

# MOVING IN THE RIGHT DIRECTION

**CAPITAL POWER CORPORATION**  
CORPORATE RESPONSIBILITY REPORT 2009



## ABOUT THIS REPORT

Capital Power's inaugural corporate responsibility report provides clear, accurate and balanced information about the company's achievements and challenges with respect to the environment, health and safety, human resources, community investment, financial performance, and other aspects of the company's operations and corporate responsibility in 2009.

Any reference to Capital Power in this report means Capital Power Corporation, and its subsidiaries on a consolidated basis, including its interest in Capital Power Income L.P. (CPILP), except where otherwise noted or the context otherwise indicates.

## GLOBAL REPORTING INITIATIVE

This report follows guidelines defined in the Global Reporting Initiative (GRI), an internationally recognized standard for corporate responsibility reporting. The GRI guidelines set out the principles and indicators organizations can use to measure and report their environmental, economic and social performance. More information about the GRI is available at [www.globalreporting.org](http://www.globalreporting.org).

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"Capital Power is aiming to be more than just another power producer. We intend to stand out with a combination of business strategy and financial discipline that delivers superior value to shareholders."

**BRIAN VAASJO**, President and CEO

# A CLEAR FUTURE

Capital Power (TSX: CPX) is a growth-oriented North American power producer, building on more than a century of innovation and reliable performance.

Headquartered in Edmonton, Alberta and employing approximately 1,070 people, Capital Power has interests in 31 facilities in Canada and the United States. Total generation capacity is approximately 3,300 megawatts.

## VISION AND MISSION

Capital Power's vision is to be one of North America's most respected, reliable and competitive power generators. The company's mission is the development, acquisition, construction, operation, and optimization of large-scale, fuel-diverse, and cost-effective power generation facilities in North America.

## REPORT SCOPE

This report includes energy production and environmental performance data from power plants for which Capital Power or one of its subsidiaries held the operating permit in 2009. Data from each plant represents the entire plant, not Capital Power's financial share of the operation. This includes Genesee 3, co-owned with TransAlta, for which a Capital Power entity holds the operating permit.

Data from the Joffre and Taylor Coulee facilities is not included because Capital Power does not hold their operating permits. Data from the Primary Energy Recycling Holdings (PERH) facilities is not included because PERH is not a subsidiary of Capital Power Income L.P. The Castleton facility was sold in 2009 and, therefore, its data is not included in this report.

One of the challenges in preparing this report was the need to synthesize data from numerous jurisdictions, some of which have different reporting requirements, methods and standards. Where possible, information has been consolidated – for example, greenhouse gas emissions data for Capital Power's facilities in Canada and the United States. In other areas, information is presented separately or from a single jurisdiction.

In accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard [World Resources Institute and World Business Council for Sustainable Development (2004)], greenhouse gases released from the company's landfill gas and biomass facilities are not included in emission totals and intensities. In 2009, these emissions totalled 626,000 tonnes of carbon dioxide equivalent, compared with 809,000 tonnes in 2008.

## THIRD-PARTY ASSURANCE

PricewaterhouseCoopers LLP (PwC) was engaged to review methodologies, data collection and analyses processes used to compile data for this report. PwC's Independent Assurance Report, which identifies the specific performance indicators they reviewed, their conclusion, and a brief description of the assurance procedures is located on pages 72-73.

## STRATEGY

### GROWTH AND STRATEGY

Capital Power aims to triple its power generation capacity, on a progressively accretive basis, by the year 2020. The company also aims to become one of the most desired employers by providing an excellent working environment and a safe workplace. The corporate strategy supporting the mission and vision includes the following three core elements:

- a business strategy to make Capital Power a competitively priced producer, by reducing development and acquisition costs, focusing on a limited number of power generation technologies, and managing a portfolio of assets in select markets;
- a disciplined financial strategy to deliver consistent access to low-cost capital by maintaining an investment-grade credit rating, an effective enterprise and commodity risk management system, and a balance between contracted and merchant cash flows; and
- a proactive and protective risk and resource management strategy that supports and enhances the company's ability to manage the risks of its power generation business through effective systems and diversification.

Through the disciplined execution of the corporate strategy, Capital Power believes it can achieve its goal of delivering total shareholder return that is greater than the average of its peer group.

## REPORTING INTERVALS

Capital Power plans to report on its corporate responsibility on an annual basis.

## REPORTING PERIODS

Capital Power was established effective July 1, 2009 when EPCOR sold its power generation business to Capital Power. Accordingly, most indicators are reported for the calendar year of 2009, and comparative values are those previously reported by EPCOR in 2008. Management believes that this presentation of information best meets stakeholder information needs. Exceptions to this principle are as follows:

- information presented as a “snapshot in time” as at December 31, 2009, for example, data on power generating capacity and workforce composition;
- information of a financial nature presented for the six-month period starting July 1, 2009 and ending December 31, 2009, consistent with Capital Power’s financial reporting, for example, data on economic performance and community investments;
- information presented for the six-month period starting July 1, 2009 and ending December 31, 2009 where data for the period prior to July 1 is not readily available due to data management system changes, for example, injury frequency rates.

## ADDITIONAL INFORMATION

This icon appears next to topics throughout the printed report to indicate that further information is available online. Additional information about Capital Power’s corporate responsibility performance is available at [capitalpower.com](http://capitalpower.com).

## OTHER REPORTING

Capital Power’s other public disclosures, in particular the Annual Report and Annual Information Form (AIF), include detailed content that responds to certain GRI indicators. This content is incorporated by cross-reference throughout the report, and the documents are available at [sedar.com](http://sedar.com).

Capital Power’s Canadian power plants operating above a certain emission-level threshold publicly file annual reports with Canada’s National Pollutant Release Inventory. These reports are available at [www.ec.gc.ca/inrp-npri](http://www.ec.gc.ca/inrp-npri).

Residents living near the Genesee Generating Station receive the bi-monthly Genesee Station Connection Newsletter, which provides information about the facility’s emissions performance and other issues related to plant and mine operations. Back issues are available at [capitalpower.com](http://capitalpower.com).

Capital Power is also developing newsletters for residents living near certain other facilities owned and/or operated by Capital Power.

## PROCESS FOR DEFINING CONTENT

An extensive process for defining content, including stakeholder consultation, was developed by Capital Power’s predecessor company, EPCOR, in 2007 and 2008. In developing its 2009 report, Capital Power followed similar guidelines in determining priority topic areas and materiality.

## QUESTIONS OR COMMENTS

Feedback and questions are welcomed. Contact Capital Power at:

Capital Power  
External & Investor Relations  
9th floor, 10065 Jasper Avenue  
Edmonton, AB T5J 3B1  
(780) 392-5009

## PRESIDENT'S MESSAGE

### MOVING IN THE RIGHT DIRECTION

The people of Capital Power are deeply committed to achieving the company's vision of becoming one of the most respected, reliable, and competitive power producers in North America. Acting responsibly and respectfully in every aspect of our operations is vital to the realization of our goals.

This corporate responsibility report, the first for Capital Power, reports on our accomplishments and challenges with respect to the company's performance across a wide range of topic areas.

Our aim is to provide readers with honest, accurate, and balanced information so they may form their own judgments about how Capital Power is meeting its commitments to employees, investors, the environment, communities, and society at large.

With close to 60% of our net generation coming from coal, responsibly managing emissions remains one of our greatest challenges. Capital Power's strategy for reducing emissions includes significant investments in new technology, and the creation and acquisition of emission offsets.

We are also growing our portfolio of contracted renewable energy projects, with approximately \$800 million already committed to wind projects currently in development.

From the use of laser technology to monitor emissions on a real-time basis, to the supercritical combustion process used in our coal plants, to the design of a facility that would reduce greenhouse gas emissions to virtually zero, Capital Power is at the forefront of environmental responsibility.



"Acting responsibly and respectfully in every aspect of our operations is vital to the realization of our goals."

**BRIAN VAASJO**, President and CEO

## OPERATIONS

### OPERATIONS

Capital Power's operations and business interests extend across North America. At December 31, 2009 these included:

- six merchant facilities and one Power Purchase Agreement (PPA) in Alberta, whose 1,066 megawatts of power is sold into deregulated wholesale power markets;
- five contracted facilities in Alberta, British Columbia and Ontario, whose 900 megawatts of power are sold to counterparties through PPAs or long-term contracts; and

- 20 facilities with 1,668 megawatts of gross capacity owned by Capital Power Income L.P.\*

For information on the production capacity, energy source, location, and ownership interests for Capital Power's 31 facilities, please see the tables provided in Capital Power's 2009 AIF and 2009 Annual Report, and the 2009 Annual Report for Capital Power Income L.P. 

\* As of December 31, 2009, Capital Power Corporation indirectly held a 30.5% interest in Capital Power Income L.P. and serves as its manager and General Partner.

A leading example of how Capital Power is advancing power technologies is the detailed engineering and design work we completed for the world's first Integrated Gasification Combined Cycle (IGCC) facility that incorporates carbon capture and storage. This work was completed in 2009 following nearly four years of effort.

Capital Power's partnership with the Government of Canada, the Government of Alberta, and the Canadian Clean Power Coalition showed that Alberta's sub-bituminous coal can be gasified. It also proved that gasification technology and carbon capture and storage work well in combination.

Although it is not economic to build the IGCC facility today, the work done to date marks a significant step forward in the right direction. It also provides a technical platform of knowledge for others seeking to use an abundant natural resource in a way that creates significantly lower emissions.

Capital Power is a fairly new company, yet it is firmly anchored to an established legacy of integrity, innovation, and more than a century of experience. This solid foundation has enabled the company to blaze a new trail in the North American power generation industry.

We will continue moving in the right direction through our passion for excellence in all aspects of our business, our commitment to the environment and the communities we serve, our drive towards a culture of fully engaged employees and zero injuries in the workplace, and our dedication to full transparency.

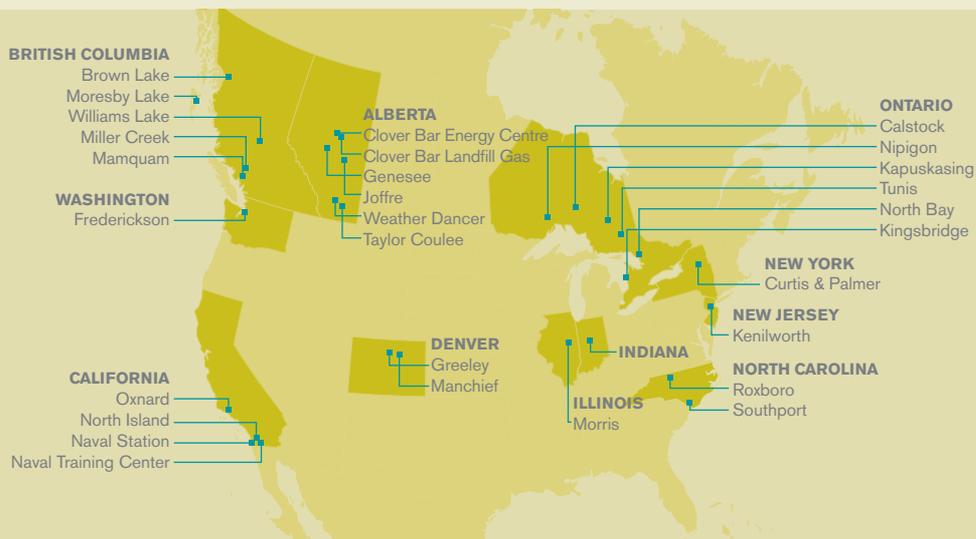
We will work hard to earn and sustain your trust in the years ahead.

**Brian Vaasjo** President and CEO

## CREATION OF CAPITAL POWER

In July 2009, Capital Power issued 21.75 million common shares at a price of \$23 per share in an Initial Public Offering (IPO) pursuant to an underwriting agreement with a group of underwriters. The proceeds from the IPO, net of underwriter and issue costs, were approximately \$475 million. Concurrent with the completion of the IPO, Capital Power L.P. acquired substantially all of the power generation assets of EPCOR through a series of transactions.

The IPO and reorganization are summarized on pages seven through 10 of Capital Power's 2009 AIF, and additional information is available in Capital Power's Prospectus, dated June 25, 2009. Both documents can be downloaded from [sedar.com](http://sedar.com) or [capitalpower.com](http://capitalpower.com).



# 10,000

MEGAWATT CAPACITY  
TARGET BY 2020

## IMPACTS, RISKS AND CHALLENGES

### RESPONSIBLY MANAGING GROWTH

Safely managing, operating and maintaining power generation facilities in a way that maximizes efficiency, productivity and reliability, while minimizing costs and reducing environmental impact, forms the basis of Capital Power's operational strategy.

The company's plan to increase capacity to 10,000 megawatts by the year 2020 includes a comprehensive strategy to protect the environment, improve safety performance, enhance shareholder value, invest in communities, and involve key stakeholders in proposed projects and expansions.

### HIGHLY REGULATED

Capital Power's operations in Canada and the United States are subject to extensive environmental, health and safety, and other laws, regulations and guidelines. Operating in several jurisdictions across North America, each with differing regulatory regimes and evolving regulatory conditions, continues to present challenges and risks. Capital Power is dedicated to meeting all of its commitments to protecting the environment in every jurisdiction where it conducts business.

### REDUCING EMISSIONS

Although Capital Power's diversified portfolio of power generation facilities increasingly includes renewable and recycled energy sources, the majority of the company's generation in 2009 relied on the burning of fossil fuels to generate electricity.

Responsibly managing emissions of carbon dioxide, nitrogen oxide, sulphur dioxide, particulate matter, and mercury remains a formidable challenge requiring diligent monitoring, testing, and continuous improvement through technology improvements and efficiency upgrades. Offsetting emissions through the creation and acquisition of carbon offset projects is also part of Capital Power's plan to reduce greenhouse gas emissions.

**Offsetting emissions through the creation and acquisition of carbon offset projects is also part of Capital Power's plan to reduce greenhouse gas emissions.**

### **EMERGING TECHNOLOGIES**

Capital Power is working with the Government of Canada and the Government of Alberta to pursue commercially available technology solutions to create measurable reductions in emissions. The company aims to demonstrate how technology solutions can create electricity from coal, with virtually zero emissions.

### **INVESTING FOR TOMORROW**

Economic uncertainty and poor market conditions for the power generation industry in Capital Power's first year of operation created additional challenges in meeting the company's goals on all fronts. Investing in renewable energy and new technology, initiating new programs for innovative land management, and moving forward with efficiency upgrades requires a long-term view, and Capital Power stayed the course in 2009.

### **WORKPLACE SAFETY**

As Capital Power grows, so do the challenges around achieving and maintaining a zero-injuries safety record. Capital Power's performance-based safety approach will remain a core focus, and every employee and contractor will continue to be held responsible and accountable for his or her own safety. Safety metrics will create ongoing safety awareness and drive continual improvement.



## ENVIRONMENT

### PROTECTING WHAT'S IMPORTANT

This section describes Capital Power's environmental practices and impacts with respect to air, land, water, wetlands, wildlife, and biodiversity.

#### BY THE NUMBERS

In December 31, 2009, Capital Power owned and/or operated approximately 3,300 megawatts of generation capacity, with facilities in three Canadian provinces and eight American states.

In 2009, approximately 57% of the company's generation came from coal, 20% from natural gas, 8% from renewable sources such as wind, biomass, and small hydro, and 15% from waste heat.

In 2009, Capital Power's operations produced 2,712,000 megawatt hours of electricity from waste heat and fuel produced by industrial and electric generation processes. This energy would otherwise have been lost to the atmosphere. This is up significantly from 1,995,000 megawatt hours in 2008, primarily due to the addition of a full year's output from the Morris natural gas co-generation plant in Illinois, which was acquired by Capital Power Income L.P. in 2008.



Capital Power's vigorous efforts to reduce emissions in 2009 involved market-leading practices in emission offset practices, better systems for continuous emissions monitoring, and improvements to systems for capturing mercury and nitrogen oxide emissions.

#### CARBON CAPTURE & STORAGE

Planning is underway for Keephills 3 to become the site of one of the world's largest carbon capture and storage projects (see page 11).

WASTE HEAT

#### ENERGY PRODUCED FROM WASTE HEAT (MWh)



2009	2,712,000
2008	1,995,139



BY THE  
NUMBERS

57

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PERCENTAGE OF  
GENERATION FROM COAL

20

---

PERCENTAGE FROM  
NATURAL GAS

15

---

PERCENTAGE FROM  
WASTE HEAT

8

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PERCENTAGE FROM  
RENEWABLE SOURCES

A partnership between  
Capital Power, TransAlta and  
Alstom Canada aims to capture  
1 million tonnes of greenhouse  
gas emissions annually at the new  
Keephills 3 facility in Alberta.

