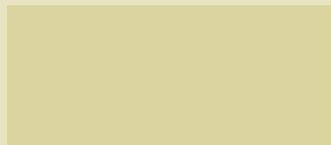
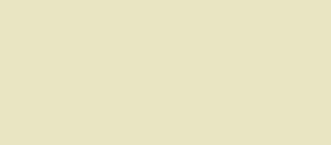


# 2004 BC Hydro Annual Report

Reporting on Triple Bottom Line Performance





# BC Hydro at a glance

## About BC Hydro

**BC Hydro is a commercial Crown corporation owned by the Province of British Columbia and regulated by the British Columbia Utilities Commission. It is one of the largest electricity utilities in Canada and one of North America's leading providers of clean, renewable hydropower. Its skilled workforce of approximately 4,400 is responsible for generating and delivering electricity, and for developing products and services for more than 1.6 million customers in B.C. BC Hydro has adopted sustainability as the driving force for its business with the vision to become the leading sustainable energy company in North America. BC Hydro has its head office in Vancouver and operates facilities throughout the province.**

## About This Report

Sustainability reflects BC Hydro's commitment to balance business across the three bottom lines: environmental, social and economic. In 2003 BC Hydro consolidated its Annual and Triple Bottom Line reports into one comprehensive report to demonstrate how the company integrates sustainability principles into its business. This year's integrated Annual Report covers the company's triple bottom line performance for the period April 1, 2003 through March 31, 2004.

Performance results in this report were targeted in BC Hydro's annual Service Plan for the three-year period 2003/2004 through 2005/2006. The Service Plan provides a high-level, strategic look at BC Hydro's business. It outlines the key strategies and expected results and provides a basis for judging BC Hydro's performance.

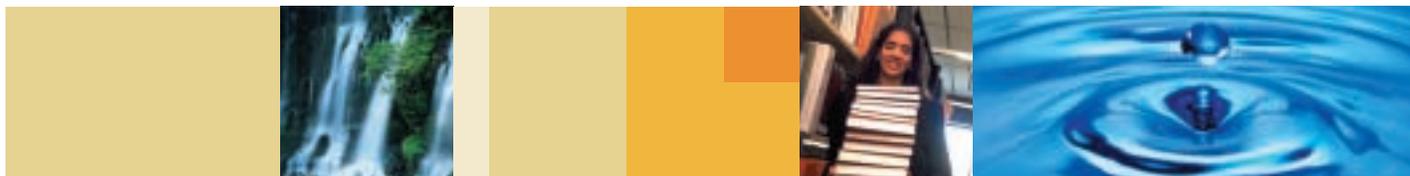
BC Hydro's first-ever integrated 2003 Annual Report was ranked in the top 10 in the recent Canadian Sustainability Reporting Benchmark Survey conducted by Stratos Inc., an Ottawa-based consulting firm that specializes in sustainability reporting. Although BC Hydro did not rank as well as it had in an earlier survey, participating in the survey was helpful in preparing this year's report.

To meet the requirements for both Annual and Sustainability reporting, this report was prepared in accordance with the *Budget Transparency and Accountability Act* and in alignment with the Global Reporting Initiative (GRI) 2002 Guidelines.

For additional measures that support BC Hydro's commitment to environmental, social and economic performance, and to learn how BC Hydro compares against the GRI Guidelines, visit the BC Hydro website at [www.bchydro.com/annualreport](http://www.bchydro.com/annualreport)

