power Income L.P. (CPILP) plants, excluding the Roxboro and Southport Power Plants, were disposed of as part of the Atlantic Power acquisition of the CPILP partnership units. Electricity generation and plant availability average excludes CPILP plants in 2011.

[2] Electricity generated from natural gas in 2013 decreased from 2012 due to the sale of our New England facilities in November 2013.

[3] We no longer generate electricity from hydro since the sale of our two hydroelectric facilities in 2012.

[4] In December of 2015, we completed the construction of Beaufort Solar, a 15 MW solar facility in North Carolina, therefore, solar production was recorded for the last week of the year in 2016.

[5] Production (MWh) includes both electricity and exported steam. Steam production was converted from GJ to MWh using a conversion factor of 3.6 GJ/MWh to allow aggregation. Production statistics differ from other published statistics due to differences in reporting scope.

[6] Operations and maintenance expenses were not disclosed as a performance indicator in 2011.

[7] Fully reclaimed refers to land that is either fully certified, is awaiting final certification from the Alberta Energy Regulator (AER), or is ready for application for certification.

[8] Reclamation in progress means reclamation activities have begun but are incomplete and no application for certification has been filed. The AER sets the standards for reclamation.

[9] Mine-filled weight includes water for dust control in transit.

[10] 2011 water withdrawal and discharge statistics do not include water displaced by hydroelectric facilities. As of December 31, 2012, Capital Power did not own or operate any hydroelectric facilities.

[11] In 2013, the water supply at the Genesee pump house located near the North Saskatchewan River was compromised as a result of flooding; water was retained in the cooling pond, which decreased the overall water discharged (to the North Saskatchewan River) and increased the overall water consumption.

[12] 2014 performance returned to 2011 and 2012 levels, with the exception of a decrease in withdrawals due to the sale of the New England natural gas assets in November 2013.

[13] Discharge at Genesee was limited in 2015, which resulted in increased overall consumption for the year. Water was retained in the Genesee cooling pond due to operational needs.

[14] In 2016, water withdrawn decreased largely due to record rain which reduced the need for diversion and blowdown at Genesee.

[15] In 2017, water consumption increased from 2016, a year in which Genesee had a historically low level of water consumption.

[16] In 2018, increased generation at Clover Bar Energy Centre and the addition of Decatur Energy Center in mid-2017 contributed to increased water volume needed for steam production.

[17] Emissions intensities are calculated based on the power generation from the facilities we operate. Emissions intensities do not include emissions from indirect sources such as those resulting from electricity usage at our offices. Intensity is calculated using the net production (MWh) from all our facilities, including all renewable and fossil fuel facilities. GHG emissions intensities are stack emissions only and do not reflect the impact of offsets.

[18] Values represent direct emissions from power generation at the facilities we operate and all numbers, except mercury (Hg), are rounded to the nearest hundred. In accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (World Resources Institute and World Business Council for Sustainable Development [2004]), carbon dioxide released at facilities from combustion of biomass and landfill gas are not included in emissions totals and intensities. Reported air emissions are exclusive of the Genesee Mine.

[19] Year-over-year variance is primarily due to fuel mixture, the number of operating hours of each facility, acquisitions and developments, and the sale of the hydro facilities and the New England natural gas facilities in 2012 and 2013, respectively. Data represents Capital Power's generation associated with its operating approvals rather than its financial share of the operation.

[20] 2018 value for coal decreased and value for natural gas increased due to co-firing at Genesee. Natural gas also increased as a result of acquiring Decatur Energy Centre in mid-2017.

[21] Includes compliance obligation at owned facilities in Alberta and contractually allocated emissions obligations for Alberta assets.

[22] Includes SGER- and CCIR-eligible offsets, as well as voluntary offsets for our Keephills 3 and Genesee 3 assets to meet a mandated best gas standard prior to CCIR, creating the same standard in 2018.

[23] Revenues for 2011 and 2012 have been restated to correspond to 2013 basis of presentation. Revenues for 2010 have not been restated. Revenues for 2015 and 2014 have been restated to the 2016 basis of presentation. Revenues for 2013 and prior have not been restated.

[24] Commencing in 2017, Capital Power uses adjusted funds from operations (AFFO) as a measure of the company's ability to generate cash from its current operating activities to fund growth capital expenditures, debt repayments and common share dividends to the company's shareholders. In 2018, Capital Power made several adjustments to its AFFO measure to better reflect the purpose of the measure; see adjusted funds from operations and adjusted funds from operations per share section of the Management's Discussion and Analysis in the 2018 Annual Report for further details. Comparative AFFO figures have been restated to reflect the above refinements to the AFFO metric.

[25] Unaudited, $ millions.

[26] Includes sustaining capital expenditures net of joint venture contributions of $7 million.

[27] Includes sustaining capital expenditures net of joint venture contributions of $9 million.

[28] Includes sustaining capital expenditures net of joint venture contributions of $8 million.

[29] Values for annual community investment are inclusive of the charitable and non-profit community contributions made in the calendar year, including Capital Power's EmPowering Communities Program and the corporate match portion of the GENerosity program (beginning in 2015).

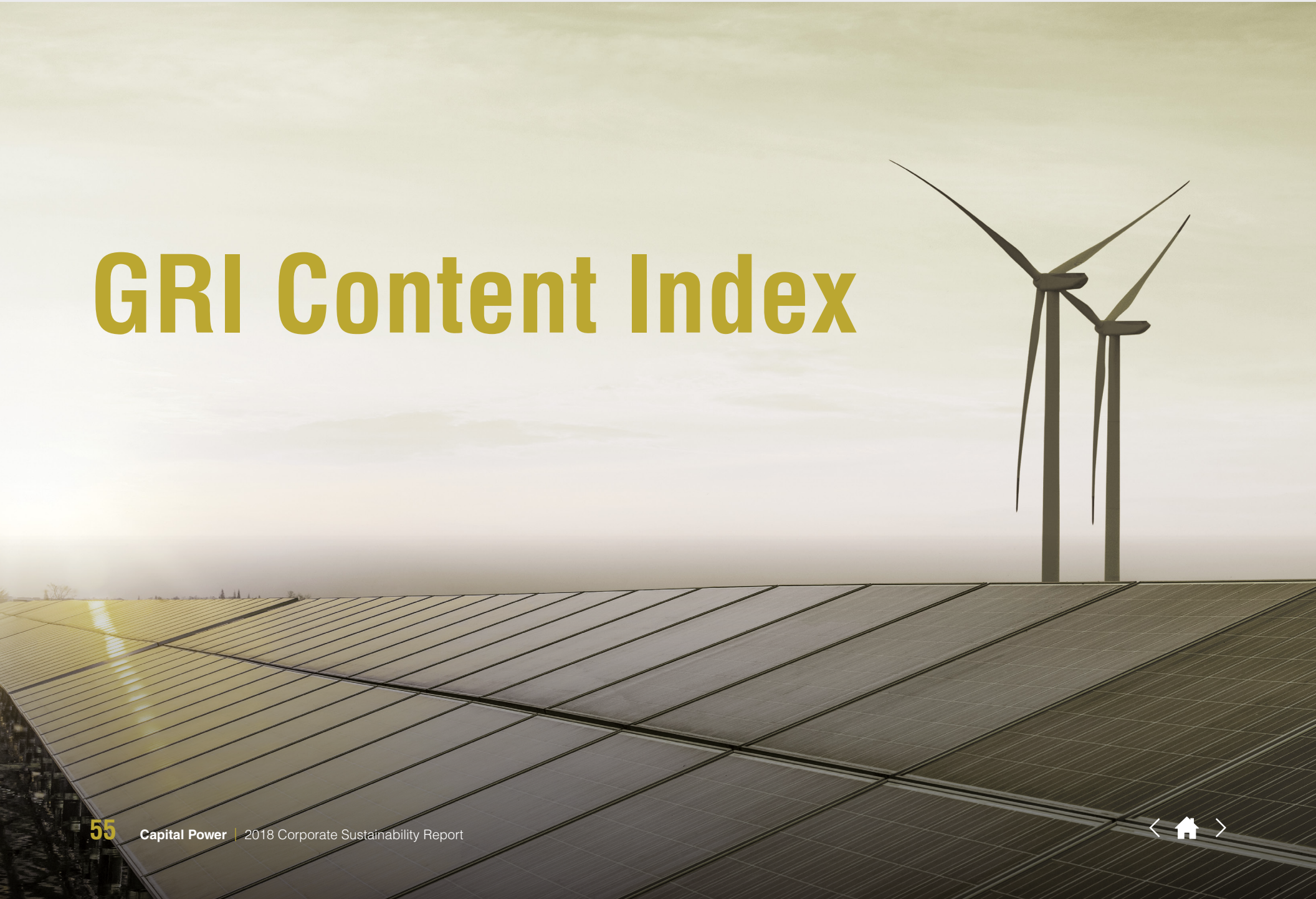
[30] Value for 2017 was previous underreported as $941,000. The value has been updated to reflect the correct amount contributed in 2017 ($1,028,000).

[31] Includes employees and contractors.

[32] Two incidents attributed to contractors occurred but we are unable to track them.

[33] Full- and part-time permanent, Canada and U.S.