■ GENERATING  
**RESULTS**



## STEPS ON PATH TO SMALLER CARBON FOOTPRINT AIR & CLIMATE PERFORMANCE

**A diverse portfolio of energy supply options is essential for a stable and economical source of electricity for North Americans. While Capital Power continues to move forward with new projects that use renewable energy sources such as wind, the company believes that North America's energy security will continue to depend, in large part, on energy derived from coal.**

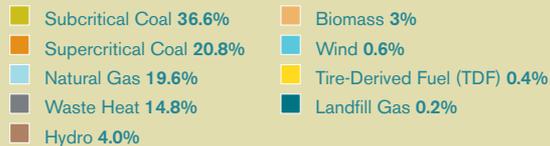
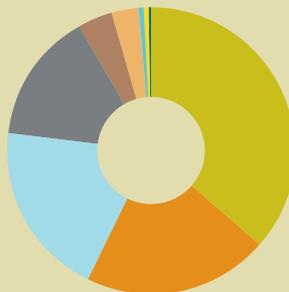
Capital Power was the first Canadian company to use supercritical combustion technology at its power plants and is a pioneer in using laser monitoring technology in coal plants. Today, the company is at the forefront of plans to use clean power technologies that reduce emissions to virtually zero.

Capital Power's vigorous efforts to reduce emissions in 2009 also involved market-leading practices in emission offset practices, and better systems for continuous emissions monitoring and for capturing mercury and nitrogen oxide emissions.

### ADVANCED COAL PLANTS

The Keephills 3 facility, co-owned with TransAlta, will join Genesee 3 as the cleanest, most advanced coal plant in Canada when the facility is commissioned in 2011. Compared to older, recently retired coal-fired power plants in Alberta, Keephills 3 will emit 24% less carbon dioxide per megawatt of power produced.

### HOW GENERATION IS FUELLED AT CAPITAL POWER



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.

IGCC with carbon capture and storage  
0.27



Genesee 3 (supercritical)  
0.88



Genesee units 1 and 2 (subcritical)  
0.97



**HOW IGCC WITH CARBON CAPTURE AND STORAGE COMPARES TO OTHER TYPES OF GENERATING PLANTS IN CARBON EMISSIONS**  
(2008 EMISSION INTENSITIES IN TONNES CO<sub>2</sub>E PER MWh)

## CARBON CAPTURE & STORAGE

Planning is underway for Keephills 3 to become the site of one of the world's largest carbon capture and storage projects. A partnership between Capital Power, TransAlta, and Alstom Canada, Project Pioneer aims to capture one million tonnes of greenhouse gas emissions annually – more than 30% of the carbon emissions from the plant. This reduction is in addition to the efficiency gain resulting from the use of supercritical combustion technology at the facility.

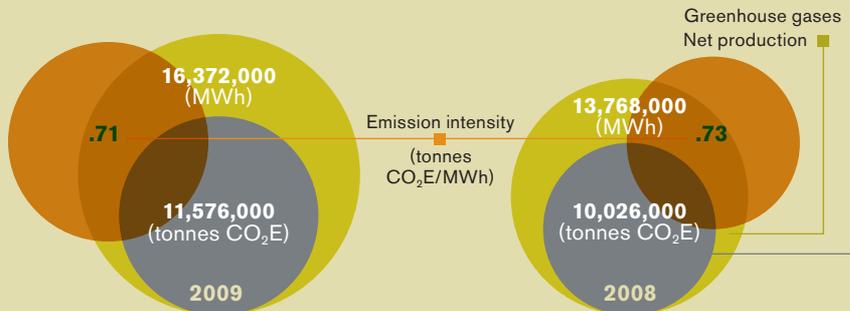
The Government of Canada committed \$343 million to Project Pioneer through its Clean Energy Fund and the federal ecoENERGY Technology Initiative in 2009. The Government of Alberta is also a major contributor, with an investment of \$431 million over the next 15 years, and an additional \$5 million to support front-end engineering and design to scale up Alstom's chilled ammonia process.

If the technology and economics work, the carbon dioxide emissions from Keephills 3 will be close to those of a natural gas plant. In slightly more than a decade, Capital Power and its partners will have reduced emissions from new coal generation in Alberta by almost half.

## NEAR-ZERO EMISSIONS TECHNOLOGY

In a major step forward in the advancement of clean power technologies, Capital Power partnered with the Government of Canada, the Government of Alberta, and the Canadian Clean Power Coalition on a groundbreaking study and design for an IGCC facility with carbon capture and storage. This credible blueprint for a near-zero emissions plant at the Genesee Generating Station will be refined as emerging technologies become commercially viable.

## GREENHOUSE GAS INTENSITY FROM FOSSIL FUEL FACILITIES



Production includes the entire production from fossil fuel facilities, including the production from waste heat. CO<sub>2</sub>E is carbon dioxide equivalent.

Capital Power has effectively demonstrated how gasification technology can convert Alberta coal into synthetic gas, stripping out impurities before burning the gas in a combustion turbine to create electricity. The IGCC study demonstrates how gasification, power generation, and carbon capture and storage technologies would work together, and shows that the facility could operate at predicted availability and efficiency levels.

The \$33 million research and design initiative (\$11 million each for Capital Power, the Government of Canada, and the Government of Alberta) is the first in the world.

### RESEARCHING NEXT-GENERATION TECHNOLOGIES

Capital Power has been actively supporting the University of Alberta's research of clean coal technologies since 2006, when the company's predecessor contributed \$625,000 towards a Chair in Advanced Coal Cleaning and Combustion Technology. A further \$1 million was subsequently provided for the establishment of the Canadian Centre for Clean Coal/Carbon and Mineral Processing Technologies.

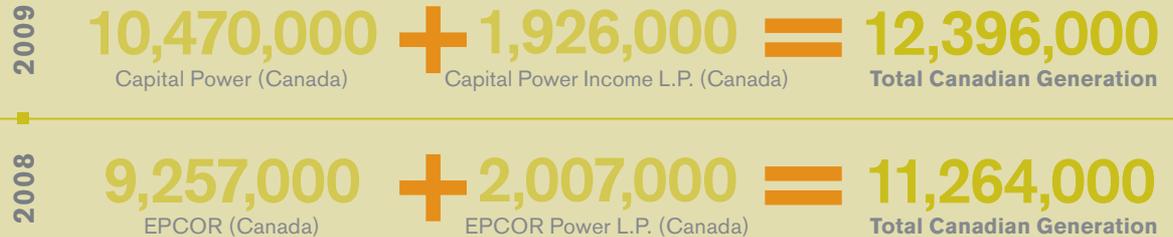
The new \$21 million teaching and research facility opened in 2010 at the University of Alberta's Faculty of Engineering. It will help educate the next generation of clean energy engineers while developing new technologies to process minerals, produce clean coal, and reduce greenhouse gas emissions. With leading-edge equipment and internationally respected researchers, the facility will also promote the development and upgrading of Alberta's natural resources in an environmentally responsible manner.

70%

MERCURY IN COAL CAPTURED BY NEW CAPITAL POWER EQUIPMENT SINCE LATE 2009

EXPANSION

NET GENERATION (MWH)



With the completion of the Clover Bar Energy Centre in Edmonton, Alberta, Capital Power now operates the most modern natural gas turbines in Canada, which are among the first of their kind in the world.



### BETTER MONITORING

Laser monitoring technology installed at the Genesee 3 facility is expected to reduce carbon dioxide by 60,000 tonnes per year, equal to nearly a year's reduction requirement under Alberta regulations. Capital Power was the first company in North America to install this kind of technology in a coal plant.

The laser monitor yields real-time data, including precise measurements of the concentration of carbon dioxide in the flue gas. Using this knowledge, operators can make daily adjustments to the pressure and temperature of steam from the plant's supercritical boiler.

### CAPTURING MERCURY

In late 2009, Capital Power installed new equipment that monitors mercury emissions and captures at least 70% of the mercury in the coal. The activated carbon injection system and continuous emissions monitoring system on Genesee units 1, 2 and 3 are being commissioned in 2010. The capital costs for Genesee 3 are approximately \$2.5 million, and operating costs are expected to be approximately \$1 million per year.

### WORLD'S MOST MODERN GAS TURBINES

Despite a challenging economy and low power prices in 2009, Capital Power retrofitted several of its facilities and made substantial investments in technologies that reduce emissions. For example, with the completion of the Clover Bar Energy Centre in Edmonton, Alberta, Capital Power now operates the most modern natural gas turbines in Canada, which are among the first of their kind in the world.

**+ 5,874,000** = **18,270,000**  
Capital Power Income L.P. (U.S.)      Capital Power Total

**+ 5,056,000** = **16,320,000**  
EPCOR Power L.P. (U.S.)      EPCOR Total

For the periods 2008 and January 1 – June 30, 2009, production statistics are for the relevant predecessor entity. EPCOR Utilities Inc.'s power generation business is the predecessor for Capital Power Corporation, and EPCOR Power L.P. the predecessor for Capital Power Income L.P. Production statistics may differ from other published statistics due to differences in the scope of reporting (see page 3).

Using the same technology as super-efficient jet engines, the Clover Bar facility's two newest turbines use 85% less water and produce about 70% less nitrogen oxides per megawatt hour compared with the old facility, decommissioned in 2007. These two units can reduce carbon dioxide emissions by more than 30,000 tonnes per year, the equivalent of taking 5,000 cars off the road every year.

### FUEL FLEXIBILITY IN NORTH CAROLINA

An investment of US\$87 million in the Southport and Roxboro plants in North Carolina increased the fuel-mix flexibility and efficiency of these facilities in 2009. Both plants received significant upgrades to their distributed control systems, fuel-handling equipment and emission-control systems.

The plants are moving away from a fuel mix of 85% coal, 10% tire-derived fuel (TDF) and 5% wood to a nominal fuel mix of one-third coal, one-third TDF and one-third wood. Increasing the wood-fuel percentage reduces carbon emissions and will maximize the company's ability to create Renewable Energy Credits.

### CALIFORNIA FACILITY GETS GREENER

Capital Power's combined heat and power facility in North Island, California is now more efficient, reliable and environmentally responsible with the installation of a new carbon monoxide converter, a selective catalytic reduction unit, and a new GE LM6000 natural gas turbine.

Nitrogen oxide emissions are one-sixth of previous levels and the plant now uses approximately 13% less fuel than before the new turbine was installed. The unit uses 12 million fewer gallons of water per year, a critical improvement in a region (San Diego) that imports approximately 90% of its water.

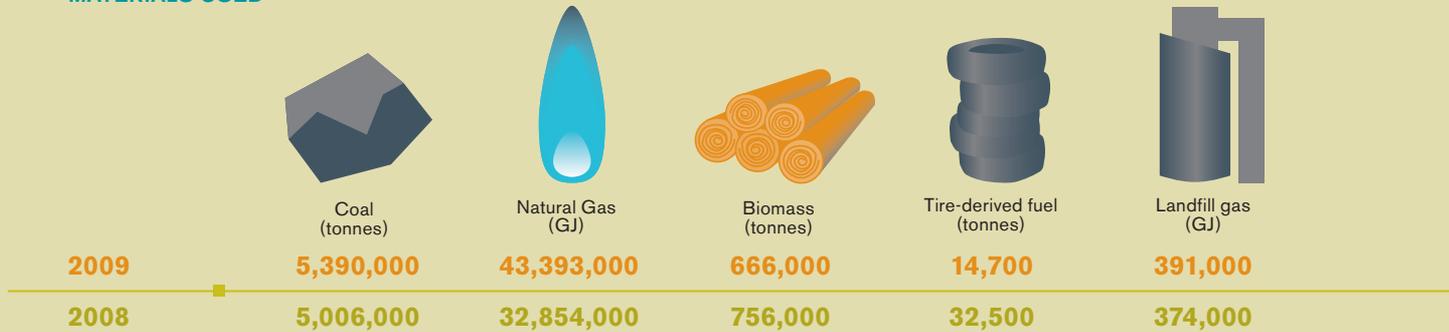
Capital Power also finalized pre-planning for a similar upgrade to reduce emissions at its Oxnard facility in California.



Nitrogen oxide emissions at the North Island plant in California are one-sixth of previous levels.

USE

### MATERIALS USED



## INVESTING \$800 MILLION IN WIND POWER

Capital Power is developing wind projects in Ontario and British Columbia, representing a combined investment of approximately \$800 million. Both projects, selected for long-term power contracts in early 2010, are expected to proceed, following provincial environmental and regulatory approvals.

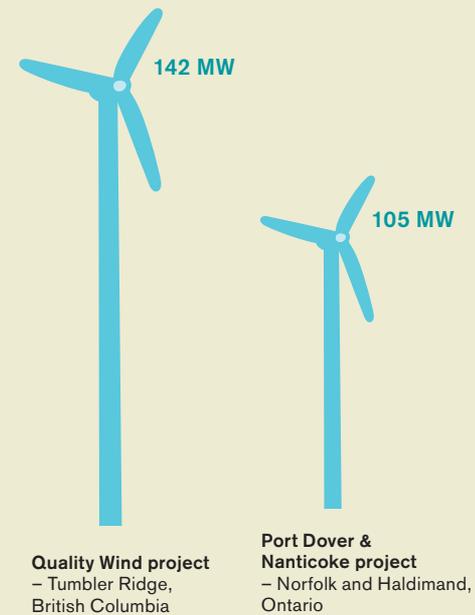
Under an Energy Purchase Agreement with BC Hydro, the 142-megawatt Quality Wind project will feature approximately 79 turbines northeast of Tumbler Ridge, British Columbia. The project received an Environmental Assessment Certificate in July 2010, and commercial operation is expected to commence no later than the spring of 2013.

The 105-megawatt Port Dover & Nanticoke project in the Ontario counties of Norfolk and Haldimand will sell power through a contract with the Ontario Power Authority's Feed-in-Tariff starting in the fourth quarter of 2012.

## FUTURE GROWTH IN THE WIND POWER PORTFOLIO

Capital Power submitted an application to the Ontario Power Authority's Feed-in-Tariff program for the Kingsbridge II Wind Power Project in late 2009. Proposed for the Township of Ashfield-Colborne-Wawanosh, the project could generate an additional 270 megawatts of renewable energy for Ontario.

Capital Power's existing Kingsbridge wind farm, near the community of Goderich, Ontario, already contributes approximately 109,000 megawatt hours of renewable power annually, enough to power 12,500 homes.



## ASH RECYCLING AND DISPOSAL (TONNES)

	2009	2008
Ash volume created	1,001,000	946,000
Ash volume recycled	188,000	208,000
Ash volume land-filled	57,000	79,000
Ash volume mine-filled	755,000	659,000
Marketable fly ash sold (Genesee)	47%	57%
Marketable bottom ash sold (Genesee)	6.9%	5.5%
Recycled ash sold (Genesee)	20%	23%

## ENERGY PRODUCTION AND EMISSIONS

### ELECTRICITY PRODUCTION RISES 12%

In 2009, Capital Power's net generation was approximately 18.3 million megawatt hours, an increase of about 12% over the previous year.

Net generation from coal increased approximately 7%, reflecting a return to expected levels of production from the Genesee Generating Station compared with lower plant output in 2008. The reduced plant availability in 2008 was the result of planned shutdowns for maintenance that year, and a turbine failure at the Genesee 3 unit, which resulted in a 39-day unplanned outage.

Co-generation more than tripled in 2009, primarily due to significantly higher output from the natural gas co-generation plant in Morris, Illinois. Acquired in late 2008, the facility contributed just under half a million megawatt hours to net production that year, compared with approximately 1.6 million megawatt hours in 2009, the plant's first full year of production under Capital Power's ownership.

Natural gas generation also increased in 2009, in part due to the addition of two new units at the Clover Bar Energy Centre.

Fuel use reflected changes in generation volumes, with coal use higher in 2009 than 2008 due to increased production at the Genesee Generating Station, and lower biomass consumption due to reduced operations at Williams Lake. Tire-derived fuel use was significantly lower in 2009 due to construction at the Roxboro and Southport facilities, which will decrease the plants' use of coal and increase the use of biomass and tire-derived fuel.

### NET PRODUCTION BY ENERGY SOURCE (MWH)

	2009	2008
Coal	10,485,000	9,769,000
Natural gas	3,575,000	2,927,000
Waste heat	2,712,000	1,995,000
Hydro	736,000	728,000
Biomass	552,000	640,000
Wind	104,000	119,000
Tire-derived fuel	75,000	107,000
Landfill gas	36,000	35,000
Net production	18,270,000	16,320,000
Gross production	19,310,000	17,288,000
Electricity consumed by station services	1,040,000	968,000

Production includes both electricity and imported steam. The conversion of steam (GJ) to an electricity equivalent (MWh equivalent) assumes several ideal conditions, which results in an approximate number. Production statistics differ from other published statistics due to differences in reporting scope.

### DIRECT ENERGY CONSUMPTION (GJ)

Fuel Source	2009	2008
Coal	105,983,000	96,090,000
Natural Gas	43,393,000	32,854,000
Biomass	6,858,000	7,745,000
Tire-Derived Fuel	465,000	1,056,000
Landfill Gas	391,000	374,000

**CO<sub>2</sub> EMISSIONS RISE 8%, EMISSIONS INTENSITY IMPROVES**

Carbon dioxide emissions intensity – or tonnes of greenhouse gas per megawatt hour – was slightly lower in 2009 compared with 2008. The total volume of carbon dioxide emissions was approximately 8% higher.

The primary reason for higher volumes of carbon dioxide emissions in 2009 relates to reduced output from the Genesee Generating Station in 2008. Both net generation and greenhouse gas emissions from the facility were approximately 15% lower in 2008 than in 2009.

