BC HYDRO SERVICE PLAN

2010/11–2012/13

BC hydro

FOR GENERATIONS

BRITISH COLUMBIA
The Best Place on Earth

LETTER FROM THE CHAIR TO THE MINISTER

The Honourable Blair Lekstrom

Minister of Energy, Mines and Petroleum Resources

On behalf of the Board of Directors, management and employees of BC Hydro, I am pleased to submit BC Hydro's Service Plan for fiscal years 2010/11–2012/13. This Service Plan was prepared under the Board's and management's direction in accordance with the *Budget Transparency and Accountability Act* and the B.C. Reporting Principles. It has been developed to be consistent with Government's strategic priorities and Fiscal Plan. The Board and management are accountable for the contents of the plan, including the selection of performance measures and targets.

We have considered all significant assumptions, policy decisions and identified risks, as of February 9, 2010 in preparing this Service Plan. The performance measures presented are consistent with BC Hydro's mandate and goals, and focus on aspects critical to the organization's performance.

In many ways, this year marks a transition for BC Hydro. I would like to thank Bob Elton for his years of service and appreciate that he will continue to improve our business through his new role with Powertech and as Special Advisor to the Board.

As the world economy continues to rebound, the Province of British Columbia is well-positioned to capitalize on new opportunities and markets for both traditional and emerging trade sectors. As our jurisdiction and those around the globe transition toward a low-carbon economy, BC Hydro will look to play a more active role in assisting our communities to realize their sustainability goals and help our province to maximize its economic potential.

Despite the fact that the economic volatility of the past has posed unique challenges for our near-term load forecasts, one thing remains very clear—over the long term we will need new and clean sources of electricity. The same is true of our neighbouring jurisdictions and trading partners.

While the bold actions of our predecessors a half-century ago not only created local jobs and economic opportunities during the construction of our generation and transmission network, it set the foundation for an ongoing competitive advantage and continued prosperity for decades to come.

We have now reached a point in the evolution of our company and the development of our province where we must again look to innovate, invest and utilize our system in a manner that ensures the economic and environmental benefits British Columbians have enjoyed for so long carry on into the future.

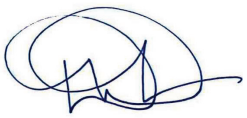
In November of last year, the Province outlined new restrictions on how and when we are to use the Burrard Thermal generating facility. While BC Hydro will maintain this facility for emergency back up capacity and reliability purposes, this direction is another signal that new low-carbon solutions will take on an even greater significance in the years to come. In fact, by making this shift, BC Hydro will continue working with our strategic partners to support low-carbon generation projects across the province and take advantage of new domestic and trade opportunities being created for clean energy suppliers.

However, this shift is not without challenges. The development of cleaner technologies to power our communities and our economy requires a proper policy environment in addition to the necessary public and private investments. As the Province looks to implement recommendations from the Green Energy Task Force, BC Hydro will be an integral partner—balancing our role as an agent of economic development with the high level of service and value expected by our customers.

We will serve both of these objectives by improving upon our world leading demand-side management programs, re-investing in our heritage assets, acquiring additional clean and renewable electricity from Independent Power Producers and deploying smart meters which will provide customers with information and tools to enable them to save energy and money. At all times, these initiatives will be undertaken in a way that recognizes the need to be conscious of our operational costs and wise in our expenditures.

In support of these initiatives, later this year, BC Hydro will submit a new Revenue Requirements Application (RRA) to the British Columbia Utilities Commission. This application will allow BC Hydro to continue re-investing in our aging infrastructure, enhancing a clean energy system and promoting a conservation culture that is the envy of the world.

Ultimately, by building on the existing strengths of our system and fostering innovation amongst our strategic partners, we can again assume a leadership role in the development of our province to the benefit of British Columbians while providing clean, low cost electricity to the benefit of our ratepayers.



Dan Doyle, Chair

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EXECUTIVE SUMMARY

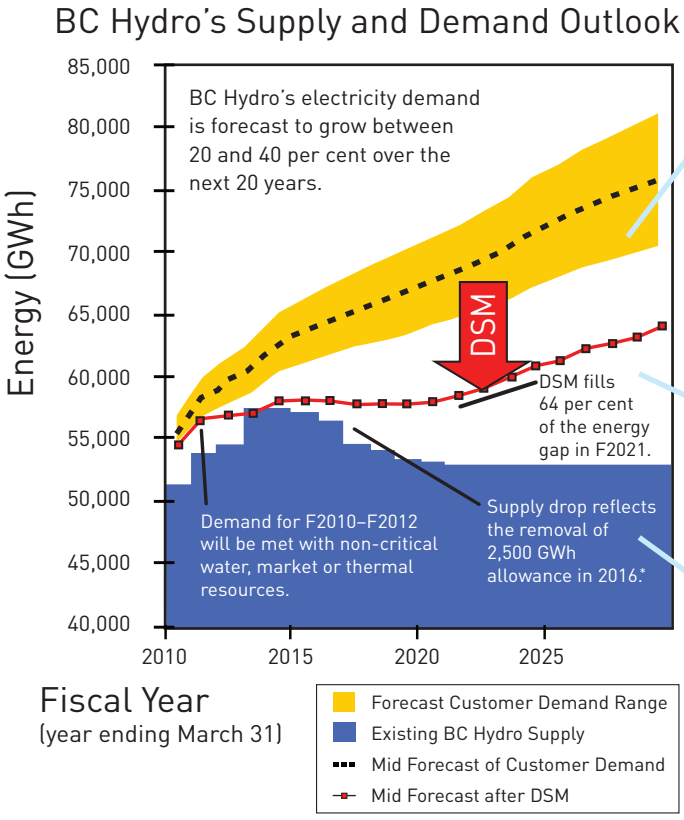
CONTEXT—SUPPLY AND DEMAND GAP

BC Hydro has provided reliable power and kept electricity rates low for generations. The major hydroelectric projects of the 1960s to 1980s enabled us to meet and even exceed the growing demand for electricity in B.C. These hydroelectric dams and generating stations, along with the transmission and distribution infrastructure also built during that period, form what we call our Heritage Assets and are the backbone of our current system.

During the last two decades, however, with few significant investments in our Heritage assets, and with sustained growth in electricity demand, BC Hydro's excess capacity has gradually been exhausted, and we have had to rely more and more on imports to meet domestic demand.

Our challenge is to ensure we continue to meet the increasing need for electricity in British Columbia. Electricity demand is expected to grow by approximately 20 to 40 per cent over the next 20 years. Key indicators and drivers of this growth include housing starts, residential use of electricity, employment, retail sales, growth in provincial GDP, commodity prices, and demand for B.C.'s exports. The demand for electricity will continue to exceed our committed and existing resource capabilities—a gap which we must close in a reliable and cost-effective way.

BC HYDRO'S ELECTRICITY GAP



Conserve More—BC Hydro's first and best choice is energy conservation and efficiency. This aligns with the Energy Plan, which requires us to acquire 50 per cent of our incremental resource needs through energy conservation and efficiency by 2020. This means building on the success of our Power Smart program and implementing other Demand-Side Management (DSM) initiatives. By helping customers be more efficient, use power wisely, and ultimately use less, we can reduce the need to build new generation capability.

Buy More—BC Hydro will continue to purchase power from Independent Power Producers (IPPs) that use clean or renewable resources such as wind, water, biomass, waste heat and geothermal using competitive call and other acquisition processes.

Build and Maintain More—BC Hydro's infrastructure requires increased maintenance and capital investment as it approaches the end of useful life. We will reinvest in our system assets and examine the potential of new hydro generation facilities, while pursuing ways to reduce costs to achieve our objectives. This includes strategic and innovative approaches to procurement, and exploring partnership opportunities where appropriate.

* Special Direction 10 (SD 10) to BCUC requires BC Hydro to achieve electricity self-sufficiency by 2016 and each year thereafter solely from electricity generating facilities within B.C. As a result, BC Hydro has removed the 2,500 GWh/yr of non-firm energy/market allowance from its resource stack effective F2017.

CORE STRATEGY

Our core strategy is focused on closing the gap and is comprised on three elements, namely to:

- Conserve More
- Build and Maintain More
- Buy More

A combined approach is necessary as none of these actions, on its own, is sufficient to address B.C.'s electricity gap. As we fill this electricity gap, we have ensured alignment with *The BC Energy Plan: A Vision for Clean Energy Leadership* which sets out specific goals and timelines in terms of how and when to close the gap.

STRATEGY—KEY ENABLERS

Focus on Cost-Effectiveness—Over the last decade, BC Hydro's rate increases have been low when compared to the rate of inflation. We will manage our costs and investments in a prudent way to keep our electricity rates among the lowest in North America, and will also support our customers' electricity conservation and efficiency efforts so that they may realize a competitive advantage through reduced energy costs.

Innovation—We require innovative approaches to our business and in the use of new technologies to keep our employees safe, to improve our service delivery to our customers, and to achieve improvements in our own productivity and efficiency.

Shared Vision—Clearly our efforts will be more successful if there is a shared vision in B.C. about the future of electricity. We continue to engage with our shareholder, First Nations, partners and stakeholders to pursue a common understanding and a shared vision.

DELIVERING ON THE STRATEGY—PERFORMANCE MEASUREMENT

The core strategy articulates what we need to do over the long term to meet our objectives—in the near term we have identified eight Short-Term Priorities, and have assigned performance measures and targets to them to assess our progress. These performance measures form part of an essential framework at BC Hydro to ensure alignment of activity with overall strategy and objectives, quantify progress in terms of delivering on strategy and evaluating the efficiency and effectiveness of the business.

This Service Plan articulates our Strategy and Short-Term Priorities for F2011–F2013.

BC Hydro's annual Service Plan is based on a three-year time horizon, which includes a forecast of possible rate changes. In March 2010, BC Hydro will be filing its fourth Revenue Requirements Application since 2003, following the rate freeze from 1996 to 2003. Once filed, the one-year application must be approved by the British Columbia Utilities Commission, including BC Hydro's proposed rate change for Fiscal 2011.

Like all rate forecasts, those contained in this Service Plan for the years beyond F2011 will require future adjustment due to a number of factors, including seasonal changes to water flow levels, fluctuating market conditions, and any new policy directions received. Given the significant impact any or all of these factors may have on BC Hydro as a cost-recovery utility, this Service Plan reflects the best-possible forecasting for future rate changes at this point in time.

ORGANIZATIONAL OVERVIEW

As a Crown corporation, we are wholly owned by the Province of British Columbia and are accountable to the B.C. Government through the Minister of Energy, Mines and Petroleum Resources. In this Service Plan, we outline how we intend to discharge that accountability over the period covered by the Plan.

This accountability takes three primary forms.

First, we are required to act in the best interests of British Columbians for generations to come, recognizing both the long-term impacts of what we do and that we must also meet the highest standards of ethical behaviour. BC Hydro's purpose—Reliable Power, at Low Cost, for Generations—together with our Guiding Principles and Values provides a framework that governs how we do what we do, and inspires us to raise our sights to new levels.

Second, we follow the policies set by the B.C. Government through its Legislation, Energy Plans, and Special Directions to the British Columbia Utilities Commission. Many of these policies and directions relate to the ways in which we will meet the demand for electricity over the long term. In this Service Plan, we have summarised our overall strategy in this area and also outlined the major steps we are taking over the next three-year period to carry out these directions. We also receive guidance from the Government through the Shareholder's Letter of Expectations, which is reviewed and updated annually (see page 7).

Third, while we set our own targets for operational effectiveness, the B.C. Government approves these targets and the scorecard we use to measure and track our progress toward those targets.

This Service Plan includes our targets and measures as well as BC Hydro's key plans to meet all of three of these accountabilities. We also regularly report against these accountabilities every quarter and in our Annual Report.

MANDATE

BC Hydro is one of Canada's largest electric utilities. Our mandate is to generate, purchase, distribute and sell power in a cost-effective and reliable manner.

As a provincial Crown corporation, we receive guidance from the Province—as the sole shareholder—through several policy instruments, including a Shareholder's Letter of Expectations and the 2002 and 2007 BC Energy Plans. The government's expectations are expressed in three essential ways: legislation, policy and instructions.

LEGISLATION

BC Hydro was established under the *Hydro and Power Authority Act*, and is regulated by the British Columbia Utilities Commission (BCUC). The BCUC, under the *Utilities Commission Act*, regulates BC Hydro to ensure that all customers receive safe, reliable and non-discriminatory energy services at fair rates; that the government, as shareholder, is afforded a reasonable opportunity to earn a fair return on its invested capital; and that the competitive interests of B.C. business are not frustrated.

The *Utilities Commission Act* also aligns with the objectives of *The BC Energy Plan* (described below) and requires the BCUC to consider, among other objectives, the goals of:

- reducing GHG emissions
- pursuing energy conservation and efficiency
- producing and acquiring electricity from clean or renewable resources, and
- providing technology and information to customers to help them conserve.

On July 1, 2010, the Province of B.C. will harmonize its seven per cent provincial sales tax (PST) with the five per cent federal Goods and Services Tax (GST) resulting in a 12 per cent Harmonized Sales Tax (HST). Under the HST, BC Hydro will achieve savings on operating and capital expenditures that will be reflected in lower rates for our customers. Our commercial customers who are manufacturers and/or small businesses will generally experience a seven per cent reduction in tax expense on electricity. A B.C.-based energy credit will eliminate any additional tax that residential customers would otherwise incur on electricity under the HST.

In 2008, the B.C. Government also passed several new pieces of legislation to create the regulatory framework for further GHG reductions. New legislation relevant to BC Hydro includes the *Greenhouse Gas Reductions (Cap and Trade) Act*, which establishes a cap and trade regulatory system, and amendments to the *Environmental Management Act*, which enables *The BC Energy Plan*'s requirement for zero net GHG emissions from new and existing (in 2016) electricity projects to be set into law.

POLICY

Value for the shareholder extends beyond the financial expectations outlined in specific legislation, and includes such other attributes as reputation and delivering on *The BC Energy Plan*. Reputational value for the Province includes the ability to provide and maintain an acceptable standard of living for British Columbians, and integral to this is providing reliable energy at competitive rates.

The BC Energy Plan: A Vision for Clean Energy Leadership provides further clarity on value, and puts forward the government's vision and blueprint for the province's energy future, and looks to all forms of clean energy—as well as energy conservation and efficiency—to make the province energy self-sufficient while taking responsibility for our natural environment and climate.

The plan provides guidance to BC Hydro, and sets a goal to acquire 50 per cent of our incremental resource needs through energy conservation and efficiency by 2020, while at the same time requiring that:

- all new electricity projects developed in B.C. will have zero net greenhouse gas emissions
- existing thermal generation power plants will reach zero net greenhouse gas emissions by 2016
- there will be zero greenhouse gas emissions from coal-fired electricity generation
- clean or renewable electricity generation will continue to account for at least 90 per cent of total provincial generation, placing the province among the top jurisdictions in the world, and
- the province be electricity self-sufficient by 2016.

In 2009, the Province established a Green Energy Advisory Task Force, and a new Cabinet Committee on Climate Action and Clean Energy, to develop recommendations that will maximize British Columbia's economic potential to produce clean, reliable, competitively priced power that meets British Columbians' electricity needs, reduces global greenhouse gas emissions and fosters economic development and job creation in the province.

The Green Energy Advisory Task Force is comprised of four advisory task force groups, to report directly to the new Cabinet Committee, including:

- Green Energy Advisory Task Force on Procurement and Regulatory Reform
- Green Energy Advisory Task Force on Carbon Pricing, Trading and Export Market Development
- Green Energy Advisory Task Force on Community Engagement and First Nations Partnerships
- Green Energy Advisory Task Force on Resource Development

The findings or recommendations of the Task Force and Cabinet Committee could affect BC Hydro through impacts on legislation or energy policy, and any such changes will be reflected in future Service Plans.

INSTRUCTIONS

Government guidance also comes in the form of instructions, such as the Shareholder's Letter of Expectations, which describes the relationship between BC Hydro and the Province, and sets out objectives the shareholder wishes BC Hydro to achieve. The Province and BC Hydro review the letter annually and update it as required.

Directions outlined in the most recent letter, dated January 2010, focus on accountability, climate change, clean and renewable energy, First Nations and stakeholder consultation, private sector support, electricity trading, and government relations. These attributes are balanced by the financial expectations which ensure that we focus on operating efficiently and effectively while delivering shareholder value. The current letter can be found at: www.bchydro.com/about/company_information/openness_accountability.html.

PURPOSE:

"RELIABLE POWER, AT LOW COST, FOR GENERATIONS"

VALUES

ACCOUNTABILITY | INTEGRITY | SAFETY | SERVICE | TEAMWORK

SHORT-TERM PRIORITIES

CONSERVE

CLIMATE CHANGE AND ENVIRONMENTAL IMPACT

Have no net incremental environmental impact by 2024 when compared with 2004.

ENERGY CONSERVATION AND EFFICIENCY

Develop and foster an energy conservation and efficiency culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in the use of electricity.

BUILD

RELIABILITY (CUSTOMER)

Provide best-in-class reliability by customer segment.

BUY

ELECTRICITY SECURITY (SUPPLY)

Meet all domestic needs.

SAFETY

Provide the safest work environment compared with the best performers in any industry, where not one of our employees experience a serious work-related injury.

CUSTOMER SATISFACTION

Lead by offering extraordinary value and service.

FINANCIAL TARGETS

Maintain low costs for electricity customers in B.C. over the long-term, while consistently delivering 100 per cent of forecast net income.

PEOPLE

Be a top employer for generations.

Our Purpose, Values and Priorities inspire us as an organization and help clarify how we can deliver value to our shareholder across multiple attributes and the people of British Columbia.

PURPOSE

BC Hydro's purpose is to provide "**Reliable Power, at Low Cost, for Generations**." This purpose provides the context for all of our business decisions.

VALUES

BC Hydro has established five core Values that are essential to our success: Accountability, Integrity, Safety, Service and Teamwork.