GRI Content Index



GRI CONTENT INDEX

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 101: FOUNDATION 2016		
N/A	Principles for defining report content and quality, and the process for sustainability reporting using the GRI Standards.	This report adheres to the following principles: • Stakeholder inclusiveness • Sustainability context • Materiality • Completeness • Accuracy • Balance • Clarity • Comparability • Reliability • Timeliness
GRI 102: GENERAL DISCLOSURES 2016		
GRI 102: General Disclosures	**Organization profile**	
	102-1 Name of organization	Capital Power
	102-2 Activities, brands, products and services	2018 Annual Report 2018 Annual Information Form 2019 Management Proxy Circular www.capitalpower.com
	102-3 Location of headquarters	Edmonton, Alberta (Canada)
	102-4 Location of operations	All of our operational facilities are located within Canada and the United States.
	102-5 Ownership and legal form	2018 Annual Report 2018 Annual Information Form
	102-6 Markets served	2018 Annual Report 2018 Annual Information Form
	102-7 Scale of organization	2018 Annual Report Our business Performance data

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)	
GRI 102: GENERAL DISCLOSURES 2016 (cont.)			
GRI 102: General Disclosures (cont.)	102-8 Information on employees and other workers	**EMPLOYEE DATA**	
		Total number of employees	770
		# of employees in Canada	619
		# of employees in USA	151
		# of Employees by Gender	
		Permanent employees	
		Male	562
		Female	183
		Temporary employees	
		Male	17
		Female	8
		# of Employees by Country	
		Permanent employees	
		Canada	594
		USA	151
		Temporary employees	
		Canada	25
		USA	0
		# of FT & PT Employees	
		Full-time employees	
		Male	568
		Female	170
		Part-time employees	
		Male	11
		Female	21
		Totals include permanent, temporary, casual and maternity/paternity leave employees. Excludes employees on long term disability, pensioners and Board members. The majority of work is performed by employees of Capital Power with exception of facility shutdowns – generation of electricity is done by our employees. There are no significant variations in employee counts (i.e. seasonal employees). Information was compiled using our Human Resources IS system. See Performance data for additional details.	

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 102: GENERAL DISCLOSURES 2016 (cont.)		
GRI 102: General Disclosures (cont.)	102-9 Supply chain	As of December 31, 2018, we had 4,986 active suppliers. Most of our suppliers are located in North America, split roughly equally between Canada and the United States. Common categories of goods and services that are regularly procured for our business include engineering, consulting, construction, maintenance, services, parts, equipment, software, and plant inputs (i.e. chemicals, gases, fuel, and additives). The aggregate value of payments made to suppliers in 2018 was approximately $773,500,000 - a significant portion of which relates to new project equipment and construction spend . We do not track the geographic domicile of our supply chain sub-suppliers.
	102-10 Significant changes to the organization and its supply chain	In 2018, we added approximately 679 MW of generation output through the acquisition of Arlington Valley in Arizona and the completion of New Frontier Wind in North Dakota. This opened our operations to new markets and resulted in a 401 net increase in direct active suppliers.
	102-11 Precautionary Principle or approach	When any Canadian statutory decision maker, court, or tribunal applies the Precautionary Principle in making its determination, we consider this principle in the conduct of our activities in like circumstances. The Precautionary Principle says that when an activity raises threats to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.
	102-12 External initiatives	These are referenced throughout our 2018 Corporate Sustainability Report. See also: 102-13 Membership of Associations, **p.58** Land reclamation and biodiversity, **p.40** Innovation
	102-13 Membership of associations	Capital Power maintains organizational-level memberships in the following Canadian and American associations: • Independent Power Producers Society of Alberta • Canadian Wind Energy Association • Canadian Clean Power Coalition • Association of Power Producers of Ontario • Canadian Electricity Association • International Emissions Trading Association • Canadian American Business Council • Edmonton Chamber of Commerce • Conference Board of Canada • Business Council for Sustainable Energy • American Wind Energy Association • Western Power Trading Forum • Renewables Northwest • Mid-Atlantic Renewable Energy Coalition (MAREC) • Clean Grid Alliance • Clean Energy Group • Excellence in Corporate Environmental Leadership • American Public Power Association • Advanced Power Alliance

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 102: GENERAL DISCLOSURES 2016 (cont.)		
GRI 102: General Disclosures (cont.)	**Strategy**	
	102-14 Statement from senior decision-maker	CEO message
	102-15 Key impacts, risks, and opportunities	CEO message Strategy and governance Climate change, carbon footprint, and commitments Innovation Risk management, **p.14**
	Ethics and integrity	
	102-16 Values, principles, standards, and norms of behavior	Ethics Policy Ethics and integrity, **p.21**
	102-17 Mechanisms for advice and concerns about ethics	Ethics and integrity, **p.21**
	Governance	
	102-18 Governance structure	2019 Management Proxy Circular
	102-19 Delegating authority	Board Terms of Reference www.capitalpower.com
	102-20 Executive-level responsibility for economic, environmental, and social topics	Capital Power has appointed Kathryn (Kate) Chisholm, Q.C, Senior Vice President, Chief Legal & Sustainability Officer, with responsibility for economic, environmental, and social topics. In this position, Ms. Chisholm reports directly to the CEO.
	102-21 Consulting stakeholders on economic, environmental, and social topics	2019 Management Proxy Circular Board Shareholder Engagement Policy www.capitalpower.com
	102-22 Composition of the highest governance body and its committees	2019 Management Proxy Circular
	102-23 Chair of the highest governance body	2019 Management Proxy Circular
	102-24 Nominating and selecting the highest governance body	2019 Management Proxy Circular
	102-25 Conflicts of interest	2018 Annual Information Form www.capitalpower.com

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 102: GENERAL DISCLOSURES 2016 (cont.)		
GRI 102: General Disclosures (cont.)	102-26 Role of highest governance body in setting purpose, values, and strategy	Board Terms of Reference www.capitalpower.com
	102-27 Collective knowledge of highest governance body	2019 Management Proxy Circular
	102-28 Evaluating the highest governance body's performance	2019 Management Proxy Circular Corporate Governance Policy
	102-29 Identifying and managing economic, environmental, and social impacts	2019 Management Proxy Circular Climate Change Disclosure (TCFD)
	102-30 Effectiveness of risk management processes	2019 Management Proxy Circular
	102-31 Review of economic, environmental,and social topics	2019 Management Proxy Circular
	102-32 Highest governance body's role in sustainability reporting	Our annual Corporate Sustainability Report is reviewed and approved by the Board of Directors prior to publication.
	102-33 Communicating critical concerns	Capital Power maintains and regularly updates an internal Crisis Management Plan which outlines a process to be followed during a crisis to ensure all relevant parties are appropriately notified, including the Board of Directors.
	102-34 Nature and total number of critical concerns	In 2018, key issues were focused on provincial, state and federal-level air policies, market design and structure and the development of electricity and carbon markets. Ongoing discussions and strategy development will continue and evolve as required to influence and resolve these issues.
	102-35 Remuneration policies	2019 Management Proxy Circular
	102-36 Process for determining remuneration	2019 Management Proxy Circular
	102-37 Stakeholders' involvement in remuneration	2019 Management Proxy Circular
	102-38 Annual total compensation ratio	**22.3:1 (CEO/Employees)** This ratio considers permanent full- and part-time employees (annualized to full-time equivalent) in Canada and the United States, and annual total compensation includes the following elements in the reporting year: base salary, actual short-term incentive paid, and actual long-term incentive granted.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 102: GENERAL DISCLOSURES 2016 (cont.)		
GRI 102: General Disclosures (cont.)	102-39 Percentage increase in annual total compensation ratio	**0.4:1 (CEO/Employees)** This ratio of the percentage increase in annual total compensation considers permanent full- and part-time employees (annualized to full-time equivalent) in Canada and the United States, and annual total compensation includes the percentage increase derived from the following elements in the reporting year: base salary, actual short-term incentive paid, and actual long-term incentive granted. This ratio indicates that the median employee's compensation rose faster as a percentage than the CEO's compensation.
	Stakeholder engagement	
	102-40 List of stakeholder groups	Social responsibility
	102-41 Collective bargaining agreements	29% of total employees are covered by collective bargaining agreements.
	102-42 Identifying and selecting stakeholders	Social responsibility
	102-43 Approach to stakeholder engagement	Social responsibility
	102-44 Key topics and concerns raised	Social responsibility
	Reporting practice	
	102-45 Entities included in the consolidated financial statements	2018 Annual Report
	102-46 Defining report content and topic Boundaries	About our report
	102-47 List of material topics	About our report
	102-48 Restatements of information	No restatements
	102-49 Changes in reporting	Since Capital Power's inception in 2009, we have been reporting annually to GRI 3.1. For our 2018 report, we have updated our reporting to be in accordance with the GRI Standards: Core option.
	102-50 Reporting period	January 1 – December 31, 2018 (unless otherwise stated)
	102-51 Date of most recent report	August 2018
	102-52 Reporting cycle	Annual