On an intensity basis, the higher production and emissions at Genesee were more than offset by the increased production from lower emission co-generation in the United States, reflecting a full year of results from the Morris facility in Illinois.

**The higher production and emissions at Genesee were more than offset by the increased production from lower emission co-generation in the United States, reflecting a full year of results from the Morris facility in Illinois.**

**SIGNIFICANTLY IMPROVED AIR EMISSIONS INTENSITY**

Sulphur dioxide emissions for Capital Power facilities were approximately 11% lower compared with 2008. Emissions intensity was approximately 21% lower. Reduced generation from Capital Power’s North Carolina facilities in 2009, and facility upgrades completed the same year, contributed to lower emissions and intensity of sulphur dioxide emissions in 2009.

The volume of nitrogen oxide emissions was approximately 7% higher in 2009, while emissions intensity was approximately 7% lower. Lower emissions intensity from the company’s combined cycle natural gas facilities, co-generation, and heat and power plants account for the majority of these decreases.

**GENERATION AND CAPACITY BY RENEWABLES AND WASTE HEAT**

	2009	2008
Generation from waste heat – % MWh	15%	12%
Installed capacity from waste heat – % capacity	9%	9%
Generation from renewable – % MWh	8%	9%
Installed capacity from renewable – % capacity	9%	9%

## PARTICULATE EMISSIONS RISE WITH INCREASED PRODUCTION

Particulate matter emissions were approximately 13% higher in 2009, while emissions intensity was relatively unchanged. Higher net production from the Genesee Generating Station, compared with 2008, was responsible for the majority of the increase in particulate matter emissions.

## MERCURY INCREASE

The volume of mercury emissions, up approximately 35% from 2008, accounted for the largest percentage change in emissions. The lower volume in 2008 was due to reduced output from the Genesee Generating Station in 2008 and a full-scale mercury capture test on Genesee 3, which together resulted in 55% lower mercury emissions in 2008.

Emissions intensity for mercury was up approximately 21% in 2009, primarily due to the higher average mercury content in the coal at Genesee, which increased 20% between 2008 and 2009.

Capital Power expects that mercury emissions will be lower in 2010 and future years, following the activation of mercury-capture technology at each of its coal-fired power plants.

## FLY ASH AS BYPRODUCT

At Genesee units 1 and 2, fly ash accounts for approximately 60% of all coal ash produced. Nearly 50% is recycled. A high-grade Class F variety, it has been used in a number of well-known construction projects, including the San Francisco Bay Bridge. Fly ash from Genesee 3 is different due to emission reduction technologies installed on that unit. Studies are underway to develop similar recycling opportunities for ash from Genesee 3.

## REPORTABLE ENVIRONMENTAL INCIDENTS

	Jan 1 to Jun 30 2009*	Jul 1 to Dec 31 2009*	Total
Releases to water	1	0	1
Emission exceedances to air	4	2	6
Spills to land	2	4	6
Releases to air	2	0	2
Exceedances to wastewater limits	1	2	3
Water licence infraction	0	1	1
Approval infractions	0	11	11
Fish and wildlife infractions	7	3	10
Administrative	5	3	8
			<b>48</b>

\*Data for the first half of 2009 is for the power generation business of Capital Power's predecessor company, EPCOR. Data for the second half of 2009 is for Capital Power.

## OZONE-DEPLETING SUBSTANCES

Capital Power did not release ozone-depleting substances in 2009.

## HAZARDOUS WASTE

Capital Power did not transport hazardous waste in 2009.

## EMISSIONS INTENSITIES

### EMISSIONS INTENSITIES <sup>(1)</sup>

	Nitrogen oxide (kg/MWh)		Sulphur dioxide (kg/MWh)		Total particulate matter (kg/MWh)		Mercury (mg/MWh)		Greenhouse Gases (tonnes CO <sub>2</sub> E/MWh) <sup>(2)</sup>	
	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008
Canada	1.31	1.28	1.30	1.32	0.10	0.10	13.35	10.04	0.81	0.78
U.S.	0.18	0.34	0.29	1.03	0.03	0.05	0.75	2.53	0.31	0.43
<b>All</b>	<b>0.95</b>	<b>0.99</b>	<b>0.98</b>	<b>1.23</b>	<b>0.08</b>	<b>0.09</b>	<b>9.29</b>	<b>7.71</b>	<b>0.65</b>	<b>0.67</b>

(1) Emissions intensities include only power generation operations. 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 Capital Power facilities, including all renewable, waste-heat and fossil fuel facilities.

(2) U.S. greenhouse gas emissions represent CO<sub>2</sub> only. In accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard [World Resources Institute and World Business Council for Sustainable Development (2004)], greenhouse gases released at facilities from combustion of biomass and landfill gas are not included in emission totals and intensities.

## CLEAN AIR ALLIANCE

Capital Power participated with industry, government and non-government organizations in the five-year Clean Air Strategic Alliance Review of the Alberta Electricity Framework. It is expected that recommendations on new air emission standards for new coal and natural gas-fired generation plants will be provided to Alberta's Minister of Environment in 2010.

## ENVIRONMENTAL COMPLIANCE

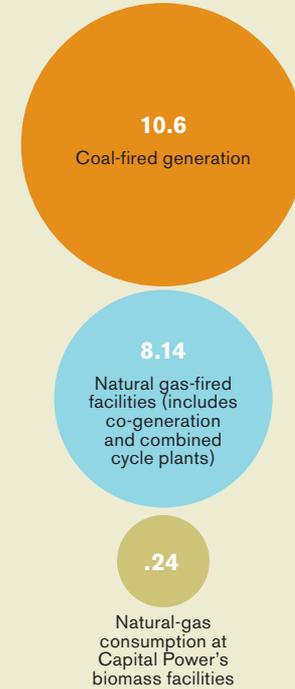
Capital Power experienced 48 reportable environmental incidents in 2009. None of these were considered material. Capital Power received one environmental fine, an administrative penalty of \$500 related to using a paint that contained volatile organic compounds.

## AVERAGE GENERATION EFFICIENCY OF THERMAL PLANTS

In 2009, the thermal efficiency of Capital Power's generation fleet by fuel type was:

- 10.6 GJ/MWh for coal-fired generation;
- 8.14 GJ/MWh for natural gas-fired facilities, including co-generation and combined cycle plants; and
- 0.24 GJ/MWh for biomass fuelled facilities (calculations do not include energy from the combustion of biomass and landfill gas, but do include fossil fuels used at the facilities).

## AVERAGE GENERATION EFFICIENCY OF CAPITAL POWER'S THERMAL PLANTS (GJ/MWH)



## TOTAL AIR EMISSIONS

	Nitrogen oxide (tonnes)		Sulphur dioxide (tonnes)		Total particulate matter (tonnes)		Mercury (kg)		Greenhouse Gases (tonnes CO <sub>2</sub> E) (millions)	
	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008
Canada	16,300	14,300	16,100	14,900	1,300	1,130	165	113	10.03	8.77
U.S.	1,100	1,700	1,700	5,200	200	245	4	13	1.82	2.18
<b>All</b>	<b>17,300</b>	<b>16,000</b>	<b>17,800</b>	<b>20,100</b>	<b>1,500</b>	<b>1,375</b>	<b>169</b>	<b>126</b>	<b>11.85</b>	<b>10.95</b>

Values represent direct emissions from power generation operations. U.S. greenhouse gas emissions represent CO<sub>2</sub> only.

In accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard [World Resources Institute and World Business Council for Sustainable Development (2004)], greenhouse gases released at facilities from combustion of biomass and landfill gas are not included in emission totals and intensities. In 2009, greenhouse gas emissions from the combustion of biomass and landfill gas totalled 626,117 tonnes of CO<sub>2</sub> equivalent. In 2008, greenhouse gas emissions from the combustion of biomass and landfill gas totalled 809,000 tonnes.

10

MILLION DOLLARS  
IN OFFSETS  
PURCHASED IN 2009

## LEADING EMISSION OFFSET PRACTICES

In addition to reducing emissions at power generation facilities, Capital Power has systematically developed specialized expertise in the creation, purchase, and sale of verified emission offsets. Approximately \$10 million in offsets were purchased in 2009, and nine purchase and sale agreements were in place.

The company's early, active and responsible participation in emission offset practices has delivered more than six million tonnes of offsets since 2007, and the company has purchased close to \$15 million in offsets over the past three years. Emission offsets are audited and verified by independent third parties.

In 2007 and 2008, the first two years emission reductions were mandated in Alberta, Capital Power retired 24% of all emission offsets in the province. That record continued in 2009, with 570,000 tonnes retired. Capital Power also helped Alberta companies achieve their compliance obligations through emission offsets in 2009.

Capital Power is an active member of the International Emissions Trading Association and an executive member of the Industry Provincial Offsets Group. The company also developed two of the Alberta Offset System Quantification Protocols.

### EMISSIONS REGULATIONS IN ALBERTA

The Genesee Generating Station and the Keephills 3 facility are subject to the Government of Alberta's Specified Gas Emitters Regulation (SGER), which came into force in 2007. The SGER applies to all Alberta facilities that produce more than 100,000 tonnes of greenhouse gas, measured as carbon dioxide equivalents, per year.

The costs associated with compliance with the SGER for Genesee units 1, 2 and 3 were approximately \$5 million in 2009 and are estimated to be \$6 million per year in 2010.

### INTERIM APPROACH

In the absence of emissions guidelines when Genesee 3 was built (2001), Capital Power's predecessor proposed an interim approach to emissions management, which involved offsetting emissions to the level of a natural gas combined cycle plant. Alberta Environment and the Alberta Utilities Commission agreed to this interim approach.

Some of the projects that Capital Power was involved with in 2009 include:

### **CARBON REDUCTION OFFSET PROJECT (CROP)**

CROP aggregates and sells emission reductions from low- and no-till farming. Capital Power's partnership with CROP has yielded more than 500,000 tonnes of permanent, verified greenhouse gas reductions in the past two years.

### **CLOVER BAR LANDFILL GAS**

The Clover Bar Landfill Gas project was the second largest source of registered and retired offsets in Alberta in 2008.

### **ORICA CANADA INC.**

The Orica Canada project has resulted in 400,000 tonnes of emission reductions per year from nitrous oxide gas – a heat-trapping greenhouse gas that also contributes to ozone depletion – produced as a byproduct of low-density prilled ammonium production.

Reduced tillage means additional carbon is sequestered in the soil. Topsoil is preserved and fuel consumption is reduced.



### **ONE SET OF REGULATIONS**

In late 2009, the plant's co-owners (through Capital Power, as plant operator) filed a regulatory application with Alberta Environment to have the interim standard removed. A similar application was submitted to the Alberta Utilities Commission in 2010. If approved, the Genesee 3 facility would be subject to a single set of regulations (SGER) for emissions management.

Prior to filing its application with the Alberta Utilities Commission in 2010, Capital Power consulted with stakeholders about these applications. The majority of stakeholders did not express concerns about the application. However, two environmental organizations objected to the proposed amendments and requested a copy of the application and supporting documentation, which was provided by Capital Power.

# DIVERSIFYING LANDSCAPES & PROTECTING WILDLIFE

## LAND & BIODIVERSITY PERFORMANCE

**Protecting threatened species, bolstering fish and wildlife habitat, and developing new ways of diversifying natural landscapes are all part of Capital Power's plan to protect and enhance biodiversity.**

Although Capital Power's operations are not in or adjacent to protected areas and areas of high biodiversity value, the company's bio-monitoring program at Genesee is one of the largest in Canada.

In 2009, the program found that company operations had no impact (compared to baseline studies done in 2005) on the air, water and wildlife around the Genesee facility.

Capital Power's award-winning land reclamation program also continues to yield excellent results. Productive working relationships with University of Alberta graduate students create positive impacts and valuable knowledge about innovative reclamation.

The company also continued supporting the Industrial Research Chair in Forest Land Reclamation at the University of Alberta in 2009.

# ■ ASH RECYCLING

60

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PERCENT OF ALL COAL ASH  
PRODUCED IS FLY ASH

47

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APPROXIMATE PERCENTAGE  
OF FLY ASH THAT IS RECYCLED

F

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HIGH-GRADE CLASS  
VARIETY OF FLY ASH USED  
IN CONSTRUCTION

At Genesee units 1 and 2, fly ash accounts for approximately 60% of all coal ash produced. Nearly 50% is recycled. A high-grade Class F variety, it has been used in a number of well-known construction projects, including the San Francisco Bay Bridge. Fly ash from Genesee 3 is different due to emission reduction technologies installed on that unit. Studies are underway to develop similar recycling opportunities for ash from Genesee 3.

■ PROMISING  
**OPPORTUNITIES**



## INNOVATIVE RECLAMATION

In 2009, the Genesee Mine provided more than five million tonnes of sub-bituminous thermal coal to Genesee Generating Station. The mine licence includes a comprehensive land reclamation plan, including the re-establishment of wetlands and natural creek bodies, and the development of wildlife corridors. Capital Power's industry-leading practices ensure that the land is reclaimed to an equal or better state than when first disrupted.

Over the past several years, reclaimed land at the Genesee site was turned into open fields for crops and grazing. While a significant portion of land is still reclaimed for these purposes, Capital Power is also finding ways of increasing biodiversity and sustainability by establishing forested areas and wetlands that provide important wildlife habitats.

## COMPUTER MODELLING IMPROVES WETLANDS

Wetlands and forests provide important ecological services to the natural environment, such as erosion control and nutrient cycling, water and snow capture, groundwater recharge, and reduced flows from mine sites. Capital Power believes the reclamation process presents a golden opportunity to restore ecological features to a landscape previously dominated by agronomic-related land uses.

Technology such as Geographical Information Systems and Global Positioning Systems are being used to simulate natural landscapes and look at different uses for reclaimed land, which includes wetlands and agricultural land.



More than 600 hectares of land have been brought back into agricultural production since 1989.

## RECLAMATION

### GENESEE RECLAMATION HIGHLIGHTS

- Land reclaimed for agricultural purposes is rented out and used to grow canola, barley, wheat, and alfalfa, or as pasture for cattle. In 2009, approximately 1,100 cows and 1,100 calves grazed on Genesee land.
- Mountain Bluebirds benefit from the provision of nesting habitat, and in 2009 Capital Power initiated a bluebird nesting box project on lands around the Genesee Generating Station. The lands around Genesee are well suited for the Mountain Bluebird, as they prefer grass pasture land when foraging for food.
- Capital Power and Sherritt Coal received the 2009 Alberta Chamber of Resources Major Reclamation Award. The award recognized both companies' commitment to conducting reclamation activities in the Genesee Mine. The companies were nominated by Alberta Environment.
- Since mining started in 1989, reclaiming the mined areas back to agricultural use has been a priority. To date, more than 600 hectares of land have been brought back into agricultural production.



## SPECIAL MONITORING PROTECTS AIR, WATER & WILDLIFE

Capital Power's special monitoring program at Genesee, conducted with TransAlta, studies the potential long-term effects that local power plants may have on land, air, water and wildlife. Capital Power was pleased to learn that no change in impacts occurred in 2009 in comparison to baseline studies completed in 2005 when the special monitoring program began.

## ASSESSING WILDLIFE

Work to assess potential impacts on wildlife in 2009 included monitoring the nesting of Peregrine falcons in the area, analyzing and surveying the habitats of ungulate (e.g. deer, moose) populations, and surveying the over-wintering migratory birds, raptors and owls, songbirds and amphibians. Capital Power's operations do not affect any wildlife on the IUCN Red List species list.

## AIR MONITORING

Air monitoring programs to track the potential long-term effects of air emissions on ecological receptors in the Wabamun-Genesee area include the Regional Ambient Air Quality program, in co-operation with the West Central Airshed Society, Stack Emissions Monitoring program, Acid Deposition program, and Mercury Assessment program.

The Genesee site includes a large cooling pond that attracts a variety of migratory birds.



## TRACKING FALCONS

### SATELLITE TRANSMITTERS TRACK MIGRATION

In co-operation with a respected researcher engaged by Environment Canada, two solar-powered satellite transmitters were safely placed on the nesting falcons that live at the Genesee nesting box. The backpack-style transmitting devices weigh little more than a wet teabag (30 grams) and are worn on the birds' backs, secured with a braided Teflon harness.

Every daylight hour the transmitter determines its GPS location, speed, direction and elevation above sea level, and every three days the transmitter downloads the data to orbiting satellites flying 850 kilometres above the earth. The satellites relay the data to receiving stations positioned at 40 locations around the globe. The data is processed by ARGOS Inc. and then sent to Capital Power and researchers.



## BIO-MONITORING

The bio-monitoring programs track the potential impact of air and water emissions on soils, organisms, vegetation, wildlife, surface water and groundwater. Also mentioned are:

- possible effects on red-backed voles and muskrats. Tissue samples are taken to measure for possible chemicals of potential concern;
- sediment quality in area lakes;
- the number and type of organisms (e.g. benthic invertebrates) that live in or on river or lake bottoms, such as aquatic worms, mayflies and stoneflies;
- fish tissue, taken from fish in area lakes, the cooling ponds, and the North Saskatchewan River;
- surface water quality; and
- groundwater quality in the area of the power plants.