GUIDING PRINCIPLES AND SHORT-TERM PRIORITIES

BC Hydro's Board of Directors developed and adopted 15 Guiding Principles in 2004. These Guiding Principles provide an enduring framework for how we manage our business at all times. For the short term, we have selected eight of these principles as priorities to focus on right now, and to which we have assigned specific targets and measures to assess our progress. (*The BC Energy Plan*'s objectives are largely captured within these short-term priorities.) However, we will work to ensure all of our Guiding Principles are met.

The following table indicates how our short-term priorities relate to our Guiding Principles.

LINKAGE OF GUIDING PRINCIPLES TO SHORT-TERM PRIORITIES

GUIDING PRINCIPLE		SHORT-TERM PRIORITY	PERFORMANCE MEASURE(S)
RELIABLE POWER	**Reliability (Customer)**	**Reliability (Customer)** Provide best-in-class reliability by customer segment.	• Customer Average Interruption Duration Index (hours) • System Average Interruption Frequency Index (frequency) • Customers Experiencing Multiple Interruptions (%)
	Electricity Security (Supply)	**Electricity Security (Supply)** Meet all domestic needs.	• Winter Generation Availability Factor (%) • Forecast Supply-Demand Balance (MW)
	Remote Community Electrification		• N/A
LOW COST	**Financial Targets**	**Financial Targets** Maintain low costs for electricity customers in B.C. over the long term, while consistently delivering 100 per cent of forecast net income.	• Net Income (after Regulatory Accounts) ($) • Operating Costs (after Regulatory Accounts) ($) • Return on Assets (%) • Return on Regulatory Equity (%) • Earnings Before Interest and Taxes Interest Coverage ($) • Debt to GAAP Equity (%)
	Innovation and Technology		
	Western Opportunities		
FOR GENERATIONS	**Environmental Impact**	**Climate Change and Environmental Impact** Have no net incremental environmental impact by 2024 when compared with 2004.	• GHG Emissions (Mt CO_2e) • Carbon Neutral Program Emissions (Mt CO_2e) • Clean Energy (%)
	Energy Conservation and Efficiency	**Energy Conservation and Efficiency** Develop and foster an energy conservation and efficiency culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in the use of electricity.	• Demand-Side Management (GWh per year, cumulative since F2008)
	Safety	**Safety** Provide the safest work environment compared with the best performers in any industry, where not one of our employees experience a serious work-related injury.	• Severity • All Injury Frequency
	Teamwork	**People** Be a top employer for generations.	• Employee Engagement
	Workplace		
	Customer Satisfaction	**Customer Satisfaction** Lead by offering extraordinary value and service.	• Customer Satisfaction Index (%) • Billing Accuracy (%) • First Call Resolution (%)
	Suppliers	Enablers, principles and targets that are factored into the execution of the priorities above.	• N/A
	Stakeholder Engagement		
	First Nations		

Detailed definitions and targets associated with the short-term priorities can be found in the Performance Measures, Targets and Benchmarks section found on page 23. The objectives of each Guiding Principle can be found in the Appendix.

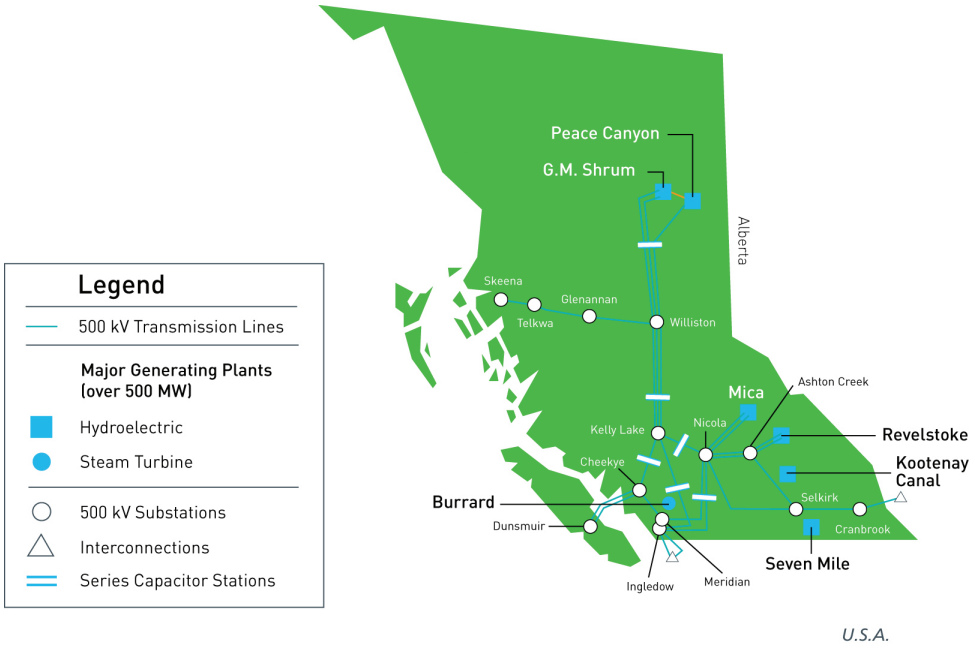
SYSTEM

BC Hydro is the largest electric utility in British Columbia, operating 31 hydroelectric facilities and three thermal generating plants. Most of BC Hydro's 11,300 megawatts (MW) of installed generating capacity is located away from the province's major population centers.

Our hydroelectric facilities provide over 98 per cent of the total electricity we generate—between 42,000 and 52,000 gigawatt hours (GWh) of electricity per year during the past five years—and are located throughout the Peace, Columbia and Coastal regions of B.C. Our three thermal generating plants provide the remaining electricity generation.

We deliver electricity to our customers through a network of over 18,500 kilometres of transmission lines and 56,550 kilometres of distribution lines. This network also includes more than 888,000 utility poles and 351,000 transformers.

500 KV TRANSMISSION SYSTEM AND MAJOR GENERATING STATIONS



BC Hydro also provides electrical service to 18 communities that are not connected to our integrated system. These non-integrated areas (NIA) are typically small, remote communities served by local generating stations that are owned by BC Hydro (10 diesel stations and one hydro station) or by Independent Power Producers (IPPs) under Electricity Purchase Agreements with BC Hydro.

To meet the growing demand for electricity, BC Hydro also contracts with IPPs and buys power externally in the wholesale electricity markets through Powerex, our energy marketing and trading subsidiary.

WHOLLY OWNED SUBSIDIARIES

POWEREX

Powerex was established in 1988 as the wholly-owned electricity marketing subsidiary of BC Hydro, originally responsible for marketing BC Hydro's surplus electricity in the west. Today, while Powerex is still responsible for optimizing BC Hydro's system capability, it has evolved into a key participant in energy markets across North America, buying and supplying wholesale power, natural gas, ancillary services, financial energy products and, more recently, environmental products with an ever-expanding list of trade partners.

POWERTECH

Powertech, BC Hydro's subsidiary that specializes in clean energy consulting, testing, and systems integration, has been serving electrical, oil and gas companies, and automotive and electrical equipment manufacturers since 1989. It operates as a separate, for profit, commercial entity. In addition to providing technical services to BC Hydro, Powertech serves a large number of clients in energy-related sectors across North America, Asia, Europe, and South America and beyond.

CUSTOMERS

BC Hydro serves 95 per cent of B.C.'s population, delivering electricity safely and reliably at competitive rates to approximately 1.8 million customers. Eighty-eight per cent of our customer accounts are residential, with the remainder either commercial or industrial. Each of these three groups consumes roughly one third of the total electricity we supply.

RATES AND REGULATION

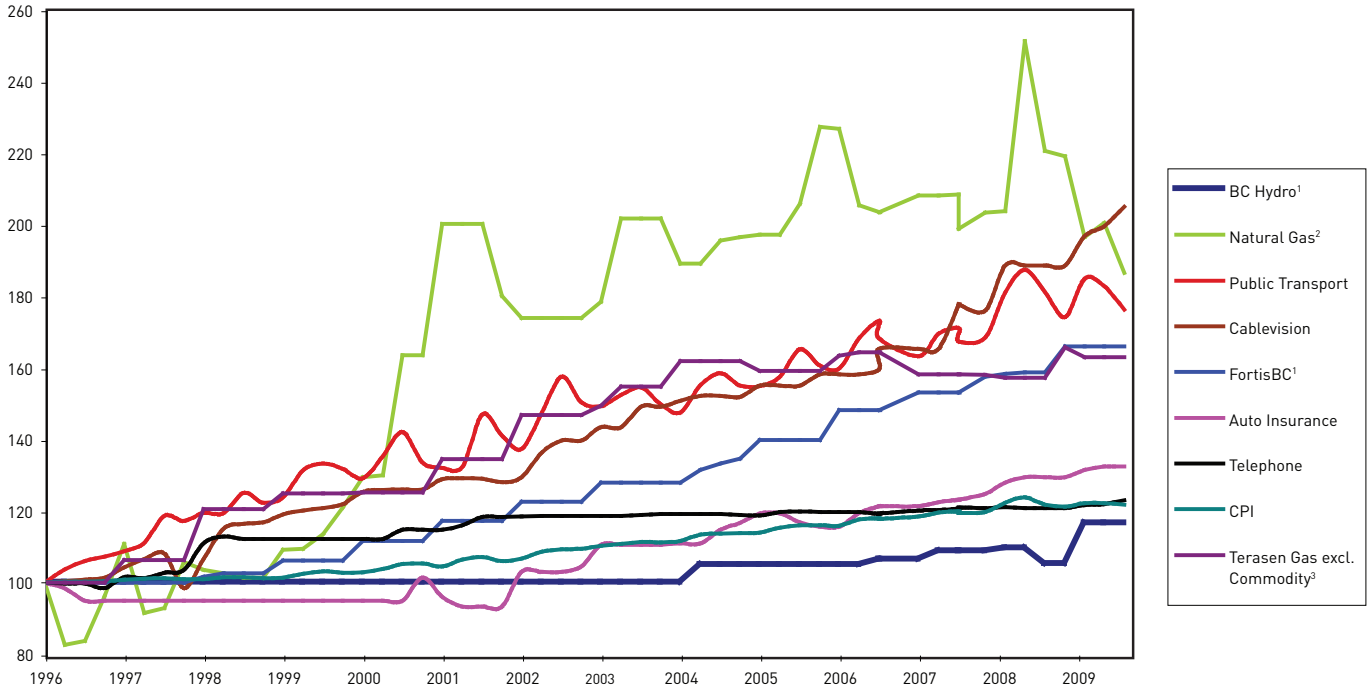
The BCUC must approve the rates BC Hydro charges for electricity.

The rates are set to allow us to recover costs incurred in serving our customers, including earning a return on equity. Both the definition of equity and the method to determine an appropriate return on this equity are defined by Special Directions from the B.C. Government. The Special Directions require annual dividend payments to the B.C. Government of 85 per cent of our net income, adjusted for capitalized finance charges and related amortization. The annual dividend payment is reduced if the payment increases BC Hydro's debt to equity ratio above 80:20.

Over the last decade, BC Hydro's rate increases have been relatively low when compared to the rate of inflation, as measured by the Consumer Price Index, and increases in rates by other service providers.

BC HYDRO'S RATE VERSUS VARIOUS CONSUMER PRICE INDEX COMPONENTS AND OTHER SERVICE RATES

January 1996 to November 2009



Quarter 1 1996 = 100

Sources: BC Hydro, FortisBC and Statistics Canada (326-0020); converted to quarterly data. CPI components are for B.C. services (unless indicated otherwise).

[1]BC Hydro and FortisBC rates are based on residential monthly consumption of 1,000 kWh, and reflect BC Hydro's Conservation Rate introduced October 2008.

[2]Natural Gas StatsCan index is full service charge, including delivery charge and commodity cost.

[3]Terasen Gas excluding Commodity relates to non-commodity charges applicable to Lower Mainland service area only.

A Revenue Requirements Application (RRA) is filed with the BCUC justifying the costs we expect to incur to serve our customers over the forecast year(s) and, accordingly, the total revenue we require from customers to recover those costs. After a public review of the application, the BCUC determines the rates that we are entitled to set to recover our costs.

BC Hydro's F2011 RRA will be filed with the BCUC in March 2010 requesting a 6.11 per cent increase to current rates. The rate increase is attributable to the ongoing implementation of a significant capital program to refurbish BC Hydro's aging assets, an increase in the return on equity earned by government, higher costs associated with BC Hydro's pension plan reflecting the impact of market conditions on the valuation of plan assets due to market conditions and expected lower trade income due to weaker export market conditions. These factors are partly offset by lower finance charges due to lower interest rates and lower operating costs due to cost constraints. BC Hydro is also seeking to increase the rate rider, used to recover the energy deferral accounts, to 4.0 per cent from the current 1.0 per cent. The increase in the rate rider is required to recover the higher balances in the energy deferral accounts. The higher balance in the energy deferral accounts in F2010 is largely due to the impact of the low water inflows and lower trade income.

An application to re-design the Large General Service rate to establish new conservation rates for this customer class was filed with the BCUC on October 16, 2009. If approved, the existing Large General Service rate class will be split into two new customer classes: a new large customer class and a new medium customer class. BC Hydro is proposing a two part rate for the new large customer class and plans to move medium use customers from a declining energy charge to a flat energy charge over a six year phase-in period. Further rate structures will be designed over the next few years to help us meet our conservation targets.

Other notable applications and filings under review or expected to be submitted with the BCUC over the next year or so include:

- Capital expenditure applications to upgrade the safety and reliability of the spillway gates at the Stave Falls, filed with the BCUC in December 2009, and Keenleyside dams, expected to be filed in late F2010 or early F2011. Additional capital expenditure applications with respect to BC Hydro's generation fleet are expected to be filed with the BCUC during the F2011–F2013 period. These include the addition of Mica 5 and 6 generation units, the replacement of the John Hart generating facilities and the refurbishment of the Ruskin generation station.
- BC Hydro's next Long-Term Acquisition Plan (LTAP), expected to be filed no later than June 30, 2011. This LTAP will have regard for Special Direction No. 2 issued by the government to the BCUC on October 29, 2009 which stipulated that BC Hydro can no longer rely on Burrard Thermal for any firm energy in planning to meet its electricity supply obligations. The LTAP outlines actions to be taken over the next ten years, building on the work done to date to meet *The BC Energy Plan's* objectives and ensuring that customers continue to receive reliable, cost effective service.
- Energy Purchase Agreements (EPAs) arising from the 2009 Clean Power Call and the Phase 2 Bioenergy Call for the acquisition of energy supply from the IPPs.

Acting on a recommendation from the government, the BCUC has suspended the Inquiry into B.C.'s long-term transmission infrastructure requirements until May 31, 2010. Amended terms of reference for the Inquiry will be issued by the government after its consideration and policy responses to the recommendations of the Green Energy Advisory Task Force. BC Hydro had been participating in the early stages of this Inquiry preparing preliminary information on long-term domestic load and generation resource potential as inputs in determining the transmission needs of the province over the next 30 years.

STRATEGIC PARTNERS

BRITISH COLUMBIA TRANSMISSION CORPORATION

Created in 2003 to ensure fair and open access to the transmission system, the British Columbia Transmission Corporation (BCTC) is the provincial Crown corporation responsible for planning, operating and maintaining the province's publicly owned electrical transmission system. The ownership of the transmission assets (excluding control centres) remains with BC Hydro.

Upon receiving BCUC approval, the BCTC expands and upgrades the transmission infrastructure, with BC Hydro providing the capital funding. BC Hydro retains overall responsibility for First Nations and transmission property rights matters.

RENEWABLE POWER PRODUCERS

BC Hydro's electricity procurement plays a critical role in reaching *The BC Energy Plan*'s objective of achieving electricity self-sufficiency by 2016, as well as meeting the B.C. Government's objectives for maintaining competitive rates, acquiring clean or renewable electricity, and developing a vibrant and competitive Independent Power Producer (IPP) sector. IPPs are an important source of electricity through the development of power projects that use mainly renewable fuel sources, located throughout British Columbia.

Currently, BC Hydro has 86 Electricity Purchase Agreements (EPAs) with IPPs on the integrated system and four EPAs in non-integrated areas representing about 14,300 GWh per year of energy purchases. Of the 90 active agreements, 53 are for projects in operation with most of the remaining projects expected to reach commercial operation by the end of F2013.

During F2009, IPPs provided 8,374 GWh of energy to the BC Hydro system, which accounted for about 14 per cent of total domestic electricity requirements. The following table illustrates the expected energy supply from IPP contracts over the next few years:

	F2010	F2011	F2012	F2013
Energy Purchases (GWh)	8,140	10,145	10,363	8,895

Note: (a) Table excludes non-integrated area projects. Energy amounts are adjusted for attrition.
(b) Volumes in F2011/12 reflect increased purchases under the 2007 Alcan EPA.
(c) The values reflect the amount of energy contracted for delivery in each of the respective years, not cumulatively.

In light of recent decisions of the B.C. Court of Appeal, including *Carrier Sekani Tribal Council v. British Columbia Utilities Commission et al*, BC Hydro is assessing the status of First Nations consultations to determine whether there has been adequate consultation regarding the proposed sale of power by IPPs to BC Hydro.

BC Hydro currently has several procurement processes underway to acquire additional clean or renewable electricity (as defined by the Province) from IPPs

• STANDING OFFER PROGRAM

As directed by *The BC Energy Plan*, BC Hydro established a Standing Offer Program in April 2008 for clean, renewable or high-efficiency co-generation electricity projects with a capacity of greater than 50 kilowatts (kW) and up to ten megawatts (MW). The program offers a standard contract with fixed prices and a streamlined administrative process to give smaller-scale projects the opportunity to contribute to B.C.'s supply of clean electricity. To date, BC Hydro has received 23 applications under the Standing Offer Program for a total of approximately 460 GWh per year of energy; four of these applications have resulted in signed EPAs. We will complete a two-year review of the program in Spring 2010 that will assess the Standing Offer Program's results and identify areas for improvement. We will then submit our review to the BCUC.

