

# Going beyond...

2017 Corporate Sustainability Report

**We are dedicated  
to a brighter future.  
To developing opportunities  
in clean energy resources.**

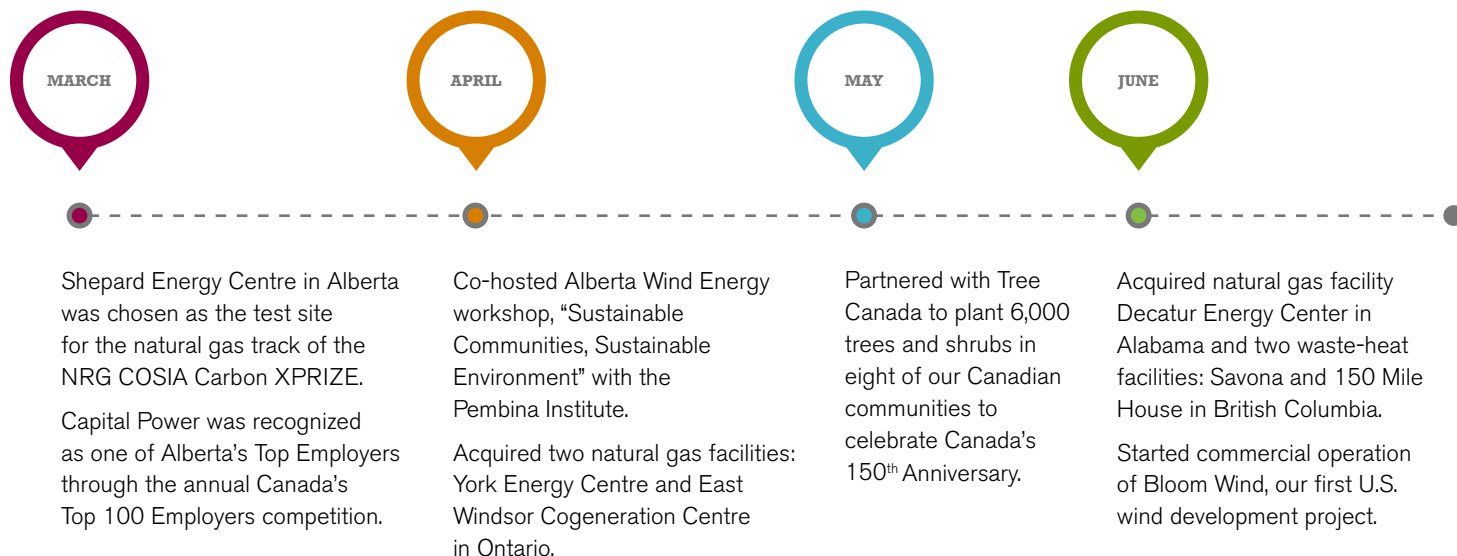
**To going beyond...**

# A year of positive impact

## Beyond business...

We are a growth-oriented North American power producer headquartered in Edmonton, Alberta. We are committed to achieving strong, growing, and sustainable financial returns and value for our shareholders by being the most efficient, low-cost, responsible developer, constructor, owner, and operator of power generation assets with low-carbon attributes.

We are on the path toward a cleaner energy future and are advancing lower-carbon energy through investments in innovative technology and new, cleaner energy sources with the integration of natural gas, renewables, and coal-to-natural gas conversion.

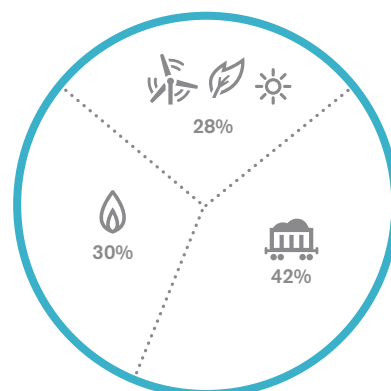


## EMPLOYEES

 } 685

## OUR OWNED GENERATION CAPACITY

As of December 31, 2017, we owned approximately 4,500 megawatts of power generation capacity at 24 facilities in Canada and the United States.



Based on Adjusted EBITDA

# 2017



JULY

Joint-development agreement established with Siksika Resource Development Limited in Alberta.



AUGUST

Announced beginning of construction of New Frontier Wind in North Dakota.



OCTOBER

Successfully completed solid biofuels co-firing testing at Genesee Generating Station.



NOVEMBER

Awarded the Canadian Electricity Association (CEA) President's Award of Excellence for Employee Safety at our Canadian operations.

Completed the first year of the Genesee efficiency improvement program to reduce greenhouse gas emissions.



DECEMBER

Whitla Wind in Alberta was awarded a 20-year contract by the Alberta Electric System Operator (AESO).

Contributed \$941,000 through our community investment program in 2017.

## FACILITIES



} 24

## MEGAWATTS OWNED

~4,500<sub>MW</sub>

## FACILITY AVAILABILITY AVERAGE

96%✓

# Moving beyond uncertainty and rising to the challenge...

Over the past few years, there has been a significant degree of market and regulatory uncertainty in Alberta. The Alberta government's Climate Leadership Plan introduced changes to increase the effective level of carbon pricing for large emitters, accelerated the phase-out of coal-related emissions, established a new procurement program to accelerate the build-out of renewables, and change Alberta's wholesale electricity market design from energy-only to capacity. In addition, oil, gas, and power prices remained low.

On a more global scale, the power industry in general continues to drive towards a lower-carbon energy future. Industry is not only challenged to decrease emissions from existing facilities and build renewable generation, but also to develop and implement net-zero emissions technologies that can continue to provide for the world's ever-increasing need for power.

With this challenge comes exciting opportunities. In the face of such massive industry transformation, our path becomes clear. We need to be more than just a respected, reliable, and competitive power producer. We need to be an industry leader. We need to be sustainable. We need to move beyond.

## **Positioned to succeed: executing our strategy**

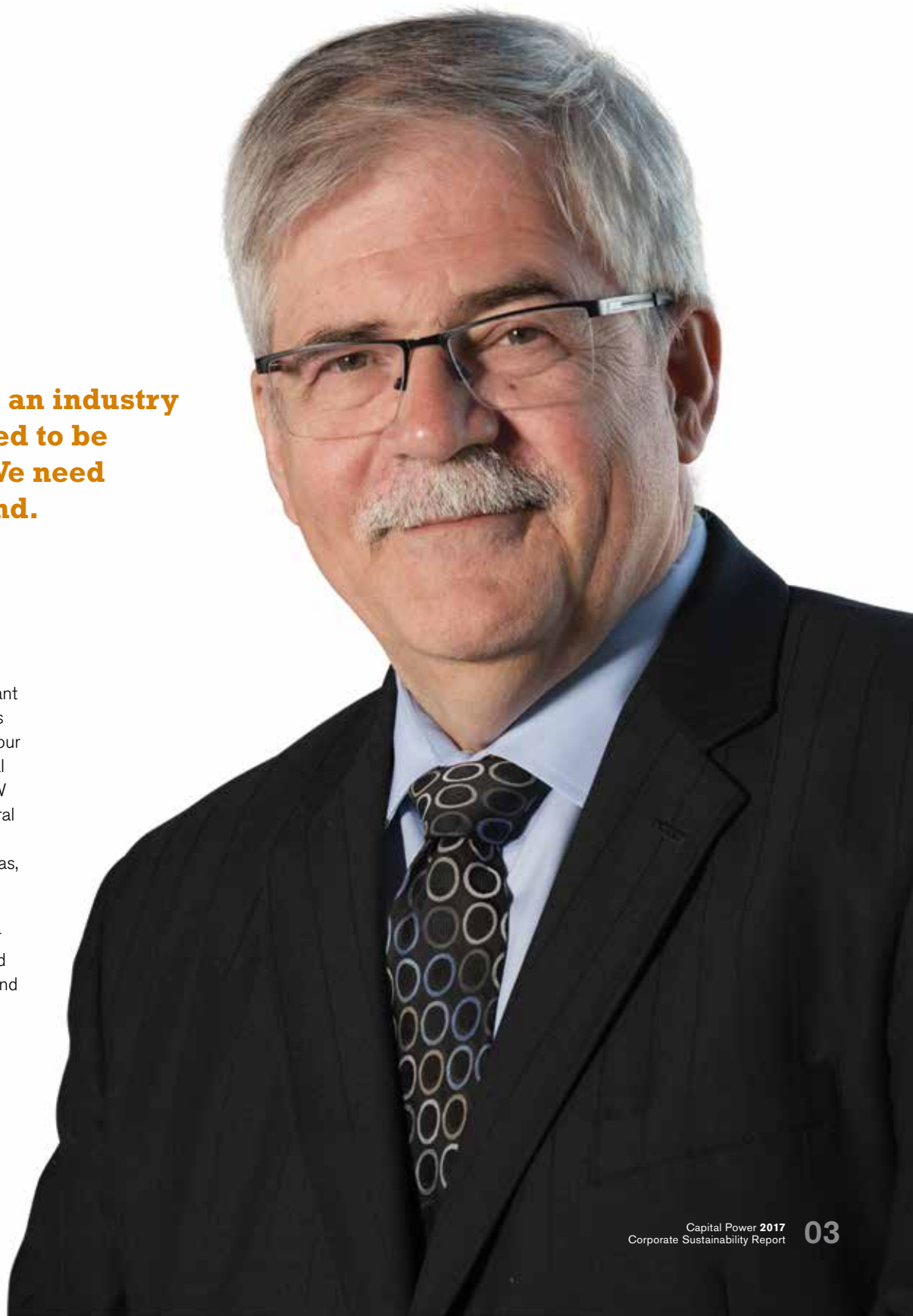
Despite industry uncertainty, we are in an excellent position to grow our value. We have a young and modern fleet of assets; proven operating, development, construction, and risk-management expertise; strong contracted cash flow; and a robust pipeline of growth opportunities. To demonstrate our long-term value, our strategy focuses on four key areas:

- 1 Managing our risk and exposure in Alberta;
- 2 Maintaining excellent operations;
- 3 Increasing our portfolio of contracted and renewable assets; and
- 4 Thinking beyond to new technologies associated with power generation.

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**We need to be an industry leader. We need to be sustainable. We need to move beyond.**

In 2017, we achieved significant growth. We added six facilities totalling nearly 1,300 MW to our fleet. This includes two natural gas facilities totalling 284 MW in Ontario, one 795-MW natural gas facility in Alabama, one 178-MW wind facility in Kansas, and two 5-MW waste-heat facilities in British Columbia. We also secured contracts for two wind projects: Whitla Wind project (Phase 1) in Alberta, and New Frontier Wind project in North Dakota.







## Positioned to compete

In July, we entered into a strategic agreement with Siksika Resource Development Limited (SRDL) to jointly develop power projects on the Siksika Nation Reserve in Alberta. The land provides an excellent opportunity to develop solar, wind, and natural gas projects as part of Alberta's Renewable Electricity Program (REP), while providing business and employment opportunities for Siksika Nation-owned companies and members.

In late 2017, the Whitla Wind project (Phase 1) was awarded a 20-year contract, which continues the growth trajectory into 2018. We are actively developing projects to bid into future rounds of Alberta's REP, which is expected to procure 5,000 MW of new renewable generation by 2030.

## Beyond power...

We see ourselves as more than just a power generator. We are rising to the challenge of carbon transformation and actively working to create solutions for a sustainable, low-carbon future.

### Genesee Efficiency Improvement Program

Our Genesee Generating Station is a world-class leader in the carbon transition, and is a test facility for us as we assess and evaluate options to reduce and eventually eliminate coal as part of our fuel mix. In 2017, we completed the first year of our innovative five-year Genesee Performance Standard (GPS), a \$50 million efficiency improvement program aimed at reducing fuel consumption and our carbon footprint by 11% by 2021.

While we assess the timing to fully convert the units to natural gas, we are able to take advantage of low natural gas prices and co-fire opportunistically with coal. We tested co-firing solid biofuels with coal, which could replace up to 15% of the coal used by a single unit and further reduce our emissions and reliance on coal pre-2030.

### NRG COSIA Carbon XPRIZE

In March 2017, we were excited to announce that our joint facility with ENMAX, the Shepard Energy Centre (Shepard),

would be host to the prestigious NRG COSIA Carbon XPRIZE (XPRIZE) competition—a global competition to develop breakthrough technologies that convert carbon dioxide (CO<sub>2</sub>) into valuable products.

Shepard will also be home to InnoTech Alberta's Carbon Conversion Technology Centre (ACCTC), which will host research, development, and testing of technologies to create valuable, commercialized products from CO<sub>2</sub> emissions. The ACCTC opened in May 2018 and welcomed the five finalists of the natural-gas track



## A sustainable future

of the XPRIZE competition as their first tenants. The finalists will use the facility to test and refine their technologies using the flue gas CO<sub>2</sub> emissions from Shepard.

We are proud to have the ACCTC as a long-term facility for global innovators to test emission reduction technology and continue advancing related science and research.

### Beyond us and our industry: C2CNT

To further our commitment to seek solutions for climate change, we announced our investment in C2CNT in May 2018. C2CNT is one

of the five finalists in the natural-gas track of the XPRIZE competition and has developed an innovative technology that captures and transforms CO<sub>2</sub> emissions into a valuable carbon-fiber product called carbon nanotubes. These nanotubes are stronger than steel and lighter than aluminum and have huge application potential in many different industries. Regardless of the technology outcome, we are very proud to support such a ground-breaking effort to make a dramatic change in the battle against climate change.

Sustainability is about going beyond—beyond today and tomorrow and leading, changing, and innovating for what's best for our people, our company, our communities, our environment, our shareholders, and, ultimately, our future success as a company. To further focus our commitment, in the spring of 2018, we named our Senior Vice President, Kate Chisholm, our Chief Legal and Sustainability Officer, and sustainability was added to the board's mandate as we view sustainability to be such a key strategic consideration.

It is through the commitment and hard work of our people that we have been able to set our sights high, turn

challenges into opportunities, and commit to making the future sustainable.

On behalf of us at Capital Power, I am proud to share our 2017 Corporate Sustainability Report. This report reflects our performance, accomplishments, challenges, and passion for our business. Thank you for your interest in Capital Power. We welcome your comments and feedback on how you think we're doing and your thoughts on how we can improve. We look forward to hearing from you.

**BRIAN VAASJO**  
President and  
Chief Executive Officer

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### 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.



## Executive team

### **Brian Vaasjo**

President and CEO

### **Bryan DeNeve**

Senior Vice President,  
Finance and CFO

### **Kate Chisholm, O.C.**

Senior Vice President,  
Chief Legal and  
Sustainability Officer

### **Darcy Trufyn**

Senior Vice President,  
Operations, Engineering,  
and Construction

### **Mark Zimmerman**

Senior Vice President,  
Corporate Development  
and Commercial Services

### **Jacque Pylypiuk**

Vice President,  
Human Resources

## Board of directors\*

### **Donald Lowry**

Board Chair

### **Albrecht Bellstedt**

### **Doyle Beneby**

### **Patrick Daniel\*\***

### **Jill Gardiner**

### **Kelly Huntington**

### **Philip Lachambre**

### **Katharine Stevenson**

### **Keith Trent**

### **Brian Vaasjo**

\* At the date of publication, Capital Power's Board consisted of nine directors including a non-executive chair and comprised six men and three women.

\*\*Patrick Daniel did not stand for re-election at the April 2018 Annual General Meeting and ceased to be a director at the end of that meeting.

## Contact us

### **Capital Power**

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capitalpower.com

# Good governance

We are committed to responsible and effective corporate governance, which we believe is a major contributor to long-term sustainable performance and investor confidence.



## Board leadership

Our Board of Directors is responsible for our stewardship and for providing independent oversight of our business so we grow and sustain profits responsibly. The board is actively engaged, supervises our business and affairs, and is specifically responsible for management oversight, strategic planning, sustainability, enterprise risk management, CEO succession planning, and shareholder engagement.

### The board has three standing committees<sup>1</sup>

#### Audit

The Audit Committee assists the board with overseeing:

- Financial reporting and related processes;
- Systems of internal accounting and financial controls;
- Risk identification and assessment and related programs;
- Internal audit function;
- External auditors;
- Financial or operational control policies, and;
- Matters related to raising capital or capital allocation.

#### Corporate Governance, Compensation and Nominating (CGCN)

The CGCN Committee contributes to our sustainability through the establishment and maintenance of appropriate structures, processes, and policies related to:

- Governance;
- Board effectiveness;
- Board nominations;
- Human resources and compensation, and;
- Succession planning for directors, the CEO and executive.

#### Health, Safety and Environment (HSE)

The HSE Committee sustains our company's environmental and social well being by overseeing matters relating to the impact of our operations on the environment and on the workplace health and safety of employees, including:

- Reviewing our strategies, goals, and policies;
- Conducting due diligence;
- Monitoring our performance;
- Reviewing and recommending operational key performance metrics, and;
- Providing insight and guidance to the board regarding extraordinary material operational events.

<sup>1</sup> More information on each of the committees can be found in the 2018 Management Proxy Circular on our website.



From left to right: Albrecht Bellstedt, Katharine Stevenson, Patrick Daniel, Keith Trent, Brian Vaasjo, Donald Lowry, Doyle Beneby, Philip Lachambre, Kelly Huntington, Jill Gardiner

## Board and executive diversity

### Board diversity

At the end of 2017, the board comprised 10 directors: nine independent members and one non-independent member (Capital Power's CEO). Members are selected against a skills matrix to ensure a broad balance of relevant experience and geographic diversity.

We welcomed two new directors to the board: Katharine Stevenson and Keith Trent. Together, they bring 40 years of experience in senior executive roles in the banking and energy industries.

Our board currently has three female directors representing one third of our directors.

The *Board Diversity Policy* was amended in 2017 as follows:

- 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.
- A goal of 30% was established for the minimum representation of women on 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 board assessment and succession planning. 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 will be examined in rotation by our internal audit department as part of their rotating audit of all corporate policies approved by the board.