## MIGRATORY BIRDS

The Genesee site includes a large cooling pond that attracts a variety of migratory birds during the year, including waterfowl such as ducks and loons. In 2009, two exciting bird sightings occurred: a rare sighting of a juvenile Yellow-billed Loon; and a Long-tailed Duck. The loon winters along the coast of Alaska and nests in the Arctic, while the Long-tailed Duck is rarely seen in the Genesee area. It was spotted for the first time on the cooling pond.

## DAILY OBSERVATIONS

Once the Peregrines have returned to Capital Power's Genesee Generating Station from their annual migration to South America, employees record their nesting activities daily through the remote camera. The return dates for the adults, nest initiation, clutch initiation, hatching and fledging of the young are also documented.

Capital Power's documentation efforts and other steps in support of these mating falcons can play an important part in the preservation of the species.



## RAPTORS CAPTURE ATTENTION

The wildlife monitoring program includes incidental observations of raptors. In 2009, two team members were lucky enough to observe a rough-legged hawk flying over the west field of the Genesee Mine.

## PROTECTING PEREGRINE FALCONS

An active Peregrine nesting site atop one of the stacks at the Genesee Generation Station has been part of the recovery and maintenance of Peregrine falcon populations in Alberta since the early 1990s. A mating pair of Peregrines makes the nest their spring and summer home, and the unobstructed sightlines atop the stack provide high-quality conditions for the falcons and their nest. Easy access to the nearby cooling pond, adjacent wetlands and open fields provide a diversity of potential prey and foraging habitat.

Capital Power upgraded a camera near the nesting box so higher quality video images could be streamed to the company's website. These images allowed viewers to learn more about the falcons and how they survive and thrive at this location and in the wild.

With the help of the tracking devices, researchers can develop a better understanding of where the birds forage during the summer at Genesee, where they spend their winters, when they begin their migrations to and from their winter home, and the routes they travel. The transmitters also record flight speeds so people can learn how incredibly fast the birds are moving during their migrations.

## IMPROVING FISH-BEARING WATER BODIES

A community-led program to protect and enhance fish habitat in a precious water canal in the mountain community of Pemberton, British Columbia is well underway following several months of detailed planning and data gathering in 2009.

**A mating pair of Peregrines makes the nest their spring and summer home, and the unobstructed sightlines atop the stack provide high-quality conditions for the falcons and their nest.**



"It's unique that a company would provide funding to help with data collection and planning. A good planning process, including good data feeding those plans, is essential when looking at the complex influences of fish habitat."

**VERONICA WOODRUFF**  
Environmental Technician



"The Arn Canal was built in the 1940s as part of a local drainage program," says local resident Veronica Woodruff, an experienced environmental technician and the driving force behind local conservation group Stewardship Pemberton.

"It's connected to the area's larger watershed and has tremendous potential for improved habitat for species such as Coho salmon, Bull trout, Dolly varden, and Cutthroat trout."

Ms. Woodruff is building a solid data profile of the unique fish-bearing water body, which flows through the farmlands and residential areas in and around Pemberton.

#### GRANT SUPPORTS HABITAT PROTECTION

A grant from Capital Power supported the creation of a development plan for the Arn Canal. Ecofish Research Inc. was hired to conduct a site visit, phone consultations and a technical review of the final report.

"It's unique that a company would provide funding to help with data collection and planning," says Ms. Woodruff. "A good planning process, including good data feeding those plans, is essential when looking at the complex influences of fish habitat."

She says improvements to local drainage patterns can also be accomplished in the larger project, and she has already taken steps to involve the regional diking authority.

Capital Power's Marc Nering is the plant manager at Miller Creek. He admires the depth of commitment shown by Stewardship Pemberton.

"Ms. Woodruff exemplifies a commitment to local conservation," he says. "Her rigour around planning and data collection, and her dedication to the Arn Canal, is just tremendous."

#### PARTNERSHIP WITH GRASSROOTS GROUP

The relationship between Stewardship Pemberton and Capital Power emerged following an operational malfunction at the Miller Creek hydroelectric plant in Pemberton. One of the outcomes of the company's work to address this issue was a renewal of its commitment to engaging local stakeholders. After extensive discussions with the local community, the Arn Canal project emerged as a strong project for investment by Capital Power.

## RESPONSIBLE WATER USE

### WATER WITHDRAWALS AND DISCHARGES INCREASE

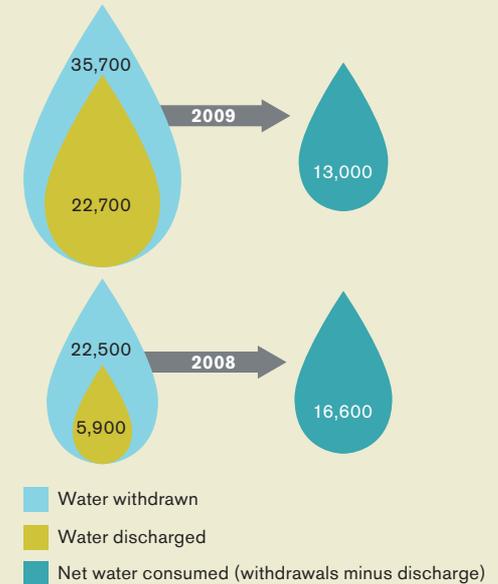
The North Saskatchewan River is a glacier-fed river flowing east from the Canadian Rockies to central Saskatchewan. It cuts through central Edmonton, bestowing Alberta's capital city with fantastic river-valley views and abundant recreational activities, including everything from biking and hiking to the annual dragon boat festival.

More than 80% of Capital Power's water withdrawals come from the North Saskatchewan River to support the power facilities at Genesee and Clover Bar.

Water withdrawals were higher in 2009, primarily due to increased generation from the Genesee Generating Station. Additionally, issues with high levels of total dissolved solids (TDS) required more water to be withdrawn from the North Saskatchewan River, and more water was also returned to the river to reduce the levels of TDS in the Genesee cooling pond. Water use also increased with the addition of two new turbines at the Clover Bar Energy Centre in 2009.

Water sources for other facilities include groundwater, municipal water and recycled water. For example, at the Williams Lake biomass facility, treated water is purchased from the municipality for the plant's cooling process. Each litre of water gets recycled between five and 10 times, depending on the evaporation rates, time of year, and operating status.

### WATER WITHDRAWAL AND DISCHARGE (MEGALITRES)



Water withdrawal and discharge statistics do not include water displaced by hydroelectric facilities, and do not include data from the Clover Bar Landfill Gas, Castleton, or Morris facilities. Figures for 2008 should be considered approximate due to data quality issues, and figures for both years do not include all discharges due to data availability or monitoring issues.

### MAKING IT RIGHT AT MILLER CREEK

Capital Power's run-of-river Miller Creek facility near Pemberton, British Columbia generates power without flooding large areas. When water stopped flowing through Capital Power's Miller Creek facility for approximately three hours in September 2007, Capital Power's investigation found that measuring and monitoring instrumentation had been incorrectly set.

The company's contract biologist inspected the creek downstream and found nine dead fish. The incident was reported to the appropriate authorities: the British Columbia Ministry of Environment and the Government of Canada's Department of Fisheries and Oceans.

A number of improvements were made to the Miller Creek facility, including upgrades to the plant's control systems, installation of new internal communication equipment, new systems and procedures to increase the level of monitoring, and additional staff training.

Tremendous results have occurred since the launch of an environmental monitoring program developed in consultation with the British Columbia Ministry of Environment. The program monitors water quality, water temperature, water stage/flow, invertebrate abundance, mitigation/reclamation, and impacts to wildlife.

## MONITORING PROGRAM GETS RESULTS

Two Coastal Tailed Frogs, considered a species at risk and listed as Special Concern by the Committee on the Status of Endangered Wildlife in Canada, were observed in a culvert along the access road to the Miller Creek facility. Harlequin ducks have been seen on numerous occasions and now breed on Miller Creek. Barrow's Goldeneye ducks, and American Dippers, which are a good indicator of water quality, have also been observed.

## PROTECTING NEW YORK RIVERBANKS

Capital Power's Curtis Palmer hydro plant near Corinth, New York maintains a unique portage trail as part of its Federal Energy Regulatory Commission (FERC) licence. The wooded trail extends from upstream of the Curtis facility about a mile and ends downstream of the Palmer facility.

The rugged hills and scenic view draws hikers and is frequently used by local fishermen. Employees at the plant ensure the trails are signed and maintained for community use.



## LABOUR PRACTICES

This section describes Capital Power's workforce; people policies; occupational health and safety performance; labour relations track record; compensation and pension systems; and training, development and benefit programs.

Capital Power is deeply committed to helping its people achieve and maintain total well-being, not just at work, but in their personal lives as well.

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■ **TOTAL  
WELL-BEING**

**\$53.7**

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**MILLIONS IN WAGES  
AND BENEFITS**

(JULY 1 - DECEMBER 1, 2009)

**85**

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**PERCENT PARTICIPATE IN PENSION  
OR RETIREMENT SAVINGS PLAN**

**29**

---

**PERCENT ACCESSED  
COMPANY WELLNESS PLAN**

Investing in people by providing the best training, resources, and development opportunities is a critical part of Capital Power's human resources strategy. The company aims to help its people be fully engaged, productive, and satisfied with their day-to-day work and career potential.

■ PROMISING  
**OPPORTUNITIES**



## TRAINING AND EDUCATION

Capital Power has ambitious growth plans for the future, with a goal to reach 10,000 megawatts of capacity by the year 2020. A core component of the company's plan to achieve this goal is its commitment to employees.

### CONTINUOUS DEVELOPMENT

Capital Power is committed to continuous learning and development for its employees. The company's learning and development program is based on the principles that:

- continuous employee learning and development is central to the achievement of the company's strategy and long-term plan;
- offerings must provide the right learning and development at the right time to the right employees at the right cost; and
- learning and development investments must be linked to supporting the corporate strategy and long-term plan, compliance and regulatory obligations, career and succession planning, workforce planning, and/or the annual performance review process.

Attracting and retaining people who share the company's values and commitment to becoming one of the most respected power generation companies in North America depends on an ongoing investment in training and development.



## INVESTING IN PEOPLE

### HEALTHY CULTURE

Capital Power's human resources strategies are focused on creating a healthy culture, in which people feel valued for their contributions and are trained, coached and empowered to perform to their highest potential. Helping people align their day-to-day work and short- and long-term work plans with the strategic goals and direction of the company has been a key area of focus for Capital Power in its first year of operations.

Capital Power now has a new structure of accountabilities and responsibilities that align with the corporate strategy, and the company's performance reviews, career development plans and incentive programs clearly align with those accountabilities.

### ROBUST OPPORTUNITIES

Investing in people by providing the best training, resources, and development opportunities is a critical part of Capital Power's human resources strategy. The company aims to help its people be fully engaged, productive, and satisfied with their day-to-day work and career potential.

One example of Capital Power's drive to develop its people was its decision to maintain staff training and development budgets, despite extremely difficult market conditions in 2009.

Attracting and retaining people who share the company's values and commitment to becoming one of the most respected power generation companies in North America depends on an ongoing investment in training and development.

## CAPITAL POWER DELIVERS LEARNING AND DEVELOPMENT PROGRAMS TO SUPPORT FOUR CRITICAL AREAS:

### DEVELOPING CAPABILITY

The Capital Power School of Business covers core skills and leadership development, and external professional development, which includes funding for work-related conferences, courses required to achieve or maintain professional designations, and occupation-specific training.

### SELF-DEVELOPMENT

The After Hours Personal Development Program allows employees to help fund their certificates, diplomas or degrees, or individual courses. Employees can pursue learning and development directly related to their current job, or other courses indirectly related to their job. Capital Power provides up to \$500 per year for full-time employees and \$250 per year for part-time permanent employees.

### DEVELOPING EXECUTIVE AND HIGH-POTENTIAL TALENT

Capital Power's executive development program is designed to build a talent pipeline for senior leadership roles. Candidates are nominated through the company's succession planning process, and individual development plans are customized to each individual.

### TECHNICAL, APPRENTICESHIPS, AND HEALTH AND SAFETY TRAINING

Technical, training apprenticeships, and health and safety training are managed and budgeted within each department or business unit based on occupational requirements.

### LOOKING AHEAD

Throughout 2010, Capital Power will be doing more work on its performance management system to clarify individual accountability and responsibility, generally pushing it closer to the front line. This will give management progressively greater opportunities for planning, resource allocation, communication, and mentoring.

### TOTAL WELL-BEING

Capital Power is deeply committed to helping its people achieve and maintain total well-being, not just at work, but in their personal lives as well.

For example, employees, managers and executives are not just encouraged but are required to take annual holidays. Out-of-scope (non-union) employees are also provided with one Friday per month as a "standard day off," in addition to other benefits described more fully on pages 40-41.



# 1,068

TOTAL EMPLOYEES  
OF CAPITAL POWER

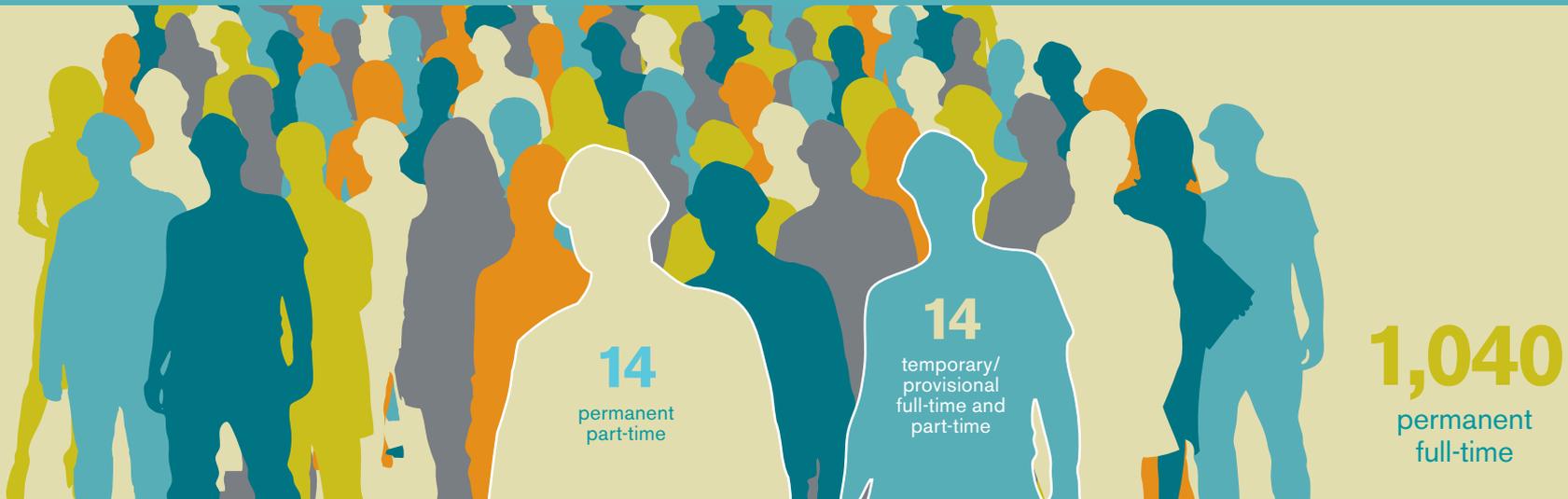
## CAPITAL POWER'S WORKFORCE

At December 31, 2009, Capital Power employed 1,068 full-time and part-time permanent and temporary employees, of which 819 worked in Canada and 249 worked in the United States.

### LOWER EMPLOYEE TURNOVER

Employee turnover rates were significantly lower in the last half of 2009 compared with the full-year 2008 at Capital Power's predecessor company. Half-year turnover rates for unionized employees in Canada were 2.8%, and 1.8% for non-union employees. In the United States, turnover in the second half of 2009 was 1.6% (no U.S.-based employees are unionized). In the prior full year, turnover was approximately 12%.

The reduction in turnover primarily reflects a decrease in resignations, which fell from 8.1% of the workforce over the full year 2008 to approximately 1.5% in the half year 2009, and a half year of reporting for 2009 versus a full year of reporting for 2008. Other causes of turnover remained stable.





## WORKFORCE SUSTAINABILITY

Capital Power's human resources programs and processes are designed to ensure the availability of a skilled workforce now and in the future. Approximately 15% of Capital Power's workforce – 157 employees – is eligible to retire within the next 10 years. Of these, 58 are union employees, 50 are in management, 17 are out of scope and 32 are professionals.

### EMPLOYEE TURNOVER REASON (JULY TO DECEMBER 2009)

	2009	2008*
Dismissal	0.4%	0.4%
Shortage of Work	0	0.1%
Unsuccessful Probation	0	0.6%
Resignation	1.5%	8.1%
Retirement	0	1.4%
Other	0.7%	1.2%
<b>Total</b>	<b>2.6%</b>	<b>11.8%</b>

This table shows the contribution of each cause of turnover to the overall turnover rate on an additive basis.

\*Prior year data for the entire Canadian workforce of EPCOR Utilities Inc.