• CLEAN POWER CALL

Under the Clean Power Call, BC Hydro can acquire up to 5,000 GWh per year of cost-effective clean or renewable energy from larger projects using proven technologies and offering in-service dates ranging between 2010 and 2016. In November 2008, we received 68 proposals from 43 registered Clean Power Call proponents providing over 17,000 GWh per year of firm energy from hydro, wind, waste heat and bioenergy projects. In November 2009, BC Hydro announced that it was moving forward with 47 proposals and providing proponents an opportunity to make their proposals more cost-effective. We anticipate that we will award EPAs for the Clean Power Call in early 2010. Acceptance of these EPAs will then be sought from the BCUC.

• BIOENERGY CALL

Guided by the Province's *BC Energy Plan* and Bioenergy Strategy, BC Hydro launched a two-phase call for power in early 2008 to use wood infected by the mountain pine beetle as well as other biomass sources. In Phase I, we awarded four contracts for 579 GWh per year of energy; the BCUC accepted these contracts in July 2009. We launched Phase II of the Bioenergy Call in March 2009, which involves two separate acquisition streams. The Biomass Projects RFP is a competitive call for up to 1,000 GWh/year of cost-effective energy from larger-scale biomass projects using any form of biomass including wood waste sourced from new forest tenure. The Community-Based Biomass RFQ is for smaller-scale, innovative community-level electricity supply solutions using biomass. Issuance of the Biomass Projects RFP awaits completion of certain key assessments including fuel risk sharing, First Nations-related requirements and governmental bioenergy initiatives. Both streams are expected to proceed in F2010.

• INTEGRATED POWER OFFER

To further expand on its bioenergy supply initiative, BC Hydro is working with its pulp and paper customers to help them identify electricity-related opportunities to secure funding under the federal government's new Green Transformation Program. Under this "integrated offer" approach, BC Hydro plans to capitalize on the synergies presented when cost-effective energy efficiency savings and electricity generation opportunities are considered together. BC Hydro's goal is to reach initial agreements with eligible pulp and paper customers in early 2010.

We will continue to work collaboratively with IPPs, customers, Government, BCTC and First Nations to further improve the procurement process for electricity and to design competitive call processes.

ACCENTURE BUSINESS SERVICES FOR BRITISH COLUMBIA

BC Hydro outsources many of its customer care, information technology, human resources, financial systems and building and office services to Accenture Business Services for British Columbia (ABSBC). ABSBC provides BC Hydro with quality service, value and long-term cost reductions.

CORPORATE GOVERNANCE

The BC Hydro Board of Directors oversees the conduct of business and supervises management, which in turn is responsible for the day-to-day operations of BC Hydro. Directors are appointed by the B.C. Government to bring special skills and experience to the Board's deliberations.

The Board's broad set of responsibilities includes:

- ensuring there is a strategic and business planning process, and then reviewing, validating and endorsing a strategy for the Corporation and monitoring its implementation
- ensuring that effective controls and appropriate governance are in place as part of its oversight of management, and
- having a continuing understanding of the principal risks associated with the Corporation's business and ensuring that the appropriate processes and systems are in place to mitigate that risk.

The Board acts in accordance with the *Best Practices Guidelines Governance and Disclosure Guidelines for Governing Boards of BC Public Sector Organizations*, which can be found at www.fin.gov.bc.ca/brdo/governance/index.asp.

BOARD OF DIRECTORS

MANDATE: The Board is responsible for overseeing the conduct of business, supervising management and ensuring all major issues affecting the Corporation are given proper consideration. The Board, through the Chief Executive Officer, sets the standards of conduct for BC Hydro and ensures the safety of its operations.

CHAIR: Dan Doyle

MEMBERS: Chief Kim Baird, James Brown, Peter Busby, Wanda Costuros, Jonathan Drance, Tracey McVicar, Nancy Olewiler, Peter Powell, John Ritchie

AUDIT AND RISK MANAGEMENT COMMITTEE	**PURPOSE:** The Audit and Risk Management Committee assists the Board in fulfilling its obligations and oversight responsibilities relating to the audit process, financial reporting, the system of corporate controls, governance of the Corporation's pension plans and various facets of risk management. **CHAIR:** Tracey McVicar **MEMBERS:** Wanda Costuros, Peter Powell, Dan Doyle*
CAPITAL PROJECTS COMMITTEE	**PURPOSE:** The Capital Projects Committee assists the Board in fulfilling its obligations and oversight responsibilities relating to the Corporation's long-term capital plans, capital budgets and capital projects, including risk identification and management, dam safety, Aboriginal relations and negotiations, and transmission projects. **CHAIR:** Peter Powell (Interim Chair) **MEMBERS:** Chief Kim Baird, Jonathan Drance, John Ritchie, Dan Doyle*
CONSERVATION AND CLIMATE ACTION COMMITTEE	**PURPOSE:** The Conservation and Climate Action Committee assists the Board by monitoring and directing the environmental performance of the Corporation and monitoring and supporting the implementation of an energy conservation strategy as described in *The BC Energy Plan*. The Committee also provides guidance and direction to management and makes recommendations to the Board regarding initiatives and programs related to meeting the Corporation's environmental goals and climate obligations. **CHAIR:** Peter Busby **MEMBERS:** Chief Kim Baird, Nancy Olewiler, Dan Doyle*
CORPORATE GOVERNANCE COMMITTEE	**PURPOSE:** The Corporate Governance Committee assists the Board by ensuring that BC Hydro develops and implements an effective approach to corporate governance, which enables the business and affairs of the Corporation to be carried out, directed and managed with the objective of enhancing shareholder value. **CHAIR:** Jonathan Drance **MEMBERS:** Tracey McVicar, Dan Doyle*
EXECUTIVE COMMITTEE	**PURPOSE:** The Executive Committee meets only in special circumstances. It has most of the powers of the Board to act in situations when, for timing reasons, a Board meeting cannot be scheduled. **CHAIR:** Dan Doyle **MEMBERS:** Wanda Costuros, Jonathan Drance
HUMAN RESOURCES & SAFETY COMMITTEE	**PURPOSE:** The Human Resources and Safety Committee assists the Board in fulfilling its obligations relating to human resources and compensation issues, as it pertains specifically to senior management and generally to the Corporation. The Committee also monitors safety performance. **CHAIR:** Nancy Olewiler **MEMBERS:** James Brown, Jonathan Drance, Dan Doyle*
SPECIAL COMMITTEE	**PURPOSE:** The Special Committee was created with the specific purpose of reviewing and considering a proposed transaction on behalf of the Board of Directors, having regard to all relevant considerations, including the strategic objectives and security requirements of BC Hydro. The committee will continue to perform its function until the proposed transaction closes, or the Committee's mandate is otherwise terminated. **CHAIR:** Dan Doyle **MEMBERS:** Tracey McVicar, Peter Powell

*The Board Chair is an ex-officio member of all Committees.

HISTORICAL CONTEXT

BC Hydro has provided reliable power and kept electricity rates low for generations of British Columbians largely because, from the 1960s to 1980s, we were able—with significant government support—to complete a number of major hydroelectric projects that enabled us to meet and even exceed the growing demand for electricity in B.C. These hydroelectric dams and generating stations, along with the transmission and distribution infrastructure also built during that period, from what we call our Heritage Assets and are the backbone of our current system.

During the recessionary period in the 1980s, however, BC Hydro took cost-cutting measures that both reduced the number of our employees and delayed capital and maintenance expenditures. From the 1990s through 2004, we tried to sustain our business over a long period of rate freezes and increasing electricity demand. The result is that the excess generation capacity we enjoyed from early developments has gradually been exhausted, and we have had to rely more and more on imports to meet domestic demand. We have also used up any surplus capacity on our transmission network.

In 2004, BC Hydro's management team and Board began developing our current 15 guiding principles and eight short-term priorities to focus on reinvesting in the company. Today, these priorities still hold true and we've made significant strides in many areas such as our workforce complement and reliability of supply. We still have the same core strategies to meet sufficient, reliable power for generations: conserve, build and maintain, and buy from IPPs. This includes implementing aggressive conservation initiatives, adding more supply capacity and energy to our system through IPPs, maintaining and expanding our Heritage Assets, and investing in our distribution and transmission systems.

As we move forward, we need to continue to make significant investments to fulfil our mandate and achieve our purpose.

OPPORTUNITIES AND RISKS

Our province has not been immune to the recession experienced around the globe, and the backdrop of economic uncertainty makes this a challenging time to focus on investment. However, we expect the province to continue its trajectory of long-term growth, and our long-term strategy and role in providing leadership and being a strong presence in our province will remain unchanged. We believe that continuing to pursue our core strategies will create opportunities for BC Hydro to play a key role in economic recovery and development for British Columbia. These strategies are influenced by the opportunities and risks described below.

FINANCIAL OBLIGATIONS: RATES AND COSTS

In large part due to the development of our Heritage Assets, BC Hydro's rates remain some of the lowest among major utilities across North America. In this decade our residential rates rose by 17 per cent from 2000 to 2009 (after a long rate freeze); while average rates in the U.S. rose by 41 per cent over the same period. However, this competitive advantage is under pressure both in the short term—because of the combination of a low water year and impacts from the current economic downturn—and in the long term because we are part way through a plan of modernizing and refurbishing the electricity system in British Columbia. We remain committed to keeping our rates among the lowest in North America.

As we reinvest in our assets and take steps to meet growth in long-term demand, our future rates need to support the continued delivery of reliable power to our customers. BC Hydro is also committed to ensuring that we operate our business in a prudent manner, by managing through challenging times in a way that preserves and adds value for our customers and Province. This requires us to continue to articulate our strategies clearly, to do business as effectively and efficiently as possible, and clearly demonstrate how our investment and spending supports our objectives.

ECONOMIC UNCERTAINTY

The current challenging economic conditions have been considered in BC Hydro's strategy. Since it began in 2008, the economic recession has affected BC Hydro by reducing our actual load and load forecast, causing a decline in the value of the assets in our pension plan, and reducing the income available from our trade activities. We also recognize that the path ahead is uncertain: the economic downturn and the pace of the eventual recovery may impede our conservation targets, adversely affect our suppliers and partners, lower the price of our energy purchases, and alleviate some of our recruitment challenges. We are actively engaged in dealing with each of these realized and potential impacts, and we continue to monitor the situation carefully—especially in areas that put our priorities at risk.

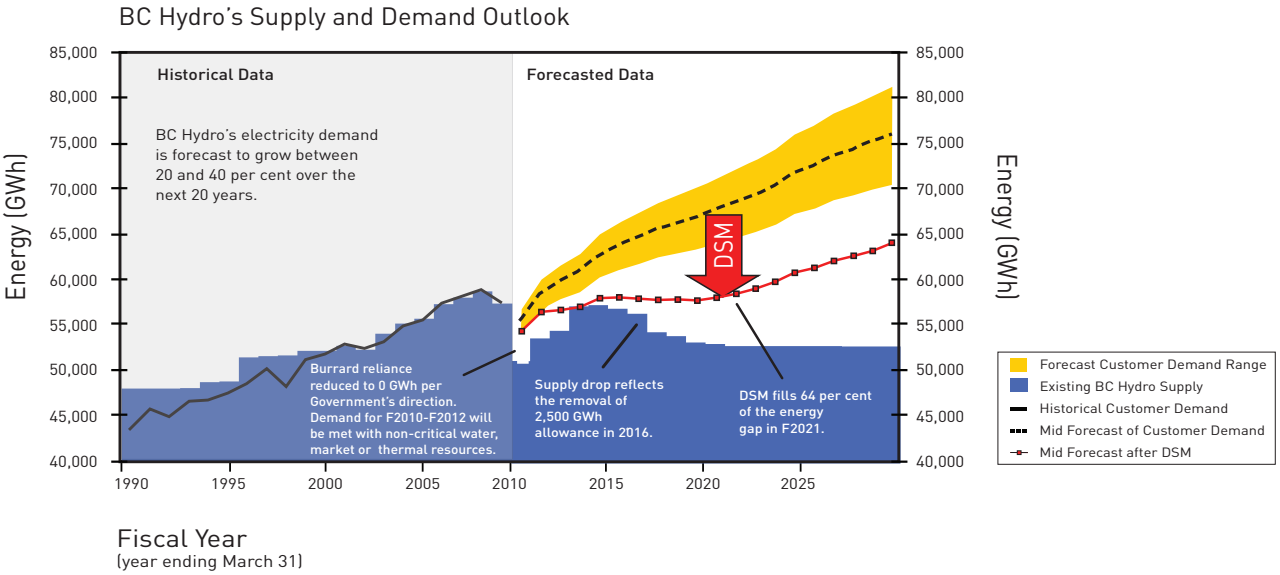
DEMAND FOR ELECTRICITY

We consider long-term trends and emerging shifts in assessing the overall increase in demand for electricity and how best to meet the demand. Over the next ten years, the population of 4.4 million in BC Hydro's service territory is expected to increase by approximately 505,000. This would increase our customer base by about 226,000 accounts.

Beyond population growth, long-term expansion of the B.C. economy will also influence demand. Our latest forecasts of supply and demand for electricity predict that demand may grow by approximately 20 to 40 per cent over the next 20 years if we do not continue to implement energy conservation and efficiency measures.

Shifts in consumption patterns and habits could also raise or lower the overall magnitude of demand growth. For example, fuel switching—where customers switch between electricity and natural gas to heat their homes or businesses in response to energy prices, and concern over greenhouse gas emissions—could influence demand, while a more concerted move to electric or hybrid cars could increase demand. The continuing electrification of mass transportation systems, ports and airports may also increase demand over the next decade and beyond.

BC HYDRO'S ELECTRICITY GAP



DSM: energy conservation and efficiency through Demand-Side Management (see page 30 for more information on DSM)

* Special Direction 10 (SD 10) to BCUC requires BC Hydro to achieve electricity self-sufficiency by 2016 and each year thereafter solely from electricity generating facilities within B.C. As a result, BC Hydro has removed the 2,500 GWh/yr of non-firm energy/market allowance from its resource stack effective F2017.

AGING INFRASTRUCTURE

Much of BC Hydro's infrastructure was built in the late 1960s, 1970s and early 1980s, including our system's largest generation facilities and the majority of the distribution network. These facilities require increased maintenance and capital investment as the system components or the facilities themselves approach the end of useful life. In addition to the overall age of the system, other factors such as changing operating demands and increased use can affect the health of the equipment.

To address our aging infrastructure, BC Hydro has increased expenditures on capital reinvestment and maintenance in recent years, from $528 million in F2005 to $1.4 billion in F2009. We maintain a Strategic Asset Management Plan and individual facility Asset Plans.

These plans detail the overall investment strategy for each facility, taking into account the facility's role, issues, performance targets, risks and growth opportunities.

Over the past few years, BC Hydro has made significant progress in improving the condition of facilities: improving equipment reliability, permanently reducing safety hazards and reducing the risk of environmental impacts. BC Hydro will need to continue to deliver capital projects to further improve the condition of our Heritage Assets. The actions we are currently taking to strengthen our distribution system and fund upgrades to our transmission assets will result in future reliability improvements.

CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS (GHG) REDUCTION

The B.C. Government has set aggressive targets for reducing GHG emissions. However, while it has also provided a regulatory framework from which to operate, significant uncertainty remains around regional, national, continental and international climate change-related regulations.

Efforts to limit GHGs are expected to significantly affect the costs, market value and risks associated with the evaluation of electricity generation resource options by utilities. BC Hydro also faces the risks associated with climate change itself, such as the physical effects of climate change on water supply, infrastructure and emergency planning. BC Hydro evaluates developments in greenhouse gas policy and regulation to inform planning and manage risk, and our climate change strategy helps us mitigate GHG emissions, manage regulatory risk and meet compliance requirements, as well as adapt to the potential effects of climate change.

BC Hydro, by virtue of its system and plans, is well positioned as a provider of green energy to help address climate change and other challenges and opportunities, and we continue to implement a number of measures aimed at reducing GHG emissions. These measures include an ongoing focus on energy conservation; a reduced reliance on Burrard Thermal; a new carbon-neutral strategy to reduce emissions from our corporate operations; maintaining the health of our Heritage Assets; purchasing clean power generation from B.C. IPPs; and a Distributed Generation strategy to integrate clean electricity into our grid at customer sites.

AGING, RETIRING WORKFORCE

The economic recession has temporarily eased some of the skilled labour shortages we have experienced in previous years. However, like other businesses and utilities across North America, the growing number of employees eligible for retirement remains a concern. Canadian labour demographics still clearly point to labour shortages in specialized occupations in the mid to long term. Further, approximately 25 per cent of our current workforce is eligible to retire within five years. This increases our need to attract, train, motivate and retain the individuals with critical skills, and to create a positive and diverse workplace, while enabling knowledge transfer from retiring employees.

CHANGING RELATIONSHIPS

The dynamics among participants in BC Hydro's industry appear to be changing. Emerging business opportunities in power generation and clean energy technologies are leading to our own customers looking to play a larger role in providing electricity. We may also see an increase in fuel switching between electricity and natural gas. Risks of competition are balanced with opportunities for collaboration, and BC Hydro is taking action to establish or strengthen existing relationships with communities, technology providers, other utilities and BC Hydro customers, to develop these opportunities.

For example, with our Sustainable Communities Program, BC Hydro is partnering with communities across B.C. to increase efficiency, cut costs, manage greenhouse gas emissions and utilize local energy. Additionally, we have developed a strategy for Distributed Generation (see more on this page), an approach that primarily utilizes smaller-scale generation of electricity located close to the load it is intended to serve, often located at

DISTRIBUTED GENERATION

Cost reductions in small scale generation technologies are transforming conventional utility customers into utility suppliers. This allows customers—at the individual, building, company or community scale—to take responsibility for their own electricity supply, and generate opportunities by selling surplus electricity to the utility. While distributed generation may help utilities defer transmission & distribution upgrades in certain areas, it will also impose technical challenges to a power grid designed for one-way power flow. Customers will look to BC Hydro for help in realizing their clean power aspirations. We can expect to see demand grow for new business models and to provide advice on innovative technologies.