### Executive diversity

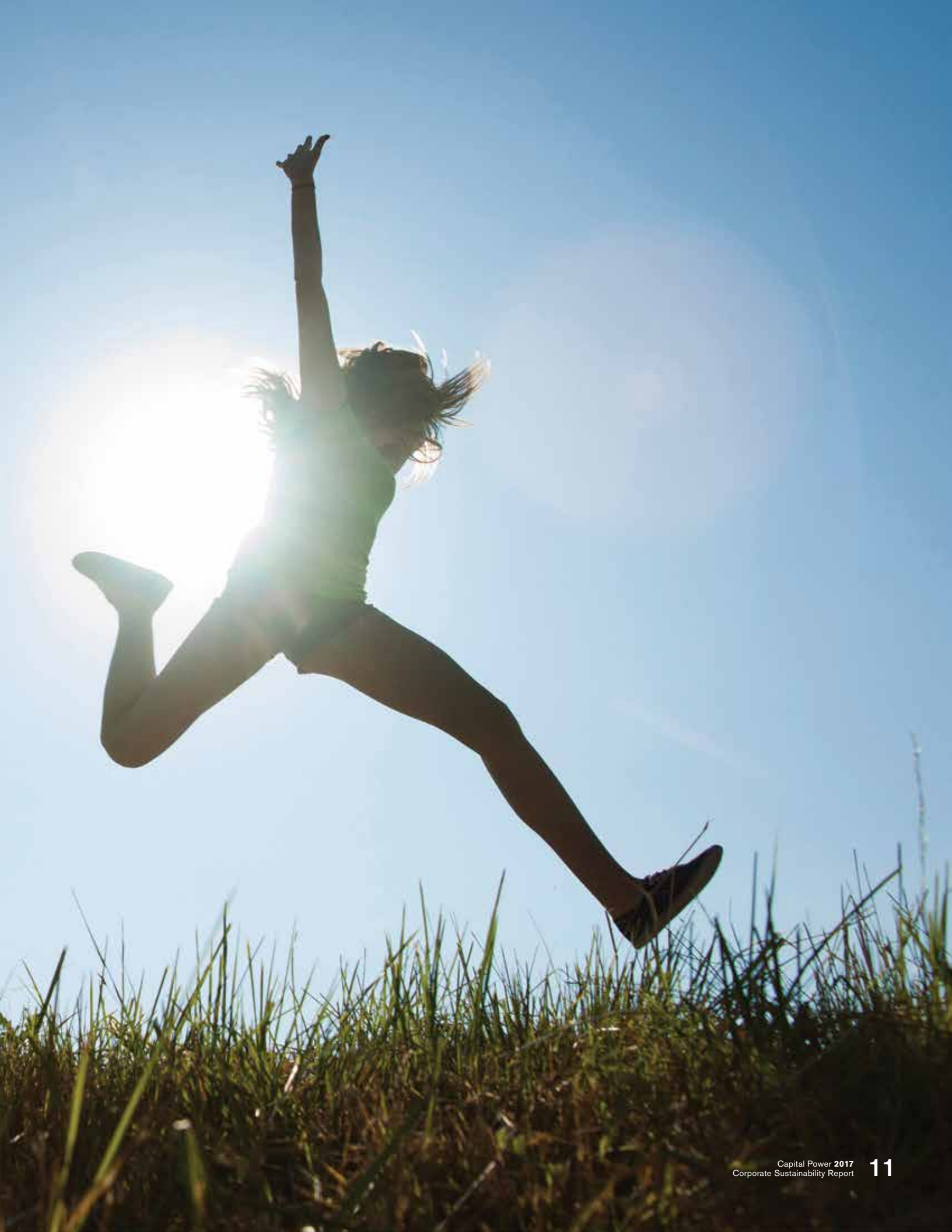
Our goal with respect to recruiting executives in the future is to have women represent at least 30% of our executive team. We will recruit candidates who best fulfill the needs giving extra weight to any women who meet the criteria. There are currently two female executives who represent one third of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



# Seeing beyond...

We see ourselves as more than a power generator. We are a community member, an economic driver, a committed employer, and a leader for responsible development and sustainability. We look beyond our business of power generation to who we are and the impact and influence we have through our generation facilities. We look beyond what we do to what we can achieve.





# Seeing beyond...

“We are executing on strategies that sustain operational excellence and are pursuing new opportunities while reducing our GHG emissions, costs, and risks.”

**BRIAN VAASJO, PRESIDENT & CEO**

## Driving a sustainable future

Our industry is going through a significant transformation. Not only is the industry undergoing the largest fuel switch in history driven by low natural gas prices, decarbonization, and technological advances, but also the power grid itself is evolving into one that will be increasingly

decentralized, low-carbon, networked, and flexible.

We see opportunity in this change. We look beyond today to opportunities both now and in the future, to ensure our financial, growth, and technology goals and objectives set us

apart as a driver of a sustainable future. We make each business decision to protect and optimize our existing assets, grow our asset base, evolve with the power market, and make this a great place to work and build a career.

Our strategic plan, therefore, embodies sustainability. We have taken this opportunity to get ahead of the curve and become a leader when it comes to sustainability and environmental, social, and governance practices.

## Sustainability for our stakeholders



### Our shareholders

By successfully and consistently delivering on our strategy, we offer a stable dividend with sustained growth underpinned by growing contracted cash flows.



### Our people

Through our diversity and inclusion, health and wellness, learning and development, and safety programs, we foster a truly engaged culture bringing diverse experiences to drive smart decisions and innovative solutions.



### Our community

Our programs both invest in communities and encourage our people to invest; we use each short-term opportunity to build long-term relationships with our community members.



### Our environment

Through our emissions reduction program, monitoring programs, emissions trading, and use of technology to adapt in a decarbonizing world, we not only support but also lead the industry in transforming the future.

# Focusing on low-carbon technology



## Renewables

Developing and constructing renewables is a core focus of our sustainability strategy for our investors and our communities. Our short-term strategies, specifically our focus on wind development in Alberta and our strategic development in the U.S., will deliver the long-term sustainability our investors expect and which protect our communities and our world.



## Natural Gas

The acquisition of two natural gas facilities in Ontario and one in Alabama supports our growth strategy while capitalizing on our strengths in operation and optimization. Expansion of our natural gas and wind portfolios minimizes our business risk and supports our long-term sustainability.



## Coal

Our efficiency improvement program (Genesee Performance Standard) at the Genesee Generating Station will allow us to significantly reduce fuel consumption and greenhouse gas (GHG) emissions at the coal-fired facility. In 2017, we also completed a second round of solid biofuel co-firing and initiated an assessment

of options to both increase natural gas co-firing and fully convert all three units. Our Genesee facility is our largest emitter, and we are positioned to continue our emissions reduction in-keeping with our focus on being a leader in the emerging low-carbon world.

# Social



Each year, we set company-wide performance targets to define our success and ensure we continue on the path to a cleaner future. Achievement of these goals is recognized

through an annual short-term incentive payment, which provides compensation based on achieving annual individual performance measures and company-wide targets for

financial performance (as measured by adjusted funds from operations) and health, safety, and environment performance (as measured by our HSE index).

The following tables provide representative examples of social, environmental, operational, and financial targets for 2017 that we align with performance.

Performance measure	Targets	Annual performance status/result
<b>Social responsibility</b>		
Create a zero-injury culture	Achieve an HSE Performance Index of 1.00. The HSE index measures safe, healthy, and environmentally-accountable work performance through a weighted combination of leading and lagging indicators.	Performed 20% better than target at 1.03.
Retain a strong workforce	Achieve a retention rate (net of terminations) of 96% or higher.	95% of employees chose to remain with Capital Power.
Focus on and support employee learning and development	Continue career development plans for the top three levels of the organization and offer internal learning opportunities through our Capital Power School of Business to all levels.	Consistent with 2017 target; continued career and learning development throughout the year.
Invest in citizen-led projects to preserve and strengthen community character, ecology, and heritage	Work with communities to support initiatives that meet their needs and priorities.	Contributed \$941,000 through our community investment program.



# Environmental



Performance measure	Targets	Annual performance status/result
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## Environmental responsibility

Create a culture of zero environmental incidents. Recordable environmental incidents include regulatory infractions, spills to land or water, or public complaints	Five or fewer environmental incidents.	Four environmental incidents, which were considered moderate in nature.
Reduce carbon emissions at Genesee Generating Station	Improve the efficiency at the facility by 11% by 2021 and reduce greenhouse gas emissions by roughly one million tonnes.	Completed year one of the five-year \$50 million Genesee Performance Standard, our efficiency improvement program.
Minimize amount of coal by-product going to landfill by reusing fly ash	Recycle close to 50% of fly ash (coal by-product from Genesee 1 & 2) by selling it for use in cement production.	Exceeded our target by selling 53% of the fly ash produced from Genesee 1 & 2.
Prepare for the transition from an energy-only wholesale electricity market to a capacity market in Alberta	Work with the Government of Alberta on the transition from an energy-only market to a capacity market.	Actively participated on design working groups to develop recommendations for designing the new capacity market, and our CEO sits on the Capacity Market Industry Executive Advisory Council.
Reduce risk through geographic and fuel diversification	Develop natural gas opportunities and expand our renewables portfolio.	Acquired two natural-gas facilities in Ontario and one in Alabama, and two waste-heat facilities in B.C. In Kansas, we completed Bloom Wind, our first wind development project in the U.S.
Prepare for the Carbon Competitiveness Incentive Regulation (CCIR), which took effect in 2018	Continue to actively develop and optimize carbon credits to meet our emission reduction obligations and work with regulators and other generators in the province to implement the CCIR.	Invested \$20 million in registered offsets to meet current and future emission reduction requirements.
Continue to test solid biofuel opportunities at Genesee to reduce reliance on coal and achieve lower emissions prior to 2030 (coal phase-out required)	Complete the second year of testing co-firing solid biofuel with coal.	Testing has shown that co-firing solid biofuel with coal could reduce up to 600,000 tonnes of CO <sub>2</sub> -equivalent (greenhouse gas) emissions annually.

# Operational and financial

Performance measure	Targets <sup>1</sup>	Results (year ended December 31, 2017)
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## Operational excellence

Facility availability average	95% or greater	96%
Sustaining capital expenditures	\$80 million	\$59 million <sup>2</sup>
Genesee Performance Standard <sup>3</sup>	\$10 million spent	\$5 million spent
Facility operating and maintenance expenses	\$215 to \$240 million	\$224 million

## Financial stability and strength

Adjusted funds from operations <sup>4</sup>	\$340 to \$385 million	\$363 million
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## Disciplined growth

Bloom Wind	Complete Bloom Wind on time and on budget.	Bloom Wind began commercial operations on June 1, 2017. Construction was completed ahead of schedule and construction costs were below budget.
New development	Execute contracts for the output of two new developments.	The Company has entered into a 12-year fixed-for-floating swap for the majority of the output of New Frontier Wind and was awarded a 20-year contract for Whitla Wind under the Alberta REP.

<sup>1</sup> The targets presented at our Investor Day in December 2016 were revised to include the expected impacts of the acquisitions of the thermal power business of Veresen Inc. and the Decatur Energy Center for the periods subsequent to the close of those transactions.

<sup>2</sup> Includes sustaining capital expenditures net of joint venture contributions of \$9 million.

<sup>3</sup> This project is designed to reduce CO<sub>2</sub> emissions and improve the efficiency of our coal-fired facilities in response to the Alberta Climate Leadership Plan (CLP).

<sup>4</sup> Adjusted funds from operations is a non-GAAP measure. For further discussion around the use of non-GAAP measures, see the Company's Management's Discussion and Analysis for the year ended December 31, 2017. Commencing with our March 31, 2017 quarter end, adjusted funds from operations is used as management views this as a better measure of its available cash generated from current operating activities to fund growth capital expenditures, common share dividends, and debt repayments for future periods.

# Capital Power's Alberta operations greenhouse gas (GHG) reduction targets

In Alberta, we comply with the Carbon Competitiveness Incentive Regulation (CCIR), which replaced the Specified Gas Emitters Regulation (SGER) on January 1, 2018. The table below outlines the implications to the regulated facilities in Alberta owned and operated by Capital Power.

	Specified Gas Emitters Regulation (SGER)	Carbon Competitiveness Incentive Regulation (CCIR)	
	2017	2018–2030	2031
<b>Genesee 1 &amp; 2 (subcritical coal)</b>	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 <sup>3</sup> . Represents ~62% of facility emissions in 2018.	Reduce coal-fired electricity emissions by 100% <sup>4</sup> .
<b>Genesee 3<sup>1</sup> (supercritical coal)</b>	Reduce or offset GHG emissions intensity by 20% or pay \$30 per tonne <sup>2</sup> 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 <sup>3</sup> . Represents ~58% of facility emissions in 2018.	Reduce coal-fired electricity emissions by 100% <sup>4</sup> .
<b>Clover Bar Energy Centre (natural gas)</b>	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 <sup>3</sup> . Represents ~28% of facility emissions in 2018.	

- 1 In 2017, Genesee 3 was required to meet two GHG emission reduction targets. In aggregate, the two targets required Genesee 3 emissions to be reduced or offset 54% from the facility's original baseline emissions intensity. The SGER required a 20% reduction in 2017; this reduction must be 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 licence also requires that any remaining emissions be offset to the level of a combined cycle natural gas unit.
- 2 Payment to an emissions management fund was only available as a compliance option for the portion of the reduction required by the SGER (20% in 2017). The remaining reduction requirements have been met through either improved facility performance or the retirement of qualifying offsets.
- 3 CCIR establishes product-based GHG emissions-intensity benchmarks, which decrease at 1% per year starting in 2020. For the electricity sector, the benchmark is set at 0.37 TCO<sub>2</sub>e/MWh in 2018.
- 4 Under Alberta's Climate Leadership Plan, all emissions from coal-fired electricity must be phased out by 2030.

# Engaging beyond...







# Engaging beyond...

We value and consider local community interests and priorities. We have a presence in our communities and on the ground and engage with our neighbours to build real relationships. We behave deliberately as a member of the community, and listen and involve stakeholders in important project decisions to minimize the impact of our facilities and operations on their communities and activities.

We engage with government, employees, local communities, investors, shareholders, and Indigenous communities. Our goal with every project, every facility and every initiative, internal and external, is to build, operate, and align with the interests and priorities of those closest to and most impacted by our operations.

## Highlights



### Investors and shareholders:

- We met with investors throughout the year in major cities in Canada and the U.S., and held quarterly conference calls, an annual Investor Day and an Annual General Meeting for shareholders. The meetings provided an opportunity to communicate public information on our strategy, financial outlook, and industry developments, and to receive direct feedback from our investors and shareholders.



### Government:

- We were, and will continue to be, an active participant in the consultation process the Alberta government has set out to ensure key industry players have a say in the market implementation and design of the new capacity market. We participated in four of the five working groups led by the Alberta Electric System Operator (AESO) to determine future market design.
- We participated in an Alberta Utilities Commission hearing process for our proposed Halkirk 2 Wind facility in Alberta.
- In Canada, we engaged with Environment and Climate Change Canada, Natural Resources Canada, Infrastructure and Communities, and Innovation and Science to represent our position on GHG emissions, coal-to-gas conversion standards, inter-provincial transmission inter-ties and federal grants for biofuel innovations.
- In the U.S., we engaged with members of the Senate and House of Representatives on our U.S. renewable projects and represented our interests on various initiatives related to renewable energy production.



### Employees:

- We held CEO site visits and leadership meetings throughout the year.
- We engaged with three Canadian labour unions in four bargaining units which together represent 39% of our Canadian labour force and approximately 33% of our overall workforce.
- We conduct an engagement survey every two years. The most recent survey was conducted in June 2018.
- We held employee milestone events at sites across the company to celebrate employee years of service.
- We promoted holiday activities across all offices and facilities and celebrated major project and facility-specific milestones with local staff.
- We distributed a weekly electronic newsletter to all employees to share news, invite participation, and promote internal health, wellness, and safety campaigns.
- Our intranet, an essential tool to connect and engage employees with our company news, events, business and processes, was **recognized as one of the world's 10 Best Intranets of 2018** by the Nielsen Norman Group.



### Indigenous communities:

- We provided funding to the Confederated Tribes of Umatilla Indian Reserve to support a traditional land-use process as part of early development for Nolin Hills Wind in Oregon.
- We engaged the Métis Nation of Alberta (Region 3) regarding the Whitla Wind project on traditional interests and potential contracting opportunities.
- We entered into an exclusive agreement with Siksika Resource Developments Limited (SRDL) in Alberta to jointly develop power projects on the Siksika Nation reserve. (Details on page 27.)
- We have relationships with Indigenous communities throughout our operating footprint, which includes three long-term agreements with three communities related to Quality Wind and two communities related to the Port Dover and Nanticoke Wind facilities.



### Local communities:

- We reach out and make ourselves available to our neighbours through open houses, by direct mail, and newsletters, and in some cases, by establishing local community offices.
- Common questions and feedback relate to: health and safety, infrastructure location, noise and sound, wildlife, birds and bats, impacts on groundwater, visual impacts, and property value.
- We address concerns either directly with concerned parties or as a larger group.
- We seek advice from experts and share independent, scientifically-researched information.

### In 2017:

- We successfully renewed our Genesee Water Licence.
- We actively engaged the local communities on the following proposed developments: Whitla Wind (AB), Halkirk 2 Wind (AB), New Frontier Wind (ND), Bloom Wind (KS), Black Fork Wind (OH), Nolin Hills Wind (OR), Cardinal Point Wind (IL).
- We marked the June 1 start of commercial operations of Bloom Wind, a 178-MW wind facility in Kansas, U.S., with a blade signing event and dinner to thank participating landowners and key stakeholders for their support.





## Strengthening local involvement in wind development

### Alberta Wind Initiative

In support of the Alberta government's commitment to low-carbon power production, we co-developed and co-sponsored a workshop with the Pembina Institute. With the future growth of the province's wind energy generation in mind, the workshop focused on generating ideas for strengthening the environmental, social, financial, and technical elements that contribute to responsible wind development with community

support. Over 70 people from across a broad range of sectors participated, including local and provincial government, industry, non-governmental organizations, landowners, and conservation groups.

The workshop was the first of its kind in Alberta, and for us, and was an important step in strengthening local involvement in wind development. The full report and discussion papers are available on our website

and from the Pembina Institute. Albertans are encouraged to use and share the documents to advance the responsible development of wind energy.

Together with the Pembina Institute and others, we will continue to seek opportunities to share the ideas generated at the workshop with government, companies, and organizations involved in Alberta's wind energy sector.

# Delivering beyond...





# Delivering beyond...

Our business does more than contribute to the current economy. We drive a sustainable future economy. We are committed to our role in advancing a lower-carbon future while protecting our business, our assets, and our shareholders by reducing our exposure to both carbon-emitting technologies and merchant power markets.

We are committed to generating long-term value through our operations and through sustainable investments, mutually-beneficial partnerships, and innovative relationships.

## **Phase I of Whitla Wind project in Alberta awarded 20-year contract**

As part of the Alberta Electric System Operator's (AESO) Renewable Electricity Program (REP), our 201.6-MW Whitla Wind project (Phase 1) was awarded a 20-year contract in exchange for all the renewable attributes it generates. Capital Power was one of three successful proponents in the highly-competitive first round of the REP, which attracted global participation. This was the first REP process that the AESO undertook to deliver new renewable electricity in support of the Alberta government's 30% renewables target by 2030.

The Whitla project site, located southwest of Medicine Hat, Alberta, has capacity for approximately 300 MW to be developed in two phases. The first phase will comprise 56 turbines and pending regulator approval, has a target commercial operation date for the fourth quarter of 2019.