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 102: GENERAL DISCLOSURES 2016 (cont.)		
GRI 102: General Disclosures (cont.)	102-53 Contact point for questions regarding the report	Capital Power Corporate Headquarters 1200 – 10423 101 St. N.W. Edmonton, AB T5H 0E9 info@capitalpower.com www.capitalpower.com
	102-54 Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.
	102-55 GRI Content Index	The GRI Content Index is included as part of Capital Power's 2018 Corporate Sustainability Report.
	102-56 External assurance	Capital Power did not seek assurance for this report. Financial and emission data are externally audited on an annual basis.
GRI 200 : TOPIC SPECIFIC STANDARDS - ECONOMIC		
GRI 201: Economic performance 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Information around economic value generated and distributed by the organization is a depiction of the cash inflows and outflows generated and incurred by the ongoing activities of Capital Power and are included in the key cash metrics that stakeholders use to assess our performance. We are committed to responsible corporate governance which is central to our economic performance. The Governance section of our Management Proxy Circular dated April 26, 2019 beginning on page 20, and our Corporate Governance Policy highlights our governance process. Additional discussion around economic performance can be found on pg. 17 of our Management Discussion and Analysis within the 2018 Annual Report.
201-1	Direct economic value generated and distributed (EVG&D)	Performance data 2018 Annual Report
201-2	Financial implications and other risks and opportunities due to climate change	Qualitative information around the risks and opportunities of climate change and our approach to managing them are disclosed in our Climate Change Disclosure (CCD). Capital Power's disclosure does not currently capture the quantitative financial implications or the costs of managing these risks. We are currently developing processes around compiling this information and expect to disclose such information in our 2019 integrated report filed in the first quarter of 2020.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 200 : TOPIC SPECIFIC STANDARDS - ECONOMIC (cont.)		
GRI 201: Economic performance 2016 (cont.)		
201-3	Defined benefit plan obligations and other retirement plans	Capital Power employees hired prior to July 1, 2009 participate in the Local Authorities Pension Plan ("LAPP"), a multi-employer, contributory pension plan for employees of municipalities, hospitals and other public entities in Alberta, governed by the Public Sector Pension Plans Act (Alberta). No liability accrues to participating employers like Capital Power as the plan is governed by the LAPP Corporation who manage liabilities through contributions collected from employers and plan participants. Employees hired after July 1, 2009 participate in a defined contribution arrangement, a registered pension plan for Canadian employees and a 401(k) for American employees, which do not amass liabilities by design. Certain Canadian employees are eligible to participate in the Supplemental Retirement Plan ("SRP"), a non-registered plan which provides pension benefits in excess of the maximum limits prescribed by the Income Tax Act (Canada). The plan is funded through general revenues of Capital Power on a pay-as-you-go basis. The defined benefits component of the SRP has an estimated liability of $31 million as of December 31, 2018. This retirement plan is governed by the Corporate Governance, Compensation, & Nominating Committee of Capital Power's Board of Directors. Percentage of salary contributed by employee or employer: • LAPP – Employer contributes 9.39% up to the yearly maximum pensionable earnings (YMPE) and 13.84% above the YMPE. Employee contributes 8.39% up to YMPE, and 12.84% over YMPE. • Defined Contribution Pension Plan (DC) – Employee/Employer each contribute 5% (in cases of <5 years of service), 6.5% (for 5-10 years of service), 8% (>10 years of service). • 401k (U.S. employees only) – Employee voluntary deferral, up to 7% employer match. • Savings Plan (eligible employees only) – Employee voluntary deferral, up to 5% employer match. Level of participation in retirement plans: • LAPP/DC – 100% - Mandatory participation (Canada) • 401k – 91% voluntary participation rate (U.S.) • Savings Plan – 52% voluntary participation rate (Canada)
201-4	Financial assistance received from government	Performance data 2018 Annual Report

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 200 : TOPIC SPECIFIC STANDARDS - ECONOMIC (cont.)		
GRI 204: Procurement practices 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Sustainable sourcing at Capital Power includes practices to improve the social, economic, or environmental impact of our suppliers' business activities. These practices include non-cost-based selection criteria, and a requirement for suppliers to follow internal or external standards relating to sustainable business practices. Sourcing is applicable to all purchases regardless of transaction dollar value, which maximizes the potential impact of sustainable sourcing requirements. We are a major buyer in the geographic areas of our operating sites. Sourcing locally in these areas can have significant social and economic impacts on the surrounding communities, including Indigenous communities, by directly and indirectly supporting job creation and economic diversification. Benefits to Capital Power from supporting local businesses can include reduced operational downtime by requiring less lead-time for emergency call-outs, and reduced environmental impact of transportation and delivery to our sites. We generally require compliance with internal and/or external standards that positively influence the social, economic, and environmental impacts of all work conducted by suppliers on our sites. Our compliance expectations are established at the time of order by agreeing to standardized terms and Capital Power policies and thereafter these expectations are managed by Capital Power staff through to the completion of the work. Our compliance expectations are in line with our Ethics Policy, and our Health, Safety and Environment Policy. Standardized terms agreed to with suppliers typically provide us with the opportunity to audit supplier compliance with terms of the agreement and a small number of audits are conducted each year. At present our audits are not primarily focused on sustainability but we are evaluating ways to incorporate more of a sustainability focus in the future. On major capital projects, we require project teams to complete 'lessons learned' processes throughout the project and at completion. The results support continuous improvement of our approach to supplier sourcing and the corresponding impact on sustainability.
204-1	Proportion of spending on local suppliers	The proportion of spending by Capital Power on local organizations during the reporting period was approximately 63%. Spend includes engineering, consulting, construction, maintenance, parts, equipment, software, and plant inputs (i.e. chemicals, gases, non-commodity fuels, and additives). Capital Power defines 'local organization' as an organization that: • provides goods or services to a significant location of operation; and, • provides goods and/or services to a significant location of operation from a supplier site located in the same province/state as a significant location of operation. A 'significant location of operation' is a location that maintains a personnel presence of at least 10 people and/or is a plant operated by Capital Power with a nameplate capacity of at least 15 MW.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT		
GRI 103: Management Approach - Environment *The following Management Approach applies to Disclosures 302-306 inclusive.* This information represents our generation associated with our operating approvals regardless of our financial interest in the facility. Data from owned capacity at facilities where we do not hold the operating permits are not included in this report. Our Arlington Valley facility is not included in this report as it was acquired at the end of 2018 and was not part of our operations for the majority of the year. Our Board of Directors (the Board) approves our Health, Safety and Environment (HSE) policy which applies to all Capital Power sites. The policy states that all employees and contractors must be vigilant in their environmental responsibility, the health and safety of themselves, other employees, contractors and the public in all Capital Power activities. The Board is responsible for the stewardship of Capital Power by providing independent, effective leadership over the management of our business, and to grow value responsibly in a profitable and sustainable manner. Applicable data is updated and reported annually consistent with industry standards and regulatory compliance obligations and is subject to internal audit processes.		
GRI 302: Energy 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Energy is material as electricity is our sole product and a variety of energy sources are key inputs to our operations. GRI 103: Management Approach – Environment, **p.65**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)

GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)

GRI 302: Energy 2016 (cont.)

302-1 Energy consumption within the organization

Non-renewable energy consumption by location and facility

Country	Province/State	Facility	Type of Facility	2018 Coal Consumption (GJ)	2018 Natural Gas Consumption (GJ)
Canada	Alberta	Halkirk Wind	wind	0	0
Canada	British Columbia	Quality Wind	wind	0	0
Canada	British Columbia	Island Generation	combined cycle gas	0	207,331
Canada	Alberta	Genesee Generating Station Units 1&2	coal	57,692,942	5,647,549
Canada	Alberta	Genesee Generating Station Unit 3	coal	31,361,662	2,362,087
Canada	Alberta	Clover Bar Energy Centre	natural gas	0	8,546,395
Canada	Alberta	Clover Bar Landfill Gas	landfill gas	0	0
Canada	Ontario	East Windsor Cogeneration Centre	natural gas	0	103,932
Canada	Ontario	York Energy Centre	natural gas	0	241,359
Canada	Ontario	Kingsbridge 1 Wind	wind	0	0
Canada	Ontario	Port Albert	wind	0	0
Canada	Ontario	Port Dover & Nanticoke Wind	wind	0	0
U.S.A.	North Carolina	Roxboro Power Plant	cogeneration	613,468	0
U.S.A.	North Carolina	Southport Power Plant	combined heat & power	1,024,380	0
U.S.A.	Alabama	Decatur Energy Center	combined cycle gas	0	21,060,485
U.S.A.	New Mexico	Macho Springs Wind	wind	0	0
U.S.A.	North Carolina	Beaufort Solar	solar	0	0
U.S.A.	Kansas	Bloom Wind	wind	0	0
			Total	**90,692,452**	**38,169,138**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)

GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)

GRI 302: Energy 2016 (cont.)

302-1 (cont.) Energy consumption within the organization (cont.)

Renewable energy consumption by location and facility

Country	Province/State	Facility	Type of Facility	2018 Biomass Consumption (GJ)	2018 Landfill Gas Consumption (GJ)	2018 TDF Consumption (GJ)
Canada	Alberta	Halkirk Wind	wind	0	0	0
Canada	British Columbia	Quality Wind	wind	0	0	0
Canada	British Columbia	Island Generation	combined cycle gas	0	0	0
Canada	Alberta	Genesee Generating Station Units 1&2	coal	0	0	0
Canada	Alberta	Genesee Generating Station Unit 3	coal	0	0	0
Canada	Alberta	Clover Bar Energy Centre	natural gas	0	0	0
Canada	Alberta	Clover Bar Landfill Gas	landfill gas	0	396,831	0
Canada	Ontario	East Windsor Cogeneration Centre	natural gas	0	0	0
Canada	Ontario	York Energy Centre	natural gas	0	0	0
Canada	Ontario	Kingsbridge 1 Wind	wind	0	0	0
Canada	Ontario	Port Albert	wind	0	0	0
Canada	Ontario	Port Dover & Nanticoke Wind	wind	0	0	0
U.S.A.	North Carolina	Roxboro Power Plant	cogeneration	2,446,602	0	1,890,364
U.S.A.	North Carolina	Southport Power Plant	combined heat & power	4,525,474	0	3,724,534
U.S.A.	Alabama	Decatur Energy Center	combined cycle gas	0	0	0
U.S.A.	New Mexico	Macho Springs Wind	wind	0	0	0
U.S.A.	North Carolina	Beaufort Solar	solar	0	0	0
U.S.A.	Kansas	Bloom Wind	wind	0	0	0
			Total	**6,972,075**	**396,831**	**5,614,898**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)	
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)			
GRI 302: Energy 2016 (cont.)			
302-1 (cont.)	Energy consumption within the organization (cont.)	**Total energy consumption by source (GJ)**	
		Electricity	278,162
		Heating	NA
		Cooling	NA
		Steam	NA
		Total energy sold by source (GJ)	
		Electricity	4,517,871
		Heating	NA
		Cooling	NA
		Steam	NA
		Total 2018 energy consumption (GJ)	
		142,123,556	
		Table notes: • Conversion of fuel to GH based on higher heating value of fuel • Conversion of MWh to GJ based on 1MWh = 3.6GJ (steam enthalpy) • Net MWhs generation (sold electricity) are net 'revenue-quality' MWhs, unless otherwise noted. • Electricity consumption is based on unit parasitic load (gross generation minus net generation) • Higher heading value based on fuel analysis or published values. Performance data	