### EMPLOYEE TURNOVER RATE BY EMPLOYEE TYPE (JULY TO DECEMBER 2009)

	2009	2008*
Union	2.8%	12.0%
Non-union	1.5%	10.9%
Male	2.3%	10.5%
Female	4.1%	14.2%
Age: Under 35	3.3%	19.0%
Age: 35-49	2.0%	9.0%
Age: 50+	1.6%	13.4%

This table shows turnover rates within different segments of employees.

\*Prior year data for the entire Canadian workforce of EPCOR Utilities Inc.

## COMPENSATION

Capital Power paid \$53.7 million in wages and benefits from July 1 to December 31, 2009, an average of \$50,310 per employee.

No employees were paid less than the minimum wage in any of the jurisdictions where Capital Power operates. The lowest wage paid to a Canadian employee was more than double the minimum wage. In the United States, the two lowest paid employees earned 1.9 times the local minimum wage.

### INCENTIVE PROGRAM

Out-of-scope employees participate in a short-term incentive plan (STIP), which is based on the achievement of corporate, group, and individual performance objectives. Incentive targets vary by position, generally increasing as the employee moves up in the organization. The incentive target is a percentage of base salary, generally ranging from 2.5% to 20% or more. In-scope employees participating in the STIP have a target incentive identified in their collective agreement.

At the end of the year, actual performance is measured against these predetermined performance measures, and the plan pays out on the basis of achievement within an expected range of performance – a minimum performance expectation (threshold), an expected result (target) and a plan maximum (stretch target).

Actual performance relative to the threshold, target and stretch values for each performance measure are weighted based on the performance incentive model.

# 85

PERCENTAGE OF EMPLOYEES  
MEMBERS OF CAPITAL POWER'S  
REGISTERED DEFINED  
CONTRIBUTION PLAN OR THE  
LOCAL AUTHORITY PENSION PLAN

## PENSIONS

More than 85% of employees are members of either Capital Power's registered defined contribution plan or the Local Authority Pension Plan (LAPP). The LAPP is a contributory, defined benefit, best average earnings pension plan governed by the Public Sector Pension Plans Act (Alberta). The majority of the company's pension costs and obligations are accounted for as defined contribution plans.

The amount of contributions made by employees and employers is determined by the LAPP and its governing body. A multi-employer plan that covers some 105,000 participants, the LAPP is accounted for as a defined contribution plan. Accordingly, Capital Power does not recognize its share of any plan surplus or deficit on its balance sheet.

Capital Power maintains additional defined contribution and defined benefit pension plans to provide pension benefits to employees who are not served by LAPP. These include:

- a Defined Contribution Pension Plan, under which contributions are made based on pensionable earnings subject to the annual limits under the Tax Act;
- a 401(k) plan for United States-based employees; and
- a Supplemental Pension Plan, an un-funded pension plan providing benefits that cannot be paid under either the company-sponsored registered pension plan or the LAPP.

## GENDER DIVERSITY AND PAY EQUITY

Capital Power's Respectful Workplace, Non-Discrimination and Anti-Harassment Policy provides context for the company's commitment to fair pay for all employees. The policy states that:

"Capital Power is committed to treating everyone fairly and equitably," which requires applicants and employees to be assessed "by their qualifications, demonstrated skills and achievements without regard to race, colour, ancestry, citizenship status, gender, sexual orientation, national origin, age, religion, disability, veteran status, marital status, or other protected status based on applicable federal, state and local laws and regulations."

At the end of 2009, Capital Power had 799 male employees (74.8%) and 269 female employees (25.2%). The company has not historically tracked or managed employee pay from a gender equity perspective.

Compensation for unionized employees is set out in collective agreements. Employees with satisfactory job performance ratings receive increasing wages based on the duration of their employment. As a result, the company believes the collective agreements provide for equitable treatment for unionized employees within the same job classification, regardless of gender.

At year-end, 272 employees were in management in Canada and the United States; 215 (79%) were male and 57 (21%) female. On an aggregate basis:

- 34 women in entry-level management earned \$81 for every \$100 earned by the 96 men in entry-level management;
- 19 women in mid-level management earned \$92 for every \$100 earned by the 89 men in middle management; and
- Four women in upper management earned \$90 for every \$100 earned by the 30 men in upper management.

The accrual of obligations for these plans is described on page 83 of the 2009 year-end Management's Discussion and Analysis. Specific plan benefit costs, assets, obligations and actuarial assumptions are described on pages 112 to 114. 

At the end of 2009, a deficit of \$8 million was reported for the plans, reflecting accrued benefit obligations of \$17 million and plan assets of \$9 million. Total cash payments for pension benefits (consisting of cash contributed by the company to the LAPP, other defined contribution and benefit plans and cash payments directly to beneficiaries for its unfunded pension plan) were \$4 million in the six months ended December 31, 2009.

**Capital Power is committed to treating everyone fairly and equitably, which requires applicants and employees to be assessed by their qualifications, demonstrated skills and achievements without regard to race, colour, ancestry, citizenship status, gender, sexual orientation, national origin, age, religion, disability, veteran status, marital status, or other protected status based on applicable federal, state and local laws and regulations.**

## BENEFIT PROGRAMS

### THE FLEX TOTAL REWARDS PROGRAM

Capital Power's Total Rewards program is based on a Flex Credit system that allows employees to direct their own coverage by allocating credits to different areas so they can choose the level and kind of benefits that best serve the needs of themselves and their families. The Total Rewards program also includes short- and long-term disability coverage and a company savings plan.

Benefit improvements designed for Canadian employees in 2009 are effective in 2010. These include increases to the flex credits available for the purchase of health/dental coverage and Health Spending Accounts, direct company funding of Health Spending Accounts, and the introduction of new optional benefits.

### WELLNESS ACCOUNT

Capital Power's Wellness Account program, part of the Flex Benefits program, encourages and empowers employees to take charge of their health. Permanent employees can apply for a 50% reimbursement for activities and products that promote healthy living, up to an annual maximum of \$200. The program covers home fitness equipment, smoking cessation products, formal weight loss programs, fitness memberships, organized league sports, golf and skiing lessons, personal trainers, and yoga, to name a few.

About 29% of employees used their Wellness Account in the last half of 2009, compared with 34% of employees who accessed a similar program at Capital Power's predecessor company in 2008.

# 50%

**REIMBURSEMENT UP TO  
A MAXIMUM OF \$200 FOR  
ACTIVITIES AND PRODUCTS  
THAT PROMOTE HEALTHY LIVING**

### COLLECTIVE AGREEMENTS

Capital Power has positive relationships with its five Canadian labour unions, which together represent approximately 40% of Capital Power's Canadian labour force and approximately 30% of Capital Power's overall work force. None of Capital Power's U.S. operations are unionized.

The three bargaining units in Edmonton, Alberta are: Civic Service Union (CSU) 52; International Brotherhood of Electrical and Communication Workers Local 1007; and Communication, Energy and Paperworkers (CEP) Union of Canada Local 829.

Outside of Alberta, Capital Power has agreements with two unions: the United Steel Workers 1-425 in Williams Lake, British Columbia; and the Power Workers Union Canadian Union Provincial Employees (CUPE) Local 1000 in Ontario.

## EMPLOYEE AND FAMILY ASSISTANCE

Capital Power's Employee and Family Assistance Program (EFAP) helps individuals, couples and families access short-term counselling to assist with life challenges. This includes help with anxiety, depression, career enhancement and workplace issues, family issues, bereavement, addictions and other health issues. In the last half of 2009, 5% of employees used these programs, compared with 15% of employees who accessed the EFAP in 2008.

## FREE FLU SHOTS AND CLINICS

Capital Power provided employees and their dependants with free immunization for H1N1 and seasonal flu in 2009.

The company also purchased sufficient antiviral medication for all employees and their families in the event the medication might be needed in a pandemic situation in the next five years. Employees and their family members over the age of 18 were encouraged to make appointments at clinics scheduled by the company. Prescriptions were provided, with instructions to fill them only in the event they were required.

Capital Power's Total Rewards program allows employees to direct their own coverage by allocating credits to different areas.



The current terms for Capital Power's collective agreements are:

- CEP – December 24, 2006 to December 25, 2010;
- CSU – July 22, 2007 to December 25, 2010;
- IBEW – December 24, 2006 to December 26, 2009 (in bargaining at time of publication);
- PWU – December 20, 2009 to December 19, 2013; and
- USW – January 1, 2008 to December 17, 2011.

There have been no labour disruptions or work stoppages at Capital Power or its predecessor companies since 1978. Five grievances were filed in the last half of 2009. 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.

 Further information on Capital Power's collective agreements can be found in our AIF at [sedar.com](http://sedar.com).

# OCCUPATIONAL HEALTH AND SAFETY

## SAFETY PHILOSOPHY

Capital Power believes that safety must be managed and incidents are preventable. A zero-injury culture is a primary corporate goal. Policies and procedures set clear expectations for safe, healthy and environmentally responsible work and working conditions. Every Capital Power employee and contractor is responsible for the company's environmental performance and the health and safety of themselves and their fellow employees.

The company's Environment, Health and Safety Policy is designed to create a framework that enables minimization of occupational injury and illness by ensuring:

- compliance with all applicable laws and regulatory requirements;
- proactive identification and management of environment, health and safety-related risks within operations, maintenance and construction activities;
- continuous review and improvement of the policy;
- appropriate goals and monitoring of performance;
- the alignment of contractors with company policy; and
- promotion of a zero-injury culture and healthy lifestyles.

The company policy, programs and procedures cover topics such as maximum hours of continuous work and required safety training. Employees are either supplied with required personal safety equipment, or the cost is subsidized.

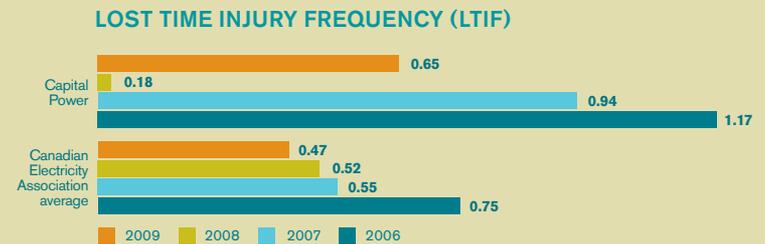
## SAFETY PERFORMANCE IMPROVES IN 2009

Capital Power's goal is to improve safety performance each year for the next five years.

In 2009, the company's focus on health and safety contributed to a significant reduction in total recordable injuries and lost time injury rates that were lower than the average of the three years prior.

For 2010, Capital Power has targeted a Total Recordable Injury Frequency (TRIF) rate of 1.20, which would be a 7.5% improvement over the performance achieved in the second half of 2009.

## REVIEWING INJURY STATISTICS



\*2009 company data is for the period July 1 – December 31, 2009. Historical company data (2006 – 2008) is for all employees at Capital Power's predecessor company, EPCOR Utilities Inc. Canadian Electricity Association averages are for Group II utilities.

Frequency rates are calculated by multiplying the number of incidents by 200,000 hours (200,000 hours is an industry standard base and equals 100 employees working 40 hours per week for 50 weeks per year) and then dividing that number by the hours worked (exposure hours).

## HEALTH AND SAFETY COMMITTEES

Ongoing safety training is mandatory for employees in field or operating positions. Crews hold daily safety planning meetings, depending on the nature and risk of their work. Various joint manager-worker safety committees function in these operational areas. Similarly, all contractors and subcontractors working on Capital Power sites must meet strict safety standards.

Ninety-four Capital Power employees served on 16 formal health and safety committees across the organization in 2009.

## FOCUS ON ZERO WORKPLACE INJURIES IN U.S. OPERATIONS

More than 225 people are employed at 17 plants operated or managed by Capital Power in the United States. The company helps each employee recognize his and her individual responsibility to put safety first at all times, with no excuses.

The Personal Life Safety Skills (PLSS) program, which encourages employees to talk with one another about a given work task and potential hazards, was a major emphasis in 2009.

## PRECAUTIONARY PRINCIPLE

Capital Power has not adopted the "precautionary principle," which 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. The company defers this issue to regulators, and works to ensure compliance with all laws and regulations.

## SAFETY IN ACTION

Incident management and PLSS efforts were critical during construction work on several major projects in 2009, including the North Carolina Emissions Control Project, which involved safely removing the old turbine and installing a new one while adhering to a detailed set of project safety requirements.

Other 2009 safety highlights from American operations included updating risk management plans at all California facilities, a comprehensive third-party Environment Health and Safety (EHS) audit at the four California sites, and a comprehensive third-party EHS audit at the Morris, Illinois plant near Chicago.

## INCIDENT MANAGEMENT REPORTING

In 2009, four recordable injuries were reported at Capital Power's facilities in seven American states. The low number and minor nature of injuries reflects, in part, a focus on incident management reporting.

## REDUCING WORKPLACE INJURIES

### CONTRACTOR SAFETY PERFORMANCE

Capital Power manages contractors in a way that maintains the company's commitment to the environment, and health and safety performance at all sites. Contractors are required to manage their environment, health and safety risks in a manner consistent with Capital Power's policy, and the company monitors safety performance as part of contractor selection and approval to perform or continue work.

This commitment is particularly significant given the scale of employment at Capital Power's construction sites. In 2009, the number of contractor hours on major projects, such as construction of the Keephills 3 project in Alberta, totalled 2.18 million hours, equivalent to 1,300 full-time equivalent positions. In the last half of 2009, contractors at Capital Power construction sites reported a Total Recordable Injury Frequency rate of 6.59, and a Lost Time Injury Frequency of 0.09.

### CONTRACTOR SAFETY PERFORMANCE

	2009*	2008*
Total Recordable Injury Frequency	6.59	6.71
Lost Time Injury Frequency	0.09	0.19

\*2009 contractor data is for the period July 1 – December 31, 2009. Historical company data (2006 – 2008) is for contractors at Capital Power's predecessor company, EPCOR Utilities Inc.

## COMMUNITY

This section describes how Capital Power manages and mitigates its impacts on communities and stakeholders, how it complies with laws and regulations related to its operations, and how it invests in communities, through sponsorships, donations, and community involvement.

**Capital Power develops and operates power plants from a diverse range of fuel sources in communities across North America. Projects create impacts on local communities and regions and require regulatory approvals from all orders of government.**

---

■ **ENGAGING  
STAKEHOLDERS**

**3,000+**

---

**NUMBER OF HOURS THAT EMPLOYEES  
VOLUNTEERED IN 2009**

**50**

---

**MINIMUM NUMBER OF HOURS  
EMPLOYEES NEED TO HAVE  
VOLUNTEERED TO RECEIVE  
CAPITAL POWER GRANT TOWARDS  
THEIR CHARITY OF CHOICE**

**10+**

---

**NUMBER OF MAJOR ART EXHIBITIONS FROM  
NATIONAL GALLERY OF CANADA WILL BRING  
TO THE ART GALLERY OF ALBERTA THROUGH  
THE CAPITAL POWERED ART PROGRAM**

Capital Power supports the volunteer efforts of employees by providing grant money, for which employees can apply each year, to be directed to their charity of choice. Employees who volunteer at least 50 hours per year are eligible.

■ PROMISING  
**OPPORTUNITIES**



## INVESTING IN THE COMMUNITY

### COMMUNITY INVESTMENT PROGRAM

Capital Power contributes to healthy, sustainable communities through an integrated and focused community involvement program that engages stakeholders, promotes sustainability, and addresses the needs of communities.

In the last six months of 2009, the company contributed approximately \$210,000 to a variety of programs and charitable organizations across North America. Donation levels are expected to be significantly higher in 2010, reflecting a full year of operations for Capital Power and the fact that Capital Power's predecessor company is reporting on all donations made prior to July 1, 2009.

### EMPLOYEE VOLUNTEERING

Capital Power employees annually donate their time, talent and generosity to causes that are important to them. In 2009, employees reported more than 3,000 hours in community volunteer efforts.

Employees who volunteered a minimum of 50 hours in 2009 could apply for a \$200 grant to be directed to a non-profit or community service organization recommended by them. In 2010, the grant is being increased to \$300.

Employees receiving grants in 2009 were able to make an impact on a number of worthwhile causes, including, but not limited to:

- Alberta Children's Hospital Foundation;
- YWCA Edmonton;

# 210,000

APPROXIMATE DOLLARS  
CONTRIBUTED BY CAPITAL POWER  
TO VARIOUS PROGRAMS TO  
CHARITABLE ORGANIZATIONS IN  
THE LAST SIX MONTHS OF 2009.

### SUPPORTING ARTS AND CULTURE

In December 2009, Capital Power entered into a three-year agreement with the Art Gallery of Alberta – the first major new community partnership for the company. Over the next three years, Capital Powered Art will bring more than 10 major exhibitions from the National Gallery of Canada to the Art Gallery of Alberta.

Capital Powered Art is an investment in the bright cultural future of Edmonton and Alberta. The exhibitions sponsored by Capital Power will help young Edmontonians and Albertans look at their world from different perspectives and stimulate them to actively engage with different cultures and communities.



- Canadian Breast Cancer Foundation;
- The Princess Margaret Hospital Foundation;
- Richmond Minor Hockey Association;
- Discovery House Family Violence Prevention Society;
- B.C. Society for the Prevention of Cruelty to Animals; and
- Strawberry District Society.