## **New Frontier Wind project in North Dakota awarded a 12-year fixed price contract**

In 2017, we announced the start of the 99-MW New Frontier Wind facility in North Dakota, with a target commercial operation date in December 2018. The project will operate under a 12-year fixed price contract with an investment-grade U.S. financial institution for 87% of the facility's output. The agreement will secure long-term predictable revenues and is expected to allow New Frontier Wind to secure renewable energy tax equity financing. New Frontier is our second wind development project in the growing U.S. renewables market.

## **Commercial operation of Bloom Wind began in Kansas**

The beginning of commercial operations at the Bloom Wind facility in Kansas added 178-MW of contracted generation to our portfolio.

Bloom operates under a 10-year proxy revenue swap agreement with Allianz Risk Transfer, a subsidiary of Allianz SE.

The innovative agreement, which secures long-term predictable revenues and mitigates generation volume uncertainty, earned the project an award from the infrastructure and project finance magazine, *IJGlobal*, for North American Wind Deal of the Year.

We are among the first independent power producers in North America to utilize a proxy revenue swap agreement as a risk-management solution for hedging revenue volatility of wind farms.

Microsoft Corp. became the first buyer to participate in this structure, acquiring the environmental attributes<sup>1</sup> connected to Bloom Wind for a 10-year period. The combined output from Bloom and a Wyoming wind farm will produce enough power

to cover the annual energy used at Microsoft's datacenter in Wyoming.

## **Acquired two natural-gas-fired power assets in Ontario**

In Ontario, we acquired the 84-MW East Windsor Cogeneration Centre, and a 50% interest in the 400-MW York Energy Centre. East Windsor Cogeneration is under contract until 2029, and York Energy Centre is under a PPA until 2032.

## **Acquired the combined-cycle Decatur Energy Center in Alabama**

In 2017, we entered into an agreement to acquire all the ownership interests in Decatur Power Holdings, LLC. Located in Decatur, Alabama, the 795-MW natural-gas-fired combined-cycle power generation plant operates under a 10-year tolling agreement expiring in 2022. Decatur is well-positioned—given

<sup>1</sup> Environmental Attributes include both verified compliance-grade offsets that represent incremental greenhouse gas (GHG) reductions, and Renewable Energy Certificates (REC's) that represent power generation from renewable sources. Attributes can be traded, voluntarily retired to represent GHG reductions, or used to satisfy a compliance obligation.



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## **We increased our clean energy (renewables and natural gas) contracted capacity, which supports our growth strategy and increases both our geographical diversification and contracted cash flows.**

anticipated market conditions and significant remaining useful life—to be re-contracted or to have other commercial alternatives options at the end of the current contract.

### **Acquired two zero-emissions waste-heat facilities in British Columbia**

In British Columbia, we acquired 10 MW of zero-emissions waste-heat generation from two facilities (5 MW each) located in Savona and 150 Mile House. The facilities are under 20-year contracts with BC Hydro.

### **Siksika Resource Development Limited agreement**

In 2017, we entered into an exclusive agreement with Siksika Resource Development Limited (SRDL) to jointly develop power projects on the Siksika Nation reserve in Alberta. Located approximately 100 kilometres

southeast of Calgary and with existing transmission and distribution infrastructure and access to water, the almost 70,000-hectare Siksika Nation lands are an ideal location for the development of solar, wind, and natural gas projects. Power generation facilities built on this land would have the potential for environmental attributes. We would develop and lead the projects, which we would jointly own with SRDL.

The joint development agreement provides for employment and business opportunities for Siksika Nation-owned companies, and Nation members will have opportunities to benefit from education, training, and support for traditional language and cultural enrichment.

SRDL is a wholly-owned company of the Siksika Nation and currently operates several enterprises on the Siksika Nation reserve.

### **Amendment of the Genesee Coal Mine Joint Venture Agreement**

We reduced our cost of coal for our Genesee facilities and enhanced our net income by amending our Joint Venture Agreement with Prairie Mines and Royalty ULC to accelerate the \$70 million repayment of capital expenditures and eliminate all future payments to them relating to capital assets at the Genesee coal mine.

### **We pay taxes**

We contribute to the funding of local infrastructure and community services through taxes we pay to the governments in the jurisdictions in which we operate. In 2017, we paid \$36 million in income and property taxes.

### **We invest in local economies**

We begin our investments in local communities with suppliers. In 2017, we paid \$434 million to our top 25 suppliers, of which \$262 million<sup>1</sup> was locally spent<sup>2</sup>, compared to \$452 million in 2016, of which \$84 million was spent locally.

Whenever possible, we hire local workers and use local suppliers.

- 1 The increase in local spending since 2016 is a result of investments made to turbine suppliers for the build-out of Capital Power's wind generation in 2016/17.
- 2 Local spending is defined as the destination and supplier site both being in the same jurisdiction.

# Growing beyond...

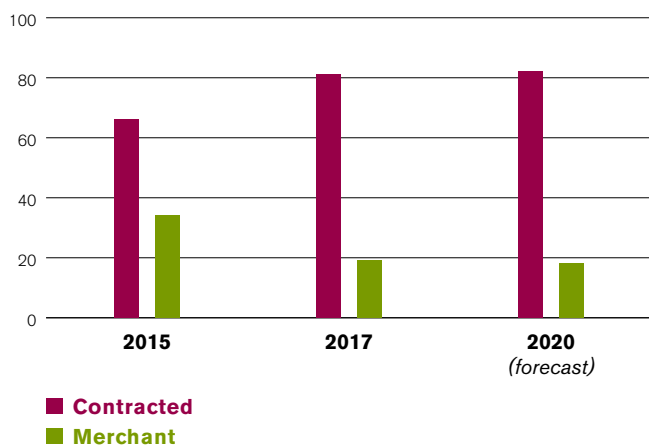
2017 was a year of exceptional growth. We diversified our geographic footprint, commissioned our first U.S. wind development, and increased our contracted cash flow. We made investments in new, cleaner energy sources with the integration of natural gas and renewables and by testing co-firing solid biofuels with coal, we are advancing a lower-carbon energy future. We are seizing opportunities that match our strategy, support our sustainability, and are of value to investors.

## Disciplined growth and strategically evolving profile

As we grow, we focus on increasing our contracted revenue to balance the risk of merchant revenue.

## Percentage of contracted vs. merchant growth

Based on Adjusted EBITDA



## Setting the stage for carbon transformation

### Shepard Energy Centre chosen as the test site for the NRG COSIA Carbon XPRIZE

The site of Capital Power and ENMAX's Shepard Energy Centre (Shepard) in Calgary, Alberta was chosen as the test site for the natural-gas track of the prestigious \$20 million NRG COSIA Carbon XPRIZE (XPRIZE), a global competition to develop breakthrough technologies that convert CO<sub>2</sub> into valuable products.

Shepard will also host the new Alberta Carbon Conversion Technology Centre (ACCTC), and provide the flue gas for testing during the XPRIZE competition and for future innovators.

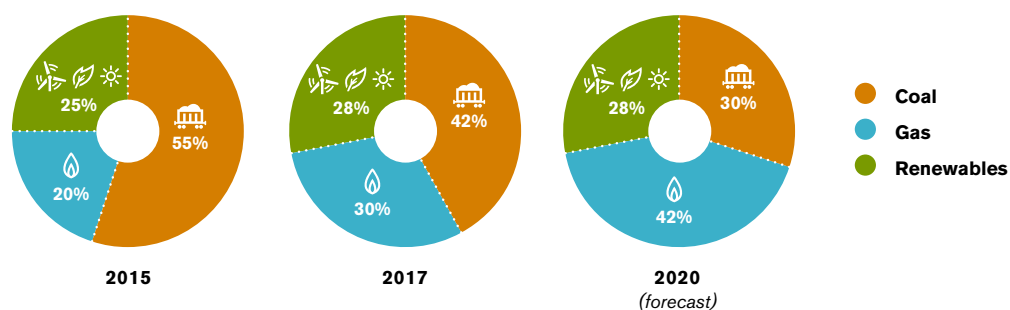
The ACCTC is a collaboration between the governments of Canada and Alberta, Canada's Oil Sands Innovation Alliance (COSIA), Shepard, InnoTech Alberta, and academia. Its purpose is to accelerate CO<sub>2</sub> reduction, carbon utilization, and value-added economic development by allowing companies to demonstrate new technologies in a full-scale production environment. Shepard will be the only operating natural-gas-fueled power plant in the world where multiple advanced carbon utilization technologies can be tested at scale.



We continue to focus investment on natural gas and renewables, and diversify our footprint outside of Alberta and Canada.

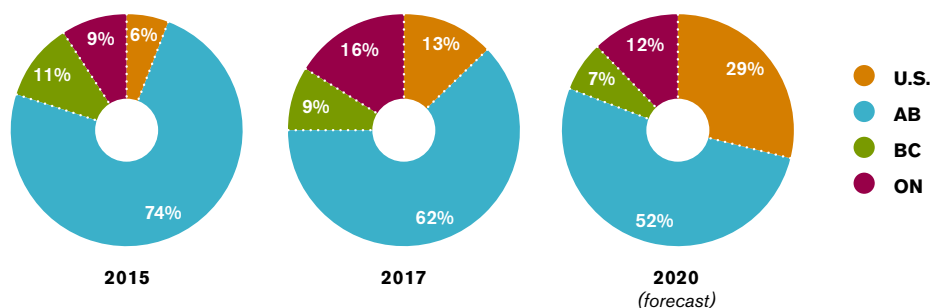
## Transitioning to cleaner power generation towards natural gas and renewables

Based on Adjusted EBITDA



## Geographic diversification

Based on Adjusted EBITDA



People and practices

# Going beyond...





# Going beyond...

## We start with our people

The transformation across our industry, the drive to think bigger and think beyond, is happening right at the very core of our business: our people. We look increasingly to our team members to bring perspectives, insights, and experiences to help us accomplish our goals; we know that the greatest value comes from having the greatest diversity.

We are committed to nurturing a diverse and inclusive company through our programs, our policies, and our practices. The combined passion and commitment of a diverse group of people coming together to learn from each other and gain new perspectives is the solid foundation needed for a sustainable future.

## Compensation and benefits

We provide competitive compensation and benefit programs and focus on employees' physical, mental, financial, and social well being 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 well being.

## Focus on mental health

We believe that well being starts with mental, physical, financial, and social health.

### In 2017:

We added **two new employee programs focused on mental health** to our existing wellness program suite:

- 1 *Not Myself Today* is aimed at reducing the stigma

surrounding mental health and helps employees become more aware of how relationships and environment affect mental health.

- 2 *Lifespeak* is an online and confidential resource of videos to support employees and their families in taking charge of their mental health.

## Professional development

We foster a culture of learning and development through our in-house courses, online sessions, internal talent development programming, and funding for after-hours development. Through this support of employee growth, we can attract the best people from a broad talent pool and develop an engaged, high-performing, diverse work force.

- All new employees complete on-boarding, security, ethics, and health and safety training programs.
- Our annual Summer Work Experience Program (SWEP) provides an opportunity for future talent to learn about our company and work with us for four months.

### In 2017:

**Two new learning programs** were designed and successfully piloted that targeted the improvement of everyday work life skills:

- 1 *Communicating with Impact* helps employees build a powerful set of interactional skills to enable more effective communications, building of trust, strengthening of partnerships, and achieving desired work results.
- 2 *Making Meetings Work* teaches employees how to effectively plan, facilitate, and follow up on meetings to maximize time and better support business needs.

## For eight consecutive years, Capital Power has earned placement on Corporate Knights' "Best 50 Corporate Citizens in Canada" listing.

### Our workforce in 2017

#### Employees

**Total employees: 685**

Total Canadian employees: 582



Total U.S. employees: 103



#### Number of employees

Under 35: 164

35-49: 322

50+: 199

#### Gender diversity

515 Male employees (75%)



170 Female employees (25%)



#### Canadian management

93 men

37 women



#### U.S. management

10 men

0 women



#### Compensation by gender

We believe in equal pay for equal work. The following ratios show compensation by gender at each level of management across our *entire* organization. The difference in the ratios is created in part by the methodology used, which combines various professions and skill sets, employee tenures, and different markets as a single cohort, and does not take into consideration the fact that our industry and workforce is male dominated. We will continue to track our progress in this area and expect the ratios to improve over time for various

reasons, including as female representation in historically male-dominated professions continues to grow.

#### Entry-level management:

16 women earned \$85 per \$100 earned by 34 men

#### Mid-level management:

14 women earned \$93 per \$100 earned by 49 men

#### Upper management:

7 women earned \$78 per \$100 earned by 17 men

### Ethics

We place great importance on being ethical and respectful. We have a formal and transparent ethics and compliance program that monitors all applicable market rules, laws, and regulations in its operational jurisdictions.

A company-wide employee ethics and respectful workplace education program ensures all employees are knowledgeable of and compliant with internal policies and procedures.

#### This program:

- protects our employees by ensuring zero tolerance for harassment;

- ensures consistency in the filing and handling of ethics complaints;
- provides direction on how and when to report; and
- reiterates our commitment to protect individuals who file a complaint or make an inquiry.

We have an ethics hotline (phone and email) that employees can use to anonymously report conduct and ethics violations.

#### In 2017:

- Our employees completed targeted training on the *Ethics Policy* and *Respectful Workplace Policy*: 93% in person and 7% online.

- Three cases involving violations of our *Respectful Workplace Policy* were substantiated with appropriate disciplinary action taken.
- No investigations involved allegations of fraud.
- Three penalties for contraventions of the AESO's Independent System Operator Market Rules, resulting in \$750 in penalties.

### Learning and development

#### After-hours programming:

46 people participated with almost \$86,000 being reimbursed to employees for training costs

#### 7,016 courses completed:

3,666 classroom and 3,350 online

#### Summer work experience program:

22 employees hired

# Planning beyond...

## Safety

Safety isn't just a priority, it's a core company value—a fundamental principle of how we operate. There is no greater responsibility than ensuring everyone gets home safe and healthy, every day, and our Zero Means Everything strategy embodies our commitment to this.

We regularly audit our operations and construction activities, track and report non-compliance items, and deliver ongoing HSE training to all employees as part of managing Health, Safety, and Environment (HSE) risks and promoting a zero-injury and environmentally-responsible culture. We promote and provide learning opportunities by regularly reviewing and circulating industry safety information to our operations and construction groups.

## Our ongoing approach to health and safety:

- Establish clear goals and monitor our performance.
- Work and live a zero-injury-and-incident culture.
- Promote healthy and balanced lifestyles.
- Identify and manage health and safety-related risks within operations, maintenance, and construction activities.
- Require and encourage reporting of hazards and near-miss events.
- Comply with applicable laws and regulatory requirements.
- Continually review and improve the company policies.
- Align our contractors with our company policies.

**Health, Safety  
and Environment  
Performance Index:  
1.03 in 2017 (20%  
better than target)**





## Safety recognized

- We received the Canadian Electricity Association (CEA) President's Award of Excellence for Employee Safety for our 2016 Canadian operations. This marks the fourth consecutive year our safety performance received recognition from the CEA.
- Our Roxboro facility earned a North Carolina Department of Labor Safety Award in recognition of the facility's outstanding health and safety efforts in 2017. The staff were also awarded a first-year gold award for achieving zero lost-time accidents in 2017.

## Safety milestones

At 2017 year-end, we reached **39 months** since the last employee lost-time incident. We achieved zero lost-time incidents (LTI) for more than two years at 12 of our facilities and offices:

- Kingsbridge 1 Wind (11 years)
- East Windsor Cogeneration Centre (8 years)
- Canadian offices (8 years)
- U.S. offices (8 years)
- Roxboro Power Plant (6 years)
- Island Generation (5 years)
- Quality Wind (5 years)
- Halkirk Wind (5 years)
- York Energy Centre (5 years)
- Port Dover and Nanticoke Wind (4 years)
- Macho Springs Wind (3 years)
- Beaufort Solar (2 years)

## Safety awards

Each year, we present awards to our facilities that achieve safety milestones within three categories:

**A** 25,000 hours or less worked per year without a recordable injury

**2017 recipient:**

Macho Springs Wind

**B** Between 25,000 and 500,000 hours worked per year without a recordable injury

<sup>1</sup> We use TRIF as one of the main measurement tools to evaluate our employees' and contractors' annual safety performance. It includes lost-time incidents, restricted work and medical-aid injuries that occurred during a calendar year, for every 200,000 hours worked.

**2017 recipients:**

Clover Bar Energy Centre, Halkirk Wind, Island Generation, Roxboro Power Plant, Quality Wind

**C** 500,000 hours or more worked per year, and Total Recordable Injury Frequency (TRIF)<sup>1</sup> less than corporate stretch target in a calendar year

**2017 recipients:**

Corporate offices and Genesee



### Safety begins with our people

- All employees have the opportunity to participate in health and safety committees at each of our offices, facilities, and construction sites.
- Construction and operations crews hold daily safety meetings to review hazards of their tasks and identify additional control measures which may be required.

#### Improvements and initiatives introduced

- We implemented HSE improvement plans at our facilities and for our construction and engineering group.
- We released a revised Hazard Identification, Assessment, and Control Standard and provided training.

- We formalized our Contractor HSE Management Process to include all four phases of construction and to provide the opportunity to manage contractor performance from prequalification through to job completion.
- We improved our workplace inspections program, which includes office, facility, and construction inspections.

#### Technology integration

We began integrating new incident management software, Maximo, to provide enhanced and automated reporting and analytics capabilities that support program planning and incident reduction initiatives for Health Safety and Environment, Compliance, and Work and Inventory Management. The first modules will be implemented at facilities in 2018 and will be completed at all facilities in 2019.



## By the numbers



**Contractor hours:**  
843,103



**Safety committees and members:**

Office Health and Safety: 12

Genesee Safety: 15

Roxboro Safety: 6

Southport Safety: 10

Clover Bar Energy Centre  
Health and Safety: 9



**Total Recordable Injury Frequency (TRIF<sup>1</sup>)**

**0.58 Operations/Corporate**

- two contractors recorded lost-time incidents; one employee and one contractor required medical aid; two employees placed on modified duty

**0.89 Construction**

- one contractor required medical aid

**0.61 Overall**

- combines reportable incidents and exposure hours from both corporate and construction work groups

**7,000: Required HSE training courses completed in 2017**

**39 months without an employee lost-time incident**

<sup>1</sup> See footnote on page 35.

# Preparing beyond...

## Security and contingency planning

We continually review and improve our processes and training to strengthen our safety culture and increase our efficiency and productivity. We establish and monitor safety targets, maintain our facilities, and equip employees with the safety training, tools, and protective equipment they require to work safely and successfully.

At the end of 2017, Security and Contingency Planning had completed and reported all planned maintenance activities at all our sites.

## We train for crisis scenarios

We take advantage of opportunities to strengthen our crisis preparedness and response and participated in GridEx IV, a biennial exercise hosted since 2011 by North American Electric Reliability Corporation (NERC).