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 302: Energy 2016 (cont.)		
302-2	Energy consumption outside of the organization	Not tracked, nor do we intend to track it in the future as the calculation holds no current economic value for the company.
302-3	Energy intensity	Energy intensity ratio (GJ/MWh) is 8.72. Organization metric (denominator) is MWh. Fuel inputs are included in the ratio (GJ). Only energy consumption within the organization is used to calculate the energy intensity.
302-4	Reduction of energy consumption	We achieved an estimated reduction in energy consumption in 2018 of 3,195,464 GJ through operational changes and conversion/retrofitting of equipment as part of our Genesee Performance Standard – an energy efficiency initiative at our Genesee Generating Station. The reduction is estimated using the baseline year (2016) energy intensity obtained from direct measurement and the reporting year generation and energy consumption. Because there was less generation in 2018 than during the baseline year, the 2016 energy intensity and the 2018 generation was used to estimate the absolute energy quantity used in 2018, had no conservation efforts been made. The reduction represents the difference between the actual 2018 quantity and the estimated quantity using the 2016 energy intensity.
302-5	Reductions in energy requirements of products and services	Not tracked as we do not have influence on the use of the electricity produced and cannot measure results of reduction initiatives by third parties.
GRI 303: Water and Effluents 2018		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Water is utilized in our thermal operations. As a topic that is becoming increasingly important for us to manage we will be focusing more on it starting in 2019. The management of water and effluents falls under our internal Health, Safety and Environment Policy which is applicable to all Capital Power sites and is updated and approved by the Board of Directors. We are obligated to meet minimum standards for the quality of effluent discharge which has been determined by the Regulatory agencies in the form of operating water approvals, permits and licenses. This is monitored regularly and reported at least annually to the regulatory body. Data is updated and reported annually consistent with industry standards and regulatory compliance obligations. These standards and obligations are determined by local regulatory agencies and adherence is required to remain in compliance. Regulatory bodies can choose to conduct site audits or visits at any time to confirm our adherence to our permits and approvals. Capital Power is also obligated to self-report any non-compliances to applicable regulators prior to regular compliance reporting. GRI 103: Management Approach – Environment, **p.65**
303-1	Interactions with water as a shared resource	Environment

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 303: Water and Effluents 2018 (cont.)		
303-2	Management of water discharge-related impacts	The minimum standards for the quality of effluent discharges are determined by applicable regional regulatory agencies in the form of operating water approvals, permits and licenses. In addition to meeting the regulatory thresholds, we continue to explore and utilize best management approaches for clean water for operational efficiencies.
303-3	Water withdrawal	**Total water withdrawal: 51,534 (ML)** Total includes: surface waters, groundwater, seawater, produced waters and 3rd-party waters. Notes: • Future reports will break down total volume by withdrawal source. • No water withdrawals were made from areas experiencing 'water stress' as defined in GRI 303: Water and Effluents 2018. Publicly available data was used to confirm the applicability of water-stressed areas. • All waters withdrawn were considered to be <1000mg/L Total Dissolved Solids • Additional contextual information relating to the provided data is outlined in the sites' operating permits, approvals or license issued by the regional regulator or from local water quality objectives.
303-4	Water discharge	**Total water discharged: 30,980 (ML)** Total includes: surface waters, groundwater, seawater, produced waters and 3rd-party waters. Notes: • Future reports will break down total volume discharged by destination. • All waters discharged were considered to be <1000mg/L Total Dissolved Solids • No waters were discharged into areas experiencing 'water stress' as defined in GRI 303: Water and Effluents 2018. • Operating approvals, permits and/or licenses identify any 'discharge consents' or priority substances to be treated specific to each operational site. • In 2018, we reported two water-related non-compliance events to the regulator: - A quarterly toxicity sample failed to meet the 90% chronic toxicity value in the NPDES permit for our generation facility in Roxboro, North Carolina. All subsequent samples passed toxicity testing. - The outfall pH fell outside the approval limits due to a pH probe malfunction at our Clover Bar Energy Centre in Edmonton, Alberta. Once the probe was replaced and recalibrated, all readings returned to normal. • Additional contextual information relating to the provided data is outlined in the sites' operating permits, approvals or license issued by the regional regulator or from local water quality objectives.
303-5	Water consumption	**Total 2018 water consumption: 20,554 (ML)** Notes: • No waters were consumed from areas experiencing 'water stress' as defined in GRI 303: Water and Effluents 2018. • No significant changes in water storage were made in 2018. • Additional contextual information relating to the provided data is outlined in the sites' operating permits, approvals or license issued by the regional regulator or from local water quality objectives.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 304: Biodiversity 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	We work to minimize our impacts and create long-term sustainability through land reclamation and reforestation practices, respecting wildlife, working together in partnerships and supporting research. GRI 103: Management Approach – Environment, **p.65**
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Our Genesee Generation Station (Genesee) is our only operational site which contains infrastructure adjacent to a protected area. The Genesee pump house is located on the south bank of the North Saskatchewan River which is adjacent to a wildlife corridor.
304-2	Significant impacts of activities, products, and services on biodiversity	Environment
304-3	Habitats protected or restored	Performance data Key partners we work with to protect or restore habitat areas include: • Northern Alberta Institute of Technology (NAIT) Centre for Boreal Research • Alberta Conservation Association • Alberta Hunter Education Instructors Association (AHEIA) • Leduc County • Olds College • University of Alberta
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Our operations do not affect any wildlife populations on the IUCN Red List or the national conservation species lists.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 305: Emissions 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	In some regions, our operations have a significant impact on air emissions. Our plan to achieve improved emissions intensities at our thermal facilities and pursue continuous efficiency improvements at all our facilities includes: co-firing coal units with natural gas until they are entirely transitioned to natural gas, expanding our natural gas and renewable generating portfolio across Canada and in the U.S., and advancing demonstration and deployment of carbon capture, utilization and storage (CCUS) technology on our natural gas units. We actively manage our climate change-related risks through our corporate Enterprise Risk Management system and consistently operate with the philosophy that environmental compliance must be managed, excess or unplanned emissions and releases are preventable, and an environmentally responsible culture is a primary corporate goal. The Board has an established Health, Safety and Environment Committee which monitors and assesses the effectiveness of our environmental stewardship including the environmental impact of our operations, and reviewing our goals, compliance and policies relating to our greenhouse gas (GHG) emissions and climate change. Note: emission disclosures for GRI 305: Emissions are inclusive of the Genesee Mine as applicable.
305-1	Direct (Scope 1) GHG emissions	**11,068,493 tonnes CO_2e**

Scope 1 emissions by country

Country	GHG excluding Biomass & Landfill gas CO_2 (tonnes/yr)	GHG including Biomass & Landfill gas (tonnes/yr)
Canadian totals	9,370,165	9,377,435
U.S. Totals	1,698,328	2,112,341
Total	**11,068,493**	**11,489,776**

Scope 1 emissions by fuel type

Emission	GHG excluding Biomass & Landfill gas CO_2 (tonnes/yr)	GHG including Biomass & Landfill gas (tonnes/yr)
Coal	8,913,753	8,962,270
Gas	1,576,065	1,576,065
Renewables	533,564	906,330
Total	**11,023,382***	**11,444,665**

*Genesee Mine emissions not included.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)

GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)

GRI 305: Emissions 2016 (cont.)

305-1 Direct (Scope 1) GHG emissions

Gross Scope 1 emissions by facility

Country	Province/State	Facility	Type of Facility	GHG excluding Biomass & Landfill gas CO_2 (tonnes/yr)	GHG including Biomass & Landfill gas (tonnes/yr)
Canada	Alberta	Halkirk Wind	wind	n/a	n/a
Canada	British Columbia	Quality Wind	wind	n/a	n/a
Canada	British Columbia	Island Generation	combined cycle gas	10,662	10,662
Canada	Alberta	Genesee Generating Station Units 1&2	coal	5,751,440	5,751,440
Canada	Alberta	Genesee Generating Station Unit 3	coal	3,092,706	3,092,706
Canada	Alberta	Clover Bar Energy Centre	natural gas	435,623	435,623
Canada	Alberta	Clover Bar Landfill Gas	landfill gas	46	7,317
Canada	Ontario	East Windsor Cogeneration Centre	natural gas	22,582	22,582
Canada	Ontario	York Energy Centre	natural gas	11,995	11,995
Canada	Ontario	Kingsbridge 1 Wind	wind	n/a	n/a
Canada	Ontario	Port Albert	wind	n/a	n/a
Canada	Ontario	Port Dover & Nanticoke Wind	wind	n/a	n/a
Canada	Alberta	Genesee Mine	mining	45,111	45,111
U.S.A.	North Carolina	Roxboro Power Plant	cogeneration	221,992	428,998
U.S.A.	North Carolina	Southport Power Plant	combined heat & power	381,133	588,140
U.S.A.	Alabama	Decatur Energy Center	combined cycle gas	1,095,203	1,095,203
U.S.A.	New Mexico	Macho Springs Wind	wind	n/a	n/a
U.S.A.	North Carolina	Beaufort Solar	solar	n/a	n/a
U.S.A.	Kansas	Bloom Wind	wind	n/a	n/a
			Total	**11,068,493**	**11,444,665**