BC Hydro has developed a Distributed Generation strategy to help integrate clean electricity into BC Hydro's grid at customer sites. This initiative will result in a small, yet comprehensive portfolio of customer programs that will enable distributed generation from a variety of sources and support sustainable communities. Work is underway to test different business models and design the appropriate mechanisms through which customers can participate.

customer sites and/or involving our customers. These initiatives are already underway, and are part of our continuing effort to develop opportunities in our changing market.

BUILDING RELATIONSHIPS WITH FIRST NATIONS

BC Hydro recognizes the importance of building relationships with Aboriginal people and First Nations. We continue to implement a comprehensive approach to Aboriginal relations that provides a foundation for sustainable relationships with Aboriginal people in British Columbia. This approach helps to reduce financial, legal and operating risks for BC Hydro and BCTC associated with the outstanding claims of Aboriginal rights and title by building mutually-beneficial relationships with Aboriginal communities.

To uphold the honour of the Crown, BC Hydro is engaging in consultation with First Nations, including on capital projects, purchase of power and long-term planning activities. BC Hydro has concluded many impact benefit arrangements with BC First Nations, facilitating the successful implementation of BC Hydro and BCTC projects.

Following two BC Court of Appeal decisions in February 2009, BC Hydro has also taken on a new role in assessing the adequacy of First Nation consultation. BC Hydro also continues to address concerns raised by First Nations on the impact of existing BC Hydro infrastructure. Two milestone agreements were concluded with the Tsay Keh Dene and Kwadacha First Nation in 2009 to address the impact of the Williston facility on those communities.

BC Hydro will continue to consult with First Nations where its activities may affect Aboriginal rights to ensure that the honour of the Crown is upheld. Where appropriate, this may include a combination of measures to mitigate project impacts and other accommodation.

BC Hydro also remains committed to supporting Aboriginal economic development in British Columbia under its Aboriginal Procurement Policy having just launched an effort to plan its Aboriginal Procurement Strategy over the next ten years. BC Hydro is also committed to having recruitment goals, training opportunities and retention strategies in place so that we remain an employer of choice for Aboriginal people.

As many of the communities eligible for our Remote Community Electrification (RCE) program are Aboriginal communities, an important objective of the RCE program is to establish relationships built on mutual respect and that appropriately reflect the interest of First Nations.

Over the next two years, BC Hydro will further embed Progressive Aboriginal Relations into practices across the company, including decision-making processes, and to demonstrate accountability through improved reporting.

STRATEGIES

BC Hydro must ensure that it continues to meet the growing need for electricity in British Columbia. We plan to accomplish this—in alignment with *The BC Energy Plan*—through continuing to invest in and refresh our Heritage Assets, building on the success of our Power Smart conservation program, buying clean energy inside British Columbia, using technology and other innovations to improve and transform our relationships with customers, and developing new ways to minimize the cost of achieving our objectives. At the same time, we will pursue a shared vision by increasing awareness of our opportunities and challenges and engaging with others.

SUPPLY AND DEMAND MANAGEMENT

We will work to manage supply and demand in the following three ways. A combined approach is necessary as none of these actions, on its own, is sufficient to address B.C.'s electricity gap:

Conserve More

BC Hydro's first and best choice for managing the future supply gap is through energy conservation and efficiency. By helping customers be more efficient, use their power wisely, and ultimately use less, we can reduce the need to build new generation capability.

BC Hydro is one of the leading utilities in the world when it comes to promoting conservation and energy efficiency, and we aim to continue this advantage. Building on the success of our Power Smart program will happen partly by continuing with our existing efforts and programs, and also by taking a more integrated approach of rapidly developing our efforts on community energy planning and distributed generation, and building partnerships that link supply and demand-side activities in communities. We are also supporting increased government activity associated with energy related policies, codes and standards.

Our conservation efforts are focused on codes and standards, rate structures and programs that promote behavioural change as well as energy efficiency.

We plan to:

- continue to evolve our portfolio of successful Power Smart programs, including behaviour programs, new segments and new technologies
- increase public awareness and provide education and information on energy-efficient technologies and conservation strategies
- engage and partner with communities and municipal leaders through new programs to support community energy planning and to make energy efficiency a way of life and doing business, and
- invest in promoting innovative technologies to reduce our electricity consumption.

Build and Maintain More

Our capital and maintenance spending dropped in the 1990s, as it did for many utilities, and we have been making strong progress in catching up. Notwithstanding the current economic conditions, we are not reducing that effort—although we must vigorously pursue ways to reduce costs and still achieve the same objectives. This includes strategic and innovative approaches to procurement, and exploring partnership opportunities where appropriate.

Our strategy focuses on reinvesting in our Heritage Assets to prolong their life, such as with turbine rehabilitation at G.M. Shrum generating station. Where possible, we are also adding additional energy and capacity, such as with the Upper Columbia capacity additions at Mica and Revelstoke. We are making strong progress on building and improving our assets for the benefit of future generations, to ensure that we leave our assets better than we found them.

In addition to expanding the generation capabilities of our existing facilities, we are examining the potential of new hydro generation facilities. These plants must be designed and built to a high environmental performance so that BC Hydro achieves the maximum value from available environmental attributes.

We continue to work with our transmission partner, BCTC, to expand our ability to deliver electricity where it is needed. We are also examining large-scale resource options to meet demand in the ten to 20-year planning horizon and to add capacity when needed to help bring renewable sources of electricity online.

All of these endeavours require significant capital investments to keep up with the province's economic growth, and will also stimulate economic activity and employment throughout B.C.

Buy More

BC Hydro will continue to purchase power from IPPs that use clean or renewable resources such as wind, water, biomass, waste heat and geothermal using competitive call and other acquisition processes (please see page 12 for more on Independent Power Producers).

We continue to work closely with IPPs to address their development challenges and pursue mutually beneficial long-term contracts which help ensure electricity self-sufficiency and provide reliable supply from clean power sources. Developing these new sources of clean, renewable power produces economic benefits for communities across the province.

WANETA

In mid-June 2009, BC Hydro announced plans to purchase a one-third ownership interest in Teck Metal Ltd.'s Waneta hydroelectric facility, located on the Pend d'Oreille River in southeastern British Columbia. This acquisition will provide cost-effective energy from a publicly owned asset and assist us in meeting the Energy Plan goal of making the province electricity self-sufficient by 2016. This deal, which would see BC Hydro secure 1,000 GWh of clean electricity annually, was reviewed by the BCUC and, in its decision issued February 3, 2010, was found to be in the public interest.

We will also look for more opportunities like the Waneta Transaction (see box this page), which allow BC Hydro to gain access to significant supplies of clean energy and capacity from existing facilities within B.C. at low cost.

FOCUS ON COST-EFFECTIVENESS

BC Hydro's Purpose and Priorities commit us to focusing on cost-effectiveness, and the current economic conditions serve to reaffirm our need to maintain this focus. As part of our normal planning process, we continue to look for opportunities to manage our costs in a prudent way to get the greatest value. At the same time, we continue to support our customers' electricity conservation and efficiency efforts so that they may realize a competitive advantage through reduced energy costs.

Our focus on cost effectiveness can be broken into three categories:

1. Selecting the right energy portfolio—ensuring our asset mix is cost effective.
2. Operating efficiently by:
   - running our assets and operation in the most efficient manner possible (balancing risks), and pursuing new opportunities to build more flexibility in our system
   - maintaining and upgrading existing assets to enhance productivity
   - completing our work of building a solid foundation in information technology (IT)—while IT costs will increase over the next two to three years, we will achieve future savings through reductions in transaction processes throughout BC Hydro
   - continuing with Procurement Enhancement—recent improvements to BC Hydro's procurement process and supplier relationships will achieve cost reductions. These include improving and streamlining internal and external procurement processes, and establishing more competitive pricing structures to realize cost reductions through cost transparency
   - sustaining efforts to improve job planning and execution, safety by design, training, leadership development, etc., so that we can increase efficiency and minimize the operational cost of achieving our objectives
   - leveraging innovation to find new, safer, more efficient and effective ways to do things (including supporting processes such as Procurement Enhancement), and
   - budgeting for optimal levels of staffing and administrative resources to align with our priorities.
3. Maintaining competitive rates—keeping our electricity rates among the lowest in North America.

INNOVATION

BC Hydro understands that in order to succeed in the future, to keep our employees safe, to ensure our customers receive affordable reliable electricity, and to maintain the company's financial viability in changing times, we require innovative approaches to our business and in the use of new technologies.

We are using technology and other innovations to improve our service delivery to our customers, and also to transform our relationship with them in a way that facilitates future community energy plans, while achieving improvements in our own productivity and efficiency. The focus of our activity is on automation and modernization through the building of a smarter grid, the Smart Metering and Smart Grid Programs (please see pages 44 and 45 for more on the Smart Metering and Smart Grid Programs), and innovative work with clean technology companies, especially those which take advantage of B.C.-based resources.

INNOVATION PROJECTS

At BC Hydro, the innovative use of technology—which includes the adoption of new technologies and the strategic development of emerging technologies—is a progressive response to the many challenges we face. Here are some of the highlights of the numerous technology projects and studies recently completed, now underway, or under consideration that we have collaborated on with communities, academic institutions, the private and public sector:

- The **Hastings Racecourse Waste Management Feasibility Study** will help us make better decisions about potential waste-to-energy biomass opportunities.
- The **Adaptive Street Lighting Pilot Projects** use wireless and GPS technology to lower maintenance costs and allow municipalities to reduce energy use.
- **BCIT's Microgrid Project** will provide researchers and industry access to Canada's first microgrid to advance the design, maintenance and management of smart grids (please see pages 44 and 45 for more on the Smart Metering and Smart Grid Programs).
- The findings from the **Electric Vehicle Charging Infrastructure Demonstration Project** will provide crucial information about how electric vehicle charging systems will affect market adoption and infrastructure standards.
- The **Hydrogen Assisted Renewable Power (HARP) Demonstration Project** in Bella Coola will reduce the community's reliance on diesel for power generation and meet more of our customers' need for reliable electricity using low or zero emissions sources.
- The **Robotic Pole Manipulator Project** presents a unique opportunity for BC Hydro to resolve the safety and ergonomic issues associated with routine power pole replacements.
- The **Remote Robotic Inspection Projects** would employ commercially available technologies to perform inspections of underwater generation assets and transmission manholes—environments that are a risk to worker safety and reliability.
- The **Tidal Power Demonstration Project**, near Campbell River, will be the province's first grid-connected ocean energy project, generating 500 kilowatts of emissions-free electricity.
- The **Office of the Future** initiative, undertaken in conjunction with ten other North American utilities, will identify and offer solutions to reduce office energy use, targeting the largest market segment in the commercial customer sector.
- The **Pulse Energy Management System Project** on the diesel-powered north island of Haida Gwaii will target improvements in the operating efficiency and reliability of distribution systems, and inform our development of demand-side management incentives.

We work in partnership with public and private sector organizations that have the means, interest and expertise to collectively take on some of BC Hydro's strategic technology challenges. Projects such as the electric vehicle infrastructure collaborative, BCIT's Intelligent Microgrid (see box previous page), and demonstrations of new energy generation technologies ensure our customers continue to experience the level of service they presently receive, well into the future.

SHARED VISION

Clearly our efforts will be more successful if there is a shared vision in B.C. about the future of electricity. As BC Hydro continues to close the supply gap and deliver the highest value portfolio to British Columbia, our approach is to increase awareness of challenges to the system and to build mutual respect by engaging others. We continue to work with our shareholder, First Nations, partners and stakeholders to pursue a common understanding and a shared vision.

PLUG-IN VEHICLES

Transportation currently accounts for more than one-third of B.C.'s CO_2 emissions. By preparing now for the emergence of electric vehicles in the next few years, and by providing clean electricity for electric transportation, BC Hydro is working to support the Province's carbon reduction goals.

As part of this preparation, BC Hydro completed the development of electric vehicle charging infrastructure deployment guidelines in 2009. This initiative was commissioned by BC Hydro, sponsored by the Canadian federal government, and developed in consultation with stakeholders across the country such as The City of Vancouver, General Motors, Hydro-Québec and Manitoba Hydro, Electric Mobility Canada and the Vancouver Electric Vehicle association. The guidelines will provide an overview of the electrical and associated issues that must be considered to serve customers with electric vehicles in B.C., and are an important first step towards developing a national template for the installation of electric vehicle charging infrastructure. The Canadian Standards Association will incorporate the guidelines into the development of national standards.

ECONOMIC DEVELOPMENT

BC Hydro's operations create considerable economic spinoffs in all regions of British Columbia. These arise from the development and impact of infrastructure investments and services provided through our commercial activity, by purchasing electricity from IPPs in British Columbia, and can also be achieved through policies, practices and proportion of spending on locally-based suppliers at locations of operation across the province.

Looking forward, our province can also capitalize on the world's desire and need for clean energy—whether it is the development of large hydro, run-of-river hydro power, wind, tidal, solar, geothermal, or bioenergy and biomass—to stimulate new investment, industry and employment across B.C.

While these forms of power require greater investment, in the long run, they produce higher economic returns to our province, environmental benefits to our planet and jobs throughout British Columbia.

BC Hydro will seek to understand, describe, and track the significant economic impacts arising from our current and future business activities.

PERFORMANCE MEASURES, TARGETS AND BENCHMARKS

BC Hydro uses a variety of measures and targets to guide business performance and progress and to evaluate whether a particular short-term priority is on track, and we review and change our reporting framework regularly to ensure we maintain a comprehensive overview of our performance. This year, we have made some changes to our reporting framework, including:

- introducing a new Electricity Security (Supply) performance measure called Forecast Supply-Demand Balance, which provides a distribution of probable net system surplus or deficit under peak probable loads.
- rationalizing the number of financial performance measures, removing:
  - > Operating Costs (non-fuel) per MWh Delivered ($)
  - > Operating Costs (non-fuel) per Transmission and Distribution Line km ($)
  - > Operating Costs (non-fuel) per Customer ($)
  - > Operating Cash Flow Post Dividend to Net Capital Expenditure (%) and
  - > Transmission and Distribution Capital Expenditures per Transmission and Distribution Line km ($).

  The measures were rationalized as part of our periodic review of our performance measures. The review highlighted that we had five different measures that all looked at operating costs and while these measures lend themselves to benchmarking performance with other utilities, they were not effective for tracking and driving performance monthly from an operational point of view. We continue to track these metrics for benchmarking purposes. These five measures have been replaced with a single metric, Total Operating Cost (after Regulatory Accounts) ($).
- removing the vacancy rate performance measure, which has been used in the past to measure the number of positions to fill as a proportion of our total workforce and is largely influenced by degree of organizational growth and attrition. With BC Hydro now nearing its optimal staffing levels and currently experiencing a low rate of attrition, this has made the metric less important at this time.

1. SAFETY

Provide the safest work environment compared with the best performers in any industry, where not one of our employees experience a serious work-related injury.

BC Hydro is committed to integrating safety into all aspects of our business, using a system of risk mitigation that includes quality design, construction, maintenance and education programs. We continue to focus on "prevention" rather than reaction, through a systematic approach involving leadership, policies, standards, planning, communication and reporting, as well as reaction and follow-up to incidents that may occur.

Producing and delivering electricity safely involves keeping a well-maintained electrical system that is safe for workers and the public. This includes preventing incidents such as vandalism and theft, and anticipating and responding to the impacts of natural disasters such as storms, floods and forest fires. BC Hydro's emergency preparations include developing and testing appropriate response plans in coordination with other authorities and organizations.

NEAR TERM STRATEGIES

BC Hydro's safety performance has improved this year, but there is still more work to be done in order to reach our safety goals and maintain these results. Over the next three years, we continue to focus on reducing the frequency of serious work-related injuries, such as electrical contacts and falls from height. We also continue to make significant progress through on-going programs that build on the following activities:

- ensuring safety is included in the design of any new construction or reconstruction of operating systems and facilities
- systematically including identification of hazards and barriers in all work-planning activities and the development of work procedures
- increasing the integration of job-safety planning into day-to-day work at the generating facilities
- promoting rigorous job observation to ensure the effectiveness of work planning and procedures
- thoroughly reviewing barriers and their effectiveness when investigating incidents that have occurred, and
- continually improving safety-management systems and the risk-management framework, to improve productivity and performance.

PERFORMANCE MEASURE	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
Severity	32	23	23	20	17	15
All Injury Frequency	1.4	2.3	1.4	1.3	1.3	1.2

DESCRIPTION OF PERFORMANCE MEASURES

Severity is a standard Canadian Electricity Association (CEA) measure and is defined as the number of calendar days lost due to injury per 200,000 hours worked.

All Injury Frequency (AIF) is also a standard CEA measure and is defined as the total number of employee medical aid and lost-time injuries occurring in the last 12 months per 200,000 hours worked. Medical-aid injuries are those where a medical practitioner has provided services beyond the level defined as first aid and the employee was not absent from work after the day of the injury. Lost-time injuries are those where the employee is absent beyond the day of injury.

These definitions align with the U.S. Occupational Safety and Health Administration standards for safety statistics.

RATIONALE/BENCHMARKING ACTIVITIES

We have set these shorter-term safety performance targets to reflect our focus on the elimination of serious injury incidents. Ultimately, we will shift the focus back to less serious and minor injuries which have a greater influence on AIF. This will call for more aggressive targets to encourage reductions in injury frequency in line with the achievement of our long-term safety goal.

For comparison, in 2008 the CEA composite AIF was 2.88 while Severity was 21.1.

2. RELIABILITY (CUSTOMER)

Provide best-in-class reliability by customer segment.