The two-day North America-wide security exercise provided an opportunity for utilities and grid operators to test their crisis

communications plans and demonstrate how they would respond to, and recover from, a simulated coordinated cyber and physical attack scenario. More than 6,300 individuals from 450 organizations from across North America representing the electricity sector, governments, and law enforcement took part in the simulation. We were one of three first-time Alberta-based companies to participate.

As part of the simulation, we tested three components of our Crisis Management Plan:

- Threat response.
- Cyber incident response.
- Communications and media relations response.

While we had plans to manage each facility in a crisis, the exercise identified the need for an overarching

plan incorporating all our facilities in the event of a coordinated attack. This plan will be developed and ready for implementation by the end of 2018.





## **On-site emergency response training**

Emergency personnel at our Genesee Generating Station, our largest Canadian facility, take safety very seriously. In 2017, they completed seven courses: Accident Scene Staging, Fire Brigade, Confined Space Rescue, High Angle Rescue, Advanced First Aid, Muster Captain, Emergency Site Plan familiarization (operations fire team only), and conducted 10 training sessions for the Emergency Response Team. They also completed a plant evacuation exercise and an audit of their emergency management plan and organization.

## **Focus on cyber security**

In 2017, we became the first power generator in Canada to sign a cyber security partnership agreement with the federal government's premier cyber security organization, the Communications Security Establishment (CSE). The partnership allows for the sharing of threat intelligence, which will help us protect computer systems in the event of an attack. We are now linked to a large critical-infrastructure cyber protection community.

## **Plans in action**

When torrential rains caused localized flooding in the York region in Ontario, it caused the York Energy Centre to go offline for almost nine hours. Employees used the site's Emergency Site Plan and were safely evacuated.

# Protecting beyond...





# Protecting beyond...

We believe in the power of our industry to drive a sustainable future. We look beyond today, and practice sustainable business, and undertake initiatives to ensure powering the planet now doesn't come at a cost later.

## Transforming waste into clean energy

We have successfully tested the use of solid biofuels at our Genesee Generating Station.

In 2016-17, experimental co-firing of solid biofuels with coal was successful. If commercialized, co-firing could reduce up to 600,000 tonnes of CO<sub>2</sub>-equivalent greenhouse gas emissions per year.

In addition to reducing emissions, the use of solid biofuels can address the

disposal of municipal solid waste and the continued stockpiling of wood residuals, which is a growing challenge for the forestry industry. Without a productive end use, the stockpiled residuals emit methane through decomposition. The use of these solid biofuels in power production has the potential to reduce methane emissions from landfills and diminish other negative effects of landfilling.

These initiatives were supported by partial funding from Alberta Innovates and Emissions Reduction Alberta (ERA). In July, ERA announced \$5 million in funding through its Methane Challenge to help support building an innovative biomass fuel system at Genesee to reduce coal usage and decrease methane emissions.





## World-leading reductions at the Genesee Generating Station

We are investing in a lower-carbon future by implementing a world-leading emissions reduction program at the Genesee Generating Station.

In response to the Alberta Climate Leadership Plan, 2017 marked the first of a five-year \$50 million program that will improve the efficiency of the three existing power generating units at Genesee by 11% by 2021 and reduce greenhouse gas emissions by roughly one million tonnes.

We are also assessing other options to drive immediate and longer-term reductions in emissions from thermal generation. Co-firing with natural gas provides the greatest fuel flexibility for the facility through to 2030, and

converting coal units to natural gas will reduce emissions, lower transition costs, and make use of existing infrastructure while helping us maintain a skilled and experienced workforce.

The Genesee units are capable of co-firing natural gas to produce up to 250 MW of rated capacity. Low natural gas prices have allowed for opportunistic co-firing to date and we are on track to bring significant natural gas to the site by 2020 to support full gas conversion by 2030.

The majority of the efficiency gains we can realize through the current five-year program would also be reflected in the operation and performance of the units post-conversion.

## ENX INC. classifier facility at Genesee Mine

In 2017, 53% of fly ash produced from Genesee 1 & 2 was recycled for use in cement (instead of being landfilled), up from 44% in 2016. Fly ash from Genesee 3 has historically been unusable in concrete products due to the lime it contains from the desulphurization process. However, ENX INC.<sup>1</sup> has created a way to process it so that the lime does not interfere

with the quality of the cement. A classifier facility was built on Genesee Mine land to process fly ash from Genesee 3, which can then be sold to concrete producers in Canada and the U.S.

Using one tonne of fly ash as a substitute for one tonne of Portland Cement in manufactured concrete reduces carbon dioxide emissions by approximately one tonne.

<sup>1</sup> ENX INC. supplies Genesee-sourced fly ash to customers throughout North America.



We work to minimize our impacts and create long-term sustainability by implementing land reclamation and reforestation practices, respecting wildlife, working together in partnerships, and supporting research.

### **NAIT Boreal Research Institute**

In 2017, the second year of a five-year study led by researchers at the Northern Alberta Institute of Technology (NAIT) was completed. 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 herbicides.

### **Research highlights in 2017:**

- Successfully grew plants from root fragments under field conditions.
- Verified that direct seeding is not an ideal option to initiate native forb cover.
- Demonstrated that Torpedo™ herbicide, though currently only licenced for agricultural use, is a viable alternative to conventional herbicide.

### **Relationship with Olds College, Alberta**

Forty-five students and staff from Olds College Land and Water Resources department toured the Genesee Mine to learn about reclamation and reforestation practices. The group conducted a real-life vegetation assessment that was used to validate reforestation efforts. The visit provided the students with field experience and is anticipated to become an annual part of the program at the College.

### **Peregrine falcon monitoring at Genesee**

An active peregrine nesting site atop one of the stacks at Genesee has been part of the recovery and maintenance of peregrine falcon populations in Alberta since the early 1990s. We have been voluntarily and informally monitoring peregrine falcon nest success at Genesee since 1992. An estimated 27 falcons have fledged at the site since 2005 and contributed to the re-establishment of the species in Alberta.



## Land reclamation

- All reclamation applications submitted to the Alberta Energy Regulator for Genesee Mine lands have been approved.
- We reconstructed approximately four miles of local grid roads in the Genesee Mine and returned them to Leduc County for public use. These roads were originally purchased from the County in the mid 1980s.
- We constructed new roads around the Genesee cooling pond to replace roads closed for mining activities.
- We planted 16,000 trees, which included pine for the first time.
- Since 2008, approximately 200,000 trees have been planted at Genesee.
- In 2017, one quarter section of land, which had received a reclamation certificate from the Alberta Energy Regulator, was sold back to the original landowner.

## Other environmental initiatives

- Committed to eliminating all emissions from coal-fired generation at our Alberta operations by 2030.
- Engaged in ongoing land reclamation activities; to date, we have returned about 1,082 hectares (36% of the total surface area at the Genesee Mine) of previously-mined area into productive farmland and wildlife habitat.
- Continued long-term regional biomonitoring at Genesee to monitor air, water, and wildlife, noting no significant changes since 2004.
- Minimized coal by-product (fly ash) going to landfill by selling it for use in cement production.
- Chaired the Board of the West Central Airshed Society.
- Continued to serve as Chair of the Air Issues Steering Committee, a committee of the Canadian Electricity Association.
- Member and co-chair of the City of Edmonton's Energy Transition Advisory Committee.
- Early and long-standing member of the EXCEL Partnership—a group of major Canadian corporations committed to sustainability leadership through the development of corporate strategies and business models to integrate and improve sustainability initiatives in corporations across Canada.

# Offsetting 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 will accelerate the transition to cleaner electricity sources, including renewables.

Capital Power believes in investing in mechanisms that reduce emissions. This includes capital improvements in our generation assets and in real and verified greenhouse gas (GHG) emission offsets. We have been active for many years in the offset market with our first investments being voluntary and prior to the introduction

of the Specified Gas Emitters Regulation (SGER) in 2007.

We are one of the largest holders of emission offsets inventory in Alberta and remain active in partnering with developers to invest in new projects under the Carbon Competitiveness Incentive Regulation (CCIR), which took effect on January 1, 2018.

In addition, we look to invest capital at our generation facilities, putting significant investment in projects such as our Genesee Performance

Standard (GPS) that reduces emissions at our Genesee facility. (Refer to page 43 for more information.)

For 2017, the company's Alberta compliance obligation was regulated by the SGER legislation. Our compliance options included: physically reducing emissions, retiring eligible Alberta-based GHG offsets or Emission Performance Credits, or paying into the Emissions Reduction Alberta Technology Fund, widely referred to as the "Tech Fund". For 2017, we retired GHG

offsets for 100% of our SGER compliance obligation.

Also in 2017, we invested \$20 million in Alberta-based offsets that reduce local GHG emissions and which we can use to meet future GHG emission reductions 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<sub>2</sub>O) abatement, fed cattle, and conservation cropping.

	2011	2012	2013	2014	2015	2016	2017
<b>Annual compliance obligation<sup>1</sup> (MT CO<sub>2</sub>e)</b>	1.6	2.1	2.0	1.9	2.2	1.4	1.8
<b>Offset usage<sup>2</sup> (MT CO<sub>2</sub>e)</b>	1.6	2.1	1.7	1.9	1.6	0.9	1.8
<b>Paid to emissions management fund (MT CO<sub>2</sub>e)</b>	0.0	0.0	0.3	0.0	0.6	0.5	0

100% Compliance

1 Includes compliance obligation at owned facilities in Alberta (but excluding contractually-allocated emissions obligations) and contractually-allocated emissions obligations for Alberta assets.

2 SGER and other eligible offsets.



# Our emissions

Overall greenhouse gas (GHG) emissions intensity at the facilities we operate decreased from 0.82 tonnes/MWh in 2016 to 0.79 tonnes/MWh in 2017.

This is primarily due to combustion optimization work being completed at Genesee and the addition of six renewable and natural gas facilities to our fleet in 2017: Bloom Wind, York Energy Centre, East Windsor Cogeneration Centre, 150 Mile House, Savona, and the Decatur Energy Center.

Since 2016, our mercury emissions decreased by 0.6 mg/MWh due to two key factors:

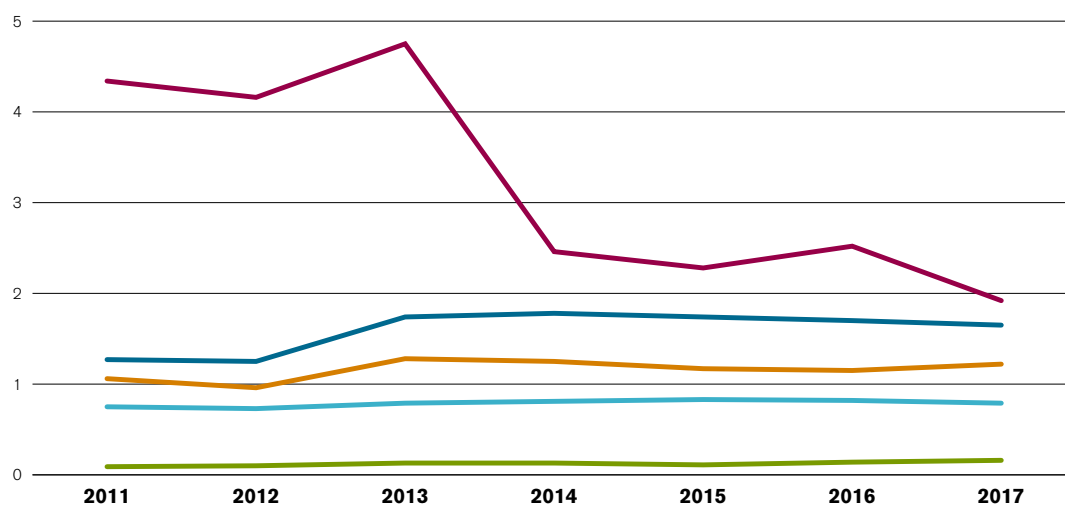
- The coal used at Genesee had a lower mercury content than in 2016, and;

- The quality of the powdered activated carbon used at Genesee to capture mercury was significantly improved by the manufacturer, which increased the mercury capture rate. Additionally, the emissions systems were optimized by balancing the flows of activated carbon.

For more information on total air emissions and emissions intensities, see page 64.

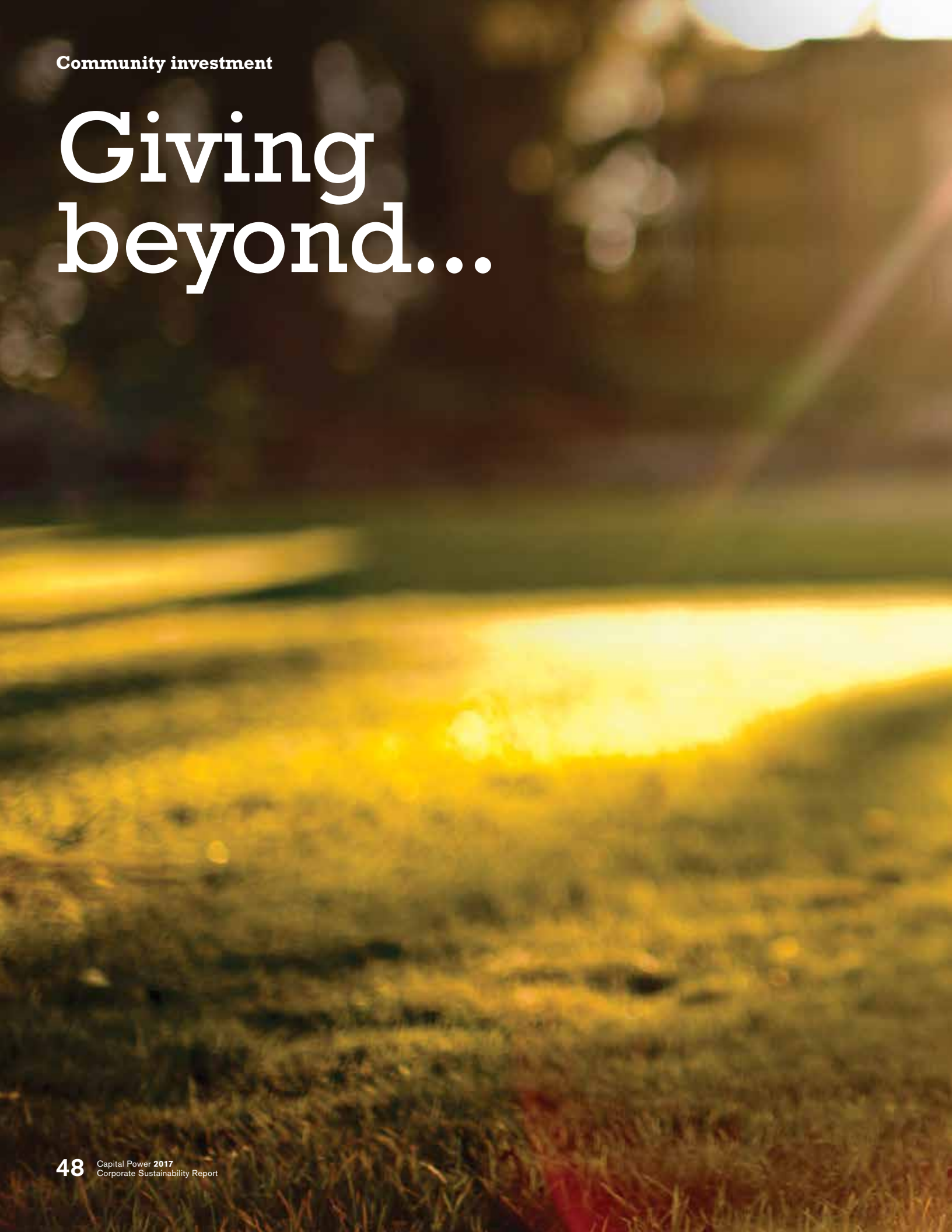
**In Alberta, we have invested more than \$100 million in emission offsets over the past decade, which are registered, audited, and verified by independent third-parties.**

## Emissions intensities<sup>1</sup> 2011–2017



<sup>1</sup> Emissions intensity differs from total emissions in that intensity is a measure of emissions (by mass) per MWh of power produced. Total emissions is a measure of emissions (by mass) over time. Emissions intensities are calculated based on the power generation from the facilities we operate, and 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.

— mg Mercury (Hg)/MWh  
 — kg Particulate Matter (PM)/MWh  
 — kg Sulphur dioxide (SO<sub>2</sub>)/MWh  
 — kg Nitrogen oxides (NOx)/MWh  
 — tonnes Carbon dioxide (CO<sub>2</sub>e)/MWh



Community investment

# Giving beyond...





# Giving beyond...

## Neighbour of Choice

We want to be a “Neighbour of Choice” in our communities and build a legacy of trust in the community. We accomplish this by building relationships with key community individuals, groups, and organizations, by responding to community expectations, concerns, needs, and issues, and by focusing programs in areas that promote and strengthen the quality of life for community members.

By supporting meaningful, grassroots initiatives and programs, we help create healthy and sustainable communities.

## Highlights

### **We contributed \$941,000 through our community investment programs in 2017.**

- A team of eight employees went beyond borders for the first time and contributed 600 hours of volunteer time to install solar power at schools, medical clinics, and community halls in Peru through Light Up the World, a Canadian non-profit organization focused on the principle that access to energy changes lives.
- \$35,000 was provided in disaster relief support to the communities of Ashland and Siksika Nation for wildfires.
- Our head office program contributed \$662,000 to 17 organizations. Many of these organizations are under multi-year agreements or are one-year agreements that renew annually. Major recipients include: Art Gallery of Alberta, Citadel Theatre, University of Alberta Faculty of Engineering, the Military Family Resource Centre, and the Stollery Children's Hospital Foundation.
- Our local communities program, which focuses on community heritage, ecology, and character, contributed \$164,750 to 44 organizations across our operational areas.

## EmPowering Communities

In recognition of employee volunteerism, our EmPowering Communities program provides employee-directed grants to non-profit or charitable community service organizations. Employees can apply for a \$500 Capital Power grant to be donated to an organization of their choice after they volunteer a minimum of 35 hours in a calendar year. Employee family members are also eligible to contribute to the 35-hour minimum.

With a 20% participation rate, 136 employees volunteered 13,906 (reported) hours in 2017. This generated a total of \$72,000 in grant money for 118 different non-profit and charitable community organizations.

## Our GENerosity

Our GENerosity program matches employee charitable giving up to \$500 per employee per year to a registered charity selected by the employee. In 2017, 201 employees participated in the program and we matched over \$62,000 in employee donations, resulting in over \$364,000 going directly to charities.

During the annual “Capitalize on your GENerosity” promotion, employees donated an additional \$120,000 to local United Ways.