Biogenic GHG emissions, 421,283 tonnes CO_2e

Notes:

- Gases included in gross direct GHG emission calculation include CO_2, CH_4 and N_2O, SF_6
- No base year used for calculations.
- Global warming potential rates used are from IPCC Guidelines for Greenhouse Gas Inventories.
- We use a combination of mass balance and emission factors in the calculation of CO_2 emissions.
- Quantification requirements are dictated by the operational jurisdiction.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 305: Emissions 2016 (cont.)		
305-2	Energy indirect (Scope 2) GHG emissions	Gross location-based energy indirect (Scope 2) GHG emissions are 7,354 t/CO_2e Gross Market-based energy indirect (Scope 2) GHG emissions are 3,060 t/CO_2e. We used a market-based emission factor of '0' for the electricity consumption that has been offset with REC retirements. Capital Power has retired Canadian ECOLOGO certified hydro Renewable Energy Credits (REC's) on the Western Renewable Energy Generation Information System (WREGIS) tracking system annually since we started reporting on Scope 2 emissions in 2013 (base year). We have retired enough REC's to cover 100% of the Scope 2 emissions related to electricity consumed at the head office in Edmonton, AB and the largest satellite office in Calgary, AB. This year, we have also retired RECs to offset emissions associated with electricity consumption at the Clover Bar Energy Center natural gas generator not already included under the Carbon Competitiveness Incentive Regulation (CCIR). The WREGIS system is an independent, renewable energy tracking system for the region covered by the Western Electricity Coordinating Council. WREGIS tracks renewable energy generation from units that register in the system by using verifiable data and creating renewable energy certificates (REC) for this generation. ECOLOGO Certifications are voluntary, multi-attribute, lifecycle-based environmental certifications that indicate a product has undergone rigorous scientific testing, exhaustive auditing, or both, to prove its compliance with stringent, third-party, environmental performance standards. Capital Power retired enough offsets to cover 100% of the emissions associated with natural gas consumption at both the Edmonton and Calgary offices in the base year (2013) and in 2018. The Clover Bar Energy Center is subject to the CCIR in Alberta that requires offsets or fund credits to be purchased for a portion of the emissions and Capital Power is consistently in compliance. However, retiring offsets and purchasing fund credits does not reduce Scope 2 Market Based emissions. The only option for reducing emissions associated with natural gas consumption is purchasing green gas certificates which are not widely available in the regions in which we operate. We included the CO_2, CH_4, and N_2O gases in our calculation of emissions from our natural gas consumption at the Calgary and Edmonton offices. We use 2013 as the base year as this was the first year we collected data on Scope 2 emissions. Base year emissions were 2,952 tCO_2e and were not recalculated based on any significant changes in emissions. Global Warming Potentials (GWP) used: CO_2e – 1 CH_4 – 25 N_2O – 298

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 305: Emissions 2016 (cont.)		
305-2 (cont.)	Energy indirect (Scope 2) GHG emissions (cont.)	We are using the operational control consolidation approach for our Scope 1 and 2 emissions. Our Edmonton and Calgary offices are LEED Certified, and are located in buildings with other tenants. Buildings quantified are powered by electricity and use electricity for cooling and natural gas for heating. Calculation used from GHG Protocol Guidance: Emissions (tCO_2e) = Activity Data (MWh)*Emission Factor (tCO_2e/MWh) **CO_2 Emissions - Power tCO_2e** Calgary Office 132 Edmonton Office 1,699 Clover Bar - Natural gas generator 4,583 **Total Emissions Power 6,414** **CO_2 Emissions - Gas tCO_2e** Calgary Office 34 Edmonton Office 906 **Total Emissions Gas 940** **Overall Total Scope 2 Emissions 7,354** Scope 2 emissions were calculated with usage data from the utility bills for power and natural gas at each of our Edmonton and Calgary offices based on our portion of occupancy. We applied the Alberta grid average emission factor for power consumption of 0.8 tCO_2e/MWh as obtained from Table A13-10 in 2019NIR - PT3 - April 13 2018.pdf, of the National Inventory Report for Canada. The following natural gas emission factors were applied for our natural gas consumption: kg CO_2/GJ 56 kg CH_4/GJ 0.001 kg N_2O/GJ 0.0001 Our 2018 Scope 2 emissions were verified by a third-party verifier. Scope 2 emissions verified included our corporate offices in Edmonton and Calgary, and our Clover Bar Energy Centre in Edmonton, Alberta.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 305: Emissions 2016 (cont.)		
305-3	Other indirect (Scope 3) GHG emissions	We have biogenic emissions associated with burning biomass at our North Carolina facilities and landfill gas at our Clover Bar Landfill Gas project. Those emissions equal 421,283 tCO_2e. We have quantified our Scope 3 emissions as fulsomely as possible (for example, the Purchased Goods category includes the emissions associated with three major capital projects undertaken in 2018) in the following categories: **Total Scope 3 Emissions (CO_2, CH_4, N_2O) tCO_2e** Purchased Goods 94,381 Upstream Transportation 6,032 Fuel and Energy 973,733 Waste 9,917 Business Travel 1,571 Employee Commuting 1,020 Downstream Transportation 496,700 **Total 1,583,354** 2018 is the first year we completed a fulsome calculation of Scope 3 emissions, so we are not using a base year. **Source of emission factors** • Upstream emission factors were retrieved from: Scull, B. D. et al. (2017). Upstream Emissions of Coal and Gas. New York, NY: Columbia University, School of International and Public Affairs. • Fly ash emission factor retrieved from the epa.gov website: https://19january2017snapshot.epa.gov/www3/epawaste/conserve/tools/warm/pdfs/FlyAsh_11_07.pdf • Alberta loss factors for each plant were found on the AESO website. • Ontario loss factors for each plant were found on the IESO website. • British Columbia loss factors were found on the BC hydro website. • Grid intensity for each province found in the 2019 National Inventory Report. • State loss factors and grid intensity are the latest available on the U.S. Energy Information Administration Website. We used the following global warming potential (GWP) rates: CO_2e – 1 CH_4 – 25 N_2O – 298 Calculations for Scope 3 categories were completed using the Greenhouse Gas Protocol's Quantis Scope 3 calculator. Emissions factors used for some calculations taken from the GHG protocol website – cross-sector tools. Our Scope 3 emissions in 2018 were verified by a third-party verifier. Emissions in 15 categories across all Capital Power locations and operations were reported and verified.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 305: Emissions 2016 (cont.)		
305-4	GHG emissions intensity	**2018 GHG emission intensity: 0.676 tonnes CO_2e/MWh***

*Intensity includes emissions from generation only. It does not include Genesee mine emissions as it does not generate electricity.

GHG intensity by facility

Country	Province/State	Facility	Type of Facility	GHG Intensity (tonnes CO_2e/MWh)
Canada	Alberta	Halkirk Wind	wind	0
Canada	British Columbia	Quality Wind	wind	0
Canada	British Columbia	Island Generation	combined cycle gas	0.401
Canada	Alberta	Genesee Generating Station Units 1&2	coal	0.922
Canada	Alberta	Genesee Generating Station Unit 3	coal	0.867
Canada	Alberta	Clover Bar Energy Centre	natural gas	0.508
Canada	Alberta	Clover Bar Landfill Gas	landfill gas	0.570
Canada	Ontario	East Windsor Cogeneration Centre[1]	natural gas	0.557
Canada	Ontario	York Energy Centre	natural gas	0.617
Canada	Ontario	Kingsbridge 1 Wind	wind	0
Canada	Ontario	Port Albert	wind	0
Canada	Ontario	Port Dover & Nanticoke Wind	wind	0
U.S.A.	North Carolina	Roxboro Power Plant	cogeneration	0.657
U.S.A.	North Carolina	Southport Power Plant	combined heat & power	0.870
U.S.A.	Alabama	Decatur Energy Center	combined cycle gas	0.405
U.S.A.	New Mexico	Macho Springs Wind	wind	0
U.S.A.	North Carolina	Beaufort Solar	solar	0
U.S.A.	Kansas	Bloom Wind	wind	0
			Total	**0.676***

[1] This intensity includes GHG emissions related to MWh production only and excludes steam production.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 305: Emissions 2016 (cont.)		
305-4	GHG emissions intensity	**2018 GHG emission intensity: 0.676 tonnes CO_2e/MWh*** *Intensity includes emissions from generation only. It does not include Genesee mine emissions as it does not generate electricity. **GHG intensity by country** **Country** — **GHG Intensity (tonnes CO_2e/MWh)** Canadian totals — 0.782 U.S. Totals — 0.392 **Total** — **0.676** **GHG intensity by fuel type** **Fuel type** — **GHG Intensity (tonnes CO_2e/MWh)** Coal — 0.981 Gas — 0.356 Renewables — 0.194 **Total** — **0.676** Notes: • Intensity includes GHG emissions related to MWh production only and excludes steam production at our East Windsor facility • Denominator used is Net Generation (sold MWh) • Only direct (Scope 1) GHG emissions included in intensity calculation • Gases included in calculation: CO_2, CH_4, N_2O, SF_6 Performance data
305-5	Reduction of GHG emissions	**GHG emission reductions in 2018: 530,230 tonnes CO_2e** Notes: • Reduction initiatives include Genesee Performance Standard and co-firing with natural gas. • Denominator used is Net Generation (sold MWh) • Gases included CO_2, CH_4, N_2O • Base year for calculation: 2016 • Reductions are for direct (Scope 1) emissions • Reduction calculations compared the 2016 (base) year GHG intensity and the 2018 GHG intensity and the reduction in intensity was applied to the 2018 generation. It is assumed that any reduction in intensity is due to efficiency improvements and co-firing with natural gas.
305-6	Emissions of ozone-depleting substances (ODS)	We had no ODS emissions in 2018.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)

GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)

GRI 305: Emissions 2016 (cont.)