Customer reliability means the delivery of an uninterrupted supply of electricity to BC Hydro customers as measured at the point of delivery—usually a customer's meter. Reliability performance is dependent upon the entire electrical system, including transmission and substation assets managed by BCTC.

Although customers currently report a high level of satisfaction with overall system reliability, recently BC Hydro's actual reliability results have fallen short of the annual targets. Structural and environmental situations such as transmission and substation outages, trees falling onto our power lines, motor vehicle incidents and distribution equipment failure account for many of the unplanned service interruptions.

The challenges posed by aging assets, adverse weather due to the nature of where we live, combined with high impact incidents in dense urban areas, are a reality of our system—and we are focused on both short-term initiatives and longer-term strategies to improve system wide reliability performance.

NEAR TERM STRATEGIES

BC Hydro's short-term priority for reliability (customer) is to focus on meeting specific customer needs while maintaining overall system reliability at reasonable levels to ensure continued high customer satisfaction with reliable power delivery.

As part of our reliability improvement initiatives, we have had a Customer-Based Reliability (CBR) strategy in place since F2006 that embeds customer needs and expectations into our investment decisions. We continue to focus on managing customer reliability performance through existing initiatives and activities such as:

- increasing the investments in reliability targeted projects that close the gap between customer expectations and circuit performance in an attempt to turn the trend of decreasing system reliability performance
- continuing to strengthen those circuits that are most susceptible to storms and to provide operational agility to reduce restoration time following an outage
- increasing the level of distribution automation and investing in more flexible system configuration in targeted areas to move the system towards a smarter grid (please see pages 44 and 45 for more on the Smart Metering and Smart Grid Programs)
- investing in projects such as the Smart Metering Program, the Smart Grid Program, Distribution Management System (DMS), Enterprise Geographic Information system (EGIS) and other Business Intelligence solutions to provide a full account of customers experience of reliability and power quality at significantly reduced costs, and
- investing in the development of additional innovative customer solutions and to assure the capability of the system to meet future needs.

New initiatives are underway to further improve reliability by:

- reducing the risk of long outages in dense urban areas such as the central business district in downtown Vancouver, and
- improving our ability to respond to outages, in a cost effective manner, by adding both key deployment locations and qualified trades.

Our near term strategies call for significant investment and re-investment on the distribution system. We expect to see improvement in our reliability performance, following the completion/implementation of these initiatives.

LONG-TERM STRATEGY

We continue setting aggressive reliability goals which represent the direction we aspire to move over the long term. We recognize that meeting these targets will be a challenge in the short term. On our current trajectory, it may realistically take between three and five years to achieve these CAIDI targets, and between ten and 20 years to achieve SAIFI targets, but returning to these historical results will happen once we realize the benefits of the reliability improvement initiatives described above.

PERFORMANCE MEASURE (see Notes below)	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET (+/-10%) F2011	TARGET (+/-10%) F2012	TARGET (+/-10%) F2013
CAIDI	2.47	2.15	2.32	2.15	2.15	2.15
SAIFI	1.67	1.27	1.72	1.22	1.22	1.22
CEMI-4 (%)	11.57	8.50	11.50	8.00	8.00	8.00

Note: Our reliability targets are based on specific values, however performance within 10 per cent is considered acceptable given the wide range of variations in weather patterns and other uncontrollable elements that can significantly disrupt the electrical system.

BC Hydro measures reliability under normal circumstances, because major events are not predictable and largely uncontrollable. The reliability measure is therefore based on data that excludes major events. We review performance during major events and take that performance into consideration in reliability improvement initiatives.

DESCRIPTION OF PERFORMANCE MEASURES

CAIDI is the average interruption in hours per interrupted customer. CAIDI can be improved by reducing the length of interruptions or by increasing the number of short interruptions. A reduction in CAIDI by itself does not necessarily reflect an improvement in reliability; rather, a lower CAIDI indicates a shorter restoration time following an interruption.

SAIFI is a measure of how many sustained interruptions (longer than one minute) an average customer will experience over the course of a year. For a fixed number of customers, the only way to improve SAIFI is to reduce the number of sustained interruptions experienced by customers. Typically, customers average between one and two sustained interruptions per year. A lower SAIFI indicates better reliability.

CEMI-4 is the percentage of customers experiencing four or more outages during a 12 month period.

RATIONALE/BENCHMARKING ACTIVITIES

BC Hydro participates in annual Transmission and Distribution Benchmarking surveys conducted by the First Quartile Consulting and the Electric Utilities Costing Group. In F2009, BC Hydro's reliability improved relative to a panel of leading North American utilities, moving up to the second quartile for CAIDI and third quartile for SAIFI. The panel of utilities includes BC Hydro, Hydro One, Hydro Quebec, American Electric Power, Exelon, National Grid, Oncor Electric Delivery and We Energies. BC Hydro's reliability performance is considered good, given that BC Hydro's vast service territory, predominantly overhead distribution system, challenging terrain, weather and vegetation significantly affect our ability to cost-effectively achieve higher levels of reliability. CEMI is not currently benchmarked externally against other utilities because utilities are at varying stages in their development and reporting of such metrics.

3. ELECTRICITY SECURITY (SUPPLY)

Meet all domestic needs.

Electricity Security (Supply) means ensuring that all the infrastructure components are available and ready to generate and deliver electricity for our customers. Generating facilities include BC Hydro's Heritage Assets, IPPs and other contracted generators.

Ensuring reliability and minimizing the number and duration of outages, especially during the winter months when customer demand is greatest, limits ratepayers' exposure to volatile market prices, and helps control energy costs.

NEAR TERM STRATEGIES

Over the next three years, we will continue:

- meeting customer load and reliability requirements in the short term through a combination of Heritage and IPP generation, customer load curtailment contracts and imports
- managing our peak load supply reliability by minimizing the amount of generating unit outages during the winter peak period
- implementing capital projects to refurbish, replace and upgrade our Heritage Assets (e.g., commissioning the fifth unit at the Revelstoke generating station)
- securing firm market energy (electricity and natural gas) for domestic peak-load periods
- continuing our load curtailment programs with customers as contingencies for winter capacity supply, and
- advancing various power acquisition processes for future incremental supply.

We will also begin:

- incorporating the purchase of one-third of the Waneta generating station into the domestic energy supply.

PERFORMANCE MEASURE	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
Winter Generation Availability Factor (%)	96.4	96.3	96.3	96.4	96.4	96.4
Forecast Supply-Demand Balance (MW)	(175)	(200)	(30)	0	0	0

DESCRIPTION OF PERFORMANCE MEASURE

Winter Generation Availability Factor is a percentage of Heritage Asset units in the system greater than 20 MW and available to generate electricity (total hours available for service/total hours) during the critical peak-load period of November 15 to February 15.

Forecast Supply-Demand Balance provides a distribution of probable net system surplus or deficit under peak annual loads. BC Hydro plans to be able to meet the peak load using firm resources with a 90 per cent probability of exceedance. In other words, we should have enough firm resources to meet the peak load nine years out of 10. In other years we will rely on non-firm sources to meet capacity constraints.

RATIONALE/BENCHMARKING ACTIVITIES

The **Winter Generation Availability Factor** performance measure gauges the reliability of our hydro generation fleet over the critical winter peak-load period when demand is most likely to reach annual peaks. Units become unavailable during this time primarily due to unexpected forced outages or for urgent maintenance.

This measure gauges BC Hydro's performance in completing all major capital and maintenance in non-critical periods and minimizing outages during the winter period of peak customer demand. We are not aware of any external benchmarks suitable for comparison with the Winter Generation Availability Factor, and instead use historical trend information to track performance.

BC Hydro also reviews its generation performance against available industry benchmarks such as annual system availability and the frequency of unexpected outages. While these measures provide a means of comparison against other utilities, they do not provide the best measure of reliability performance. For example, annual system availability varies significantly due to outages for planned maintenance and capital upgrades; however, such outages are scheduled so that BC Hydro's ability to generate sufficient electricity to meet customer demand is not adversely affected.

Between F2007 and F2009, the **Forecast Supply-Demand Balance** for the annual peak load indicated a capacity deficit between 400 and 1,000 MW at the 90th percentile confidence level. In recent years, BC Hydro has made significant progress in managing down this shortfall, which has been further reduced by lower customer loads. For the 2009-10 winter, BC Hydro is expected to require approximately 30 MW of additional peak-hour capacity to meet the 90th percentile reliability standard. Contingency resources including the Canadian Entitlement are arranged to cover any potential winter peak deficits.

We are not aware of any external benchmarks suitable for comparison with the Forecast Supply-Demand Balance, and instead use historical trend information to track performance.

4. CLIMATE CHANGE AND ENVIRONMENTAL IMPACT

Have no net incremental environmental impact by 2024 when compared with 2004.

The Climate Change and Environmental Impact short-term priority means that BC Hydro aims to be an industry leader in environmental sustainability by addressing climate change and by improving our overall environmental performance.

To provide a framework for this and demonstrate BC Hydro's commitment to good stewardship and environmental responsibility, we established the Environmental Impact Goal in 2004 to measure and facilitate decision-making around our most significant environmental impacts on air, land, water.

In 2009, we added a Climate Change metric to help us further manage the greenhouse gases emitted by BC Hydro—in response to B.C.'s legislated targets to reduce greenhouse gas emissions from all sectors and sources in the province by 33 per cent below 2007 levels by 2020 and 80 per cent by 2050, and to meet specific mandated requirements for greenhouse gas emissions from the electricity sector.

As is typical in the electricity sector, our electricity generation emissions fluctuate from year to year, based on available water levels, load and market conditions. We voluntarily track and report emissions each year, and are preparing for mandatory reporting requirements.

The B.C. government is working to ensure that its operations are carbon neutral for 2010 and every year thereafter. For our contributions to B.C.'s carbon neutral public sector, which targets emissions from our vehicle fleet, building energy use and paper consumption, we are looking at ways to make in-house reductions first where possible to reduce our reliance on purchased offsets. Given our high level of activity, particularly in our service vehicle fleet, reducing fuel use and emissions is a challenge, but we are engaging employees at all levels of the organization to seek ideas and find ways to conserve energy and reduce environmental impacts from all our operations.

NEAR TERM STRATEGIES

Over the next three years, we will continue to:

- develop strategies to identify and manage the most significant risks associated with the environmental impact of our current operations, as well as the regulatory risks associated with environmental regulation and legislation, including species and ecosystems at risk, fisheries and wildlife management objectives
- develop and implement an action plan to identify, quantify and execute GHG reductions from our vehicle fleet and buildings, recognizing that outstanding emissions need to be offset by purchasing high-quality B.C. GHG offsets from the Pacific Carbon Trust to meet B.C.'s carbon-neutral goal for the public sector

BC Hydro's **Environmental Impact Goal**, the framework for our Climate Change and Environmental Impact Short-Term Priority under the Guiding Principle of Environmental Impact, was established by the Board in 2004. The goal is to have no net incremental environmental impact by 2024 when compared to 2004. We will accommodate new customer demand for electricity without increasing our overall net environmental impact, and to use the benefits from environmental restoration or compensation programs to counter-balance negative impacts associated with new works or undertakings. By ensuring that BC Hydro also meets all B.C. government requirements to manage greenhouse gas emissions, our climate change strategy contributes to meeting the Environmental Impact Goal, which also covers impacts to regional air quality, land and water.

The Environmental Impact Goal will be applied broadly across the company, with net change being assessed and measured at the overall corporate level.

In 2008, we began to develop suitable environmental impact measures—now grouped into four broad categories: air, land, water, and climate change—that we can use to measure and track environmental impacts both positive and negative; set targets to improve performance; and support decisions to achieve our environmental goal across BC Hydro's operations. During 2009, we further refined these metrics and continued collecting baseline data; we expect to complete baseline data collection for all BC Hydro sites in F2011.

Our current focus is to fully implement existing measures within each metric as opposed to expanding the metric with additional categories and delaying implementation. In F2011 when the baseline is completed, we will be able to set targets and report on the per cent improvement from F2005 baseline values across the full BC Hydro system.

The Air, Land, Water and Climate Change metrics represent BC Hydro's operations most significant environmental impacts. They also capture environmental opportunities or benefits that will allow us both to develop a credible internal market for ecosystem services and to leverage existing programs and investments, such as water-use planning. The metrics within the Environmental Impact Goal supplement BC Hydro's structured decision-making process by further integrating triple bottom line considerations into our decision-making. Examples where the metrics plan to support decision-making include energy resource planning, capital projects planning and properties management. Once we have an established baseline, we anticipate launching pilots to test the use and application of these metrics.

The **Air** metric measures the impact of BC Hydro's operations on air quality by tracking nitrogen oxide emissions (NOx), BC Hydro's most significant air contaminant emission that affects local or regional air quality. This year, we separated Climate Change from the Air category because, although greenhouse gases are emitted into the atmosphere, they do not directly affect air quality; rather, they affect the global climate. As climate changes, experts expect it to have a broad range of environmental impacts on air, land, and water as well as social and economic impacts. The **Climate Change** metric accounts for the amount of greenhouse gases emitted by BC Hydro, including emissions from vehicles, fossil fuel-fired electricity generating facilities, building energy use and fugitive SF_6 from switchgear and breakers. The **Land** metric uses an ecosystem measure where we use land cover, landscape context and ecological information to generate a land metric score for each property. The score indicates the relative ecological value of the property, which we can use to make relative comparisons between land-use options. The **Water** metric is a structured qualitative assessment of five measures: flows, fish passage, fish entrainment, water quality and aquatic habitat. These measures are informed by water license requirements and compensation program activities.

- identify environmental impact reduction opportunities, including GHG emissions, and conduct triple bottom line, structured decision-making to implement projects that meet environmental, social and economic objectives and support the Environmental Impact Goal and the Province's climate action targets
- ensure BC Hydro has a plan in place to meet our compliance obligations under the *Greenhouse Gas Reductions (Cap and Trade) Act* and forthcoming regulations under the *Environmental Management Act*
- assess options to adapt our operations and activities to the potential physical impacts of climate change
- understand the ecosystem services that support our business, such as the natural cycles in climate and water, and how a credible internal offset system might be applied when environmental impacts cannot be avoided or reduced, and
- increase employee awareness and accountability for environmental objectives.

PERFORMANCE MEASURE	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
Climate Change						
GHG Emissions (million tonnes)	1.47	1.55	1.55	1.50	1.45	1.40
Carbon Neutral Program Emissions[1] (million tonnes)	0.0265	0.0265	0.0265	0.0260	0.0251	0.0237
Clean Energy						
Clean Energy (%)	94	90	94	90	90	90

[1] We have recalibrated the targets for Carbon Neutral Program Emissions from the F2010–F2012 Service Plan to reflect additional data on building emissions. BC Hydro has been proactively developing programs and initiatives to reduce carbon neutral emissions, including fleet greening, facility improvement and employee engagement.

DESCRIPTION OF PERFORMANCE MEASURES

GHG Emissions includes natural gas combustion emissions from electricity generated from the generation sources we own, as well as:

- electricity purchased from B.C. IPPs
- diesel combustion emissions from electricity generation in non-integrated areas
- vehicle fleet fuel combustion
- building heating and cooling, and
- fugitive SF_6 emissions.

Emissions from imported electricity are not included, subject to clarification of Western Climate Initiative (WCI) mandatory reporting protocols.

The GHG Emissions targets for the term of this Service Plan illustrate BC Hydro's principle of emphasizing reductions. Historically, electricity generation emissions fluctuate from year to year, primarily attributable to available water levels, demand, and contingency requirements to run the Burrard Generating Station. We are assessing reduction opportunities and developing a strategy to reduce emissions over time, while recognizing that our emissions, like those of other electricity utilities, fluctuate annually.

The **Carbon Neutral Program Emissions** metric includes carbon dioxide equivalent (CO_2e) emissions from vehicle fleet fuel combustion, building heating and cooling, building electricity use and paper consumption, in accordance with the Province's guidelines for Crown corporations.

The **Clean Energy** measure represents a minimum threshold generation target in accordance with the B.C. Government's requirement that at least 90 per cent of electricity generation in the province be from clean or renewable resources—i.e., from biogas, biomass, energy recovery generation, geothermal, hydrocarbon, hydro, hydrogen, municipal solid waste, solar, tidal, wave, wind or other potential clean or renewable electricity sources recognized by the B.C. Government. The 90 per cent minimum threshold ensures that we continue to contribute toward this provincial goal and try to improve upon our current performance.

RATIONALE/BENCHMARKING ACTIVITIES

The **GHG Emissions** measure represents the most significant environmental impact attributed to most utilities. During 2008, the Province passed legislation that establishes the regulatory framework for meeting its target of a 33 per cent reduction in greenhouse gas emissions below 2007 levels by 2020. The current GHG targets and carbon-neutral program emissions targets are based on historical and seasonal emissions, taking into consideration trends in BC Hydro activity, the impact of new and evolving regulations, and the success of existing programs to reduce emissions. We may refine the targets as our GHG emissions forecast evolves and our understanding of the key drivers of emissions improves.

5. ENERGY CONSERVATION AND EFFICIENCY

Develop and foster an energy conservation and efficiency culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in the use of electricity.

Demand-side management is a critical part of BC Hydro's strategy to address the electricity gap, reduce energy costs and increase energy efficiency.

By addressing electricity demand in part through demand-side management, we are:

- decreasing the need for new supply
- avoiding additional adverse effects on the environment
- increasing customer satisfaction
- lowering electricity bills for consumers, and
- supporting more sustainable communities for the future of British Columbia.

SMART METERING PROGRAM

The Smart Metering Program will help better inform BC Hydro customers about their electricity use. Its overall goal is to make the right information and tools available for customers to manage their own electricity consumption, and thus encourage them to use less electricity—which is better for everyone. Please see page 44 for more information.