### FOSTERING EDUCATION AND BUILDING CAREERS

Capital Power supports students pursuing post-secondary education by providing financial assistance and offering hands-on workplace experiences. Scholarships and bursaries awarded in 2009 included:

- \$1,000 scholarship for a student in Williams Lake to attend the Williams Lake Campus of Thompson Rivers University in British Columbia;
- \$1,000 scholarship for a Williams Lake graduating high school student;
- two paid summer internship positions at the Genesee Power Plant for students interested in pursuing power engineering through CAREERS: The Next Generation; and
- two \$1,000 scholarships through the Government of Alberta's innovative Apprenticeship and Industry Training Program.

**“This visionary initiative provides vital financial support in making world-class art available to Albertans. The long-term commitment is a rare gesture in the Canadian art world, establishing a stable environment for the Art Gallery of Alberta (AGA) to plan for the future.”**

**GILLES HÉBERT** Executive Director,  
Art Gallery of Alberta



## CAREERS: THE NEXT GENERATION

Capital Power is committed to youth career development and meeting the challenging labour demands of the power generation industry by providing unique workplace experiences. Through CAREERS: The Next Generation, Capital Power and industry partners representing the energy sector, along with the Northern Alberta Institute of Technology, introduced a Fourth Class Power Engineering pilot program in 2009 for high school students.

The unique program allows high school students to leverage what they have learned in the classroom and gain valuable hands-on experience in the power engineering field while completing their high school diploma at the same time.

In 2009, Capital Power provided two paid summer internship positions at the Genesee Generating Station for students living in Leduc County near the Genesee facility.

## APPRENTICESHIP AND INDUSTRY TRAINING SCHOLARSHIP (AIT)

Capital Power works to inspire students to pursue post-secondary education in the skilled trades and has supported the Alberta Apprenticeship and Industry Trades (AIT) Scholarships since 2002, thru Epcor.

The company annually supports two \$1,000 AIT Scholarships. The Capital Power Aboriginal Scholarship is open to Aboriginal applicants within specified trades. The Capital Power Genesee-Keephills Instrument Technician Scholarship is available to students living near Capital Power's Alberta operations within Leduc County, Parkland County and the Paul First Nation, and who are interested in pursuing a career as an Instrument Technician.

**“The assistance from this scholarship provides so much inspiration and a sense of encouragement for me to do well and complete the Alberta Apprenticeship Instrument Technician Program.”**

**DERIC DELANEY**, Instrument Technician Apprentice

Recipient of the 2009 Capital Power Genesee-Keephills Instrument Technician Scholarship

## INVESTING IN COMMUNITIES

Capital Power supports local communities by giving to registered non-profit groups and charitable organizations that fall within the company's geographic operating areas. Some of the investments in 2009 included:

- Music for Life with Chantal Kreviazuk in support of the Alberta Shock Trauma Air Rescue Service (STARS) Foundation;
- Christmas Bureau of Edmonton to help provide festive meals for less fortunate individuals and families in Edmonton during the holiday season;
- Dungannon Super Pull, Dungannon, Ontario;
- Corinth Volunteer Fire Department, Corinth, New York;
- Corinth High School Dollars for Scholars Dance Marathon, Corinth, New York;
- Williams Lake Studio Society, Williams Lake, British Columbia;
- Le Fondation de l'Hôpital Notre-Dame Hospital, Hearst, Ontario; and
- Stewardship Pemberton Society for its Arn Canal Habitat Enhancement Project, Pemberton, British Columbia.

**The Capital Power Aboriginal Scholarship is open to Aboriginal applicants within specified trades.**



## CONSULTATION AND ENGAGEMENT

### STAKEHOLDER ENGAGEMENT PHILOSOPHY

Capital Power develops and operates power plants from a diverse range of fuel sources in communities across North America. Projects create impacts on local communities and regions and require regulatory approvals from all orders of government. Stakeholder support is critical to gaining and maintaining these approvals and is a fundamental component of Capital Power's vision of becoming one of North America's most respected, reliable and competitive power generators.

At every stage of a facility's life cycle – from development, through operations, to decommissioning – Capital Power draws on best practices in public consultation and communications, with a goal of ensuring that critical infrastructure is permitted, built and operated in a way that aligns with the interests and priorities of the community.

**At every stage of a facility's life cycle, Capital Power draws on best practices in public consultation and communications, with a goal of ensuring that critical infrastructure is permitted, built and operated in a way that aligns with the interests and priorities of the community.**

### CONSULTATION AT EXISTING OPERATIONS IN 2009

#### GENESEE

The Genesee Community Advisory Task Group (CATG) represents residents living within a 25-kilometre radius of the Genesee Generating Station. The group meets three times a year to discuss operational and community issues related to the power plant and mine, and to review Capital Power's outreach and community engagement initiatives.  After each CATG meeting, summaries are distributed to the community and are available on Capital Power's website.

## CONSULTATION

Capital Power's operations may require the acquisition of land from local landowners. The company's policy has always been to offer fair market value for land, and to offer other forms of compensation such as relocation costs and replacement costs for buildings. Capital Power is committed to ongoing consultation and dialogue with community members throughout the life of existing facilities and any proposed future projects. In 2009, no additional people were displaced due to Capital Power's operations.

#### LAND USE GUIDELINES FOR THE GENESEE MINE

In 2006, EPCOR and Sherritt (co-owners of the Genesee Mine) conducted a complete review of the practices and guidelines for EPCOR land use in the Genesee area, resulting in the comprehensive 2007 Land Use Guidelines for the Genesee Generating Station and Mine. The review included consultations with local residents and stakeholders.

The Genesee Generating Station Connection Newsletter provides bi-monthly information to local residents, including updates on plant operations and continuous reporting on environmental emissions levels and compliance. Back issues are available at [capitalpower.com](http://capitalpower.com). 

### CLOVER BAR ENERGY CENTRE

Clover Bar Energy Centre saw the commissioning of two 100-megawatt peaking gas-fired units in 2009. As a wrap-up of the initial consultation for the facility, a Project Update Bulletin was mailed to approximately 5,400 local stakeholders and posted on Capital Power's website. 

### KINGSBRIDGE I

A comprehensive stakeholder engagement program is well-established for the Kingsbridge I Wind Power Project in the Township of Ashfield-Colborne-Wawanosh. Activities include updates to the larger community by way of newsletters, regular contact with elected officials, a community investment program and one-on-one contact with leaseholders and neighbours. In 2009, three newsletters were published and distributed to approximately 7,500 residents. 

### CONSULTATION FOR PROPOSED PROJECTS IN 2009

#### KINGSBRIDGE II

Capital Power submitted an application for the Kingsbridge II Wind Power Project to the Ontario Power Authority's Feed-in-Tariff program in November 2009. The 270-megawatt project is proposed for an area north of Goderich, Ontario in the Township of Ashfield-Colborne-Wawanosh.

The guidelines include comprehensive policies about the company's practices related to land acquisition, sales and leasing, cropping on reclaimed land, grazing management, groundwater management, water replacement and surplus disposal.

A public advisory committee in place for 25 years transitioned into the current Community Advisory Task Group to reflect an even broader consultative approach.

#### PROPOSED EXTENSION OF THE GENESEE MINE

Planning was initiated for a proposed extension of the existing Genesee Mine permit area in 2009. The current mine area consists of 28 sections (17,920 acres) of land, from which approximately eight sections (5,120 acres) or 75 million tonnes of coal have been mined as of year-end 2009.

The extension is proposed to provide a secure supply of fuel to existing operations. Consultation on the extension is scheduled to begin in 2010 and continue into 2011, prior to the filing of a final application.

The Renewable Energy Approvals process under which the project would be permitted includes environmental and cultural heritage assessments. Public consultation commenced in 2010 and will include open houses, direct mailings and stakeholder meetings.

#### **CAMBRIDGE ENERGY CENTRE**

Capital Power submitted a Statement of Completion to the Ontario government for the Environmental Screening and Review of the Cambridge Energy Centre in November 2009. This included an extensive consultation process that began in late 2008. The proposed plant would be a 450- to 500-megawatt natural gas peaking facility.

A newsletter was produced in 2009, and a public open house was held to present results of the environmental studies and update community members on project developments.

#### **PORT DOVER & NANTICOKE**

In late November 2009, Capital Power acquired the proposed 105-megawatt Port Dover & Nanticoke Wind project and submitted an application to the Ontario Power Authority's Feed-in-Tariff program. Since the acquisition, Capital Power has taken steps to advance the provincially regulated consultation process. Two public open houses were held, providing an opportunity for Capital Power to meet with community members and local landowners. Throughout 2010, Capital Power will undertake the necessary environmental and cultural heritage assessments and public consultation processes within the Renewable Energy Approval process.

**Public consultation  
for the 142-megawatt  
Quality Wind Project  
continued in 2009.**



## QUALITY WIND

Capital Power continued its public consultation process for the proposed 142-megawatt Quality Wind project in northeastern British Columbia. An application for an Environmental Assessment Certificate was filed with the British Columbia Environmental Assessment Office (EAO) in June 2009. The application included wind resource studies, environmental studies, preliminary engineering, and consultation with interested stakeholders, including First Nations. A formal review process, including open houses with local area residents, businesses and First Nations, and an application review by a working group committee selected by the EAO occurred throughout 2009.

**Stakeholder support is critical to gaining and maintaining these approvals and is a fundamental component of Capital Power's vision to become one of North America's most respected, reliable and competitive power generators.**

# 24/7

AVAILABILITY OF  
CAPITAL POWER'S  
INTEGRITY HOTLINE  
FOR EMPLOYEES

## OPERATING RESPONSIBLY

In this section, Capital Power reports on a cross-section of GRI measures that relate to responsible and ethical operations.

### INPUT INTO PUBLIC POLICY

In accordance with the Federal Accountability Act, Capital Power reports all lobbying of Canadian federal Designated Public Office Holders (DPOHs) on a monthly basis.

Capital Power participated in 12 meetings with DPOHs in 2009. The meetings were typically regarding greenhouse gas and air emissions policy. The company participated in discussions regarding market structure, greenhouse gas and other air emissions, and electricity transmission policy throughout the jurisdictions in which it operates.

As a corporation influenced by legislation and regulations, Capital Power has an interest in supporting and participating in the political process to create awareness of the company's operations and the issues affecting the power generation industry. The company also seeks to build working relationships with elected officials and candidates for office.

Capital Power contributed no monies to Canadian federal parties in 2009 and, in accordance with Capital Power's political contribution policy, the company does not make cash donations to provincial political parties. Total expenditures on various political events and fundraisers throughout Canada in 2009 were \$3,675.

In addition to site-specific plans, Capital Power engages in company-wide contingency planning to maintain regulatory compliance and be prepared for emergency and business resumption planning. Contingency planning addresses activities before and after a disaster or incident occurs and covers critical business functions, processes and services.

Capital Power's disaster recovery planning focuses on the safety and security of employees, protection of assets, effective emergency response, regulatory compliance, a smooth transition to back up operations and timely restoration of normal operations.

Disaster recovery planning is an ongoing process designed to ensure strategies and plans are in place for the recovery of technology-based infrastructure and products. Plans focus on the continuity of services and infrastructure through training, plan testing and maintenance. The objective of each plan is to ensure the timely, targeted recovery of critical technological infrastructure and applications.

## ETHICS TRAINING AND COMPLAINTS

Capital Power's new Ethics Policy was rolled out to employees in January 2010, with a requirement for all employees to certify that they had read and understood the policy. All new employees are also required to sign off on the policy, and managers are accountable for ensuring their employees are aware of and understand the policy. Training is provided for new employees. A copy of the full policy is available at [capitalpower.com](http://capitalpower.com).

Employees and others have several ways of reporting situations where they believe or suspect ethical violations of Capital Power's policies, or of laws and regulations. Employees are encouraged to raise potential violations with their manager or any member of senior management, or to contact the company's Integrity Hotline, which operates 24 hours, seven days a week and is staffed by an independent third party under strict confidentiality obligations.

In 2009, Capital Power received one complaint about unacceptable use of employee time and two complaints related to respectful workplace.

Capital Power investigates all ethical complaints thoroughly and promptly. The company will not allow or pursue retaliation of any kind against any employee who reports a violation or ethical concern.

## CORRUPTION RISK

Capital Power conducts an annual fraud risk assessment that includes various potential fraud scenarios. The exercise involves input from across the company and considers all areas of the business. If gaps are identified in control structures during the exercise, action plans are developed to remediate the issue.

## HUMAN RIGHTS

Capital Power self-assessment is that none of its operations are at risk for incidents of child labour or forced labour, and there are no operations where the right to free association and collective bargaining may be at significant risk.

The company recorded zero violations of the rights of indigenous people in 2009, and all security personnel receive training in policies and procedures related to human rights. Capital Power's contractors do not undergo a specific screening on human rights, although all are required to align with the company's policies. Capital Power does not have significant investment agreements that include human rights clauses.

## PRODUCT RESPONSIBILITY

All Capital Power employees are required to be aware of and comply with all legal and regulatory requirements applicable to their jobs. In the last half of 2009, the company reports:

- zero incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services;
- zero incidents of non-compliance with labelling requirements (the company has no products or services subject to labelling requirements);
- zero customer satisfaction practices or survey results (Capital Power does not operate a retail-facing business);
- zero legal actions against the company for anti-competitive or monopoly behaviour;

- zero complaints filed with a Human Rights Commission;
- zero injuries or fatalities by members of the public due to incidents involving our facilities;
- zero incidents of non-compliance related to marketing and advertising codes; and
- zero substantiated complaints regarding breaches of customer privacy or losses of customer data.

A penalty was issued to the Southport and Roxboro facilities by Reliability Corporation (SERC) for non-compliance of reporting requirements for Mandatory Reliability Standards. Mitigation plans for these events were prepared, submitted and approved by SERC. A negotiated settlement of \$60,000 was paid to SERC in September 2009 to settle this matter.

## ECONOMIC

This section describes the value created by Capital Power's economic performance, and its impact on investors and stakeholders.

**Financial discipline is the foundation of Capital Power's corporate responsibility. It enables the company to address the challenges described throughout this report and take advantage of opportunities to improve environmental and social performance.**

■ CREATING  
**VALUE**

**800**

---

MILLIONS OF DOLLARS  
COMMITTED TO NEW  
WIND PROJECTS

**11**

---

MILLIONS OF DOLLARS  
INVESTED IN CLEAN COAL  
PLANT DESIGN

**1.1**

---

MILLION DOLLARS PER YEAR  
FROM GOVERNMENT OF CANADA  
FOR WIND DEVELOPMENT

Capital Power is investing \$800 million in new wind projects for B.C. and Ontario. The company also partnered with the Governments of Canada and Alberta, with each investing \$11 million for the design of a clean coal plant.

■ PROMISING  
**OPPORTUNITIES**



## ECONOMIC PERFORMANCE

### FINANCIAL STRATEGY

Financial discipline is the foundation of Capital Power's corporate responsibility. It enables the company to address the challenges described throughout this report and take advantage of opportunities to improve environmental and social performance.

Power generation is a capital-intensive business and involves assets with very long operating lives. Capital Power's financial strategy is to maintain an investment-grade credit rating and a balance between contracted and merchant cash flows, which supports Capital Power's access to low-cost capital.

The strength of the company's balance sheet has allowed Capital Power to take advantage of opportunities in tough markets. Capital Power was awarded long-term contracts in 2010 for wind projects in Ontario and British Columbia. The wind projects will require an investment of nearly \$800 million and will provide contracted cash flows for 20 and 25 years, respectively, when the projects become operational.

### MAINTAINING AN ATTRACTIVE DIVIDEND

Capital Power is committed to maintaining an attractive dividend for shareholders. The company will generate a base stream of cash flow to support the dividend, in part by maintaining a target of approximately half of its cash flow from long-term contracts. This business balance gives investors a visible stream of stable income while providing exposure to significant upside in power prices through merchant operations in Alberta.

**“Challenging times call for new approaches and new ways of doing things.”**

**WADE WATSON Fuel Supply  
Manager, Williams Lake facility**

### FINANCIAL HIGHLIGHTS (LAST HALF 2009)

**\$1,008**  
Revenues  
(millions of dollars)

**\$434**  
Gross margin  
(millions of dollars)

**\$323**  
Operating margin  
(millions of dollars)

**\$21**  
Net income  
(millions of dollars)

**\$0.97**  
Earnings per share

**\$0.60**  
Earnings per share  
(normalized)

## SOLID RESULTS IN FIRST SIX MONTHS OF OPERATIONS

In the six months ended December 31, 2009, Capital Power delivered financial performance in line with management's expectations, including funds from operations of \$164 million and normalized earnings of \$0.60 per share.

A complete analysis of Capital Power's 2009 results is available in the Management's Discussion and Analysis and Consolidated Financial Statements in the company's Annual Report at [capitalpower.com](http://capitalpower.com) or [sedar.com](http://sedar.com). 

## OPERATING PERFORMANCE

Capital Power's diverse, high-quality portfolio has a strong history of reliable operation. In the second half of 2009 the company's power plants delivered an average availability of 94%, an increase from 91% availability in 2008. A record volume of electricity was produced from the three units at the Genesee Generating Station, contributing to total production of 7,015 gigawatt hours from July 1 to December 31, 2009.