## Tree Canada Partnership

In recognition of Canada's 150th anniversary, we partnered with Tree Canada to create a legacy of trees at our sites across Canada. The event engaged over 350 employees and their families in eight of our Canadian communities (Tumbler Ridge, Campbell River, Edmonton, Warburg, Calgary, Halkirk, Jarvis, and Goderich) who, together, planted 6,000 trees and shrubs. Tree Canada worked closely with the communities to ensure the trees were appropriate and sustainable for each planting location.

## Key initiatives in 2017

### Heroes Hockey Challenge and Yellow Ribbon Gala

For the first time, we were the presenting sponsor of the Heroes Hockey Challenge and Yellow Ribbon Gala. The events provide support and awareness for the Military Family Resource Centre and the Princess Patricia's Canadian Light Infantry Foundation in Edmonton. The events raised a combined \$50,000 to support soldiers and military families.

### Edmonton's Food Bank

We were the presenting sponsor of the Magical Christmas Music Gala featuring the Huron Carole, which raised over \$80,000 for Edmonton's Food Bank. In addition, we matched the first \$20,000 in donations made to Edmonton's Food Bank by attendees at performances of *A Christmas Carol* at the Citadel Theatre.

### Care kit assembly

Over 100 employees volunteered time to assemble 1,350 personal care kits for organizations who help individuals in need. The organizations included Homeless Connect Edmonton, Terra Centre, and the Bissell Centre.

### Scholarships awarded in 2017

We awarded scholarship money to youth of the following First Nations:

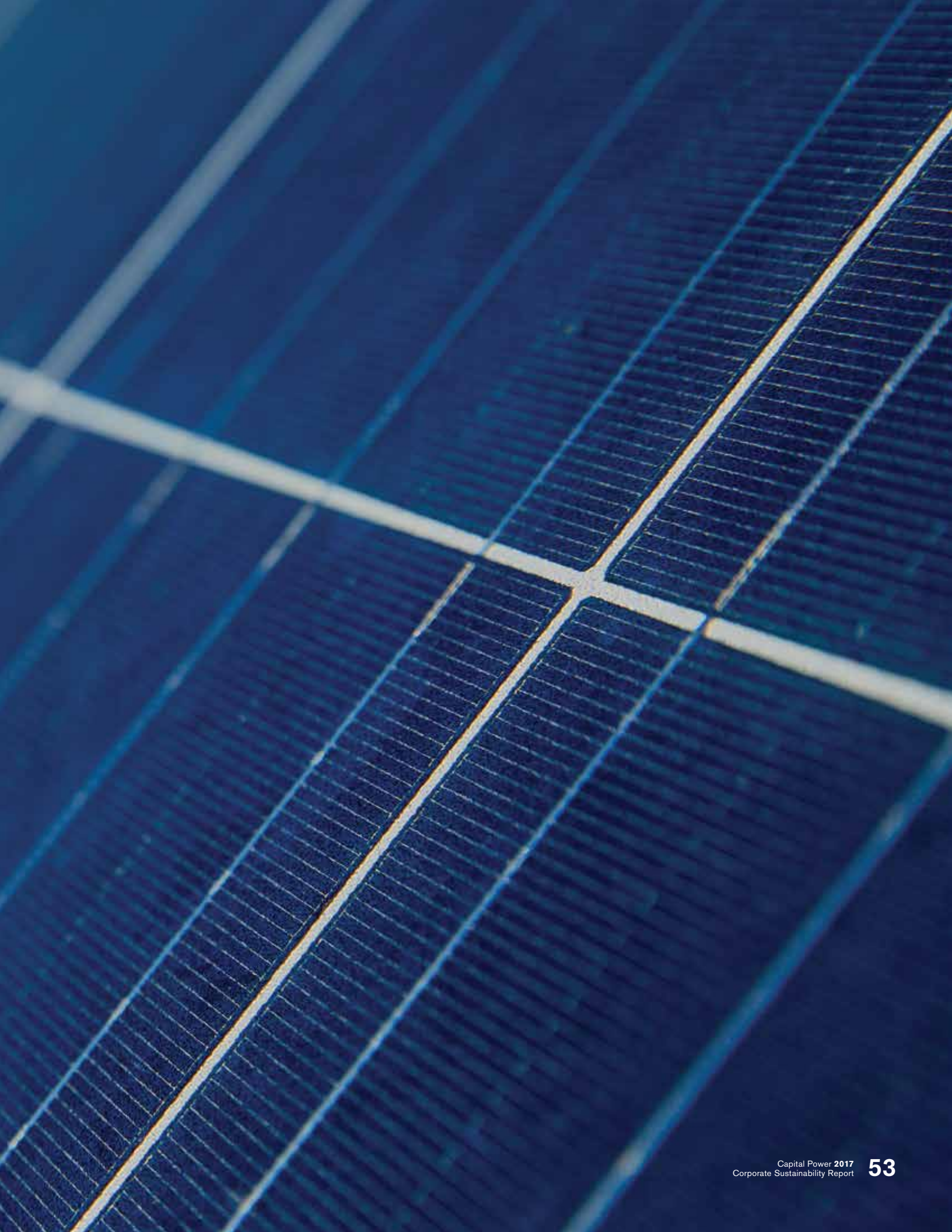
- West Moberly First Nation, BC,
- Saulteau First Nation, BC,
- McLeod Lake Indian Band, BC, and;
- Six Nations of the Grand River, ON.

In partnership with Pattern Energy and Axium Infrastructure, we awarded the annual K2 Wind Scholarship for the Historic Saugeen Métis.


In connection to our Port Dover and Nanticoke Wind facility, we awarded the first scholarship from the Capital Power Scholarship Fund for the Haudenosaunee Youth. An annual scholarship will be awarded over the life of the facility and is administered by the Grand River Post Secondary Education Office. It is awarded to youth among the six Haudenosaunee nations including Mohawk, Seneca, Onondaga, Oneida, Cayuga and Tuscarora.

# Report scope and Global Reporting Initiative (GRI) Index









## About this report

In our constant pursuit of transparency and clarity, we took a two-part approach with this year's report: an illustrated corporate narrative in the front to more clearly tell our story, focus on material information, and provide highlights and examples, and a back-end data section to provide additional reporting and data related to each of the applicable GRI indicators.

## Committed to transparent and balanced reporting

This report provides a detailed overview of Capital Power in 2017, including our successes and challenges. Keeping our commitment to producing an accurate annual record of how we have performed and where we fell short drives us to work even harder to achieve our vision of being one of North America's most respected, reliable, and competitive power generators.


We aim to report about our business in a manner that presents a holistic view of our business and shows the connection between our business strategy and our corporate sustainability. Building on our past reports, we aim to be clear and concise in providing accurate and balanced information about our people, facilities, performance (including emissions), and our contributions to the communities where we do business. All dollar figures are in Canadian funds.




## Global Reporting Initiative

Our 2017 Corporate Sustainability Report follows guidelines defined in the Global Reporting Initiative (GRI 3.1), an international standard for corporate sustainability reporting. The GRI Guidelines set out the principles and indicators organizations can use to measure and report their environmental, economic, and social performance. GRI has launched its Standards (superseded G4 Guidelines), which Capital Power is assessing for future reports.




# GRI Index


The following Index lists each GRI indicator with its description and Capital Power's information and data to meet that indicator, and/or a report page number where that information is found. References are found on [capitalpower.com](http://capitalpower.com). 




GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>Strategy and analysis</b>		
<b>1.1</b> Statement from President and CEO		2-5
<b>1.2</b> Key impacts, risks, and opportunities		2-5, 12, 13
<b>Organizational profile</b>		
<b>2.1</b> Name of organization	Capital Power.	NA
<b>2.2</b> Products	<i>2017 Annual Report, 2017 Annual Information Form and 2018 Management Proxy Circular.</i>	Inside cover, 1 
<b>2.3</b> Operational structure	<i>2017 Annual Report, 2017 Annual Information Form and 2018 Management Proxy Circular.</i>	Inside cover, 8-9 
<b>2.4</b> Location of headquarters	Edmonton, Alberta, Canada.	Inside cover, Back cover
<b>2.5</b> Number of countries where organization operates	Two: Canada and United States.	Inside cover
<b>2.6</b> Nature of ownership	See GRI Indicators 3.6-3.9 <i>2017 Annual Report, 2017 Annual Information Form.</i>	56 

## Data and details








GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>2.7</b> Markets served	<i>2017 Annual Report, 2017 Annual Information Form.</i>	Inside cover 
<b>2.8</b> Scale of the organization		Inside cover, 1, 14-16, 26-29, 33
<b>2.9</b> Significant changes		Inside cover, 1, 2-5, 26-27, 42-43
<b>2.10</b> Awards		Inside cover, 1, 21, 33, 35

### Report parameters

<b>3.1</b> Reporting period	Provides data for the most-recent seven full years of operation: 2011, 2012, 2013, 2014, 2015, 2016, and 2017. Data for each year is for the 12-month period starting January 1 and ending December 31.	NA
<b>3.2</b> Date of previous report	August 2017.	NA
<b>3.3</b> Reporting cycle	Report annually on our corporate responsibility and sustainability.	NA
<b>3.4</b> Contact for questions	Capital Power Corporate Headquarters 1200 – 10423 101 St. N.W. Edmonton, Alberta T5H 0E9 info@capitalpower.com capitalpower.com	7, Back cover
<b>3.5</b> Process for defining content	Report builds on an extensive process for defining content, including stakeholder consultation, which resulted in guidelines for determining priority topic areas and materiality. We also incorporated feedback received following the release of our previous reports.	NA
<b>3.6</b> Boundary of report	This report includes energy production and environmental performance data from power plants for which Capital Power held the operating permit in 2017, 2016, 2015, 2014, 2013, 2012, and 2011.	NA 
<b>3.7</b> Limitations on scope	Data from each plant represents the entire plant—not only our financial share of the operation. This includes:	
<b>3.8</b> Basis for reporting on joint ventures, subsidiaries, etc.	<ul style="list-style-type: none"> <li>Genesee 3: co-owned with TransAlta.</li> <li>Genesee 1 &amp; 2: plant capacity and output is sold under an Alberta Power Purchase Arrangement to the Alberta Balancing Pool.</li> </ul>	
<b>3.9</b> Data measurement techniques	Energy production and emissions data from Keephills 3, Joffre, K2 Wind, Shepard Energy Centre, and former power purchase arrangement (PPA) facilities are generally not included because we do not hold the operating permits. Capital Power terminated its Sundance C Power Purchase Arrangement on March 24, 2016. Ownership interests in generation capacity are also included and footnoted accordingly to define the distinction.	



GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>3.9</b> Data measurement techniques (cont'd)	<p>One of the challenges of preparing this report is the need to synthesize data from numerous jurisdictions with unique reporting requirements, methods, and standards. Where possible, information has been consolidated (e.g. greenhouse gas emission (GHG) data for our facilities in Canada and the United States). In other areas, information is presented separately or from a single jurisdiction.</p> <p>Carbon dioxide (CO<sub>2</sub>) emissions from our landfill gas and biomass facilities are not included in aggregate GHG emission totals or emission intensity calculations. This approach aligns with the <i>Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard</i>.</p> <p><b>Other reporting</b></p> <p>Other public disclosures, particularly the <i>2017 Annual Report</i>, <i>2017 Annual Information Form</i>, and <i>2018 Management Proxy Circular</i>, include detailed content that responds to certain GRI indicators. The content is incorporated by cross-reference in this report. These documents are available at <a href="http://capitalpower.com">capitalpower.com</a> and <a href="http://sedar.com">sedar.com</a>.</p> <p>Our Canadian power plants operating above a certain emission-level threshold publicly file annual reports with Canada's National Pollutant Release Inventory.</p> <p>In 2017, residents living near Genesee received a single issue of the <i>Genesee Station Connection</i> newsletter, which provides information about the facility's emission performance and other topics related to plant and mine operations.</p> <p>We also distributed newsletters for residents living near the proposed Black Fork Wind (Ohio), Cardinal Point Wind (Illinois), and New Frontier Wind (North Dakota) projects, as well as a post-commissioning update on Bloom Wind (Kansas).</p>	
<b>3.10</b> Effects of any restatements of information in previous report	No restatements.	NA
<b>3.11</b> Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	No significant changes.	NA
<b>Governance, commitments and engagement</b> Found on our website at <a href="http://capitalpower.com">capitalpower.com</a> .		
<b>4.1</b> Governance structure	Refer to our <i>Corporate Governance Policy</i> , <i>Board Diversity Policy</i> , <i>Board Terms of Reference</i> and <i>Committee Terms of Reference</i> , and our <i>2018 Management Proxy Circular</i> .	8, 9 
<b>4.2</b> Function of the Chair	The function of the Chair of the Board of Directors is available in the <i>Corporate Governance Policy</i> , <i>Chair's Terms of Reference</i> and our <i>2018 Management Proxy Circular</i> .	8, 9 
<b>4.3</b> Independent and/or non-executive board members	The Chair of the Board is independent. Additional information is available in our <i>2018 Management Proxy Circular</i> .	8, 9 

## Data and details

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>4.4</b> Mechanisms for shareholder and employee input	<p>See section: <i>Stakeholder engagement – Engaging beyond.</i></p> <ul style="list-style-type: none"> <li>Covered in our <i>Corporate Governance Policy</i>, <i>Board Shareholder Engagement Policy</i> and <i>2018 Management Proxy Circular</i>.</li> </ul>	20-21 
<b>4.5</b> Compensation and performance	<p>Refer to our <i>Corporate Governance Policy</i> and <i>2018 Management Proxy Circular</i>.</p> <p>Our director compensation is designed to attract and retain the most qualified people to serve on our board. To align the interests of directors and shareholders, compensation recognizes the size and complexity of the power industry, director compensation paid by a comparator group of companies, and the importance of share ownership. Directors are compensated with a combination of cash retainer fees and Deferred Share Units (DSU). Committee chairs and committee members receive retainers for their roles in addition to the regular retainer and DSU compensation.</p>	NA 
<b>4.6</b> Conflicts of interest process	Refer to our <i>2018 Management Proxy Circular</i> , <i>2017 Annual Information Form</i> , and our <i>Board Terms of Reference</i> and <i>Individual Director's Terms of Reference</i> .	NA 
<b>4.7</b> Process for determining qualifications	Refer to our <i>2018 Management Proxy Circular</i> and <i>Corporate Governance Policy</i> .	NA 
<b>4.8</b> Mission, values, codes of conduct	<p><b>Our Mission</b></p> <p>Capital Power's business is the development, acquisition, construction, operation, and optimization of large-scale, fuel-diverse, cost-effective power generation facilities in North America.</p> <p><b>Our Values</b></p> <ul style="list-style-type: none"> <li>We are passionate about our business and safety</li> <li>We act with integrity</li> <li>We work together</li> <li>We are accountable</li> <li>We create and enhance shareholder value</li> </ul> <p><b>Codes of conduct</b></p> <ul style="list-style-type: none"> <li><i>Ethics Policy</i></li> <li><i>Respectful Workplace Policy</i></li> <li><i>Disclosure and Insider Trading Policy</i></li> </ul>	NA 
<b>4.9</b> Procedures for overseeing performance, risks and opportunities	Refer to our <i>Corporate Governance Policy</i> and our <i>2018 Management Proxy Circular</i> .	NA 
<b>4.10</b> Process for evaluating board performance	Refer to our <i>2018 Management Proxy Circular</i> and our <i>Corporate Governance Policy</i> .	NA 



GRI indicator and descriptor	Capital Power's disclosure/performance		page(s)/reference
<b>4.11</b> Precautionary principle	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.		NA
<b>4.13</b> Association memberships	<p>Alberta Chamber of Resources</p> <p>Alberta Electric System Operator</p> <p>Alberta Enterprise Group American Public Power Association</p> <p>Association of Power Producers of Ontario</p> <p>Association of Corporate Counsel</p> <p>Association of General Counsel of Alberta</p> <p>American Wind Energy Association</p> <p>Boston College Center for Corporate Community Relations</p> <p>Business Council of British Columbia</p> <p>Calgary Chamber of Commerce</p> <p>Canadian Electricity Association</p> <p>Canadian Wind Energy Association</p> <p>Carbon Market Compliance Association</p> <p>Catalyst Canada Inc</p> <p>C.D. Howe Institute</p> <p>CEATI International CIO Association of Canada</p> <p>Conference Board of Canada</p> <p>Construction Owners Association of Alberta</p> <p>Decatur-Morgan-County Chamber of Commerce</p> <p>Decentralized Energy Canada</p> <p>Edison Electric Institute</p> <p>Edmonton Chamber of Commerce</p>	<p>Energy Marketing Credit Group</p> <p>Engineers and Geoscientists of British Columbia</p> <p>EXCEL Partnership Group</p> <p>Huron Chamber of Commerce</p> <p>Independent Electricity System Operator</p> <p>Independent Power Producers Society of Alberta</p> <p>International Association of Business Communicators</p> <p>International Emissions Trading Association</p> <p>Leduc Regional Chamber of Commerce</p> <p>Macomb Area Economic Development Corporation</p> <p>Midcontinent Independent System Operator, Inc</p> <p>Northern Alberta Risk and Insurance Management Society</p> <p>Niulpe of North Carolina</p> <p>Rocky Mountain Institute</p> <p>Safety Codes Council Strathcona</p> <p>Industrial Association</p> <p>Tax Executives Institute</p> <p>The Legal Forum</p> <p>The National Board of Boiler and Pressure Vessel Inspectors</p> <p>The New England Council</p> <p>Western Electricity Coordinating Council</p>	NA
<b>4.14</b> Stakeholders engaged	<p><i>See section: Stakeholder engagement – Engaging beyond.</i></p> <ul style="list-style-type: none"> <li>• Government</li> <li>• Employees</li> <li>• Local communities</li> <li>• Investors/shareholders</li> <li>• Indigenous communities</li> </ul>		20-23
<b>4.15</b> Basis of identifying stakeholders	<i>See section: Stakeholder engagement – Engaging beyond.</i>		20-23
<b>4.16</b> Approaches to stakeholder engagement	<i>See section: Stakeholder engagement – Engaging beyond.</i>		20-23
<b>4.17</b> Key topics and concerns	<i>See section: Stakeholder engagement – Engaging beyond.</i>		20-23