NEAR TERM STRATEGIES

We continue to implement our 20-year Demand-Side Management (DSM) Plan. Energy conservation and efficiency is a very low cost resource option compared to alternative sources of supply. DSM, like other resource options, has deliverability risk. However, unlike other resource options, DSM strategies, delivery modes and risk thresholds can be adjusted during implementation and in doing so help to mitigate these risks as well as manage associated costs. Specifically, our DSM plans include:

- developing and implementing new electricity rate structures that encourage conservation
- supporting the development and adoption of new regulations for energy efficient products and technologies and new building codes and standards
- engaging and partnering with communities to be leaders in making energy efficiency a way of life and doing business
- supporting community energy planning and pursuing opportunities and taking a more integrated approach to link energy supply and demand-side activities within communities
- continuing to evolve our portfolio of successful Power Smart programs
- continuing to identify and implement process improvements in Power Smart to enable the delivery of significantly more customer conservation projects, with reduced operational resource requirements (this has resulted in the ability to deliver 20 per cent more projects to date in F2010 compared to F2009, with no associated increase in operational resources), and
- stimulating innovation through the advancement of new energy-efficiency technologies and practices.

PERFORMANCE MEASURE	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
Demand-Side Management (GWh/year, cumulative since F2008)	983	1,700	1,600	2,300	3,400	4,200

DESCRIPTION OF PERFORMANCE MEASURE

Demand-Side Management reflects the cumulative rate of annual electricity savings resulting from DSM activities including programs, codes and standards and rate structures. The new programs and reported savings began in F2008, following the 2007 *BC Energy Plan*.

RATIONALE/BENCHMARKING ACTIVITIES

The annual cumulative **Demand-Side Management** targets align with *The BC Energy Plan*'s 50 per cent energy conservation and efficiency target and the *Utility Commission Act* amendments, which require BC Hydro to pursue all cost effective demand-side measures. The targets provided here are based on the 2008 LTAP Evidentiary Update and actual annual results may vary significantly based on the timing and form of new rate structures approved by the BCUC, customer response to price signals and the timing of adoption of codes and standards regulations. By F2013, approximately 29 per cent of the cumulative savings will relate to rate structure changes and 22 per cent to codes and standards.

6. FINANCIAL TARGETS

Maintain low costs for electricity customers in B.C. over the long term, while consistently delivering 100 per cent of forecast net income.

It is our goal to deliver on our financial targets for both our shareholder and our customers. As the shareholder, the Province's interest is in achieving a stable and predictable return on its investment in BC Hydro. Our customers—as well as our shareholder—are interested in maintaining competitive electricity rates without compromising safety, reliability or environmental performance.

As we noted above, our challenge is that as we reinvest in our assets and take steps to meet growth in long-term demand, our future rates must increase in order to support the continued delivery of reliable power to our customers. BC Hydro is working hard to mitigate these cost and rate increases without compromising our vision of the future electric system. This means doing business as effectively and efficiently as possible. Our strategies described below are already underway, and over the long term, these efforts help us:

- make good business decisions that enhance productivity
- deliver an effective capital investment program
- procure new supply at a competitive total cost
- optimize BC Hydro's balance sheet and cost of capital, and
- ensure that our rates remain amongst the lowest in North America.

NEAR TERM STRATEGIES

Over the next three years, we will continue to:

- manage the short-term cost of energy by carefully deciding when to buy electricity from outside sources and when to generate it ourselves
- manage the long-term cost of energy by conducting competitive market calls for electricity from IPPs in order to get the best price for electricity
- look for alternative sources of new energy at low cost
- closely monitor economic conditions and their impact on our business and adjust our activity as necessary in response
- continue with productivity projects to manage costs including rationalizing IT systems, enhancing procurement and work management processes
- potentially build new supply, and
- implement our 20-year Demand-Side Management plan (see page 30 for more on this).

Other opportunities to reduce costs that we are pursuing include:

- increasing our ability to use the flexibility of the Heritage Assets (e.g. non-treaty storage, more DSM, more bioenergy, large hydro capacity projects)
- pursuing tougher codes and standards earlier to reduce the supply gap
- improving procurement methods for new and renewable sources of energy
- holding General and Administration costs, net of non-current pension costs, constant over the coming years
- achieving lower capital expenditures through enhanced project management and procurement processes
- optimizing transmission planning and improving coordination of efforts with BCTC and BCUC
- obtaining better value from our third party contracts, and
- lowering the rate of future growth in financial returns and payments to Government (subject to discussion with Government).

PERFORMANCE MEASURE[1,2]	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
Financial Efficiency						
Net Income (after Regulatory Accounts) ($ in millions)	366	452	388	609	660	640
Total Operating Costs (after Regulatory Accounts) ($ in millions)	714	720	695	692	704	717
Return on Assets (%)[3]	5.8	5.2	4.6	6.2	6.3	6.2
Return on Regulatory Equity (%)	11.75	12.54	10.40	14.37	14.37	12.74
EBIT Interest Coverage [3]	1.72	1.85	1.66	2.08	2.00	1.80
Debt to GAAP Equity (%)	81	80	81	80	80	80

[1] The performance measures include the impact of the purchase of the undivided one-third interest in the Waneta facilities from Teck Metals Ltd.

[2] The financial information, including forecast information, was prepared based on current Canadian Generally Accepted Accounting Principles (GAAP)

[3]The calculation for EBIT has been revised to use Net Income to properly reflect BC Hydro's income performance and to make the measure comparable to other companies. Previously BC Hydro used Net Income before regulatory transfers in its EBIT calculation. F2009 has been restated to conform with the current methodology.

Note to Operational Efficiency targets from previous Service Plans:
As part of our periodic review of our performance measures, we have rationalized the number of financially focused measures. These measures have been replaced with a single Total Operating Costs (after Regulatory Accounts) metric.

OPERATING COSTS[1] ($ MILLIONS)	ACTUAL F2009	FORECAST F2010	FORECAST F2011	FORECAST F2012	FORECAST F2013
Operations, Maintenance and General & Administration before non-current service costs	714	695	692	704	717
Non-current Service Employee Future Benefit Costs (Income)	(18)	61	51	46	46
Subtotal	696	756	743	750	763
DSM and Other Regulatory Costs[2]	219	236	279	258	261
Total[3]	**915**	**993**	**1,022**	**1,008**	**1,024**

[1] The financial information, including forecast information, was prepared based on current Canadian GAAP.

[2] DSM and other regulatory costs include provisions for potential costs of First Nations settlements.

[3] Table may not add due to minor rounding.

The major driver for increased non-current pension costs from F2009 to F2010 is a decline in the return on pension fund assets, which has a significant impact on non-current employee future benefits costs. The pension fund asset valuations are revised annually and could lower non-current pension costs if the returns on the plan assets are significantly higher than anticipated. BC Hydro has experienced higher returns than expected this year which lowers future years' costs.

DESCRIPTION OF PERFORMANCE MEASURES	RATIONALE/BENCHMARKING ACTIVITIES
Net Income (after Regulatory Accounts) is defined as total revenue less total expenses after regulatory account transfers, and represents the net impact of key economic and business factors that affect BC Hydro's performance. Regulatory account transfers include the financial impact of the factors beyond BC Hydro's control (such as water inflows, market prices, etc.) and other items such as variances in finance charges and DSM expenditures (see Deferral and Other Regulatory Accounts section on page 38). The balances in the regulatory accounts are recovered from ratepayers in future periods based on BCUC approval.	**Net Income** Net Income targets are based on the latest forecast and reflect expected rate increases required to enable BC Hydro to cover costs and earn allowed return on equity. Rate increases for F2011 to F2013 are estimates and require BCUC approval. BC Hydro regards this as a key measure because it represents the basis of performance monitoring, shareholder's return and staff incentive plans.
Total Operating Costs (after Regulatory Accounts) is defined as operating costs excluding regulatory account transfers and non-current employee future benefit service costs.	BC Hydro regards **Total Operating Costs (after Regulatory Accounts)** as an important measure for benchmarking and to evaluate its prudency of expenditures.
Return on Assets (ROA) is defined as earnings from continuing operations before interest and income taxes, divided by the average of beginning and end of total assets.	**ROA** measures the return relative to the size of the asset base used to generate this return and indicates how effectively the assets are being employed. ROA is frequently used in the utilities sector and is on a GAAP basis for comparability.
Return On Regulatory Equity is defined as net income divided by the average of beginning and end of year regulatory equity. BC Hydro's regulatory equity is deemed at 30 per cent of the average of total debt and GAAP equity balance.	Commonly used in the utilities sector and to determine the profitability of many enterprises across the economy, **Return On Regulatory Equity** measures the actual return relative to allowed return and indicates the financial profitability of the investment.
EBIT (Earnings Before Interest and Taxes) Interest Coverage is defined as earnings from continuing operations before interest and income taxes and after regulatory transfers, divided by gross interest incurred before subtracting capitalized interest and imputed interest on deferred revenue.	**EBIT Interest Coverage** measures the company's ability to meet interest expense from operations. Long-term projections of this ratio provide an indication of the company's long-term financial viability. This is a measure of cash interest coverage and is used within the utilities sector and by financial analysts.
Debt to GAAP Equity is defined as the ratio of debt to the sum of the total of debt and equity.	Being of interest to sector analysts, rating agencies and finance providers, **Debt to GAAP Equity** is commonly used in the financial community. It measures the leverage in the company and is used in the regulation of electricity companies in some jurisdictions.

7. CUSTOMER SATISFACTION

Lead by offering extraordinary value and service.

BC Hydro is committed to offering extraordinary value and service. Customer Satisfaction is a key indicator of how well our customers feel we are performing. As customers' needs and expectations change over time, the focus is on improvements that are cost-efficient, contribute to the overall quality of the BC Hydro customer experience and maintain core service levels.

BC Hydro is operating in a changing business environment and faces ongoing pressures created by aging infrastructure, rate changes and the adoption of new technologies. To maintain customer satisfaction, BC Hydro's near term strategies address key areas of customer importance, including commitment to service, communications, reliability, value for money and public interest.

NEAR TERM STRATEGIES

The near term strategies to deliver customer value include:

- increasing the efficiency, consistency and quality of BC Hydro's customer experience through the integration of all customer channels, including the website, contact centre and self-service options
- proactively supporting customers and encouraging the adoption of solutions that contribute to conservation and assist customers in reducing their energy costs
- strengthening our understanding of customers' needs and expectations through customer engagement, targeted segmentation and benchmarking, and
- ensuring employees understand how each individual contributes to delivering customer value and satisfaction.

PERFORMANCE MEASURE	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
CSAT Index (%)	90	80	89	83	83	83
Billing Accuracy (%)	98.5	98.2	98.2	98.2	98.2	98.2
First Call Resolution (%)	75	71[1]	71	71	71	71

[1]For F2010, we increased the FCR Target from 66 per cent to 71 per cent, after successfully negotiating the higher target with ABSBC based on 12 months of actual performance data.

DESCRIPTION OF PERFORMANCE MEASURES

Customer Satisfaction (CSAT) is the percentage of customers—residential, small and medium-sized businesses and key accounts—who are satisfied or very satisfied with BC Hydro (as measured on a four-point verbal scale) in five equally weighted areas:

- providing reliable electricity
- value for money
- commitment to customer service
- acting in the best interests of British Columbians, and
- efforts to communicate with customers and communities.

Billing Accuracy is the percentage of invoices that are accurately calculated based on the customer's consumption and do not require adjustment or rebilling.

First Call Resolution is the percentage of customer calls that are resolved during the first contact with a call centre agent, without the need for additional investigation or follow-up.

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RATIONALE/BENCHMARKING ACTIVITIES

BC Hydro is targeting 83 per cent for **CSAT** to ensure we have strong customer support. Although current customer satisfaction levels remain strong, we anticipate that it will take focused effort to ensure this continues in a changing and challenging business environment.

BC Hydro benchmarks against leading regional service providers and other electric utilities bi-annually, in an effort to better understand our performance relative to customer perceptions and understand what is needed to be a leader in industry and the province. Since F2007, benchmarking results demonstrate BC Hydro continues to compare well against both non-electric utilities service providers and other electric utilities. However, as electric and non-electric service providers continue to enhance their customer focus, it is important for BC Hydro to match customers changing expectations through strategic investments and ongoing communications.

Billing Accuracy is a core expectation of customers. We have therefore set our targets to deliver consistently high performance.

First Call Resolution is a measure that assesses customer service operations as a whole in terms of accurate and timely information flow, agent capability and quality, and a satisfying customer experience at a transaction level.

8. PEOPLE

Be a top employer for generations.

In October 2009, Mediacorp listed BC Hydro as among the "Top 100" Employers in Canada—the first time that BC Hydro had won this prestigious award. BC Hydro also appeared in the Top 55 B.C. Employer category. BC Hydro's suite of people-centric support programs contributed to Mediacorp selecting BC Hydro for this award. Dedicated performance management systems, progressive labour relations, wellness and health programs, and strong and a continuous focus on improving employee engagement are examples. These practices have resulted in substantive cost savings for the company. BC Hydro's sick leave/absence statistics are 5.8 days per year per employee, compared to an industry average of 8.1 days per year. Our total grievances were down substantively in F2009, and our current employee turnover rates are approaching a record low.

The electric utility worker of five to ten years from now will be different than the worker of today. New technologies will change how BC Hydro generates, transmits and distributes electricity. Pending retirements in our core operations workforce (generation, line and design staff) will create the need to recruit and train a new diverse generation of operations workers. There will be a continued focus on a more balanced and varied career, creating increased demand for rotational programs, flexible work hours and locations, new technologies and tools, and flexible employee benefits programs.

To address these challenges, BC Hydro needs a highly qualified, diverse, flexible workforce that thrives and excels in a team environment. Roles throughout the company will be redesigned to meet the new technical needs of the company. HR services need to be less transactional and more proactive and strategic—identifying skill shortages in advance to create recruitment and development strategies to fill pending skill gaps. BC Hydro is also improving its HR processes and information systems, to ensure that we continue to deliver high quality people services in a cost effective manner.

NEAR TERM STRATEGIES

Over the next three years, we will continue to:

- manage our staffing levels appropriately to ensure our workforce has a correct complement of regular and temporary employees, while at the same time leveraging our contracted and outsourced service providers in a safe and efficient manner
- provide an appropriate balance of competitive cost-efficient compensation, benefits and employee wellness programs to attract and retain our employees
- focus our outreach activities to attract a diverse pool of qualified applicants (this includes strengthening our partnerships with educational institutions, regulatory bodies and agencies that support under-represented groups)
- utilize people-centric technologies to deliver human capital support services in a more streamlined and efficient way, and
- engage employees so that they are motivated to achieve great things on multiple levels—for themselves, our company, our province and future generations.

PERFORMANCE MEASURE	ACTUAL F2008	ACTUAL F2009	TARGET F2010	FORECAST F2010	TARGET F2011	TARGET F2012	TARGET F2013
Employee Engagement	51%[1]	62%	none[2]	none[2]	62%	none[2]	64%

[1]Employee Engagement was formerly expressed as a mean score out of five on an Employee Engagement Survey, and is now expressed by overall "percentage favourable"—as defined as a percentage of respondents who strongly agree or agree with survey statements. The F2008 and F2009 actual scores for Employee Engagement using the previous format were 3.32 and 3.61, respectively.

[2]As of F2009, the Employee Engagement Survey is performed every two years

As part of our periodic review of performance measures, we have removed the vacancy rate performance measure, which has been used in past Service Plans to measure the number of positions to fill as a proportion of our total workforce, and is largely influenced by degree of organizational growth and attrition. With BC Hydro now nearing its optimal staffing levels and currently experiencing a low rate of attrition, this has made the metric less important at this time.

DESCRIPTION OF PERFORMANCE MEASURES	RATIONALE/BENCHMARKING ACTIVITIES
Employee Engagement is calculated from specific questions in a survey designed to measure employee engagement. The measure covers how well employees know what their role is, their line of sight to the organization's goals, their needs regarding any resource, information or training and their overall connection to the company. In F2009, BC Hydro's employee engagement score increased by 19.6 per cent from the previous engagement survey (62 per cent from 51 per cent).	The level of **Employee Engagement** indicates both employee satisfaction and productivity across the company and is measured by means of an employee survey. BC Hydro compares the employee engagement scores to researched benchmarks. In F2009, BC Hydro achieved a ten per cent higher favourable response ratio against comparable employee engagement questions on the Watson Wyatt WorkCanada Energy / Utilities index (69.5 per cent vs. 59.9 per cent).

SUMMARY FINANCIAL OUTLOOK

This section includes high-level financial forecasts for BC Hydro's revenues and expenses, the key assumptions and risks considered in setting these projections, and the major capital expenditures that support the business.

Financial performance focuses on the financial return to BC Hydro's shareholder (the Province of British Columbia) and the electricity rates paid by customers.

In F2009, BC Hydro provided $477 million in transfers to the Province. This amount includes water rental fees (royalties paid for the use of provincial water resources), provincial and municipal property taxes and grants-in-lieu of taxes. BC Hydro's retained earnings increased by $366 million in F2009 largely as a result of the annual dividend payment being reduced to zero since the payment of a dividend would have increased BC Hydro's debt to equity ratio above 80:20.

COST INFLUENCES

BC Hydro's two most significant costs for supplying domestic needs are:

- the cost of energy, and
- capital investment costs related to maintaining and expanding our assets.

Our single largest cost is the cost of buying energy to meet the growth in customer demand: customer demand is growing and new supplies of energy are significantly more expensive than electricity generated from our Heritage Assets. This cost includes the cost of net market electricity purchases, natural gas costs, IPP purchases, water rental fees and transmission costs. On average, the cost of energy makes up between 35 and 40 per cent of BC Hydro's overall domestic costs.

BC Hydro's amortization costs and finance charges, derived from the capital investment needed to ensure the ongoing reliability of our assets and building new assets to meet growing demand, account for approximately one-third of all domestic costs. The main pressures on these costs are BC Hydro's aging assets, system expansion due to increasing customer demand, increasing debt levels and market interest rates.