## RISKS DUE TO CLIMATE CHANGE

Capital Power's business risks are described in Management's Discussion and Analysis, dated March 9, 2010, from pages 35 to 49, and include extensive discussion of environmental risks, including those related to greenhouse gas regulation and climate change. In addition, Capital Power's strategy and actions on environmental issues related to greenhouse gas emissions are described earlier in the Environment section of this report.



**\$0.63**

Dividends declared  
per share

**\$235**

Capital expenditures  
(millions of dollars)

**\$164**

Funds from operations  
(millions of dollars)

Information on plant availability by facility is on page 14 of Capital Power's Management's Discussion and Analysis dated March 9, 2010. For the energy source and regulatory regime (location) of each facility, please see Capital Power's 2009 Annual Report and AIF.

Gross margin, Operating margin, Earnings per share (normalized) and Funds from operations are Non-GAAP financial measures and do not have standardized meanings under GAAP and, therefore, may not be comparable to similar measures used by other enterprises. See "Non-GAAP Financial Measures" in the company's annual Management's Discussion and Analysis for its year ended December 31, 2009, which are available on the company's website at [capitalpower.com](http://capitalpower.com) and on SEDAR at [sedar.com](http://sedar.com).

## FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT

Capital Power participated in a multi-year \$33 million research project to complete a front-end engineering design study of a clean coal project. The company, the Government of Canada, and the Government of Alberta each contributed \$11 million to the study.

Capital Power also receives approximately \$1.1 million per year from the Government of Canada through the Wind Power Production Incentive program, created to encourage the development of wind energy capacity. The incentive is approximately \$0.01 per kilowatt hour of production from Capital Power's Kingsbridge Wind Power Project, and eligible recipients can receive the incentive on the first 10 years of production.

Capital Power is partnering with TransAlta and Alstom Canada to develop one of the world's largest carbon capture and storage (CCS) projects as part of Keephills 3, which will be designed to capture approximately 1 million tonnes of greenhouse gas emissions annually. The partners have signed a letter of intent with the Government of Alberta to receive funding from the province's \$2 billion CCS fund. The Government of Canada is also contributing toward the project through its Clean Energy Fund.



## CASE STUDY

### MAINTAINING LOCAL DIRECT AND INDIRECT ECONOMIC IMPACTS DURING A DOWNTURN

The past couple of years have been challenging for the North American lumber industry. Many sawmills were forced to shut their doors and lay off employees, devastating local economies and communities. The Cariboo Region of British Columbia, home to the Williams Lake biomass facility, was no exception.

Poor lumber market conditions forced sawmills in the Williams Lake area into production curtailments, temporary closures and full-scale shutdowns, causing a shortage of waste wood that normally fuels generation at the Williams Lake biomass facility. In the winter of 2008, the fuel shortage forced the Williams Lake plant to shut down.

In consultation with BC Hydro, Capital Power began stockpiling fuel at the facility in 2009 to prepare for the winter when the mills were expected to be shutting down due to the reduced demand for their products. The goal was to use the stockpiles over the winter to keep the plant operational, providing power to the British Columbia grid when the BC Hydro plants were not running at full capacity.

Capital Power also wanted to create regional employment during the economic downturn.

"Challenging times call for new approaches and new ways of doing things," says Wade Watson, who manages the fuel supply at the Williams Lake facility.

## LOCAL HIRING AND PROCUREMENT

Capital Power does not, by policy, have a preference for local hiring or local procurement. The company seeks the most qualified people best able to do the job and grow with the company. However, the majority of people hired are from the local community where the job opening is situated.

Similarly, the vast majority of spending on goods and services is placed with local suppliers. Between July 1, 2009 and December 31, 2009, Capital Power spent \$227.6 million with our top 25 suppliers of goods and services. Of this amount, \$212.4 million, or 86%, was defined as local spending, where the shipping destination and supplier site were both in the same jurisdiction.



"We foresaw the need for an alternate fuel source in the future and had contingency plans in place. The abrupt sawmill curtailments just expedited the need."

To make up the shortfall, the plant supplemented traditional sawmill wood waste fuel supplies with processed forest residuals.

Capital Power entered into an agreement with Pioneer Biomass to purchase and use local forest residue. Residue from timber harvesting includes the parts of a tree unsuitable for lumber production, such as the top portion and severely cracked stems.

Pioneer bought the equipment, hired staff and went into the forest to salvage logging residuals that were left at the roadside. The logging residuals were processed with mobile grinders and then transported to the plant. In so doing, Capital Power and

Pioneer created well-paying jobs for idled loggers and truck drivers during the time when such jobs were sorely needed in the community.

If these forest residuals had not been processed and supplied to the power plant, the residuals would have been collected into a pile and set on fire to burn by the forestry companies. Instead, the wood waste from the sawmills and forest residuals were used for power generation – a value-added, carbon neutral product created locally from waste.

"Capital Power continues to show leadership in the community and in the B.C. power industry," says Mr. Watson. "From an environmental, community relations and business perspective, it's a win-win situation."

## CORPORATE GOVERNANCE

### INAUGURAL BOARD OF DIRECTORS

In keeping with contemporary practices of good corporate governance, immediately following the completion of the company's IPO in 2009, and continuing at the date of this publication in 2010, Capital Power was governed by a board of 12 directors, 10 of whom are independent for the purposes of National Instrument 58-101.

### BOARD ROLES AND RESPONSIBILITIES

The board of directors oversees the management of Capital Power and is responsible for its overall direction. The board is responsible for:

- management selection, retention, succession, and remuneration;
- overseeing timely and accurate reporting to shareholders and public filing of documents, including such things as audited financial statements, offering circulars, and initiation of bylaw amendments; and
- approving major company decisions, such as budgets, acquisitions, major capital expenditures, and declarations of dividends.

The full terms of reference for the board are available in Appendix A of the 2010 Management Proxy Circular. Appendix C includes terms of reference for individual directors, outlines the personal and professional characteristics required for all directors, and is used as the basis for performance evaluation and recruitment. Go to [capitalpower.com](http://capitalpower.com) to view the Management Proxy Circular. 

## TARGETING THE MOST QUALIFIED

### LINK BETWEEN COMPENSATION AND CORPORATE PERFORMANCE

To ensure alignment with the interests of shareholders, board directors and named executive officers are subject to share ownership guidelines, disclosed in the 2010 Management Proxy Circular.

The company's practices regarding compensation for directors are designed to attract and retain the most qualified individuals to serve on the board, to reflect the size and complexity of the industry, and to reinforce the emphasis the company places on aligning directors' compensation with the interests of shareholders.

The company provides its directors with a compensation package consisting of an annual retainer, meeting fees, and equity-based compensation in the form of deferred stock units (DSUs).

Non-employee directors receive a portion of their annual equity retainer in the form of DSUs and are also subject to share ownership guidelines that require ownership of common shares and/or DSUs with an acquisition or market value equivalent to not less than three times the aggregate value of their annual cash and equity retainer.

Directors have five years from their respective dates of appointment to accumulate the required number of common shares and/or DSUs.

## CORPORATE GOVERNANCE PRACTICES

Capital Power's corporate governance practices are intended to meet or exceed the rules and guidelines of Canadian securities regulators, which include the following:

- National Instrument 58-101 – Disclosure of Corporate Governance Practices (NI 58-101);
- National Policy 58-201 – Corporate Governance Guidelines;
- National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings; and
- National Instrument 52-110 – Audit Committees (NI 52-110).

## BOARD COMPOSITION AND INDEPENDENCE

The board of directors is required to have a minimum of three and a maximum of 12 directors. At the date of publication the board consisted of 12 directors, four of whom were nominated by EPCOR pursuant to rights attached to the Special Voting Shares held by EPCOR, and eight of whom were elected by shareholders at Capital Power's annual meeting in May 2010. The board comprises 11 men and one woman.

The board is led by a non-executive chair. The board has determined that all of the directors, except Messrs. Cruickshank and Vaasjo, are independent within the meaning of applicable Canadian securities laws, on the basis that they do not have any direct or indirect relationship with the company that could, in the view of the board, be reasonably expected to interfere with the exercise of their independent judgment.

## BOARD STRUCTURE

The four standing committees of the board include: Audit committee; Corporate Governance, Compensation and Nominating committee; Environment, Health and Safety committee; and Keephills 3 Project Oversight committee.

All or a majority of the members of the committees are independent.

In accordance with its terms of reference, each committee is responsible for overseeing certain corporate governance matters and making appropriate recommendations to the board. Each committee is committed to meeting or exceeding governance standards set out by various regulatory authorities and governance policy-makers, including the Canadian Securities Administrators' instruments relating to corporate governance.

Additional information on the terms of reference for each committee, and mechanisms for shareholder input, is available online in the 2010 Management Proxy Circular. 

## 2009 GOVERNANCE INITIATIVES

Following Capital Power's IPO in 2009, the Corporate Governance, Compensation and Nominating committee, and management, began evaluating the adequacy and effectiveness of Capital Power's policies and the compliance and ethics programs. As a result of this evaluation, the following policies were drafted and implemented in 2009:

- Ethics Policy;
- Respectful Workplace Policy;
- Purchasing Policy;
- Contract Execution and Signing Authority (CESAP) Policy;
- Legal Contract Review Procedure (accompanies CESAP);
- Commodity Risk Management Policy;
- Disclosure and Insider Trading Policy;
- Environment, Health and Safety Policy;
- Credit Policy;
- Enterprise Risk Management Policy;
- Financial Exposure Management Policy; and
- Investment Policy.

# GLOBAL REPORTING INITIATIVE (GRI) INDEX

GRI INDICATOR	DESCRIPTION	PAGE
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1.2	Key impacts, risks and challenges	6
<b>ORGANIZATIONAL PROFILE</b>		
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2.2	Products	1, 4
2.3	Operational structure	4, 5
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2.5	Number of countries where organization operates	1, 4, 5, 8
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3.3	Reporting cycle	3
3.4	Contact for questions	3
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3.9	Data measurement techniques	10, 11, 13, 16, 18, 19
3.11	Significant changes from previous reporting periods	3, 5
3.12	GRI content index	64
3.13	Assurance	72

Capital Power's management approach to key areas is included in the introductory text for each major section of this report and in the CEO message on pages 4 and 5. The management approach is also described in Capital Power's 2009 AIF and 2009 Annual Report.

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EN9	Water sources affected	30, 31
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GRI INDICATOR	DESCRIPTION	PAGE
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# EXCLUSIONS

## GRI INDICATORS NOT REPORTED

There are a number of 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.

INDICATOR	INDICATOR TITLE AND REASON FOR NOT REPORTING
3.10	<b>Effect of any restatements</b> As this is the first Corporate Responsibility Report for Capital Power, there are no restatements of information in previous reports.
EU3	<b>Number of customer accounts</b> Capital Power has no retail power business and, therefore, no retail customer accounts.
EN4	<b>Indirect energy consumption</b> Indirect energy consumption is not material to operations, as Capital Power's primary energy use is direct consumption of fuel to generate electricity.
EU4	<b>Length of transmission lines</b> Capital Power does not operate transmission and distribution lines.
EU6	<b>Management approach to ensure short- and long-term electricity availability and reliability</b> Capital Power is an independent producer and operates in markets where it does not have overall market responsibility for managing short- or long-term electricity availability or reliability.
EU7	<b>Demand-side management programs</b> Capital Power has no retail power business and, therefore, no customer-facing demand management programs.
EU9	<b>Provisions for decommissioning nuclear power sites</b> Capital Power does not operate or own any nuclear power generation.
EU10	<b>Planned capacity against projected electricity demand over long term</b> Capital Power is an independent producer and operates in markets where it does not have overall market responsibility for managing short- or long-term electricity availability or reliability.
EU12	<b>Transmission and distribution losses</b> Capital Power does not operate transmission and distribution lines.
EN17	<b>Other greenhouse gas emissions by weight</b> Capital Power's direct emissions of greenhouse gases were about 11.5 million tonnes of CO <sub>2</sub> E in 2009, or more than 10,500 tonnes of CO <sub>2</sub> E per employee. The company believes that indirect greenhouse gas emissions, from employee activities for example, would not constitute a material contribution to Capital Power's total greenhouse gas emissions and, therefore, they are not collected and reported.
EU23	<b>Programs to improve or maintain access to electricity and customer support</b> Capital Power has no retail power business and, therefore, no retail customer accounts.
EU24	<b>Practices to address barriers to accessing and safely using electricity and customer support services</b> Capital Power has no retail power business and, therefore, no retail customer accounts.

INDICATOR	INDICATOR TITLE AND REASON FOR NOT REPORTING
EU26	<b>Percentage of population unserved in distribution areas</b> Capital Power has no retail power business and, therefore, no retail customer accounts.
EN27	<b>Percentage of products sold and package materials reclaimed</b> As a power producer, Capital Power does not own or operate significant transmission and distribution lines, nor does it have residential customers, customer support services, or packaged products. Therefore, the company does not report on indicators related to the transmission and distribution of electricity, power outages, billing, packaging and customer service.
EU27	<b>Residential disconnections for non-payment</b> Capital Power has no retail power business and, therefore, no retail customer accounts.
EU28	<b>Power outage frequency</b> Capital Power does not operate a power distribution business.
EU29	<b>Power outage duration</b> Capital Power does not operate a power distribution business.
LA10	<b>Average hours of training per year per employee</b> Capital Power did not track this information in 2009 but is developing an information system to track this information in the future. The company's objective is to report on this indicator in future years.
PR1	<b>Life cycle stages in which health and safety impacts of products and services are assessed for improvement</b> As a power producer, Capital Power does not have products and services.

## AFFILIATIONS

Air and Waste Management Association (USA)  
Alberta Chamber of Resources  
Arizona Competitive Power Alliance  
Association of Power Producers of Ontario  
Boston College Center for Corporate Citizenship  
California Cogeneration Council  
California Manufacturing Technology Association  
Canadian Chamber of Commerce  
Canadian Clean Power Coalition  
Canadian Electricity Association  
Canadian Wind Energy Association  
Colorado Independent Energy Association  
Conference Board of Canada Corporate Community  
Investment Council  
Clean Air Strategic Alliance  
Edmonton Chamber of Commerce  
Electricity Consumers Resource Council  
Electric Power Supply Association  
Goderich Chamber of Commerce  
Gulf Coast Power Association

ICO2N  
Independent Energy Producers Association  
(of California)  
Independent Power Producers of BC  
Independent Power Producers of New York  
Independent Power Producers Society of Alberta  
International Emissions Trading Association  
Interprovincial Offset Group  
Industry Provincial Offsets Group  
Northwest and Intermountain Power  
Producers Coalition  
Ontario Energy Association  
Pemberton Chamber of Commerce  
Public Policy Forum  
United States Combined Heat and  
Power Association  
Western Power Trading Forum  
West Central Airshed Society  
Williams Lake Chamber of Commerce

## INDEPENDENT ASSURANCE REPORT

To the Board of Directors and Management of Capital Power Corporation,

We have reviewed selected quantitative performance indicators (the “Subject Matter”) presented in Capital Power’s Corporate Responsibility Report (the “Report”) for the year ended December 31, 2009. We did not review all information included in the Report.

### SUBJECT MATTER

We reviewed the following quantitative performance indicators set out in the Report which comprise the Subject Matter:

- Greenhouse gas emissions and intensity
- Generation from renewable energy sources
- Oxides of nitrogen emissions and intensity
- Reportable environmental incidents
- Fines and sanctions for non-compliance with environmental laws and regulations
- Employee total recordable injury/illness frequency (TRIF) rate
- Employee lost time injury frequency (LTIF) rate
- Community investment
- Permanent and temporary employees

We also reviewed Capital Power’s self-declaration of level of reporting achieved under the Global Reporting Initiative guidelines.

The indicators comprising the Subject Matter were chosen by Capital Power primarily on the basis of perceived external stakeholder interest. We did not review the narrative sections of the Report, except where they incorporated the Subject Matter.

### RESPONSIBILITIES

Capital Power management is responsible for collection and presentation of the Subject Matter. Our responsibility is to express a conclusion, based on our assurance procedures, as to whether anything has come to our attention to suggest that the Subject Matter is not presented fairly in accordance with the relevant criteria.

## METHODOLOGY & ASSURANCE PROCEDURES

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000, "Assurance Engagements other than Audits or Reviews of Historical Financial Information", issued by the International Federation of Accountants. As such, we planned and performed our work in order to provide limited assurance with respect to the Subject Matter.

We obtained and evaluated evidence using procedures that included:

- Interviewing relevant Capital Power management and staff responsible for data collection and reporting
- Obtaining an understanding of the management systems, processes, and controls used to generate, aggregate and report the data
- Reviewing relevant documents and records on a sample basis
- Testing and re-calculating quantitative information related to the selected performance indicators on a sample basis
- Assessing the information collected for completeness, accuracy, adequacy and consistency.

Our procedures were more limited than required for a reasonable assurance engagement and, consequently, we do not express an audit opinion on the Subject Matter.

We carried out our work on the Subject Matter at Capital Power's offices in Edmonton, Alberta, North Bay, Ontario and Oak Brook, Illinois.

Our assurance criteria comprised the Global Reporting Initiative Sustainability Reporting Guidelines (2006), industry standards, and Capital Power's internal management definitions as disclosed in the Report, informed by relevant regulations in the areas of operation.