GRI indicator and descriptor	Capital Power's disclosure/performance								page(s)/reference																																																																																														
<b>EN1</b> Materials used	<b>Energy/materials consumption (Gigajoules/Tonnes)</b>								Inside cover, 13, 29 																																																																																														
	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.																																																																																																						
<table><tr><th colspan="2"></th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td rowspan="2">Coal</td><td>GJ</td><td>101,776,000</td><td>94,917,000</td><td>97,696,000</td><td>99,039,000</td><td>108,772,000</td><td>104,091,000</td><td>103,627,000</td></tr><tr><td>Tonnes</td><td>5,215,000</td><td>4,916,000</td><td>5,152,000</td><td>5,054,500</td><td>5,343,000</td><td>5,173,000</td><td>5,156,000</td></tr><tr><td rowspan="2">Natural gas</td><td>GJ</td><td>42,096,000</td><td>43,021,000</td><td>5,621,000</td><td>4,297,000</td><td>3,250,000</td><td>3,776,000</td><td>5,670,000</td></tr><tr><td>Tonnes</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr><tr><td rowspan="2">Biomass</td><td>GJ</td><td>4,514,000</td><td>5,952,000</td><td>5,996,000</td><td>6,572,000</td><td>6,295,000</td><td>6,866,000</td><td>6,937,000</td></tr><tr><td>Tonnes</td><td>395,000</td><td>532,000</td><td>576,500</td><td>596,500</td><td>533,000</td><td>562,000</td><td>583,000</td></tr><tr><td rowspan="2">Tire-derived fuel</td><td>GJ</td><td>2,030,000</td><td>2,279,000</td><td>4,050,000</td><td>5,690,000</td><td>6,843,000</td><td>6,630,000</td><td>5,215,000</td></tr><tr><td>Tonnes</td><td>59,000</td><td>72,400</td><td>125,000</td><td>176,400</td><td>210,000</td><td>201,000</td><td>166,000</td></tr><tr><td rowspan="2">Landfill gas</td><td>GJ</td><td>360,000</td><td>371,000</td><td>233,000</td><td>244,000</td><td>281,000</td><td>283,000</td><td>296,000</td></tr><tr><td>Tonnes</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr></table>											2011	2012	2013	2014	2015	2016	2017	Coal	GJ	101,776,000	94,917,000	97,696,000	99,039,000	108,772,000	104,091,000	103,627,000	Tonnes	5,215,000	4,916,000	5,152,000	5,054,500	5,343,000	5,173,000	5,156,000	Natural gas	GJ	42,096,000	43,021,000	5,621,000	4,297,000	3,250,000	3,776,000	5,670,000	Tonnes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Biomass	GJ	4,514,000	5,952,000	5,996,000	6,572,000	6,295,000	6,866,000	6,937,000	Tonnes	395,000	532,000	576,500	596,500	533,000	562,000	583,000	Tire-derived fuel	GJ	2,030,000	2,279,000	4,050,000	5,690,000	6,843,000	6,630,000	5,215,000	Tonnes	59,000	72,400	125,000	176,400	210,000	201,000	166,000	Landfill gas	GJ	360,000	371,000	233,000	244,000	281,000	283,000	296,000	Tonnes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
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<p>The data above represents Capital Power's generation associated with its operating approvals rather than its financial share of the operation. As of December 31, 2017, Capital Power had ownership in 24 power generation facilities located throughout North America. Of the 24 facilities, Capital Power operates 18. Data from owned capacity at Keephills 3, K2 Wind, Joffre, 150 Mile House, Savona, and the Shepard Energy Centre are not included because we do not hold the operating permits for these facilities.</p>																																																																																																							
<b>EU1</b> Installed capacity, broken down by primary energy source and by regulatory regime	For information on the production capacity, energy source, location, and ownership interests for Capital Power's 24 facilities, see the tables provided in <i>Capital Power's 2017 Annual Information Form</i> and the <i>2017 Annual Report</i> .								NA 																																																																																														

**EU2**

Net energy output  
broken down by  
primary energy  
source and by  
regulatory regime

**EN3**

Direct energy  
consumption

**Net Production by Energy Source**

MWh	2011	2012	2013	2014	2015	2016	2017
Coal	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%)
Natural gas <sup>2</sup>	5,375,000 (34%)	5,468,000 (35%)	588,000 (5%)	450,000 (4%)	338,000 (3%)	386,000 (3%)	567,000 (4%)
Hydro <sup>1</sup>	139,000 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Solar <sup>3</sup>	0 (0%)	0 (0%)	0 (0%)	0 (0%)	300 (0.002%)	29,000 (0.2%)	27,000 (0.2%)
Biomass	279,000 (2%)	412,000 (3%)	392,000 (3%)	410,000 (3%)	397,000 (3%)	421,000 (3%)	377,000 (3%)
Wind	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%)
Tire-derived fuel	125,000 (0.8%)	157,000 (1%)	263,000 (2%)	356,000 (3%)	428,000 (3%)	405,000 (3%)	284,000 (2%)
Landfill gas	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%)
<b>Net production<sup>4</sup> (MWh)</b>	15,939,000	15,626,000	12,297,000	12,220,000	13,066,000	12,701,000	13,308,000
Gross production (MWh)	16,949,000	16,610,000	13,461,000	13,146,000	14,062,000	13,665,000	14,291,000
<b>Electricity consumed by station services (MWh)</b>	1,010,000	984,000	1,164,000	926,000	996,000	963,000	982,000

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

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

3 In December 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 2015.

4 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.

NA

**EN5**

Energy saved  
– conservation

We added six wind projects and one solar project since 2011, increasing our generation from one wind project (40 MW) in 2011 to 755 MW<sup>1</sup> in 2017.

1 Megawatts represent owned wind and solar generation capacity.

Inside  
cover,  
26-27**EU5**

Allocation of  
CO<sub>2</sub> emissions  
allowances or  
equivalent, broken  
down by carbon  
trading framework

For 2017, we were not allocated any allowances in any Carbon Trading framework (California, Quebec, Ontario, or the Regional Greenhouse Gas Initiative (RGGI)), as we do not own any covered entities in those regions.

NA

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																																
<b>EN8</b> Total water withdrawal	Water use at our generation facilities serves two major purposes: cooling and steam production. Steam is used to create electricity and is also used by industrial customers.	NA																																
<b>EN9</b> Water sources affected	For the most part, our steam systems are close-looped, which allows us to conserve as much water as possible. This means water is heated into steam, condensed back into water, and reused. Cooling water systems are similar yet may draw from an external water source and discharge back into that source where permitted.																																	
<b>EN10</b> Water recycled	Most of our water consumption originated from Alberta operations. Water sources include municipal, recycled, and river water.																																	
<b>EN21</b> Total water discharge	<p><b>Approximate water withdrawals and discharges (Megalitres)</b></p> <table><tr><th></th><th>2011<sup>1</sup></th><th>2012</th><th>2013<sup>2</sup></th><th>2014<sup>3</sup></th><th>2015<sup>4</sup></th><th>2016<sup>5</sup></th><th>2017<sup>6</sup></th></tr><tr><td>Water withdrawn</td><td>38,600</td><td>40,800</td><td>35,200</td><td>36,700</td><td>33,300</td><td>25,400</td><td>28,700</td></tr><tr><td>Water discharged</td><td>29,000</td><td>32,600</td><td>23,600</td><td>28,900</td><td>20,700</td><td>14,700</td><td>14,700</td></tr><tr><td>Water consumed (= Water withdrawn - Water discharged)</td><td>9,600</td><td>8,200</td><td>11,600</td><td>7,800</td><td>12,600</td><td>10,700</td><td>14,000</td></tr></table>		2011 <sup>1</sup>	2012	2013 <sup>2</sup>	2014 <sup>3</sup>	2015 <sup>4</sup>	2016 <sup>5</sup>	2017 <sup>6</sup>	Water withdrawn	38,600	40,800	35,200	36,700	33,300	25,400	28,700	Water discharged	29,000	32,600	23,600	28,900	20,700	14,700	14,700	Water consumed (= Water withdrawn - Water discharged)	9,600	8,200	11,600	7,800	12,600	10,700	14,000	
	2011 <sup>1</sup>	2012	2013 <sup>2</sup>	2014 <sup>3</sup>	2015 <sup>4</sup>	2016 <sup>5</sup>	2017 <sup>6</sup>																											
Water withdrawn	38,600	40,800	35,200	36,700	33,300	25,400	28,700																											
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Water consumed (= Water withdrawn - Water discharged)	9,600	8,200	11,600	7,800	12,600	10,700	14,000																											
<b>EN25</b> Water bodies and habitat affected by discharged water	<p>1 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.</p> <p>2 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.</p> <p>3 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.</p> <p>4 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.</p> <p>5 In 2016, water withdrawn decreased largely due to record rain, which reduced the need for diversion and blowdown at Genesee.</p> <p>6 In 2017, water consumption increased from 2016, a year in which Genesee had a historically low level of water consumption.</p>																																	



GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>EN11</b> Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<p>The Genesee pump house is located on the south bank of the North Saskatchewan River, which is adjacent to a wildlife corridor.</p>	NA
<b>EU11</b> Average generation efficiency of thermal plants by energy source and by regulatory regime	<ul style="list-style-type: none"> <li>• 45% Island Generation (combined-cycle natural gas) – British Columbia</li> <li>• 43% Decatur Energy Center (combined-cycle natural gas) – Alabama</li> <li>• 38% Genesee 3 (supercritical coal) – Alberta</li> <li>• 37% Clover Bar Energy Centre (simple-cycle natural gas) – Alberta</li> <li>• 35% Genesee 1 &amp; 2 (subcritical coal) – Alberta</li> <li>• 33% East Windsor Cogeneration Centre (cogeneration natural gas) – Ontario</li> <li>• 29% York Energy Centre (simple-cycle natural gas) – Ontario</li> <li>• 24% Roxboro (solid fuels) – North Carolina</li> <li>• 20% Southport (solid fuels) – North Carolina</li> </ul> <p>Thermal efficiency compares how much energy an operator gets out of a plant versus how much energy was put in. The Clover Bar Energy Centre is a peaking facility—it has frequent startups and shutdowns, which leads to lower efficiency.</p> <p>The North Carolina facilities have older stoker-fired boilers in which the fuel burns on a moving grate in the furnace. The North Carolina facilities, commissioned in 1987, use a stoker boiler technology that is less efficient than Capital Power's subcritical and supercritical thermal facilities in Alberta.</p>	NA
<b>EN12</b> Impact on biodiversity  <b>EU13</b> Biodiversity of offset habitats compared to the biodiversity of the affected areas  <b>EN14</b> Managing impacts on biodiversity	<p><i>See section: Environment – Protecting beyond.</i></p> <p>The landscapes around our operations are integral to the biodiversity of the regions in which we operate. We conduct extensive monitoring programs at our Genesee operations and the Wabamun-Genesee region to better understand the potential impacts of power generation on biodiversity.</p> <p>We conduct detailed environmental monitoring and assessments for wildlife, plant species and other area-specific species to understand the biodiversity and protect the land and livelihood of the area.</p>	42-45

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																																																
<b>EN15</b> IUCN Red List species	Our operations do not affect any wildlife populations on the International Union for Conservation of Nature and Natural Resources Red List species list.	NA																																																
<b>EN16</b> GHG emissions by weight	<b>Emissions intensities</b> <table><tr><th>Emissions</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>tonnes CO<sub>2</sub>e/MWh</td><td>0.75</td><td>0.73</td><td>0.79</td><td>0.81</td><td>0.83</td><td>0.82</td><td>0.79</td></tr><tr><td>kg NOx/MWh</td><td>1.06</td><td>0.96</td><td>1.28</td><td>1.25</td><td>1.17</td><td>1.15</td><td>1.22</td></tr><tr><td>kg SO<sub>2</sub>/MWh</td><td>1.27</td><td>1.25</td><td>1.74</td><td>1.78</td><td>1.74</td><td>1.70</td><td>1.65</td></tr><tr><td>kg PM/MWh</td><td>0.09</td><td>0.10</td><td>0.13</td><td>0.13</td><td>0.11</td><td>0.14</td><td>0.16</td></tr><tr><td>mg Hg/MWh</td><td>4.34</td><td>4.16</td><td>4.75</td><td>2.46</td><td>2.28</td><td>2.52</td><td>1.92</td></tr></table> <p>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.</p> <p>GHG emissions intensities are stack emissions only and do not reflect the impact of offsets.</p>	Emissions	2011	2012	2013	2014	2015	2016	2017	tonnes CO <sub>2</sub> e/MWh	0.75	0.73	0.79	0.81	0.83	0.82	0.79	kg NOx/MWh	1.06	0.96	1.28	1.25	1.17	1.15	1.22	kg SO <sub>2</sub> /MWh	1.27	1.25	1.74	1.78	1.74	1.70	1.65	kg PM/MWh	0.09	0.10	0.13	0.13	0.11	0.14	0.16	mg Hg/MWh	4.34	4.16	4.75	2.46	2.28	2.52	1.92	46-47
Emissions	2011	2012	2013	2014	2015	2016	2017																																											
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<b>EN20</b> NOx, SOx, other emissions by weight	<b>Total air emissions</b> <table><tr><th>Emissions</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>tonnes CO<sub>2</sub>e</td><td>11,919,000</td><td>11,397,000</td><td>9,744,000</td><td>9,859,000</td><td>10,843,000</td><td>10,451,000</td><td>10,521,000</td></tr><tr><td>tonnes NOx</td><td>17,000</td><td>15,000</td><td>15,800</td><td>15,200</td><td>15,300</td><td>14,600</td><td>16,300</td></tr><tr><td>tonnes SO<sub>2</sub></td><td>20,200</td><td>19,500</td><td>21,400</td><td>21,800</td><td>22,800</td><td>21,600</td><td>21,900</td></tr><tr><td>tonnes PM</td><td>1,455</td><td>1,560</td><td>1,540</td><td>1,600</td><td>1,500</td><td>1,800</td><td>2,200</td></tr><tr><td>kg Hg</td><td>69</td><td>65</td><td>58</td><td>30</td><td>30</td><td>32</td><td>26</td></tr></table> <p>Values represent direct emissions from power generation at the facilities we operate and all numbers, except mercury (Hg), are rounded to the nearest hundred.</p> <p>In accordance with the <i>Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard</i> (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.</p>	Emissions	2011	2012	2013	2014	2015	2016	2017	tonnes CO <sub>2</sub> e	11,919,000	11,397,000	9,744,000	9,859,000	10,843,000	10,451,000	10,521,000	tonnes NOx	17,000	15,000	15,800	15,200	15,300	14,600	16,300	tonnes SO <sub>2</sub>	20,200	19,500	21,400	21,800	22,800	21,600	21,900	tonnes PM	1,455	1,560	1,540	1,600	1,500	1,800	2,200	kg Hg	69	65	58	30	30	32	26	
Emissions	2011	2012	2013	2014	2015	2016	2017																																											
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GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																																								
<b>EN18</b> Initiatives to reduce GHGs	See section: Environment – Protecting beyond.	Inside cover, 1, 2-5, 12-13, 15, 17, 26-27, 28, 42-43, 46																																								
<b>EN19</b> Emissions of ozone-depleting substances by weight	No ozone-depleting substances were released in 2017.	NA																																								
<b>EN2</b> Percentage of recycled materials	<b>Ash recycling and disposal (tonnes)</b>	43																																								
<b>EN22</b> Total weight of waste	<table><tr><th>Ash</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>Created</td><td>1,300,000</td><td>1,226,000</td><td>1,372,000</td><td>1,207,000</td><td>1,164,000</td><td>1,192,000</td><td>1,107,000</td></tr><tr><td>Recycled</td><td>215,000 (17%)</td><td>231,000 (19%)</td><td>221,000 (16%)</td><td>196,000 (16%)</td><td>178,000 (15%)</td><td>170,000 (14%)</td><td>200,000 (18%)</td></tr><tr><td>Landfilled</td><td>27,000</td><td>38,000</td><td>56,000</td><td>73,000</td><td>85,000</td><td>105,000</td><td>69,000</td></tr><tr><td>Mine-filled<sup>1</sup></td><td>1,058,000</td><td>957,000</td><td>1,095,000</td><td>938,000</td><td>901,000</td><td>917,000</td><td>838,000</td></tr></table>		Ash	2011	2012	2013	2014	2015	2016	2017	Created	1,300,000	1,226,000	1,372,000	1,207,000	1,164,000	1,192,000	1,107,000	Recycled	215,000 (17%)	231,000 (19%)	221,000 (16%)	196,000 (16%)	178,000 (15%)	170,000 (14%)	200,000 (18%)	Landfilled	27,000	38,000	56,000	73,000	85,000	105,000	69,000	Mine-filled <sup>1</sup>	1,058,000	957,000	1,095,000	938,000	901,000	917,000	838,000
Ash	2011		2012	2013	2014	2015	2016	2017																																		
Created	1,300,000		1,226,000	1,372,000	1,207,000	1,164,000	1,192,000	1,107,000																																		
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Mine-filled <sup>1</sup>	1,058,000	957,000	1,095,000	938,000	901,000	917,000	838,000																																			
	1 Ash mine-filled includes water for dust control when transporting to the mine.																																									
<b>EN23</b> Number/volume of spills	<b>Reportable spills to land or water</b>	NA																																								
	<table><tr><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>1</td><td>3</td><td>4</td><td>0</td><td>0</td><td>0</td><td>1</td></tr></table>		2011	2012	2013	2014	2015	2016	2017	1	3	4	0	0	0	1																										
2011	2012	2013	2014	2015	2016	2017																																				
1	3	4	0	0	0	1																																				
<b>EN24</b> Weight of hazardous waste	We do not generate hazardous waste and we use contracted waste distributors to remove hazardous recyclables, such as oil, from our sites.	NA																																								
<b>EN13</b> Habitats protected/restored	See section: Environment – Protecting beyond.	44-45																																								

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																																								
<b>EN26</b> Initiatives to mitigate impacts of products/ services	<p>In 2017, we reclaimed 98 hectares at the Genesee Mine, bringing the total amount of reclaimed land to 1,082 hectares, which includes farmland, reforested, and wetland areas. This previously-mined area is now 100% productive farmland and wildlife habitat.</p> <p><b>Genesee Mine fully reclaimed – area and reclamation summary (hectares)</b></p> <table><tr><th></th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>Fully reclaimed<sup>1</sup></td><td>680 (26%)</td><td>763 (29%)</td><td>847 (31%)</td><td>906 (33%)</td><td>944 (33%)</td><td>984 (34%)</td><td>1,082 (34%)</td></tr><tr><td>Reclamation in progress<sup>2</sup></td><td>320 (13%)</td><td>264 (10%)</td><td>298 (11%)</td><td>274 (10%)</td><td>296 (11%)</td><td>322 (11%)</td><td>344 (12%)</td></tr><tr><td>Required for safe and efficient mining</td><td>1,581 (61%)</td><td>1,629 (61%)</td><td>1,566 (58%)</td><td>1,555 (57%)</td><td>1,600 (56%)</td><td>1,557 (55%)</td><td>1,561 (52%)</td></tr><tr><td>Total land</td><td>2,581 (100%)</td><td>2,656 (100%)</td><td>2,711 (100%)</td><td>2,735 (100%)</td><td>2,840 (100%)</td><td>2,863 (100%)</td><td>2,987 (100%)</td></tr></table> <p>1 Fully reclaimed refers to land that is fully certified, to land parcels that have been applied for and are awaiting final certification from the Alberta Energy Regulator (AER), and to reclaimed land that is ready to apply to AER for certification.</p> <p>2 Reclamation in progress means reclamation activities have begun but are incomplete and no application for certification has been filed.</p>		2011	2012	2013	2014	2015	2016	2017	Fully reclaimed <sup>1</sup>	680 (26%)	763 (29%)	847 (31%)	906 (33%)	944 (33%)	984 (34%)	1,082 (34%)	Reclamation in progress <sup>2</sup>	320 (13%)	264 (10%)	298 (11%)	274 (10%)	296 (11%)	322 (11%)	344 (12%)	Required for safe and efficient mining	1,581 (61%)	1,629 (61%)	1,566 (58%)	1,555 (57%)	1,600 (56%)	1,557 (55%)	1,561 (52%)	Total land	2,581 (100%)	2,656 (100%)	2,711 (100%)	2,735 (100%)	2,840 (100%)	2,863 (100%)	2,987 (100%)	42-46
	2011	2012	2013	2014	2015	2016	2017																																			
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Total land	2,581 (100%)	2,656 (100%)	2,711 (100%)	2,735 (100%)	2,840 (100%)	2,863 (100%)	2,987 (100%)																																			
<b>EN28</b> Monetary value of fines and other sanctions for non-compliance with environmental laws	<p>We are proud of our environmental performance and our transparency in reporting on our operations. In 2017, environmental performance was strong despite four recordable environmental incidents, which were classified as moderate. There was a single Notice of Violations (NOV) recorded in 2017 at our Roxboro solid fuels facility for exceeding the daily maximum and monthly average related to oil and grease from a May 2016 sample. Additionally, the daily maximum and monthly average were exceeded for total suspended solids in May of 2016. The regulatory infraction was considered minor in nature and was closed with no further action expected from the regulator.</p>	NA																																								





GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>Human rights</b>		
<b>HR1</b> Investment agreements with human rights clauses	We do not have significant investment agreements that include human rights clauses.	NA
<b>HR2</b> Suppliers screen for human rights	Our contractors must align with our policies, although they do not undergo a specific screening on human rights.	NA
<b>HR3</b> Employee training on human rights	<i>See section: People and practices – Going beyond.</i>  Our employees completed targeted training on the <i>Ethics Policy</i> and <i>Respectful Workplace Policy</i> . In 2017, 700 employees attended in person (93%) and 50 online (7%).	33
<b>HR4</b> Discrimination incidents	In 2017, we reviewed: <ul style="list-style-type: none"> <li>three cases involving violations of Capital Power's <i>Respectful Workplace Policy</i>.</li> </ul> In each instance, a thorough investigation was conducted by the Chief Compliance Officer. The three cases were substantiated, with appropriate disciplinary action taken. No investigations involved allegations of fraud.	33
<b>HR5</b> Protecting freedom of association/ collection bargaining	The right to free association and collective bargaining is not at significant risk at Capital Power.	GRI: LA4 on page 70
<b>HR6</b> Child labour issues	Our operations are not at risk for incidents of child labour.	NA
<b>HR7</b> Forced labour issues	Our operations are not at risk for incidents of forced labour.	NA
<b>HR8</b> Security personnel trained in human rights policies	All security personnel receive training in policies and procedures related to human rights.	33
<b>HR9</b> Incidents/ violations regarding Indigenous peoples	No human rights violations, including the rights of Indigenous people, were identified.	33
<b>HR10</b> Number of human rights reviews/impact assessments	We have not been subject to human rights reviews or any impact assessments.	NA

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>HR11</b> Grievances related to human rights	No human rights grievances were received.	<b>33</b>

## Labour practices and decent work

<b>LA1</b> Total workforce	<table><tr><th></th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>Total number of employees company-wide<sup>1</sup></td><td>892</td><td>910</td><td>697</td><td>698</td><td>679</td><td>668</td><td>685</td></tr><tr><td>Permanent full-time employees</td><td>878</td><td>899</td><td>684</td><td>686</td><td>666</td><td>652</td><td>666</td></tr><tr><td>Permanent part-time employees</td><td>14</td><td>11</td><td>13</td><td>12</td><td>13</td><td>16</td><td>19</td></tr><tr><td>Temporary/provisional full-time and part-time</td><td>20</td><td>23</td><td>12</td><td>14</td><td>11</td><td>12</td><td>12</td></tr><tr><td>Casual employees</td><td>7</td><td>3</td><td>5</td><td>6</td><td>4</td><td>7</td><td>10</td></tr><tr><td>Long-term disability</td><td>8</td><td>8</td><td>9</td><td>6</td><td>5</td><td>8</td><td>9</td></tr></table> <p>1 Consists of full- and part-time employees only as of December 31, 2017.</p>		2011	2012	2013	2014	2015	2016	2017	Total number of employees company-wide <sup>1</sup>	892	910	697	698	679	668	685	Permanent full-time employees	878	899	684	686	666	652	666	Permanent part-time employees	14	11	13	12	13	16	19	Temporary/provisional full-time and part-time	20	23	12	14	11	12	12	Casual employees	7	3	5	6	4	7	10	Long-term disability	8	8	9	6	5	8	9	<b>Inside cover, 33</b>
	2011	2012	2013	2014	2015	2016	2017																																																			
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Casual employees	7	3	5	6	4	7	10																																																			
Long-term disability	8	8	9	6	5	8	9																																																			
<b>LA2</b> Employee new hires/turnover rate	<table><tr><th colspan="8">Number and percentage of new hires by country</th></tr><tr><th></th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>Canada</td><td>115 (80.4%)</td><td>106 (78.5%)</td><td>69 (86.3%)</td><td>112 (89%)</td><td>67 (84%)</td><td>23 (70%)</td><td>60 (86%)</td></tr><tr><td>United States</td><td>28 (19.6%)</td><td>29 (21.4%)</td><td>11 (13.8%)</td><td>14 (11%)</td><td>13 (16%)</td><td>10 (30%)</td><td>10 (14%)</td></tr></table> <table><tr><th colspan="8">Company-wide turnover rates</th></tr><tr><th></th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>Company-wide</td><td>11.5%</td><td>12.2%</td><td>38.3%</td><td>11.7%</td><td>10.9%</td><td>5.8%</td><td>7.7%</td></tr></table> <div><div><b>Turnover rates</b><ul style="list-style-type: none"><li>• Union: 4%</li><li>• Non-union: 9%</li><li>• Gender:<ul style="list-style-type: none"><li>Female: 8%</li><li>Male: 8%</li></ul></li><li>• Age:<ul style="list-style-type: none"><li>Under 35: 11%</li><li>35-49: 7%</li><li>50+: 7%</li></ul></li></ul></div><div><b>Turnover reason</b><ul style="list-style-type: none"><li>• Dismissal: 0.3%</li><li>• Gross misconduct: 0.0%</li><li>• Shortage of work: 0.1%</li><li>• Unsuccessful probation: 0.0%</li><li>• Resignation: 4.4%</li><li>• Retirement: 0.9%</li><li>• Other: 2.0%</li></ul></div></div>	Number and percentage of new hires by country									2011	2012	2013	2014	2015	2016	2017	Canada	115 (80.4%)	106 (78.5%)	69 (86.3%)	112 (89%)	67 (84%)	23 (70%)	60 (86%)	United States	28 (19.6%)	29 (21.4%)	11 (13.8%)	14 (11%)	13 (16%)	10 (30%)	10 (14%)	Company-wide turnover rates									2011	2012	2013	2014	2015	2016	2017	Company-wide	11.5%	12.2%	38.3%	11.7%	10.9%	5.8%	7.7%	<b>NA</b>
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GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>LA3</b> Benefits	<p><b>Retirement and savings plan</b></p> <p>Through the plan, employees receive:</p> <ul style="list-style-type: none"> <li>• Employees receive lower-than-retail investment management fees with the Capital Power Pension &amp; Savings Plan.</li> <li>• Employees receive access to financial advisors through Sunlife Financial to help determine the right accounts and saving options for personal goals and circumstances.</li> </ul> <p><i>Incentive pay</i></p> <ul style="list-style-type: none"> <li>• We paid \$102 million (CAD) in compensation and benefits in 2017 to Canadian employees and \$12 million (USD) to United States employees.</li> </ul> <p><i>Rewards and recognition</i></p> <ul style="list-style-type: none"> <li>• Employees who have provided five to 40+ years of service receive recognition through our Milestone Achievement Program.</li> <li>• In 2017, 140 employees were recognized for their long-term service with a gift card ranging in value from \$300 to \$2,500.</li> </ul> <p><i>Part-time policy</i></p> <ul style="list-style-type: none"> <li>• To assist employees with work-life balance, we make available long-term temporary part-time (i.e. a year or more) or permanent part-time arrangements.</li> </ul> <p><i>Temporary Flexible Work Arrangements Policy</i></p> <ul style="list-style-type: none"> <li>• To assist with short-term, acute, family or personal responsibilities, we offer flexibility for work arrangements (flextime, flexplace, reduced work schedule).</li> </ul>	NA
<b>LA4</b> Collective bargaining	<p>The labour unions we work with are in Canada (IBEW 1007, CSU 52, UNIFOR 829 and UNIFOR 1123) and, together, represent 39% of our labour force in Canada and 33% of our overall workforce (229 union employees).</p>	21
<b>LA5</b> Notice periods for operational changes	<p>The minimum notice period for operational changes varies among the collective agreements. On average, employees receive a minimum of 24 hours' notice for a change in shift.</p>	NA
<b>LA6</b> Workforce in health and safety committees	<p>In 2017, there were five safety committees:</p> <ul style="list-style-type: none"> <li>• Office Health and Safety Committee – 12 members</li> <li>• Genesee Safety Committee – 15 members</li> <li>• Roxboro Safety Committee – 6 members</li> <li>• Southport Safety Committee – 10 members</li> <li>• Clover Bar Energy Centre Health and Safety Committee – 9 members</li> </ul>	37



**LA7**

Injuries, diseases

We use the Total Recordable Injury Frequency (TRIF) calculation as one of the main measurement tools to evaluate our employees' and contractors' annual safety performance. TRIF includes lost-time incidents, restricted work, and medical-aid injuries that occurred during a calendar year, for every 200,000 hours worked. We also use the Lost-Time Injury Frequency (LTIF) and Lost-Time Injury Severity (LTIS) measures.

In 2017, we met our target of zero major and zero critical health and safety incidents and achieved an overall TRIF of 0.61. As of Dec. 31, 2017, we achieved 39 months without an employee lost-time incident.

**TRIF/LTIF/and LTIS showing year-over-year trend**

	2011	2012	2013	2014	2015	2016	2017
TRIF	1.44	1.46	0.96	0.16	0.10	0.68	0.61
LTIF	0.54	0.22	0.21	0.08	0.00	0.00	0.17
LTIS	14.7	8.7	9.0	0.99	0.00	0.00	0.00 <sup>1</sup>

1 Both lost-time incidents were contractors and there is no mechanism to track contractor LTIS (lost-time injury severity).

35, 37

**LA8**Education and  
support for disease  
prevention

*See section: People and practices – Going beyond.*

**Employee and family assistance**

- Through this program, employees and their families can access confidential third-party support services over the telephone, in person, or online.
- Experts assist employees and families with the support option that best meets their needs in areas of personal wellbeing, relationships, child and elder care, legal, financial, workplace challenges, addiction, nutrition, and health.

**Health and wellness features**

- Our Benefits program is available to all employees and includes:
  - Medical, dental, and vision care
  - A variety of health spending accounts
  - Short- and long-term disability
  - Basic and optional levels of life insurance
- *Sprout* is a fun and interactive online wellness platform (also available with a mobile app) launched in 2016 that helps employees reach their personal wellness goals and connect with like-minded colleagues through the sharing of wellness tips/tricks, recipes, and activity challenges. Capital Power conducted on-site, voluntary biometric health screenings and online health risk assessments to provide employees with a snapshot of their health. Through this initiative, Capital Power received aggregate reporting to assist in the development of future employee wellness initiatives.

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GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>LA9</b> Health and safety topics in trade union agreements	<p>Safety is widely accepted by our trade unions as being of utmost importance. The following are some examples of the types of health and safety topics covered in our trade union agreements:</p> <ul style="list-style-type: none"> <li>• Appointed representatives of the Company and IBEW shall meet on a regular basis to discuss and, if required, recommend changes regarding safety rules and regulations.</li> <li>• 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.</li> <li>• An annual safety footwear subsidy will be provided by the Company up to a maximum of \$500 in a calendar year.</li> </ul>	<b>GRI: LA4 on page 70</b>
<b>LA11</b> Skills management and lifelong learning	<p><i>See section: People and practices – Going beyond.</i></p> <p>We offer:</p> <ul style="list-style-type: none"> <li>• Courses through the Capital Power School of Business</li> <li>• Strong Start Orientation and On-Boarding Program</li> <li>• Summer Work Experience Program for students</li> <li>• Support for self-development</li> <li>• Talent Development program</li> </ul> <p><i>Educational support</i></p> <ul style="list-style-type: none"> <li>• To support employees in achieving their education goals, the After Hours Personal Development Program provides up to \$3,000 for full-time, and up to \$1,500 for part-time permanent employees.</li> <li>• Certificates, diplomas, degrees, or individual courses at an accredited post-secondary institution are all eligible.</li> <li>• In 2017, 46 people participated in after-hours programming, with almost \$86,000 being reimbursed to employees for training costs.</li> </ul>	<b>32-33</b>
<b>LA13</b> Composition of governance bodies and breakdown of employees by category	<p><i>See section: Leadership – Good governance and People and practices – Going beyond.</i></p>	<b>8-9, 33</b>
<b>LA14</b> Ratio of basic salary of women to men	<p><i>See section: People and practices – Going beyond.</i></p>	<b>33</b>
<b>EU14</b> Programs and processes to ensure the availability of a skilled workforce	<p><i>See section: People and practices – Going beyond.</i></p>	<b>32-33</b>

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																								
<b>EU15</b> Percentage of employees eligible to retire in the next five and 10 years, broken down by job category and by region	<p>Eligible to retire in five years:</p> <ul style="list-style-type: none"><li>Total company-wide: 7.5% (52 employees)<table><tr><td>Management:</td><td>10.5%</td><td>Canada: 9.2%</td><td>United States: 1.3%</td></tr><tr><td>Union:</td><td>5.3%</td><td>Canada: 5.3%</td><td>United States: 0%</td></tr><tr><td>Out of scope*:</td><td>18.5%</td><td>Canada: 5.4%</td><td>United States: 13.1%</td></tr></table></li></ul> <p>Eligible to retire in 10 years:</p> <ul style="list-style-type: none"><li>Total company-wide: 17.1% (119 employees)<table><tr><td>Management:</td><td>20.3%</td><td>Canada: 18.3%</td><td>United States: 2.0%</td></tr><tr><td>Union:</td><td>15.0%</td><td>Canada: 15.0%</td><td>United States: NA</td></tr><tr><td>Out of scope*:</td><td>38.3%</td><td>Canada: 15.2%</td><td>United States: 23.1%</td></tr></table></li></ul> <p>* Non-management, non-union hourly, and salaried employees.</p>	Management:	10.5%	Canada: 9.2%	United States: 1.3%	Union:	5.3%	Canada: 5.3%	United States: 0%	Out of scope*:	18.5%	Canada: 5.4%	United States: 13.1%	Management:	20.3%	Canada: 18.3%	United States: 2.0%	Union:	15.0%	Canada: 15.0%	United States: NA	Out of scope*:	38.3%	Canada: 15.2%	United States: 23.1%	NA
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<b>EU16</b> Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors	See section: People and practices – Going beyond.	39																								
<b>EU17</b> Days worked by contractor and subcontractor employees involved in construction, operation and maintenance activities	More than 840,000 contractor hours were recorded in 2017.	37																								
<b>EU18</b> Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	See section: People and practices – Going beyond.  100% of contractors must comply with our health and safety policies and procedures and must manage their health, safety, and environment (HSE) risks in a manner consistent with our company policy. We monitor health and safety performance as part of contractor selection and approval to perform or continue work.	NA																								

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>EU19</b> Stakeholder participation in the decision-making process related to energy planning and infrastructure	<i>See section: Stakeholder engagement – Engaging beyond.</i>	<b>20-23</b>
<b>EU20</b> Approach to managing the impacts of displacement	<p>We draw on best practices in public consultation and actively consult with our stakeholders—particularly about new projects or existing facilities.</p> <p>Our operations may require the acquisition and displacement of land from local landowners. We are committed to negotiating with landowners, offering fair market value for land, and offering other forms of compensation, such as relocation costs and replacement costs for infrastructure.</p>	<b>NA</b>
<b>EU21</b> Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	<i>See section: People and practices – Going beyond.</i>	<b>38-39</b>
<b>EU22</b> Number of people physically or economically displaced, and compensation, broken down by types of project	In 2017, no land acquisitions or displacement occurred.	<b>NA</b>
<b>EU25</b> Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.	No injuries or fatalities involving company assets occurred.	<b>NA</b>



GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>S01</b> Programs to manage impacts on communities	<i>See sections: Stakeholder engagement – Engaging beyond and Community investment – Giving beyond.</i>	20-23, 50-51
<b>S02</b> Percentage and total number of business units analyzed for risks related to corruption.	100% of our company, both facilities and offices, are analyzed for corruption. Capital Power conducts a fraud risk assessment on an annual basis.	NA
<b>S03</b> Employee training for anti-corruption	<i>See section: People and practices – Going beyond.</i>	33
<b>S04</b> Actions taken in response to corruption incidents	<i>See GRI HR4</i>	67
<b>S05</b> Public policy positions and lobbying	<i>See section: Stakeholder engagement – Engaging beyond.</i>	20
<b>S06</b> Financial/in-kind contributions to political parties and politicians	Capital Power complies with all federal, provincial and state laws governing political donations. In 2017, we gave \$1,080 to the New Democratic Party of British Columbia.	NA
<b>S07</b> Legal actions for anti-competitive behaviour  <b>S08</b> Fines and sanctions for non-compliance with laws/regulations	<p>Our energy trading operations in Alberta are subject to the Fair, Efficient and Open Competition (FEOC) Regulation and Alberta Electric System Operator (AESO) market rules and are monitored by the AESO and the Market Surveillance Administrator (MSA). All potential contraventions of market rules or FEOC violations are reviewed by our compliance and ethics team to determine if they constitute a reportable event. Non-compliance or potential non-compliance incidents are taken very seriously. The majority of potential market rule and FEOC violations are brought to our attention internally and then filed with the MSA if determined to be non-compliant. The MSA will review suspected contraventions and will issue forbearance or a fine.</p> <p>There were three specified penalties for contraventions of AESO Independent System Operator Market Rules which resulted in \$750 in penalties. When those events occur, corrective actions are taken to identify and address the root causes to prevent future occurrences.</p>	NA