GROWTH

BC Hydro expects that, if B.C.'s economy and population continue to grow in the long term, as forecast, this growth will result in:

- further increases in energy demand
- increased cost of new electricity to meet the demand compared with the cost of electricity from existing Heritage Assets
- increased capital expenditures and operating costs for Heritage Assets in order to maintain and expand the capacity of the transmission, distribution and generation systems, and
- increased spending on Demand-Side Management programs to increase the efficient use of electricity and conservation and to achieve our target of meeting 50 per cent of our incremental resource needs through energy conservation and efficiency.

RELIABILITY

BC Hydro's assets are aging and many components of the system are nearing the end of their useful lives. We are therefore exposed to increased risk of equipment failure and reduced service reliability to our customers. To maintain existing assets and keep them operating effectively as and when required, BC Hydro expects to:

- increase capital expenditures to refurbish aging assets, resulting in higher amortization and finance charges
- increase maintenance expenditures to minimize equipment outages
- invest in system hardening expenditures to cope with storm events, and
- increase our vegetation management costs in response to the risk posed by storm events and the mountain pine beetle within the distribution system.

ECONOMIC FACTORS

The current economic conditions and liquidity issues in the market may continue to affect BC Hydro in a number of ways. For example:

- The impact of the current economic conditions on the B.C. economy in general and the slowdown in the construction sector may reduce some of the high construction cost pressures BC Hydro has been facing over the last several years. However, the magnitude of the potential savings is difficult to determine at this time.
- Given global investors' desire for very safe investments, BC Hydro is able to borrow at low rates given the Province's strong credit rating.
- The return on pension fund assets has a significant impact on non-current employee future benefits costs. Owing to the volatility of the market, market returns on pension plan assets in calendar 2008 were significantly lower than we originally anticipated which increased our non-current pension expense for F2010 and future years. We revise the pension fund asset valuations annually, and therefore the impact may be reduced if returns on the pension plan are significantly higher than anticipated in future years. Estimated market returns to the end of December 2009 are higher than originally anticipated but have not totally offset the losses from 2008. As a result non-current pension expense is lower in F2011 and future years compared to F2010.
- Income from trading operations are expected to be impacted due to the continued uncertainty as to the strength of the economic recovery as well as the current weak demand and over-supply fundamentals for both power and natural gas.

FINANCIAL PERFORMANCE AND KEY ASSUMPTIONS

BC Hydro's operations are subject to a range of risks and uncertainties. As a result, actual financial results may differ materially from those described in this Service Plan.

It is also important to consider the following when assessing BC Hydro's financial performance:

RATE INCREASE

BC Hydro expects to file its next Revenue Requirements Application (RRA) with the BCUC in March 2010. BC Hydro is seeking a general rate increase of 6.11 per cent in F2011. The main factors leading to the requested rate increase are:

- increase in capital-related costs (amortization and return on equity) due to higher levels of investment in assets
- increase in the allowed rate of return on equity (ROE), due largely to the BCUC approved increase in the benchmark ROE
- reduction in forecasted trade income, due to weaker export market conditions, and
- lower valuation of BC Hydro's pension assets due to market conditions.

These factors are offset to some extent by the following:

- lower finance charges due to lower interest rates, and
- lower current operating costs due to current operating cost constraint.

BC Hydro is also seeking to increase the rate rider, used to recover the energy deferral accounts, to 4.0 per cent from the current 1.0 per cent. The increase in the rate rider is required to recover the higher balances in the energy deferral accounts. The higher balance in the energy deferral accounts in F2010 is largely due to the impact of the low water inflows and lower trade income.

BC Hydro's annual Service Plan is based on a three-year time horizon, which includes a forecast of possible rate changes. In March 2010, BC Hydro will be filing its fourth Revenue Requirements Application since 2003, following the rate freeze from 1996 to 2003. Once filed, the one-year application must be approved by the BCUC, including BC Hydro's proposed rate change for Fiscal 2011.

Like all rate forecasts, those contained in this Service Plan for the years beyond F2011 will require future adjustment due to a number of factors, including seasonal changes to water flow levels, fluctuating market conditions, and any new policy directions received. Given the significant impact any or all of these factors may have on BC Hydro as a cost-recovery utility, this Service Plan reflects the best-possible forecasting for future rate changes at this point in time.

Any requested rate increase and change to the rate rider requires the approval of the BCUC. We expect a decision on our application in Fall 2010.

CAPITAL STRUCTURE

Orders-in-Council Nos. 027 and 028, approved on January 17, 2008, deem BC Hydro's equity for rate-setting purposes to be 30 per cent of the total of average debt and average equity balances for the year.

Under Special Direction HC1, the payment to the Province (dividend) is equal to 85 per cent of BC Hydro's distributable surplus (i.e., net income less interest during construction). This payment is reduced if the payment causes BC Hydro's debt to equity ratio to exceed 80:20.

Special Direction HC2 states that in regulating and setting rates for BC Hydro, the BCUC must ensure that those rates allow BC Hydro to collect sufficient revenue in each fiscal year to enable it to:

- provide reliable electricity service
- meet all of its financial obligations
- comply with government policy directives, and
- achieve an allowed annual rate of return.

DEFERRAL AND OTHER REGULATORY ACCOUNTS

BC Hydro has four energy deferral accounts:

- Heritage Deferral Account
- Non-Heritage Deferral Account
- Trade Income Deferral Account, and
- BCTC Deferral Account.

We use these energy deferral accounts—similar to those used by most regulated utilities—to capture specific differences between forecast costs and actual costs and to smooth the overall effect on ratepayers of cost volatility out of BC Hydro's control. BC Hydro is subject to periodic reporting of changes in the regulatory deferral accounts. Our ability to include any accumulated balances in future rate applications is subject to determination and approval by the BCUC.

BC Hydro also has other regulatory accounts, such as Demand-Side Management expenditures, First Nations settlement costs and Site C project definition and consultation expenditures. The purpose of these regulatory accounts is to defer for potential future recovery through rates those amounts that, under Generally Accepted Accounting Principles (GAAP), would otherwise be recorded as expenses in the current accounting period. This allows, for regulatory purposes, a better matching of costs and benefits for different generations of customers and a smoothing out of the rate impact of large non-recurring costs. The recovery of these expenditures, through our rates, is determined by the BCUC.

In the BCUC's March 13, 2009, decision on our F2009/F2010 RRA, the BCUC also directed the establishment of eight new regulatory accounts including variance accounts for finance charges, non-current pension costs and net employment costs. The BCUC has approved these new accounts to the end of F2010; the BCUC will need to reapprove them for future years, if required.

FINANCING STRATEGY

BC Hydro forecasts the overall borrowing requirement to be approximately $2.5 billion in F2010, $630 million of which will be used to refinance retired debt for a net requirement of $1.9 billion. This borrowing is largely required to finance BC Hydro's capital expenditure program including the purchase of the undivided one-third interest in the Waneta facilities. BC Hydro expects to borrow $1.7 billion of the $2.5 billion through long-term debt, and the remainder through available revolving borrowing capacity. During F2009, BC Hydro borrowed $352 million of new long-term debt.

As a provincial Crown corporation, BC Hydro borrows all funds through the Province of British Columbia, and all of BC Hydro's debt is either held or guaranteed by the Province, resulting in a credit rating on our long-term debt similar to the Province's own rating of Aaa by Moody's and AAA by Standard and Poor's.

We forecast debt net of sinking funds, as of March 31, 2010, to be $11.0 billion, increasing to $11.7 billion at the end of F2011. We forecast finance charges to be approximately $409 million in F2010 and $483 million in F2011. The increase in finance charges reflects increasing debt levels, required to fund BC Hydro's capital expenditure program, and increasing interest rates.

REVENUES AND EXPENSES—FINANCIAL PROJECTIONS

BC Hydro calculated the following financial projections for revenues and expenses through F2013 based on the forecast approved by the Board and submitted to the Ministry of Finance in January 2010. The financial information, including forecast information, was prepared based on current Canadian GAAP.

CONSOLIDATED STATEMENT OF OPERATIONS[1] ($ MILLIONS)	ACTUAL F2009	FORECAST F2010	FORECAST F2011	FORECAST F2012	FORECAST F2013
REVENUES					
Domestic	2,814	3,069	3,404	3,845	4,006
Trade	1,455	873	1,385	1,606	1,761
	4,269	3,942	4,788	5,451	5,767
EXPENSES					
Energy costs	2,393	1,957	2,332	2,537	2,723
Domestic	1,236	1,151	1,158	1,144	1,196
Trade	1,157	806	1,174	1,393	1,527
Operating costs[2]	915	993	1,022	1,008	1,024
Taxes	167	173	181	191	201
Amortization	394	443	514	568	606
	3,869	3,566	4,049	4,303	4,555
INCOME BEFORE FINANCE CHARGES AND REGULATORY ACCOUNT TRANSFERS	**400**	**376**	**739**	**1,148**	**1,212**
Finance charges	472	409	483	553	660
NET INCOME BEFORE REGULATORY ACCOUNT TRANSFERS	**(72)**	**(33)**	**257**	**594**	**553**
Regulatory Account Transfers	438	421	352	66	88
NET INCOME (AFTER REGULATORY ACCOUNTS)	**366**	**388**	**609**	**660**	**640**
Net Debt[3]	9,136	10,968	11,740	12,765	14,024
GAAP Equity	2,189	2,609	2,936	3,191	3,506
Capital Spending	1,400	2,545	1,770	2,129	2,192

Notes:

[1] Table may not add due to minor rounding.

[2] The increase in Operating costs in F2010 and beyond is largely due to increased pension expense as a result of the lower returns on pension fund assets in F2009 and increases in DSM expenditures. Please see the Economic Factors section (page 37) for more information.

[3] Debt figures are net of sinking funds and cash and cash equivalents.

KEY ASSUMPTIONS

We used the following key assumptions in preparing BC Hydro's financial projections:

KEY ASSUMPTIONS	ACTUAL F2009	FORECAST F2010	FORECAST F2011	FORECAST F2012	FORECAST F2013
GROWTH AND LOAD:					
B.C. Real Gross Domestic Product Growth (%)[1]	(2.9)	1.9	2.7	2.7	2.8
Domestic Sales Load Growth (%)[2]	(1.84)	(4.43)	3.10	0.30	(0.59)
Residential Sales Load Growth (%)[2]	1.75	(2.70)	(0.47)	(1.18)	(1.54)
Light Industrial and Commercial Sales Load Growth (%)[2]	(0.76)	(2.22)	0.91	(1.87)	(0.70)
Large Industrial Sales Load Growth (%)[2]	(7.00)	(10.10)	10.64	4.53	0.28
Domestic Load (GWh)					
Domestic Sales Volume (GWh)	52,316	50,000	51,550	51,703	51,397
Surplus Sales Volume (GWh)	196	0	835	3,032	1,629
Line Loss and System Use (GWh)	5,593	4,946	5,197	5,185	5,163
Total Domestic Load (GWh)	58,105	54,946	57,583	59,920	58,189
ENERGY GENERATION:					
Total System Water Inflows (%)[3]	96	87	100	100	100
Sources of Supply to Meet Domestic Load:					
Net Hydro Generation (GWh)	44,283	43,571	46,233	48,830	48,105
Market Electricity Purchases (GWh)	5,020	2,515	732	171	631
Independent Power Producers and Long-term Purchases (GWh)	8,374	8,140	10,145	10,363	8,895
Thermal Generation (GWh)	428	719	473	556	558
Total Sources of Supply for Domestic Load (GWh)	58,105	54,946	57,583	59,920	58,189
Electricity Trade Sales Volumes (GWh)	32,504	31,651	34,712	36,273	38,086
Average Mid-C Price ($U.S./MWh)	50.31	31.63	42.13	47.73	49.25
Average Natural Gas Price at Sumas (U.S.$/MMBTU)	7.13	3.60	5.44	6.18	6.44
FINANCIAL:					
Canadian Short-term Interest Rates (%)[4]	2.41	0.26	1.02	2.13	3.31
Canadian Long-term Interest Rates (%)[4]	3.55	4.20	4.67	5.39	6.13
Foreign Exchange Rate (U.S.$:Cdn$) (%)[4]	0.8895	0.9195	0.9611	0.9700	0.9479
Rate Increases (%)[5]	2.34	8.74	6.11	11.92	6.31
Rate Rider Change from previous year (%)[6]	(1.50)	0.50	3.00	1.00	(1.50)

[1] Economic assumptions, based on calendar year, from BC Budget September 2009.

[2] Includes the impact of Power Smart programs. The load growth assumptions for F2009 and F2010 reflect the impact of the general economic slowdown and several mill curtailments and closures in the industrial sector. The B.C. economy is expected to generally recover in F2011, and BC Hydro anticipates that the affected mills will be running closer to normal operations by F2011.

[3] Water inflows for F2010 reflect the lower water inflows experienced early in the year. We assume future year inflows will be at average levels. The sensitivity analysis that follows shows the impact of change in water flows.

[4] Financial assumptions from Ministry of Finance October 2009.

[5] The BCUC approved rate increases for F2009 and F2010 in March 2009. Rates for future years are estimates only and are based on the increases needed to cover BC Hydro's costs and earn our allowed return on equity. These rate increases could change significantly depending on economic and operating conditions, such as changing water inflows and reservoir levels.

[6] The rate rider is used to recover a portion of the current balances in the energy deferral accounts. The BCUC has approved the rate rider of 1.0 per cent for F2010. Future year amounts are based on a formula approved by the BCUC. The formula changes the rate rider by 0.50 per cent for every $50 million change in the balance of the energy deferral accounts and is capped at 5.0 per cent.

Various legal and regulatory matters are pending (see our annual and quarterly reports at www.bchydro.com). Owing to the size, complexity and nature of BC Hydro's operations, we cannot predict the outcome of these matters at this time.

SENSITIVITY ANALYSIS

The following table illustrates the impact that key drivers—such as water inflows and gas prices—can have on BC Hydro's earnings. Each separate item in the sensitivity analysis assumes the others are held constant. The combined effect of these drivers, which are largely beyond BC Hydro's control, results in range of values of income before regulatory transfers of as much as $200 to $650 million in each year.

The volatility between BC Hydro's plan and actual results are mostly mitigated through the use of BCUC-approved regulatory deferral accounts.

($millions)	F2010[9] Low	F2010[9] High	F2011 Low	F2011 High	F2012 Low	F2012 High	F2013 Low	F2013 High
Range of Income subject to deferral account transfers:								
Inflows/Gas Prices[1]	(35)	35	(180)	255	(145)	305	(215)	120
Foreign Exchange[2]	(5)	5	(25)	25	(35)	30	(35)	30
Weather[3]	(20)	20	(20)	20	(20)	20	(20)	20
Customer Load[4]	(5)	5	(5)	5	(5)	5	(5)	5
Pension Costs[5]	–	–	(15)	5	(35)	10	(50)	20
Interest Rates[6]	(5)	5	(10)	10	(20)	20	(35)	35
TOTAL RANGE OF RATEPAYER RISK	(70)	70	(255)	320	(260)	390	(360)	230
Net Income Sensitive Variables:								
Non- Labour Operating Costs[7]	(10)	10	–	–	–	–	–	–
Powerex Loss[8]	(25)	25	–	–	–	–	–	–
TOTAL RANGE OF SHAREHOLDER RISK	(35)	35	–	–	–	–	–	–

[1] High and low ranges are based on being within an 80 per cent probability band. The ranges fluctuate from year to year due to the impact inflow levels and market prices have on optimization decisions, including reservoir levels.

[2] High and low are based on being within the 80 per cent probability band, which translates to +/- five cents Canadian from expected. The impact of a change in the dollar exchange rate largely includes the impact on Powerex net cash flows. Because BC Hydro's U.S. dollar exposure is in a net cash inflow position, a stronger Canadian dollar vis-à-vis the U.S. dollar decreases income.

[3] This variable assumes weather will be five per cent warmer or colder than normal approximately 80 per cent of the time. Colder weather is assumed to increase residential sales volume and income.

[4] The customer load high and low ranges are based on being within an 80 per cent probability band. The range is smaller for F2010, reflecting the uncertainty for the remainder of the year only. This variable assumes change in customer load is met by market purchases at current forecast average purchase prices. Because the average price of market purchases is higher than the average tariff rate, decreases in customer load increase net income.

[5] The forecast assumes return on pension plan assets is seven per cent; low forecast assumes return of zero per cent and high forecast assumes rate of ten per cent. There is no high/low range for F2010, as the main driver of BC Hydro's pension costs is based on the previous year's actual returns as of December 31, 2008.

[6] A change of one percentage point in short-term interest rates changes finance charges by approximately $40 million. High and low are based on being within the 80 per cent probability band (which translates to +/- 35 basis points from expected). Higher interest rates would decrease income.

[7] The non-labour operating cost high and low ranges are indicative only. Any variance from plan on non-labour operating costs is to the risk of the Shareholder.

[8] The Powerex loss high and low ranges are indicative only. The range is from the current forecast loss position of $50 million. A Powerex net loss is to the risk of the Shareholder.

[9] The sensitivity analysis for F2010 reflects the impact for the remaining months of the fiscal year.

BC Hydro reports on actual performance in our quarterly and annual reports, and provides updated forecasts each year in our Service Plan.

CAPITAL EXPENDITURES AND CAPITAL EXPENDITURE PROCESS

BC Hydro classifies capital expenditures as either sustaining capital or growth capital:

- Sustaining capital is required to meet targeted levels of customer and supply reliability. It includes expenditures to ensure the continued availability and reliability of our generation and distribution facilities. It also includes expenditures to support the business, such as vehicles and information technology.
- Growth capital is required to meet customer load growth and other business investments. It includes expenditures related to the expansion of existing generation assets as well as expansion and reinforcement of our distribution system. The scope and timing of growth projects are uncertain as it is dependent on economic activity and customer demand.

BC Hydro, as the owner of the transmission system operated by BCTC funds the capital expenditures incurred by BCTC and includes these costs in our capital expenditures. Transmission capital projects are discussed in the BCTC Service Plan.