305-7 — Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions

Total significant air emissions by facility

Country	Province/State	Facility	Type of Facility	NOx (tonnes/yr)	SO_2 (tonnes/yr)	Total PM (tonnes/yr)	Hg (kg/yr)
Canada	Alberta	Halkirk Wind	wind	n/a	n/a	n/a	n/a
Canada	British Columbia	Quality Wind	wind	n/a	n/a	n/a	n/a
Canada	British Columbia	Island Generation	combined cycle gas	5	0	0	n/a
Canada	Alberta	Genesee Generating Station Units 1&2	coal	11,906	12,977	1,354	14
Canada	Alberta	Genesee Generating Station Unit 3	coal	2,081	2,600	232	9
Canada	Alberta	Clover Bar Energy Centre	natural gas	196	2	1	n/a
Canada	Alberta	Clover Bar Landfill Gas	landfill gas	1	0	2	n/a
Canada	Ontario	East Windsor Cogeneration Centre	natural gas	11	0	0	n/a
Canada	Ontario	York Energy Centre	natural gas	6	0	0	n/a
Canada	Ontario	Kingsbridge 1 Wind	wind	n/a	n/a	n/a	n/a
Canada	Ontario	Port Albert	wind	n/a	n/a	n/a	n/a
Canada	Ontario	Port Dover & Nanticoke Wind	wind	n/a	n/a	n/a	n/a
U.S.A.	North Carolina	Roxboro Power Plant	cogeneration	422	2,092	12	0
U.S.A.	North Carolina	Southport Power Plant	combined heat & power	802	2,989	19	0
U.S.A.	Alabama	Decatur Energy Center	combined cycle gas	80	6	23	n/a
U.S.A.	New Mexico	Macho Springs Wind	wind	n/a	n/a	n/a	n/a
U.S.A.	North Carolina	Beaufort Solar	solar	n/a	n/a	n/a	n/a
U.S.A.	Kansas	Bloom Wind	wind	n/a	n/a	n/a	n/a
			Total	**15,510**	**20,666**	**1,644**	**23**

Notes:

- Gases included in gross direct GHG emission calculation include CO_2, CH_4 and N_2O, SF_6
- No base year used for calculations.
- Global warming potential rates used are from IPCC Guidelines for Greenhouse Gas Inventories.
- We use a combination of mass balance and emission factors in the calculation of CO_2 emissions.
- Quantification requirements are dictated by the operational jurisdiction.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)

GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)

GRI 305: Emissions 2016 (cont.)

305-7 — Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions

Significant air emissions

Parameter	2018 Emissions	Units
NO_x	15,510	tonnes
SO_2	20,666	tonnes
Particulate Matter (PM)	1,644	tonnes
Mercury	23	kg

Air emissions by country of operation

	NO_x (tonnes/yr)	SO_2 (tonnes/yr)	Total PM (tonnes/yr)	Hg (kg/yr)
Canadian totals	14,206	15,579	1,590	23
U.S. Totals	1,304	5,087	54	00
Total	**15,510**	**20,666**	**1,644**	**23**

Air emissions by fuel type

Emission	CO_2e (MT)	NO_x (tonnes)	SO_2 (tonnes)	PM (tonnes)	Hg (kg)
Coal	8,913,753	14,128	16,165	1,590	23
Gas	1,576,065	298	9	25	0
Renewables	533,564	1,084	4,492	29	0
Total	**11,023,382**	**15,510**	**20,666**	**1,644**	**23**

Notes:

- The majority of these emissions are calculated using direct measurement (Continuous Emissions Monitoring Systems)
- Some parameters are calculated using source emission testing or mass balance
- Calculation methodologies are dictated by jurisdiction.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 306: Effluents and Waste 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Waste is a result of our operations and is an aspect that we continue to look for opportunities to reduce. GRI 103: Management Approach – Environment, **p.65**
306-1	Water discharge by quality and destination	GRI 303: Water and Effluents 2018, **p.69**
306-2	Waste by type and disposal method	We currently only track ash disposal and recycling at our operational facilities. In future reporting years, we will provide further breakdown of hazardous and non-hazardous waste materials.

Facility	Total Ash Produced (tonnes)	Total Ash Recycled (tonnes)	Total Ash Disposed (tonnes)	% Ash Recycled
Genesee Generating Station	921,608	247,448	674,160	27
Roxboro Power Plant	22,724	0	22,724	0
Southport Power Plant	47,345	0	47,345	0
TOTALS	**991,677**	**247,448**	**744,229**	**25**

306-3	Significant spills	No significant spills were recorded in 2018 and no additional information was reported in our financial statements regarding spills. Performance data
306-4	Transport of hazardous waste	Waste shipment information is retained at each operational site but tracking information is limited. In future reporting years, we will endeavor to provide additional details on the transport of hazardous waste.
306-5	Water bodies affected by water discharges and/or runoff	GRI 303: Water and Effluents 2018, **p.69**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 300: TOPIC SPECIFIC STANDARDS – ENVIRONMENT (cont.)		
GRI 307: Environmental Compliance 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Capital Power operates within the confines of operating permits and approvals that are issued by the regulatory bodies in our operational jurisdictions. Being in compliance and in good standing with the regulators and with the local community is paramount. To ensure compliance, we are subjected to internal and regulatory inspections and audits, and we are also obligated to self-report any non-compliances to the applicable regulators. Information for this disclosure represents Capital Power's disclosure of non-compliance with environmental laws and regulations. Data from owned capacity at facilities where we do not hold the operating permits are not included. Arlington Valley facility is not included in 2018 reporting as it was acquired at the end of 2018 and was not part of Capital Power operations for the majority of the year.
307-1	Non-compliance with environmental laws and regulations	No significant fines or non-monetary sanctions for non-compliance with environmental laws and/or regulations were incurred in the reporting year.
GRI 308: Supplier Environmental Assessment 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Although our current procurement processes do not specifically include an environmental assessment for suppliers, we will consider how to integrate aspects of it into our practices in the future. GRI 204: Procurement practices 2016, **p.64**
308-1	New suppliers that were screened using environmental criteria	No new suppliers were screened using environmental criteria.
308-2	Negative environmental impacts in the supply chain and actions taken	No negative environmental impacts in the supply chain.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL		
GRI 401: Employment 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	We use the Oracle database management system to track employee data such as work country (Canada/U.S.), employment status (employee, board member, pensioner or contingent worker; full-time, part-time or casual; permanent or temporary), assignment status (active, leave of absence, long-term disability, parental leave), age and years of service To ensure fair payment of employees, we follow the employment standards for each Canadian province and the Fair Labour Standards Act (FLSA) in the U.S., as well as the Collective Agreements for our Canadian union employees. Segregation of duties between human resources associates and payroll advisors ensures regular checks and balances for employee payment and discrepancies are corrected immediately. Quarterly audits of the oracle system are performed by human resources associates and payroll advisors, and annual audits by our internal auditors provide additional assurance of employee records and payment information. We provide competitive compensation and benefit programs and focus on employees' physical, mental, financial, and social wellbeing with special programs, events, educational opportunities, and resources. We provide retirement and savings plans, recognize employee long service, and support work-life balance with part-time and temporary flexible work arrangement policies. Our Total Rewards Program is competitive among our industry peers, rewards the performance of our employees, and supports overall personal and professional development and wellbeing. We monitor the competitiveness of our benefits programs on a regular basis. We compare ourselves to a group of peer organizations who share characteristics in common with Capital Power such as industry, size, and/or region. We position ourselves at the average of aggregated employer-provided value. 401 data includes data for: • Permanent, full- and part-time employees • U.S. & Canadian employees • U.S. new hires includes the Decatur & Arlington acquisitions • Excludes: board members, pensioners, long-term disability, casual and temporary employees

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 401: Employment 2016 (cont.)		
401-1	New employee hires and employee turnover	**Total new employee hires** **Age Group** Under 30 years old 23 30-50 years old 63 Over 50 years old 29 **Gender** Male 87 Female 28 **Region** Canada 51 U.S.A. 64 Notes: • Includes permanent new-hires only. • U.S. new hires includes the Decatur and Arlington acquisitions. • Excludes Board members, pensioners, employees on long-term disability, casual and temporary employees. **Total employee turnover** **Age Group** Under 30 years old 5 30-50 years old 34 Over 50 years old 20 **Gender** Male 43 Female 16 **Region** Canada 43 U.S.A. 16 Notes: • Includes permanent employees only (active and on parental leave) • Excludes Board members, pensioners, employees on long-term disability, casual and temporary employees Performance data