## Product responsibility

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference
<b>PR2</b> Incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services	There were zero incidents of non-compliance with regulations and voluntary codes concerning the health and safety of products and services.	NA
<b>PR3</b> Type of product and service information	There were zero incidents of non-compliance with labelling requirements (the company has no products or services subject to labelling requirements).	NA
<b>PR4</b> Incidents of non-compliance – labelling	There were zero incidents of non-compliance with product and service information. The company has no products or services subject to labelling requirements, produces wholesale electricity, and does not operate a mass market-facing business.	NA
<b>PR5</b> Customer satisfaction	Capital Power is not a Competitive Energy Retailer nor a Regulated Rate Provider and has no mass market business. As such, Capital Power does not have aggregated survey results. We do follow up annually with some of our large commercial customers about meeting performance measures.	NA
<b>PR6</b> Marketing communications – laws	There were zero incidents of non-compliance related to marketing and advertising codes (the company has no products or services subject to marketing and advertising codes).	NA
<b>PR7</b> Marketing communications – compliance	There were zero incidents of non-compliance related to marketing and advertising codes (the company has no products or services subject to marketing and advertising codes).	NA
<b>PR8</b> Customer privacy	There were zero substantiated complaints regarding breaches of customer privacy or losses of customer data.	NA
<b>PR9</b> Fines for non-compliance		33, GRI: SO8 on page 75

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																																																																																																																																																																								
<b>EC1</b> Economic value generated and distributed, including donations	The following information paints a picture of the economic contributions (cash inflows and outflows) received and paid by Capital Power in 2017.	26-28, 50-51																																																																																																																																																																								
	<table><tr><th>\$millions</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td colspan="8"><b>Cash inflows:</b></td></tr><tr><td>Operating</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Revenues</td><td>1,911</td><td>1,197</td><td>1,416</td><td>1,099</td><td>1,245</td><td>1,114</td><td>1,183</td></tr><tr><td>Proceeds from sale of emission credits</td><td>20</td><td>42</td><td>43</td><td>33</td><td>63</td><td>49</td><td>56</td></tr><tr><td>Finance lease receipts</td><td>-</td><td>-</td><td>34</td><td>59</td><td>57</td><td>56</td><td>56</td></tr><tr><td>Distributions from joint venture</td><td>-</td><td>-</td><td>-</td><td>-</td><td>8</td><td>24</td><td>27</td></tr><tr><td>Income taxes recovered</td><td>-</td><td>-</td><td>19</td><td>11</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Government assistance<sup>1</sup></td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>-</td><td>-</td></tr><tr><td></td><td><b>1,932</b></td><td><b>1,240</b></td><td><b>1,513</b></td><td><b>1,203</b></td><td><b>1,374</b></td><td><b>1,243</b></td><td><b>1,322</b></td></tr><tr><td>Financing and investing</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Proceeds from issue of loans and borrowings</td><td>604</td><td>250</td><td>-</td><td>17</td><td>220</td><td>164</td><td>1,098</td></tr><tr><td>Proceeds from preferred shares issued</td><td>-</td><td>150</td><td>200</td><td>-</td><td>-</td><td>200</td><td>150</td></tr><tr><td>Proceeds from common shares issued</td><td>463</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>183</td></tr><tr><td>Proceeds from exercise of share options</td><td>6</td><td>8</td><td>-</td><td>24</td><td>2</td><td>-</td><td>17</td></tr><tr><td>Proceeds from sale of assets</td><td>131</td><td>116</td><td>569</td><td>2</td><td>2</td><td>-</td><td>-</td></tr><tr><td>Proceeds on sale and leaseback of generating facility</td><td>-</td><td>-</td><td>-</td><td>-</td><td>46</td><td>-</td><td>-</td></tr><tr><td>Interest received</td><td>2</td><td>7</td><td>3</td><td>2</td><td>4</td><td>1</td><td>1</td></tr><tr><td></td><td><b>1,206</b></td><td><b>531</b></td><td><b>772</b></td><td><b>45</b></td><td><b>274</b></td><td><b>365</b></td><td><b>1,449</b></td></tr><tr><td>Foreign exchange</td><td>-</td><td>-</td><td>-</td><td>-</td><td>8</td><td>4</td><td>(1)</td></tr><tr><td><b>Cash inflows to the Company</b></td><td><b>3,138</b></td><td><b>1,771</b></td><td><b>2,285</b></td><td><b>1,248</b></td><td><b>1,656</b></td><td><b>1,612</b></td><td><b>2,770</b></td></tr></table>	\$millions	2011	2012	2013	2014	2015	2016	2017	<b>Cash inflows:</b>								Operating								Revenues	1,911	1,197	1,416	1,099	1,245	1,114	1,183	Proceeds from sale of emission credits	20	42	43	33	63	49	56	Finance lease receipts	-	-	34	59	57	56	56	Distributions from joint venture	-	-	-	-	8	24	27	Income taxes recovered	-	-	19	11	-	-	-	Government assistance <sup>1</sup>	1	1	1	1	1	-	-		<b>1,932</b>	<b>1,240</b>	<b>1,513</b>	<b>1,203</b>	<b>1,374</b>	<b>1,243</b>	<b>1,322</b>	Financing and investing								Proceeds from issue of loans and borrowings	604	250	-	17	220	164	1,098	Proceeds from preferred shares issued	-	150	200	-	-	200	150	Proceeds from common shares issued	463	-	-	-	-	-	183	Proceeds from exercise of share options	6	8	-	24	2	-	17	Proceeds from sale of assets	131	116	569	2	2	-	-	Proceeds on sale and leaseback of generating facility	-	-	-	-	46	-	-	Interest received	2	7	3	2	4	1	1		<b>1,206</b>	<b>531</b>	<b>772</b>	<b>45</b>	<b>274</b>	<b>365</b>	<b>1,449</b>	Foreign exchange	-	-	-	-	8	4	(1)	<b>Cash inflows to the Company</b>	<b>3,138</b>	<b>1,771</b>	<b>2,285</b>	<b>1,248</b>	<b>1,656</b>	<b>1,612</b>	<b>2,770</b>	
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	<b>1,206</b>	<b>531</b>	<b>772</b>	<b>45</b>	<b>274</b>	<b>365</b>	<b>1,449</b>																																																																																																																																																																			
Foreign exchange	-	-	-	-	8	4	(1)																																																																																																																																																																			
<b>Cash inflows to the Company</b>	<b>3,138</b>	<b>1,771</b>	<b>2,285</b>	<b>1,248</b>	<b>1,656</b>	<b>1,612</b>	<b>2,770</b>																																																																																																																																																																			
	<p><sup>1</sup> We received approximately \$1 million per year from the Government of Canada through the Wind Power Production Incentive program, which was created to encourage the development of wind energy capacity. The incentive was approximately \$0.01 per kilowatt hour of production from our Kingsbridge Wind Power Project, which was commissioned in 2006. Eligible recipients can receive the incentive on the first 10 years of production. Capital Power received its last incentive payment as part of this program in March 2016.</p>																																																																																																																																																																									



(cont'd)

\$millions	2011	2012	2013	2014	2015	2016	2017
<b>Cash outflows:</b>							
Payments for energy and fuel	980	560	593	437	545	423	441
Operating expenses	219	196	167	162	185	180	174
Invested in property, plant, and equipment and other assets	438	563	917	204	129	247	263
Purchase of emission credits	21	35	22	23	11	28	35
<b>Total</b>	<b>1,658</b>	<b>1,354</b>	<b>1,699</b>	<b>826</b>	<b>870</b>	<b>878</b>	<b>913</b>
Community investment	1	1	1	2	2	2	3
Business acquisitions	647	-	-	23	-	-	839
Settlement of Sundance PPA legal action	-	-	-	-	-	20	-
Settlement and termination of interest rate non-hedge contracts	-	-	-	-	-	9	-
Employee compensation and benefits	155	143	149	121	122	114	129
Genesee Coal Mine prepayment	-	-	-	-	-	-	70
Payments to governments							
Income taxes	14	7	2	14	10	8	10
Property taxes	21	16	12	18	19	24	26
	<b>35</b>	<b>23</b>	<b>14</b>	<b>32</b>	<b>29</b>	<b>32</b>	<b>36</b>
<b>Financing costs:</b>							
Repayment of long-term debt	293	62	155	65	267	260	507
Interest and financing charges	122	89	93	87	94	80	92
Common shares purchased	-	-	-	-	121	22	-
Realized losses on settlement of foreign exchange derivatives	-	-	-	-	-	-	12
Debt issue costs	5	3	1	-	1	1	10
	<b>420</b>	<b>154</b>	<b>249</b>	<b>152</b>	<b>483</b>	<b>363</b>	<b>621</b>
<b>Investors</b>							
Distributions to non-controlling interests	110	42	36	24	13	-	-
Dividends paid to common shareholders	51	62	62	68	106	143	159
Dividends paid to preferred shareholders	6	6	20	21	22	23	35
Preferred share dividends paid by subsidiary	11	-	-	-	-	-	-
Share issue costs	20	5	6	-	-	6	11
<b>Total</b>	<b>198</b>	<b>115</b>	<b>124</b>	<b>113</b>	<b>141</b>	<b>172</b>	<b>205</b>
Foreign exchange and other	7	1	2	9	-	4	-
<b>Cash outflows to the Company's stakeholders</b>	<b>3,121</b>	<b>1,791</b>	<b>2,238</b>	<b>1,278</b>	<b>1,647</b>	<b>1,594</b>	<b>2,816</b>

GRI indicator and descriptor	Capital Power's disclosure/performance	page(s)/reference																																																																																
<b>EC3</b> Coverage of defined benefit plan obligations	<table><tr><th>Wages and compensation</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td>Employees that are members of registered defined contribution plan in Canada</td><td>273</td><td>317</td><td>254</td><td>322</td><td>321</td><td>319</td><td>356</td></tr><tr><td>Canadian employees that are members of Local Authority Pension Plan (LAPP), a multi-employer defined benefit plan in Canada</td><td>446</td><td>402</td><td>338</td><td>336</td><td>306</td><td>284</td><td>275</td></tr><tr><td>Employees that are members of a 401(k) plan in the United States</td><td>136</td><td>145</td><td>78</td><td>112</td><td>93</td><td>100</td><td>95</td></tr></table>	Wages and compensation	2011	2012	2013	2014	2015	2016	2017	Employees that are members of registered defined contribution plan in Canada	273	317	254	322	321	319	356	Canadian employees that are members of Local Authority Pension Plan (LAPP), a multi-employer defined benefit plan in Canada	446	402	338	336	306	284	275	Employees that are members of a 401(k) plan in the United States	136	145	78	112	93	100	95	NA																																																
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<b>EC5</b> Range of ratios of entry-level wage compared to local minimum wage	<table><tr><th>Comparisons – wages</th><th>2011</th><th>2012</th><th>2013</th><th>2014</th><th>2015</th><th>2016</th><th>2017</th></tr><tr><td colspan="8"><b>% workforce paid minimum wage</b></td></tr><tr><td>- Company-wide</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td></tr><tr><td>- Canada only</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td></tr><tr><td>- United States only</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td><td>0%</td></tr><tr><td>Difference between our lowest starting wage and local minimum wage (Alberta)</td><td>\$11.01</td><td>\$10.44</td><td>\$7.99</td><td>\$7.74</td><td>\$7.36</td><td>\$6.82</td><td>\$6.19</td></tr><tr><td colspan="8"><b># of employees earning lowest starting wage (national)</b></td></tr><tr><td>- Company-wide</td><td>3</td><td>6</td><td>3</td><td>4</td><td>6</td><td>6</td><td>4</td></tr><tr><td>- Canada only</td><td>2</td><td>3</td><td>2</td><td>3</td><td>3</td><td>4</td><td>3</td></tr><tr><td>- United States only</td><td>1</td><td>3</td><td>1</td><td>1</td><td>3</td><td>2</td><td>1</td></tr></table>	Comparisons – wages	2011	2012	2013	2014	2015	2016	2017	<b>% workforce paid minimum wage</b>								- Company-wide	0%	0%	0%	0%	0%	0%	0%	- Canada only	0%	0%	0%	0%	0%	0%	0%	- United States only	0%	0%	0%	0%	0%	0%	0%	Difference between our lowest starting wage and local minimum wage (Alberta)	\$11.01	\$10.44	\$7.99	\$7.74	\$7.36	\$6.82	\$6.19	<b># of employees earning lowest starting wage (national)</b>								- Company-wide	3	6	3	4	6	6	4	- Canada only	2	3	2	3	3	4	3	- United States only	1	3	1	1	3	2	1	NA
Comparisons – wages	2011	2012	2013	2014	2015	2016	2017																																																																											
<b>% workforce paid minimum wage</b>																																																																																		
- Company-wide	0%	0%	0%	0%	0%	0%	0%																																																																											
- Canada only	0%	0%	0%	0%	0%	0%	0%																																																																											
- United States only	0%	0%	0%	0%	0%	0%	0%																																																																											
Difference between our lowest starting wage and local minimum wage (Alberta)	\$11.01	\$10.44	\$7.99	\$7.74	\$7.36	\$6.82	\$6.19																																																																											
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- Canada only	2	3	2	3	3	4	3																																																																											
- United States only	1	3	1	1	3	2	1																																																																											
<b>EC6</b> Policy, practices and proportion of spending on locally-based suppliers	<i>See section: Economics – Delivering beyond.</i>	27																																																																																
<b>EC7</b> Procedures for local hiring and proportion of senior management hired from local communities																																																																																		
<b>EU8</b> R&D expenditures aimed at providing reliable electricity and promoting sustainable development	<p>We support university scientists and engineers in both basic and applied research through an ongoing partnership with the University of Alberta's Canadian Centre for Clean Coal/Carbon and Mineral Processing Technologies.</p> <p>We have spent over \$2.2 million testing potential bioenergy options at our Genesee Generating Station through two rounds of testing in 2016 and 2017. To date, we have tested co-firing solid biofuel which could reduce Genesee's carbon footprint and address growing bio-waste challenges in Alberta. If commercialized, the renewable solid biofuel co-firing project could result in the reduction of up to 600,000 tonnes of CO<sub>2</sub>-equivalent (greenhouse gas) emissions per year.</p>	Inside cover, 1, 4-5, 13, 15, 28, 42-45																																																																																

**EU30**

Average  
plant availability  
factor by energy  
source and by  
regulatory regime

Facility availability represents the percentage of time in the period that the facility was available to generate power, regardless of whether or not it was running. Availability by category was:

	Year ended December 31						
	2011	2012	2013	2014	2015	2016	2017
Alberta commercial facilities <sup>1</sup>	87%	92%	95%	94%	94%	92%	95%
Alberta contracted facilities	97%	94%	91%	93%	96%	96%	95%
Ontario and British Columbia contracted facilities	98%	98%	99%	98%	98%	98%	98%
United States commercial facilities <sup>2</sup>	88%	85%	87%	N/A	N/A	N/A	N/A
United States contracted facilities	100%	93%	95%	93%	94%	95%	96%

1 Excludes the results of the Sundance PPA.

2 Includes New England facilities, which were sold in November 2013.

NA

## Exclusions

**GRI indicators not reported** There are several GRI Indicators for which Capital Power does not report data. This section lists each indicator that is excluded from the report and the reason for the exclusion.

GRI indicator and descriptor	Reason for not reporting
<b>3.10</b> Effect of any restatements of information in previous report	No restatements occurred.
<b>3.13</b> Assurance – Financial and emissions data are externally audited annually	Financial and emissions data are externally audited on an annual basis.
<b>4.12</b> Externally developed charters (economic, environmental, social)	Capital Power does not have externally developed charters.
<b>EU3</b> Number of customer accounts	Capital Power is not a Competitive Energy Retailer nor a Regulated Rate Provider and has no mass market business. (Capital Power does provide energy-related services to large commercial and industrial customers.)
<b>EU4</b> Length of transmission lines	Capital Power does not operate transmission and distribution lines.
<b>EU6</b> Management approach to ensure short and long-term electricity availability and reliability	Capital Power is an independent power producer and operates in markets where it does not have overall market responsibility for managing short- or long-term electricity availability or reliability.
<b>EU7</b> Demand side management programs	Capital Power has no mass market power business and, therefore, no customer-facing demand management programs.
<b>EU9</b> Provisions for decommissioning nuclear power sites	Capital Power does not operate or own any nuclear power generation.
<b>EU10</b> Planned capacity against projected electricity demand over long-term	Capital Power is an independent power producer and operates in markets where it does not have overall market responsibility for managing short- or long-term electricity availability or reliability.
<b>EU12</b> Transmission and distribution losses	Capital Power does not operate transmission and distribution lines.
<b>EU23</b> Programs to improve or maintain access to electricity and customer support	Capital Power has no mass market power business and, therefore, no relevant customer programs.



GRI indicator and descriptor	Reason for not reporting
<b>EU24</b> Practices to address barriers to accessing and safely using electricity and customer support services	Capital Power has no mass market power business and, therefore, no relevant customer practices.
<b>EU26</b> Population unserved in licensed distribution or service areas	Capital Power does not provide transmission and distribution services.
<b>EU27</b> Number of residential disconnections for non-payment	Capital Power has no mass market power business.
<b>EU28 and EU29</b> Power outage frequency and duration	Capital Power does not provide transmission and distribution services.
<b>EN4</b> Indirect energy consumption	Capital Power does not track this information, and emissions from indirect energy consumption is not material compared to direct emissions from operations.
<b>EN6 and EN7</b> Initiatives to reduce indirect energy consumption	Capital Power does not currently collect this data.
<b>EN17</b> Other greenhouse gas emissions by weight	Not material.
<b>EN29</b> Significant environmental impact of transporting products	Capital Power does not transport products.
<b>EN30</b> Total environmental protection expenditures	Capital Power reports on specific projects; however, no total dollar value is reported for research and development activities as this data is not aggregated within the company.

## Exclusions

GRI indicator and descriptor	Reason for not reporting
<b>LA7</b> Rates of employee absenteeism	With information system upgrades completed in 2013, we no longer track employee absenteeism.
<b>LA10</b> Average hours of training per year per employee	Capital Power does not currently collect this data.
<b>LA12</b> Percentage of employees receiving regular performance and career development reviews	Managers are responsible for providing regular (at least annual) performance reviews for their employees; however, Capital Power's systems do not currently collect aggregated data on the completion of reviews.
<b>LA15</b> Return to work and retention rates after parental leave by gender	Capital Power does not currently collect this data.
<b>PR1</b> Life cycle stages in which health and safety impacts of products and services are assessed for improvement	As a power producer, Capital Power does not have products and services.
<b>SO9</b> Operations with significant potential or actual negative impacts on local communities	Capital Power continually monitors its environmental impact and works closely with the community. No reports to date have attributed negative significant impacts specific to Capital Power's operations.
<b>SO10</b> Prevention and mitigation measures for negative impacts on local communities	Capital Power continually monitors its environmental impact and works closely with the community. We design projects that are safe, efficient, and reliable and by working with stakeholders, we take steps to incorporate measures to prevent or mitigate negative impacts on local communities.

Seeing beyond...







## Contact us

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