The table below shows actual and forecast capital expenditures for the sustaining and growth classifications.

CAPITAL EXPENDITURES[1] ($ MILLIONS)	ACTUAL F2009	FORECAST F2010[2]	FORECAST F2011	FORECAST F2012	FORECAST F2013
BCH Excluding Transmission:					
Sustaining	566	1,635	800	1,020	922
Growth	440	511	448	494	554
BCH Total Excluding Transmission:	**1,006**	**2,146**	**1,248**	**1,514**	**1,476**
Transmission:					
Sustaining	112	163	141	154	154
Growth	282	236	381	461	562
Total Transmission	**394**	**399**	**522**	**615**	**716**
Total BCH	**1,400**	**2,545**	**1,770**	**2,129**	**2,192**

[1]Table may not add due to minor rounding.

[2] Includes the purchase of the undivided one-third interest in the Waneta facility from Teck Metals Ltd.

BC Hydro's Guiding Principles and short-term priorities provide the basis to ensure that specific projects are aligned with our overall strategic direction. We then evaluate projects based on their ability to mitigate risk and/or enhance value to BC Hydro's operations. The risk factors considered for this purpose are:

- financial
- environmental
- technological
- timing
- reliability
- safety, and
- supply.

BC Hydro follows both a top-down and a bottom-up approach in our capital planning. This ensures that individual capital plans do not exceed the overall BC Hydro capacity for capital expenditures, and that all the necessary capital expenditures are undertaken to meet performance targets.

BC Hydro uses a phased decision-making process to define all large capital projects.

In the Project Identification Phase, we review the alternatives, evaluate feasibility, and develop a preliminary business case to determine whether or not to proceed to the Definition Phase. In the Definition Phase, we fully investigate the selected alternative, complete any regulatory requirements and update the business case. If the business case is approved, we move on to the Implementation Phase where we complete the detailed design, procure equipment, construct and commission the project.

Throughout these phases, as more and more information becomes available, the project scope and costs may change significantly. Costs may also change to reflect any changes in inflation rates, the labour market, and construction costs. This cost uncertainty will remain in place until the project is complete, but diminishes as scope is defined and contracts are let. Occasionally, additional information may cause us to defer a project.

PLANNED PROJECTS OVER $50 MILLION

BC Hydro has planned for the following projects, each with capital costs expected to exceed $50 million.

Gordon M. Shrum Units 1 to 4 Stator Replacements

BC Hydro is replacing four stators at the Gordon M. Shrum (GMS) facility that are at risk of failure and where rewinding the stators is not technically feasible due to the condition of the cores. We began installing the new stators in 2007, and completed three of four units as planned. The final unit is on schedule for completion in F2011.

Scheduled completion: F2011
Cost (Units 1–4): $97 million

Revelstoke Unit 5 Project

The Revelstoke Generating Station was designed as a six-unit generation station. However, when the facility was constructed, only four units were installed, leaving two unit bays empty. BC Hydro is installing a fifth generating unit at Revelstoke to provide 500 MW of additional, reliable capacity to the BC Hydro system. The new generating unit will also provide additional operating flexibility and reserves. Construction began in November 2007.

Scheduled completion: F2011–F2012
Cost: $280–$350 million

Spillway Gate Reliability Upgrades

BC Hydro is upgrading the spillway gates at the Cheakamus dam in order to reduce public and employee safety risk and to ensure Flood Discharge Reliability requirements are met. Spillway gates control the amount of water that can be discharged from the reservoir. They are generally used in times of flood to pass high inflows.

Scheduled completion: F2012
Cost: $73 million

Mica Gas Insulated Switchgear Replacement

BC Hydro is replacing the switchgear system at the Mica Generating Station. The system uses 500-kilovolt circuits to conduct the energy from the Mica underground powerhouse to the surface, where it transitions to transmission lines. Replacing the switchgear system maintains the reliability of this key generating station and will reduce SF_6 (a greenhouse gas) leakage.

Scheduled completion: F2014
Cost: $200 million

Fort Nelson Generating Station Upgrade

Adequacy of supply is a concern in the Fort Nelson area, and BC Hydro is increasing the generating capacity at the Fort Nelson Generating Station by 24.5 MW. We are expediting this project for a completion date as early as November 2011.

Scheduled completion: F2012
Cost: $165 million

Smart Metering Program

Like other utilities around the world, BC Hydro is planning to automate, modernize and upgrade its electricity grid and metering systems. This will improve reliability, provide additional service options for customers and help to facilitate energy conservation and efficiency.

Investment in a smart grid and smart metering will have a positive net present value and deliver significant benefits to customers, while helping to keep BC Hydro's rates amongst the lowest in North America.

The first part of the program is focused on installing smart meters. Through the Smart Metering Program, BC Hydro will be installing new digital meters that support two-way communications capability to approximately 1.8 million BC Hydro customers throughout the province. This Program includes:

- Smart meters: Smart meters are solid state meters that capture both the amount of power consumed in the home and when it is being consumed. Combined with other system components, smart meters can communicate consumption information to the customer through in home displays and other in home feedback tools.
- Telecommunications system: The communications infrastructure and supporting software applications that enable two-way transmission of data between the customer's smart meter and BC Hydro.
- Meter Data Management System: Stores, validates, edits and analyses meter data prior to integration into other BC Hydro systems.
- Systems integration: Delivers data and analytics, from the meter data management system, to other BC Hydro systems such as customer billing, outage management, the application of conservation rates such as Time of Use and Critical Peak Pricing, and load forecasting, helping to optimize system performance and keep rates low.
- In home displays and feedback tools: In home displays and other in home feedback tools, such as a web portal, or even an application on a mobile phone, will show customers how much energy they are using, when they are using it and at what cost.
- Conservation Based Rates: Customers can take advantage of pricing signals generated by new conservation rates, displayed on their in home feedback devices, to better manage their electricity use for additional savings.

Scheduled completion: F2013
Cost: $660 million

CONTEMPLATED PROJECTS OVER $50 MILLION

BC Hydro is contemplating the following projects over $50 million. These projects are in the early Identification or Definition Phases and final costs are as yet uncertain. We will update interim project cost estimates as we further refine the scope of each project.

These projects have not yet been approved by our Board of Directors or Management.

Smart Grid Program

Building on the foundational work of the Smart Metering Program, the Smart Grid Program will provide greater customer benefits and operational efficiencies that help keep customer rates low.

- Theft Detection: Energy diversions pose a major safety risk to employees and the public through the threat of violence, fire and electrocution. The additional load created by energy diversions contributes to premature transformer failures causing customer outages and increased costs to replace assets. Theft detection will involve implementing new sensing technologies and information analytics tools to identify premises where illegal diversions are occurring and reduce the impact on legitimate rate payers.
- Distributed Generation: With a smart grid in place in British Columbia, thousands of new generation sources will be able to put electricity onto the grid. From independent power producers to individual customers who produce more energy than they use—whether from solar panels or wide-spread use of electric vehicles—all become part of the distributed generation environment, enabling a secure and clean power future for British Columbia.
- Smart grid devices, foundational infrastructure, and net metering capabilities will enable BC Hydro's distributed generation vision supporting the Province's Climate Action Plan.
- Infrastructure Upgrades: Smart grid infrastructure upgrades will include failure resistant telecommunication systems and other back-up systems that will provide the foundation for a smarter grid. A smarter grid will function more efficiently enabling the level of service that customers have come to expect

Targeted completion: F2014
Total Cost: $270 million

Gordon M. Shrum Units 1 to 5 Turbine Rehabilitation

The runners and head covers for Units 1 to 5 have experienced cracking problems since the units went into service in the late 1960s, and one unit experienced a major failure in the spring of 2008. We are planning to replace the turbines in Units 1 to 5 with the intent to reduce the risk of runner failure, decrease maintenance costs and improve operational efficiency.

Targeted completion: F2017
Interim project cost estimate: $262–$319 million

Capacity Addition at Mica

The Mica Generating Station was designed as a six-unit generation station. However, when the facility was constructed, only four units were installed and two bays were left empty. BC Hydro has started the project definition process and filed an application for approval for the construction of Mica Units 5 and 6 with the BC Environmental Assessment Office and the Canadian Environmental Assessment Agency. Each additional unit would provide approximately 500 MW of capacity.

Targeted completion: F2015–F2016
Interim project cost estimate: $640–$950 million

Estimated costs for Mica 5 and 6 are lower than reported in previous Service Plan due to the successfully tendered turbine and generator contract, the construction efficiencies attributable to coordinating the installation of both units, and the lower forecast related to escalation resulting from the downturn in the global economic condition affecting the cost of materials, equipment and labour.

Spillway Gate Reliability Upgrades

BC Hydro is planning to upgrade the spillway gates at the Stave Falls and Hugh Keenleyside dams in order to reduce public and employee safety risk and to ensure Flood Discharge Reliability requirements are met. Spillway gates control the amount of water that can be discharged from the reservoir. They are generally used in times of flood to pass high inflows. The scope of upgrades is under review and the interim project cost estimates are subject to change.

Targeted completion (Stave Falls): F2013
Interim Project Cost Estimate (Stave Falls): $44–$74 million

Targeted completion (Keenleyside): F2014
Interim Project Cost Estimate (Keenleyside): $50–$90 million

Field and Facility Improvements

We need to provide safe, efficient workplaces that meet operational work requirements and energy efficiency standards as required by *The BC Energy Plan*. This initiative will upgrade and enhance workplaces across our buildings to meet these objectives, to create more collaborative space and to reduce the need for additional lease space through densification.

Targeted Completion: F2013
Total Cost: $340–$430 million

Transmission Projects

Transmission projects over $50 million—which, if approved by the BCUC, will be financed by BC Hydro—are disclosed in the BCTC's Service Plan.

CONTEMPLATED PROJECTS OVER $50 MILLION—SCOPE BEING DETERMINED

BC Hydro is contemplating the following additional projects over $50 million. The recommended solution and scope for these projects remain to be determined, and therefore we are not in a position to provide a target completion date or a cost estimate for these projects. We will update interim project cost estimates as we further refine the scope of each project.

These projects have not yet been approved by our Board of Directors or Management.

Campbell River Improvements

John Hart Replacement

The aging John Hart facility, in operation since 1947, needs significant capital investment in the powerhouse and penstocks to ensure reliable long-term generation and to mitigate earthquake risk and environmental risk to fish and fish habitat. We are analyzing options to replace or rehabilitate the existing six unit, 126 MW generating station, including an integrated emergency bypass capability to minimize river flow disruption impacts to fish and fish habitat.

Strathcona Seismic and Seepage Issues

Strathcona is the upstream dam on the Campbell River and its reservoir provides the primary storage for the Campbell River system. The Strathcona intake tower, power conduit, spillway piers and the earth fill dam do not meet current seismic standards. BC Hydro is contemplating upgrades to the facility to improve public safety and system reliability and minimize environmental impacts. We intend to undertake an interim fix to reduce the risk of failure of the most vulnerable component of the Strathcona facility, the intake tower, in F2011.

Ruskin Dam Seismic and Powerhouse Upgrade

The upper portion of the Ruskin Dam, built in 1930, does not meet current seismic standards. As an interim measure, we lowered the Hayward Lake Reservoir, behind the Ruskin Dam, by approximately two metres and anchored the most critical section of the upper dam. We began upgrading the right abutment in 2009 to mitigate the public safety risk, and will continue to further define the required dam rehabilitation work.

The existing Ruskin Generating Station, also built in 1930, is at the end of its service life and requires significant capital expenditures to continue to operate safely and reliably. BC Hydro is analyzing options to rehabilitate the powerhouse to meet current seismic standards for earthquakes and replace major generating equipment, which is in poor or unsatisfactory condition.

Lajoie Dam Seismic Upgrade

The Lajoie Dam is a rock fill structure completed in 1955. In recent years, we have performed annual repairs to the shotcrete surface to control increased leakage as the dam settles. Because the dam does not meet current seismic standards, we are assessing seismic upgrade options to ensure dam and public safety and maintain reliability of supply.

Alouette Generating Station Redevelopment

The 9 MW Alouette Generating Station has been in operation since 1928. Because of its age and the condition of the facility, including the fact that it does not meet current seismic standards, BC Hydro is contemplating rehabilitating or replacing both the powerhouse and the generating equipment.

Bridge River Units 5 and 6 Generator Upgrades

The Bridge River generators were commissioned almost 50 years ago and have not undergone a major refurbishment since being placed in service. We are considering upgrading two units at Bridge River—this would include replacing or refurbishing the generators and ancillary equipment—to address the condition and known deficiencies of major components.

Cheakamus Generator Upgrades

BC Hydro is considering upgrading the two units at Cheakamus generating station. This would include replacing or refurbishing the generators (commissioned over 50 years ago) and ancillary equipment to address the condition and known deficiencies of major components.

Fort Nelson Supply

We are evaluating options to further increase supply and meet growing customer demand in the Fort Nelson region.

Investments in Burrard Thermal Generating Station

BC Hydro will confirm the investments required to ensure the continued, reliable operation of the facility in accordance with the government's direction of October 2009 to retain Burrard only as a source of capacity and short-term energy.

SUBSIDIARIES

POWEREX

Powerex Corp., a wholly owned subsidiary of BC Hydro, is a leading marketer of wholesale energy products in Western North America. The company buys and supplies wholesale power, natural gas, ancillary services, financial energy products and, more recently, environmental products, across the continent.

Powerex's energy marketing and trade activities help optimize BC Hydro's electric system resources and provide significant economic benefits to the people of British Columbia. The Chief Executive Officer of Powerex reports to the Board of Directors of Powerex Corp., and has a reporting relationship to BC Hydro's Chief Executive Officer. BC Hydro's Chief Executive Officer ensures the Board of BC Hydro is informed of Powerex's key strategies and business activities.

In recent years, Powerex has increasingly purchased electricity from outside the BC Hydro system to support BC Hydro's domestic needs and to meet its own trade commitments. Powerex also markets, on behalf of the Province, the Canadian Entitlement to the Downstream Benefits of the Columbia River Treaty.

Powerex's Board of Directors includes Wanda Costuros (Chair), James Brown, Bob Elton, and Peter Powell.

Powerex operates in complex and volatile energy markets which can cause net income in any given year to vary significantly. Over the previous five years, excluding F2010, Powerex income has ranged from $83 to $259 million and was $248 million in F2009 and is forecast to be a loss of $50 million for F2010. A large component of the forecast loss for F2010 relates to foreign exchange losses as a result of the strengthening Canadian dollar vis a vis the U.S. dollar. Foreign exchange gains/losses in Powerex are typically offset by foreign exchange losses/gains in BC Hydro, however, this offset does not occur when Powerex is in a loss position. With continued uncertainty as to the strength of the economic recovery in the near term, as well as weak demand and over-supply fundamentals for both power and natural gas, Powerex forecasts its net income to be $155 million in F2011, below the F2005–F2009 average of $178 million. Additionally, volatility in the Canadian and U.S. dollar exchange rate may affect income forecasts significantly. Powerex forecasts its net income to be $155 million in F2012 and $175 million in F2013.

POWERTECH

Powertech, BC Hydro's subsidiary that specializes in clean energy consulting, testing, and systems integration, has been serving electrical, oil and gas companies, and automotive and electrical equipment manufacturers since 1989. It operates as a separate, for profit, commercial entity. In addition to providing technical services to BC Hydro, Powertech serves a large number of clients in energy-related sectors across North America, Asia, Europe, and South America and beyond. Powertech is located on an 11 acre, 21-lab campus in Surrey and has approximately 130 employees.

Early in 2010, Bob Elton was added to the Board of Directors as Executive Chair.* Dan Doyle, who had been interim Chair since his appointment as Chair of BC Hydro in July 2009, ceased to serve as Director of Powertech, while Brenda Eaton and Nancy Olewiler remained as Directors. Powertech's strategic plan focuses on its core capabilities, strong industry client base and emerging market opportunities, to create a growing company delivering value for BC Hydro and British Columbia.

Powertech's net income was $1.2 million in F2009. Its net income is forecast to be $0.7 million in F2010 on revenues of approximately $26 million. Powertech's net income is expected to increase in F2011 and beyond.

OTHER SUBSIDIARIES

BC Hydro has created a number of other subsidiaries to help us manage risk in developing projects and/or contracting with third parties. The Boards and management of these subsidiaries are made up of BC Hydro employees, who perform these duties without additional remuneration.

*The appointment to the Powertech Board of Directors is subject to Cabinet approval.

APPENDIX

GUIDING PRINCIPLE	OBJECTIVE
Reliability (Customer)	To have the best-in-class reliability by customer segment.
Electricity Security (Supply)	To provide electricity self-sufficiency (energy and capacity).
Remote Community Electification	To provide appropriate electric service to all remote communities on an equitable basis.
Financial Targets	To maintain existing position of having costs among the lowest in North America and to deliver 100 per cent forecast net income on an annual basis.
Innovation and Technology	To be an industry leader in the innovative and appropriate use of technology, directly supporting and advancing BC Hydro's long-term goals.
Western Opportunities	To profitably increase Western market share based on access to assets in B.C. and the Western system and increased trading activity.
Environmental Impact	To have no net incremental environmental impact by 2024 when compared with 2004.
Energy Conservation and Efficiency	To develop and foster a conservation culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in use of electricity.
Safety	To provide the safest work environment compared with the best performers in any industry, where not one of our employees will experience a serious safety injury.
Teamwork	To use exceptional teamwork to engage all employees in the achievement of BC Hydro's purpose and long-term goals.
Workplace	To be the top employer for generations.
Customer Satisfaction	To lead other companies in offering extraordinary value and service.
Suppliers	To ensure 100 per cent of suppliers have demonstrated values congruent with those of BC Hydro.
Stakeholder Engagement	To be the most respected company in B.C.
First Nations	To improve relationships built on mutual respect and that appropriately reflect the interests of First Nations.

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