Our assurance team included individuals with backgrounds and experience in providing assurance on environment, health and safety, social, and economic information.

## CONCLUSION

Based on our work as described in this report, nothing has come to our attention that causes us to believe that the Subject Matter is not, in all material respects, reported in accordance with the relevant criteria.



**PricewaterhouseCoopers LLP**

Edmonton, Alberta, Canada

September 7, 2010

## FORWARD-LOOKING INFORMATION

Certain information in this Corporate Responsibility Report is forward-looking within the meaning of Canadian securities laws as it is related to anticipated financial and operating performance, events or strategies. When used in this context, words such as will, anticipate, believe, plan, intend, target, and expect, or similar words suggest future outcomes.

These statements are based on certain assumptions and analysis made by the Corporation in light of its experience and perception of historical trends, current conditions and expected future developments and other factors it believes are appropriate. In particular, forward-looking information and statements include information and statements with respect to: (i) Capital Power's corporate strategy, including with respect to growth, project development and acquisitions, delivering shareholder returns greater than the average of its peer group, and becoming a most desired employer; (ii) expectations regarding the improvement in and reduction of current and future power plants' environment emission levels and ability to capture future emissions, including through the use of new equipment and technologies; (iii) expectations regarding near-zero emissions technology, including, but not limited to, expectations related to an Integrated Gasification Combined Cycle (IGCC) facility incorporating carbon capture and storage technology; (iv) expectations regarding the proposed carbon capture and storage partnership (Project Pioneer) in relation to the Keephills 3 site, including expectations regarding the amount of greenhouse gases captured by, and reductions or improvements in environment emission levels as a consequence of, Project Pioneer; (v) expectations regarding improvement in and reduction of current and future water use and fuel use of current and future power plants; (vi) expectations regarding the efficiency and reliability of current and future power plants; (vii) expectations regarding the Keephills 3 facility, including its commissioning date and improvements in carbon dioxide emission levels in comparison to older coal-fired power plants; (viii) expectations regarding the commissioning and cost of new equipment at Genesee units 1, 2 and 3 to monitor and capture mercury emissions; (ix) expectations that Capital Power's enhancement project for its Southport and Roxboro plants in North Carolina will reduce the plants' environmental emission levels, decrease the plants' use of coal, increase the plants' use of biomass and tire-derived fuel, improve the plants' economic performance and improve the plants' ability to create Renewable Energy Credits; (x) expectations that the Oxnard facility will receive similar upgrades to the combined heat and power facility in North Island, California; (xi) expectations that North American energy security will continue to depend on coal; (xii) expectations regarding the development of opportunities to recycle fly ash from Genesee 3; (xiii) expectations regarding Capital Power's ability to receive or benefit from government funding, including Government of Canada funding from the Wind Power Production Incentive Program and from the Clean Energy Fund, and Government of Alberta funding from the Carbon Capture and Storage Fund; (xiv) expectations regarding the timing, content, and implementation of new environmental regulations, the expected impact of environmental regulations on Capital Power's operations, and the anticipated costs of complying with such regulations; (xv) expectations regarding the outcome of regulatory applications, such as filings with the Alberta Utilities Commission and Alberta Environment requesting removal of the Natural Gas Combined Cycle interim regulations for Genesee 3; (xvi) expectations regarding the ability of existing and proposed Capital Power facilities to generate power and the generation capacity of those proposed facilities, including expectations regarding proposed wind farms in Ontario and British Columbia, and the proposed Cambridge Energy Centre in Ontario; (xvii) expectations regarding costs, timing for completion of environmental and regulatory approvals, and timing of commercial operation of the Quality Wind Project and the Port Dover & Nanticoke Project, the terms of the Quality Wind Project's Energy Purchase Agreement with BC Hydro, and the terms of contracts and expected contracts with the Ontario Power Authority's Feed-In-Tariff Program; (xviii) expectations related to the maintenance by Capital Power of a dividend and its target of generating approximately half of its cash flow from long-term contracts; (xix) expectations regarding public consultations and the timing thereof, including public

consultations in respect of the Port Dover & Nanticoke Project and Genesee Mine; (xx) expectations regarding a proposed extension of the Genesee Mine permit area; (xxi) expectations regarding the outcome of human resources and performance management programs, including their ability to improve the efficiency and effectiveness of business operations; (xxii) expectations regarding the outcome of health and safety programs, including their ability to achieve continual improvement and ongoing safety awareness, a Total Recordable Injury Frequency (TRIF) rate of 1.20 in 2010, and, ultimately, a zero-injury culture; and (xxiii) expectations regarding the value and cost of proposed increases to charitable donations and corporate sponsorships.

These statements are based on certain assumptions and analysis made by the Corporation in light of its experience and perception of historical trends, current conditions and expected future developments and other factors it believes are appropriate. The material factors and assumptions used to develop these forward-looking statements include, but are not limited to: (i) the operation of Capital Power's facilities; (ii) power plant availability; (iii) Capital Power's financial position and credit facilities; (iv) Capital Power's assessment of commodity and power markets; (v) Capital Power's assessment of the markets and regulatory environments in which it operates; (vi) weather; (vii) availability and cost of labour and management resources; (viii) performance of contractors, partners and suppliers; (ix) availability and cost of financing; (x) foreign exchange rates; (xi) Capital Power's operations, financial position and available credit facilities; (xii) Capital Power's assessment of capital markets; (xiii) management's analysis of applicable tax legislation; (xiv) that currently applicable and proposed tax laws will not change and will be implemented; (xv) renewal and terms of power purchase arrangements; (xvi) currently applicable and proposed emissions regulations will be implemented; (xvii) counterparties will perform their obligations; and (xviii) ability to implement strategic initiatives and capital projects which will yield the expected benefits.

Whether actual results, performance or achievements will conform to the Corporation's expectations and predictions is subject to a number of known and unknown risks and uncertainties which could cause actual results and experience to differ materially from the Corporation's expectations. Such risks and uncertainties include, but are not limited to risks relating to: i) operation of the Company's facilities; ii) power plant availability and performance; iii) unanticipated maintenance and other expenditures; iv) availability and price of energy commodities; v) electricity load settlement; vi) regulatory and government decisions; including changes to environmental, financial reporting and tax legislation; vii) weather and economic conditions; viii) competitive pressures; ix) construction; x) availability and cost of financing; xi) foreign counterparties, partners, contractors and suppliers in fulfilling their obligations to the Corporation; xiv) developments in the North American capital markets; xv) compliance with financial covenants; xvi) the tax attributes of and implications of any acquisitions. If any such risks occur, they could materially adversely affect the Corporation's business, financial condition or results of operations. In that case, the trading price of the Corporation's common shares could decline, perhaps materially.

Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date made. Actual results could differ materially from the plans, expectations, estimates or intentions expressed in the forward-looking statements. Forward-looking statements are provided for the purpose of providing information about management's current expectations, and plans relating to the future. Readers are cautioned that such information may not be appropriate for other purposes. The Corporation 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 Corporation's expectations or any change in events, conditions or circumstances on which any such statement is based, except as required by law.

## GLOSSARY, UNITS OF MEASUREMENT AND ABBREVIATIONS

Some terms are defined in the context of Capital Power's operations and are commonly used and accepted by industry. Other terms are defined in accordance with Global Reporting Initiative (GRI) documentation.

**Biomass fuel** Renewable organic materials, such as wood, used as a source of fuel or energy in an industrial operation, such as a biomass-fuelled power plant. Power plant biomass fuel may come from sources such as residual forest matter and sawmill waste.

**Carbon dioxide** Abbreviated as CO<sub>2</sub>. In the atmosphere, a greenhouse gas that affects the Earth's temperature.

**Carbon dioxide equivalent (also CO<sub>2</sub>E or CO<sub>2</sub> equivalent)** Used to compare emissions from various greenhouse gases based on their global warming potential (GWP). The CO<sub>2</sub> equivalent for a gas is derived by multiplying the tonnes of the gas by the associated GWP. (Indicators Protocol Set: Environment; Global Reporting Initiative, 2009).

**Combined cycle (natural gas)** A combined cycle power plant generates electricity from one or more gas and steam turbines. A turbine uses natural gas as fuel to generate electricity. The excess heat from combustion of the natural gas is used to generate steam, which is used to power a steam turbine.

**Combined heat and power (or cogeneration)** Combined heat and power or cogeneration is the simultaneous production of electricity (power) and heat (thermal energy) from a single fuel source, such as natural gas, biomass, biogas, coal, waste heat, or oil.

**Emission intensity** The ratio of mass emissions per unit of net output or production, such as tonnes per megawatt-hour (MWh).

**Gross production** The total amount of electricity generated by a power plant, including the amount consumed by station services.

**Lost time injury** An injury/illness resulting in lost days beyond the date of injury as a direct result of an occupational injury/illness incident. (Source: Canadian Electrical Association).

**Lost time injury severity** The number of calendar days that the employee is unable to work beyond the day of injury/illness. Lost time ends when the employee is deemed fit to work full-time by a physician or health care professional or goes on restricted work, or after 180 calendar days.

**Megalitres (ML)** One million litres, or 1,000 m<sup>3</sup>.

**Megawatt (MW)** A unit of power equal to 1 million watts used to represent the productive capacity of a power plant.

**Megawatt hour (MWh)** One megawatt-hour represents one hour of electricity production (or consumption) at a constant rate of 1 MW.

**Net production** Electricity output (megawatt hours) to the transmission grid from the power plant. (Indicators Protocol Set: Environment; Global Reporting Initiative, 2009).

**Recordable injury** Any occupational injury/illness that results in a fatality, lost-time injury, medical treatment injury or other injury/illness that involves restricted work or significant occupational injury/illness or loss of consciousness. (Source: Canadian Electrical Association).

**Renewable energy** Renewable energy is derived from natural processes that are replenished constantly. This includes electricity and heat generated from solar, wind, ocean, hydropower, biomass, geothermal resources, biofuels, and hydrogen derived from renewable resources. (Indicators Protocol Set: Environment; Global Reporting Initiative, 2009).

**Restricted work** When an employee, due to a work-related injury/illness, is medically determined to be unable to perform one or more routine functions or unable to work the normal time period of their pre-injury/illness work day, he or she is working in a “restricted capacity.” (Source: Canadian Electrical Association).

**Simple cycle (natural gas)** A simple cycle power plant uses electricity-generating turbines fuelled by natural gas. Simple cycle turbines quickly achieve full generation capacity to meet peak demands for electricity.

**Stakeholder** Stakeholders are defined broadly as those groups or individuals: (a) that can reasonably be expected to be significantly affected by the organization’s activities, products, and/or services; or (b) whose actions can reasonably be expected to affect the ability of the organization to successfully implement its strategies and achieve its objectives. (GRI Sustainability Reporting Guidelines & Electric Utility Sector Supplement.)

**Station services** All of the equipment and operations at a power plant that consume electricity. Gross production (MWh) – station services energy use (MWh) = net production (MWh).

**Subcritical coal** Pulverized coal that is burned in conventional or vintage plants. The coal is pulverized into fine powder before it burns in suspension inside a furnace under pressure.

**Supercritical coal** Pulverized coal that is burned in a supercritical boiler. Higher temperatures and steam pressure together with a high-efficiency steam turbine create a more efficient process for converting thermal energy into electricity. The process uses less coal per MWh of electrical energy than the conventional subcritical process, thereby reducing emissions. The coal burns in suspension inside a furnace at high pressure.

**Total recordable injury frequency** The number of recordable injuries experienced by an employer in a specified time period. The frequency is calculated by multiplying the number of recordable injuries by 200,000 hours (200,000 hours is a widely accepted industry standard base and equals 100 employees working 40 hours per week for 50 weeks per year) and then dividing that number by the hours worked (exposure hours).

**Waste heat recovery** Some facilities take waste heat from their own process or from another facility. This waste heat would otherwise be emitted to the atmosphere. The facilities use the waste heat to produce electricity or steam.



**Global Reporting Initiative (GRI) alignment**

This report follows the guidelines defined in the Global Reporting Initiative, an internationally recognized standard for corporate responsibility reporting. The GRI guidelines set out the principles and indicators that organizations can use to measure and report their environmental, economic and social performance. See page 64 for an index of our reporting against the general GRI guidelines and the GRI Electric Utilities Sector Supplement, Version 3.0.

**“A+” reporting level** We believe we have achieved an “A+” level of reporting under the GRI guidelines. There are three grades, with eligibility based on the comprehensiveness of the report (A,B,C) and a “+” designation, indicating that the report has received third-party assurance. We make this self-declaration based on the GRI requirements to meet the “A+” level. PricewaterhouseCoopers LLP has checked our self-declaration and agrees with our assessment. See the “Exclusions” section on pages 69-70 for an explanation about why we are not able to provide certain data.

		2002 in accordance					
		C	C+	B	B+	A	A+
mandatory	self declared						
	third party checked						
optional	GRI checked						
			report externally assured		report externally assured		

**Environment PC100 FSC Certified Paper**

**Environmental Benefits Statement**

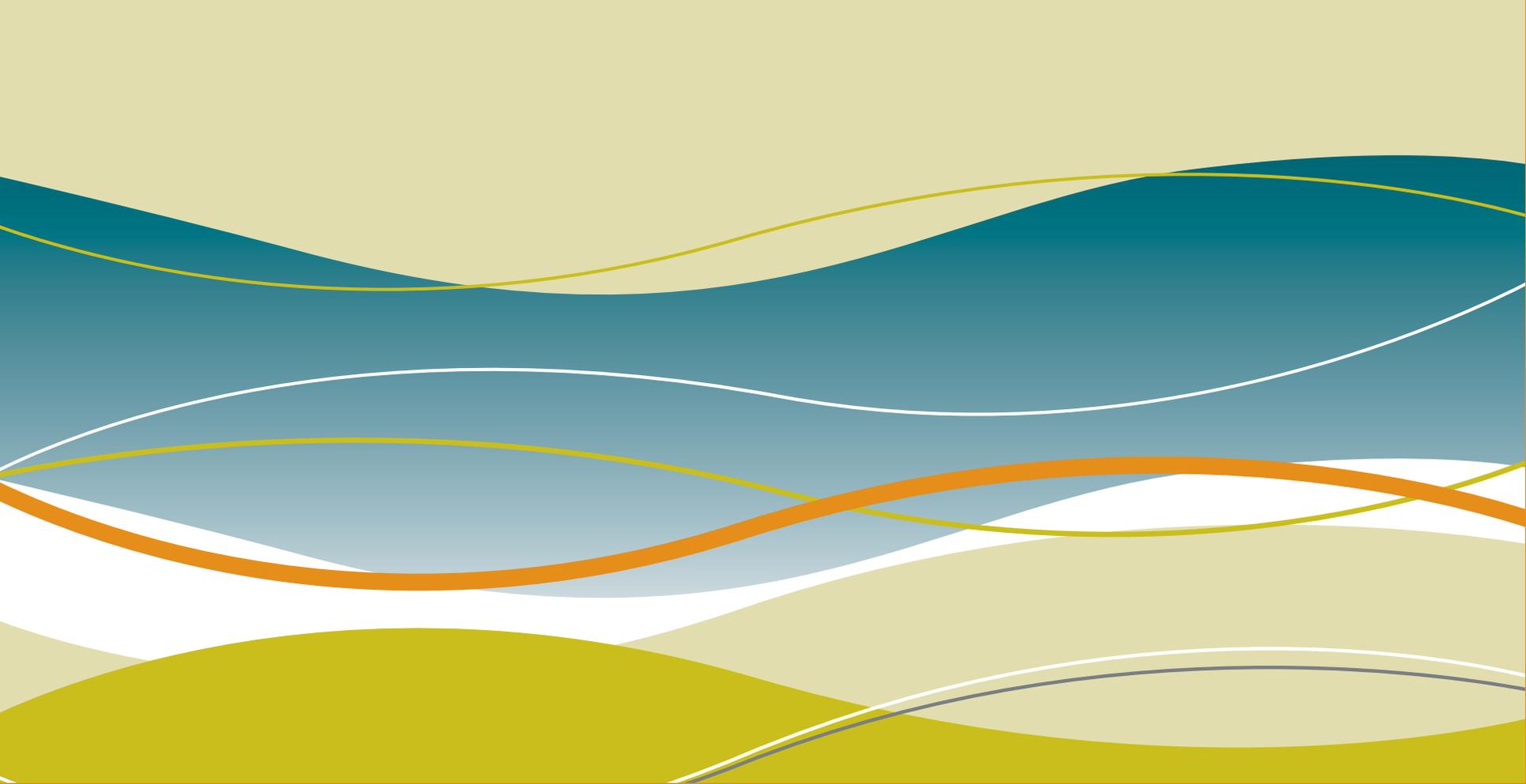
This report is printed on Environment PC100 FSC Certified Paper – Forest Stewardship Council certified paper containing 100% post-consumer waste fibres that is totally chlorine free. By using this environmentally friendly paper in a print run of 1,000 copies, Capital Power saved the following resources:

Trees	Water	Energy	Solid waste	Emissions
<b>40</b> fully grown	<b>18,482</b> gallons	<b>13</b> million BTUs	<b>1,122</b> pounds	<b>3,837</b> pounds

Calculated based on data research provided by Environmental Defense Fund.



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