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 401: Employment 2016 (cont.)		
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Benefits which are standard for full-time employees (which includes employees who work 20+ hours in a week) but are not provided to temporary employees at our significant locations of operation* include: • Life insurance and other optional insurance • Health, dental, and vision care • Short/Long-Term disability • Maternity/parental leave • Health and wellness-related reimbursement accounts • Retirement and savings programs • Vacation and paid time off • Temporary flexible work arrangements • Bereavement • Employee and family assistance programs • Best Doctors® • Out of country emergency medical • Milestone awards *Significant locations of operation are anywhere that at least one full-time employee is employed within Canada and the U.S.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 401: Employment 2016 (cont.)		
401-3	Parental leave	**Total employees entitled to parental leave by gender** Male 564 Female 183 **Total employees who took parental leave by gender** Male 0 Female 8 **Total employees returning to work after parental leave by gender** Male 0 Female 4 • Total for current reporting period: January 1 – December 31, 2018 **Total employees returning to work after parental leave that stayed employed 12 months after their return by gender** Male 0 Female 20 • Includes employees that went on leave between January 1 2016 – December 31, 2017, who are still employed 12 months after their return date in the 2018 reporting period **Return to work and retention rates of employees that took parental leave by gender** Return to work rate: Male 0% Female 100% For current reporting period (Jan 1 - Dec 31, 2018): • 8 employees went on leave • 4 employees were expected to return in 2018 • 4 employees returned in 2018 Retention rate: Male 0% Female 80% For prior reporting periods (Jan 1, 2016 - Dec 31, 2017): • 27 employees went on leave • 27 employees were expected to return • 25 employees returned • 20 employees still employed after 12 months of return

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 402: Labor/Management Relations 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Capital Power operates long-standing, merchant and contracted power generation facilities, so 'significant operational changes' that would substantially impact employees would be extremely rare. As such, we do not have notice requirements specific to 'significant operational changes', but in such a case, would notify affected employees and unions directly as soon as practical. If the change would result in loss of employment, we would abide by relevant terms outlined in collective agreements, and by all state, federal and provincial laws regarding employment notice.
402-1	Minimum notice periods regarding operational changes	GRI 103 Management Approach: 402 Labor/Management Relations, **p.87**
GRI 403: Occupational Health and Safety 2018		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Risk management, **p.14**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 403: Occupational Health and Safety 2018 (cont.)		
403-1	Occupational health and safety management system	Risk management, **p.14** Our Senior Health and Safety Advisors hold designation as Canadian Registered Safety Professionals (CRSP) or Certified Safety Professionals (CSP) (U.S.A.). The health and safety department is responsible for implementing, maintaining, and scheduling reviews of our Occupational Health and Safety Management System (OHS MS). The OHS MS (the "System") is implemented based on recognized risk management and management system standards and in part, from ISO 45001: 2018. The System includes: • Health, Safety and Environment Policy Statement ("HSE Policy") • Leadership and commitment • Hazard identification and assessment of risks • Legal and other requirements • Audits and assessments • Performance measurement and monitoring • Management review • Document control • Operational controls including the development of 10 LIFE Critical Standards • Procedures • Safe work practices Scope of workers that fall under the System include full-time and temporary employees, contractors, and subcontractors classified as working under the direction of Capital Power. Contractors whose work and/or workplace activities are not under the direction of Capital Power are covered through our "Contactor Management Standard" that includes robust pre-qualification and selection criteria for qualified contractors. We use ISNetworld to assist with assessing contractor health and safety management systems, worker qualifications, injury statistics, insurance requirements and compliance to jurisdictional regulations.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 403: Occupational Health and Safety 2018 (cont.)		
403-2	Hazard identification, risk assessment, and incident investigation	These processes are based on both legal requirements and industry guidelines. Capital Power has a Hazard Identification, Assessment and Control Standard that outlines the process for conducting routine and non-routine hazard-identification activities, risk assessment and development of effective controls. The process includes positional, job, and field-level hazard assessments. Review and updates of these assessments are triggered as part of an incident investigation finding when new workers or a new process or task is introduced, or there is a change in conditions at the field level. Reporting of work-related hazards and hazardous situations is required by all workers by reporting to a supervisor, safety representative, or health and safety committee member. Reports are formally entered into an electronic reporting system and are tracked to closure. Capital Power has a no retaliation policy and will not tolerate or pursue retaliation of any kind against any individual who reports a violation or ethical concern in good faith. Work refusals are considered incidents and are investigated. Workers have the right to refuse any work they believe in good faith to be unusually dangerous. Capital Power has a formal Incident Management Standard that requires incidents to be reported and investigated. Outcomes of the investigation must identify the root causes and factors that contributed to the incident's occurrence and corrective actions are identified and implemented to prevent recurrence. Corrective actions are assigned to accountable personnel and are tracked to completion.
403-3	Occupational health services	We conduct occupational health surveillance in compliance with legal requirements and occupational hygiene practices. Occupational health hazards in the working environment are identified through the formal hazard assessment process. Internal and external qualified health and safety professionals conduct surveillance for ergonomics, noise, heat stress, assessment of personal protective equipment and other workplace hazards. Employees are required to attend the health surveillance testing in accordance with legal requirements and we offer onsite services during work hours and off-site services with transportation when needed. Workers are given access to their records and will receive all test results through our third-party provider. Unfavorable results are investigated to determine if additional or more effective controls are required at the workplace. All occupational health records are managed in accordance with jurisdictional privacy laws and to Capital Power's privacy procedure and record-retention schedule.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 403: Occupational Health and Safety 2018 (cont.)		
403-4	Worker participation, consultation, and communication on occupational health and safety	We use formal and informal processes to support worker participation. Worksites have active formal joint health and safety committees or assigned representatives that monitor and provide advice on occupational health and safety issues. Each site has an assigned Senior Health and Safety Advisor as a point of contact for any worker to consult regarding health and safety concerns, recommendations for improvements, or clarification of regulations. Affected workers are consulted when any standard is developed under the OHS MS. Formal Joint Health and Safety Committees (JHSC), meet quarterly at minimum and operate under a formal Terms of Reference that defines roles and decision-making authority. Where trade union agreements or long-term contractors are in place at the worksite, the union and contractor must provide a representative to participate on the JHSC. The JHSC is responsible for: • Managing concerns and complaints about worker health and safety and helping Capital Power respond to worker health and safety concerns • Participating in the identification of work site hazards • Conducting worksite inspections • Developing, promoting and verifying measures to protect the health and safety of people at the work site • Developing and promoting education, training and information programs concerning health and safety • Cooperating with OHS officers in enforcing the Health and Safety Act, participating in investigations of serious injuries and incidents and maintaining records on all matters relating to the duties of the committee • Assist in new employee health and safety orientation • Assist with the resolution of unsafe work refusals • Assist with the development of health and safety policies and safe work procedures Safety is seen as critical by our trade unions. Following are some examples of the types of health and safety topics covered in our trade union agreements: • Appointed representatives of Capital Power and IBEW shall meet on a regular basis to discuss and recommend changes regarding Safety Rules and Regulations. • IBEW employees are not required to perform any hazardous task with which they're not familiar or which cannot be accomplished without violation of safety practices and such refusal shall not be the basis for disciplinary or discriminatory action. • An annual safety footwear subsidy will be provided by Capital Power up to a maximum of $500 in a calendar year.
403-5	Worker training on occupational health and safety	Training is provided free of charge to workers. Training is primarily done during work hours but workers are compensated for training outside of working hours. Mandatory and optional training requirements are determined based on regulatory requirements, position, tasks performed and work-related hazards. Positional hazard assessments identify work-related hazards and help establish appropriate training. An established training matrix is used to track all training and the required intervals for retraining. Training is done through various methods such as e-learning, internal or external classroom sessions led by third party qualified trainers or qualified internal trainers, or through manufacturers on specific equipment. The effectiveness of training is evaluated by the internal training department through a formal documented process. Completion of training is also one of the annual Leading Indicators included in the Health, Safety and Environment Index.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 403: Occupational Health and Safety 2018 (cont.)		
403-6	Promotion of worker health	We believe that our employees and their families are at their best when they lead healthy and balanced lives. We invest in their wellbeing by providing a diverse and inclusive set of programs to meet their needs in each of the four focus areas that make up our Corporate Wellness Program: physical, mental, financial and social well-being. In addition to a comprehensive benefits and retirement savings program, Capital Power provides: **Employee and Family Assistance Program (EFAP)** The EFAP offers professional counselling assistance and support to employees and their families to manage all of life's complexities at work and home. Work-life support is also offered through expert online content and counselors in the areas of legal, family, financial, nutrition, naturopathic and health coaching. **Best Doctors®** This program assists employees to get a second opinion on medical diagnoses, connect with specialists, and receive help navigating the healthcare system. **Sprout** Sprout is an interactive health and wellness platform that encourages employee well-being. We use this tool to run employee wellness challenges and campaigns related to physical activity, nutrition, and sleep. **Lifespeak** Lifespeak is an online and confidential library of videos from the world's leading experts on over 40 different wellness topics. Employees can review videos, participate in live question and answer web chats hosted by subject matter experts or access a searchable database of user-defined questions and answers. **Not Myself Today** This program is designed to raise awareness and understanding around mental health, stop the stigma and to foster a supportive work culture. Employees and their families have access to tools and resources to help them become more aware of how relationships and environment affect our mental health. **Motivate Me** Employees and their dependents are encouraged to complete annual preventative care and provides incentive rewards once their annual care is completed.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	We require all non-employees/contractors or partners to comply with all jurisdictional occupational health and safety acts, regulations and codes, and to follow known industry safe-work practices and standards.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 403: Occupational Health and Safety 2018 (cont.)		
403-8	Workers covered by an occupational health and safety management system	The following worker types are included under Capital Power's OHS MS. • Full- and part-time employees, permanent and temporary • Contracted employees, full- and part-time, permanent and temporary • All contractors working at Capital Power-controlled owned and operated sites All employees, contracted employees and contractors must comply with all health and safety policies and procedures. Contractors must manage their health, safety, and environment (HSE) risks in a manner consistent with our HSE Policy. We monitor health and safety performance as part of contractor selection and approval to perform or continue work. We conduct internal audits on the OHS MS every three years and are not currently audited by certification bodies however, qualified third-parties audit the health and safety program to ensure compliance to regulations in all jurisdictions where we operate. Results of compliance audits are reviewed with our internal audit executive committee. External reviews of contractor's health and safety management systems and current performance statistics are completed through ISNetworld. The OHS MS covers all employees and contractors at operational and construction sites that we own and operate. We have developed a Contractor Management Standard based on the Construction Owners Association of Alberta's Contractor Environment, Health and Safety Management Best Practice (2007).
403-9	Work-related injuries	Capital Power operates in jurisdictions where worker compensation systems classify musculoskeletal disorders as injuries and is reporting as such in this disclosure for 2018. • For all employees: zero fatalities, zero high-consequence work-related injuries, six recordable work-related injuries with a total recordable injury frequency (TRIF) of 0.78, five medical treatments, one lost-time injury, and 1,544,010 exposure hours. • For workers who are not employees but whose work and/or workplace is controlled by the organization: zero fatalities, three recordable work-related injuries with a total recordable injury frequency (TRIF) of 0.68, two medical treatments, one modified work injury, and 886,554 exposure hours. • Work related hazards that pose a risk of high-consequence injury have been determined by type of high-risk activities that can result in life altering injury or fatality events (LIFE), such as confined space, ground disturbance, working from heights and live high-voltage electrical work. For each LIFE activity, a LIFE Critical Standard has been developed which lays out the minimum standard requirements for controlling the hazard. Each facility is required to implement associated controls from the Standard and in addition must define site specific procedures and safe work practices to further reduce the potential of exposure. • Due to an increase in sprain/strain injuries, we implemented a program to reduce musculoskeletal disorders in the workplace which includes pre-task warm-up/stretching. • Work-related injury rates have been calculated based on 200,000 hours worked • We track contractor incidents but do not have a mechanism to track contractor "recovery time" from work-related injuries. • We report one overall corporate statistic using the same criteria for all operational facilities. Workers at construction projects are included only in cases where Capital Power has control over the workers and worksite. Performance data

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 403: Occupational Health and Safety 2018 (cont.)		
403-10	Work-related ill health	In 2018: • For all employees, noise-induced hearing loss was the main type of work-related ill-health resulting in two cases of recordable work-related ill-health, and zero fatalities. • We track contractor incidents but do not have a mechanism to track contractor work-related ill health. Musculoskeletal disorders are reported under 403-9. • Work-related hazards that pose a risk of ill health include physical agents (noise), and respiratory hazards. i. Identification of health hazards is done through positional and job hazard assessments, site hazard assessments, and identification of chemical hazards ii. Long latency noise exposure contributed to cases of ill-health during the reporting period iii. For each identified health hazard, a subsequent standard lays out the minimum standard requirements for controlling the hazard. Each facility is required to implement associated controls from the standard and define site-specific procedures and safe-work practices to further reduce the potential of exposure to the hazard. • We track contractor incidents of acute, short-latency exposures only and do not have a mechanism to track chronic, long-latency exposures cases. • The organization reports one overall corporate statistic using the same criteria for all operational facilities and construction projects where we have control over the workers and worksite.
GRI 404: Training and Education 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Our people, **p.18**
404-1	Average hours of training per year per employee	Under Capital Power's current reporting structure for training, we track by number of courses taken, not by hours or by gender. We are in the process of implementing the measures to be able to report on training hours and gender for 2020. Our people, **p.18**
404-2	Programs for upgrading employee skills and transition assistance programs	Capital Power offers a variety of courses to employees to assist with skills upgrading including corporate training, HSE training, technical courses and professional development. We also provide funding for after-hours programs and transition assistance programs. Our people, **p.18**
404-3	Percentage of employees receiving regular performance and career development reviews	In 2018, 509 of 525 permanent employees (97%) received an annual performance review. The 16 employees who did not receive a performance review were ineligible as they were with the organization for less than three months. Our people, **p.18**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 405: Diversity and Equal Opportunity 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	We are committed to being an inclusive place to work, where everyone has an equal opportunity to reach their true potential. We continually look at our talent practices to support diversity across the organization. In 2018, we enhanced our Board Diversity Policy to require a minimum ratio of 30% female representation for both our Board and Executive Team. As of June 2019, we have achieved a ratio of 44% women on our Board, and 33% women on our Executive Team. We also have an employee-led Diversity and Inclusion Committee responsible for developing a company-wide strategy for integrating diversity and inclusion, including key initiatives and objectives for the short- and long-term.
405-1	Diversity of governance bodies and employees	**Percentage (%) of women representation company-wide**

Executive	33
Upper Management	21
Professional	38
Administration	98
Operations	5
Traders	18

Percentage (%) of employees by age and employment category

	< 30 years old	30 – 50 years old	> 50 years old
Executive	0	17	83
Upper Management	0	61	39
Professional	10	68	22
Administration	20	56	24
Operations	12	51	37
Traders	30	70	0

Table notes:

- CEO included in Executive representation.
- Percentage (%) based on all permanent employees in both Canada and the U.S.
- Age is based on employee age as of December 31, 2018.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 406: Non-discrimination 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Ethics and integrity, **p.21**
406-1	Incidents of discrimination and corrective actions taken	No incidents of discrimination occurred during the reporting period.
GRI 413: Local Communities 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Social responsibility
413-1	Operations with local community engagement, impact assessments, and development programs	Social responsibility
413-2	Operations with significant actual and potential negative impacts on local communities	Social responsibility

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 405: Diversity and Equal Opportunity 2016 (cont.)		
405-2	Ratio of basic salary and remuneration of women to men	We believe in equal pay for equal work and are committed to ensuring that there is no gender pay bias in Capital Power. We have policies and procedures in place to protect against gender pay bias and in 2018, we conducted a gender pay analysis across our entire employee base to ensure our practices mirror our policies. Salary and remuneration are influenced by a broad range of factors including employee skill set, tenure, experience and market, as well as the tendency for certain professional groups to be male- or female-dominated. The findings below may suggest that a gender pay gap exists, however, this result is determined by the categories prescribed by the GRI Standard that assumes there will be an equal number of men and women in each profession of equal seniority. It also combines various professions, skill sets, tenures and geographical markets. The results are misleading. Capital Power pays men and women in the same position, with the same seniority, location and performance equally. The appearance of a gender pay gap results from underrepresentation of women in roles within certain premium paid job disciplines (e.g. engineers and energy traders) and in higher organizational levels where the career stream involves professions and trades that are factually known to be male dominated (e.g. engineering or maintenance/operations). As part of our diversity and inclusion initiatives, we are committed to improving gender representation throughout our organization which we expect will improve the salary and remuneration ratios. We operate in a largely male-dominated industry, particularly regarding certain trades and professions, and recognize that meaningful change will take time. We will continue to pursue a variety of opportunities to build, attract and retain a more diverse workforce. **Ratio of basic salary and remuneration of women to men by employee category and significant location of operation[1]**

	Canada		United States	
	Base Salary	Remuneration	Base Salary	Remuneration
Executive[2]	78	66	n/a	n/a
Upper Management	98	98	n/a	n/a
Professional	92	90	95	96
Administration	119	118	n/a	n/a
Operations	77	77	83	82
Traders	85	82	n/a	n/a

1. As an example, women in Upper Management in Canada make 98 cents for every dollar men make.
2. CEO has been excluded from the calculation

Table notes:

- 'Significant locations of operation' include Canada and the U.S.
- 'Basic salary' is salary only, annualized for hourly and part-time employees based on their hourly rate times weekly base hours
- Basic salary annualized based on 2,080 hours
- Salaries paid in US dollars converted to Canadian based on Bank of Canada's annual average rate as of December 31, 2018
- Remuneration ratio is based on the average earnings for permanent female and male employees
- Remuneration is defined as target compensation which is base earnings plus long- and short-term incentive payments

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 414: Supplier Social Assessment 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Although our current procurement processes do not specifically include a social assessment for suppliers, we will consider how to integrate aspects of it into our practices in the future. GRI 204: Procurement practices 2016, **p.64**
414-1	New suppliers that were screened using social criteria	No new suppliers were screened using social criteria.
414-2	Negative social impacts in the supply chain and actions taken	No negative social impacts in the supply chain.
GRI 415: Public Policy 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Policy engagement and advocacy, **p.15**
415-1	Political contributions	Capital Power complies with all federal, provincial, municipal and state legislation pertaining to political donations by corporations in both Canada and the United States. Capital Power made no political donations in 2018.

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
GRI 419: Social-economic Compliance 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Ethics and integrity, **p.21**
419-1	Non-compliance with laws and regulations in the social and economic area	No material non-compliance events occurred in the reporting period.
Innovation		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Innovation
Cyber & Asset Security		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Safety and security, **p.23**

GRI Standard	Disclosure	Description, page number(s) and/or URL(s)
GRI 400: TOPIC SPECIFIC STANDARDS - SOCIAL (cont.)		
Disaster Relief & Resiliency Plans		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	Safety and security, **p.23**
Transparency & Disclosure		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary 103-2 The management approach and its components 103-3 Evaluation of the management approach	We are committed to maintaining a culture of transparency and disclosure and this is reflected in the annual reporting we do. We will continue our annual disclosures of our business practices, operations and plans and will look for ways we can enhance our reporting in the future. About our report Strategy and governance Climate change, carbon footprint, and commitments