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# Major Achievements

## for the Year Ended March 31, 2004

| SUSTAINABILITY SCORECARD – BC HYDRO OVERALL                                |  |  |                                     |  |  |
|--|--|--|-------------------------------------|--|--|
| STRATEGIC GOAL   | STRATEGIES   | TBL PERFORMANCE  | TBL RESULTS                         | TARGET   | ACTUAL   |
| Strong Financial Performance   | <p>Maximize value of surplus BC Hydro capability.</p> <p>Invest in cost-competitive projects that increase energy and capacity at existing facilities.</p> <p>Manage and optimize asset utilization to create synergies and opportunities.</p> <p>Improve forecasting and risk management capacity.</p> <p>Finalize formation of competitive service organizations/outsourcing to achieve cost efficiencies.</p> <p>Work with regulators and stakeholders to establish rate levels and to create regulatory mechanisms to deliver stable earnings.</p> | Net Income (\$Millions)  | ↑                                   | (70)   | 77   |
| Quality Service  | <p>Ensure existing and new facilities meet current and future needs of stakeholders through the investment of appropriate levels of maintenance and sustaining capital.</p> <p>Understand customer needs and provide the appropriate products and services.</p>  | <p>Sustaining Capital Ratio %</p> <p>Customer Satisfaction (%)</p> <p>Reliability</p> <ul style="list-style-type: none"> <li>• ASAI (%)</li> <li>• CAIDI (hours)</li> </ul>  | <p>↔</p> <p>↑</p> <p>↓</p> <p>↓</p> | <p>1 – 2</p> <p>84</p> <p>99.970</p> <p>2.15</p> | <p>1.2</p> <p>88</p> <p>99.949</p> <p>2.78</p> |
| Energy Management (aligned with Good Environmental and Social Performance) | <p>Operate profitably in a socially and environmentally responsible manner.</p> <p>Supply and deliver the endowment of low-cost electricity to B.C. customers.</p> <p>Meet government's clean energy targets through resource strategy.</p>  | <p>Environmental Regulatory Compliance (No. of Incidents)</p> <p>Conservation Gigawatt Hours (GWh)</p> <p>New Electricity from BC Clean Resources – as defined in the Energy Plan (% Contracted/Committed to Date)</p> | <p>↑</p> <p>↔</p> <p>↔</p>          | <p>40</p> <p>810</p> <p>50</p>                   | <p>18</p> <p>834</p> <p>52</p>                 |
| Skilled Workforce/ Safe Workplace  | <p>Demonstrate safety leadership behaviours and hold individuals accountable for safety.</p> <p>Identify and define the skills and knowledge necessary to succeed as a commercial enterprise.</p> <p>Create strategic skill plans to ensure that employees attain the appropriate skills.</p> <p>Ensure that the right people are in the right roles at the right time.</p>  | <p>All Injury Frequency</p> <p>Approved Strategic Workforce Positions Filled</p>   | <p>↔</p> <p>↓</p>                   | <p>3.1</p> <p>80</p>                             | <p>3.0</p> <p>68*</p>                          |



\*BC Hydro's Strategic Workforce Planning Positions filled was lower than target for 2003/2004 due to the formation of the British Columbia Transmission Corporation (BCTC) and organizational changes that resulted in fewer job requirements.

More information on BC Hydro performance results is available in the Report on Performance section of this report.



# Letter from the Chair to the Minister

June 2004

Honourable Richard Neufeld  
Minister, Energy and Mines

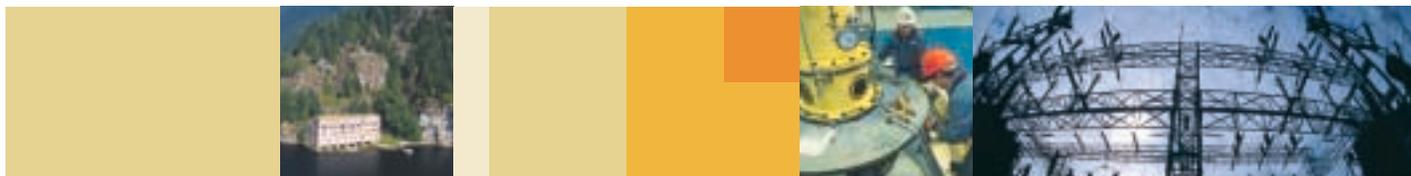
Dear Minister:

I am pleased to forward you BC Hydro's 2004 Annual Report.

As you can see from its contents, we faced a number of challenges and opportunities this year. Overall, I believe we were successful in meeting them, once again confirming that BC Hydro is one of the Provincial Government's leading Crown corporations.

Yours truly,

*L.I. (Larry) Bell*  
Chair



## Letter from the Chair

### **Much of our focus at BC Hydro in the past year has been the ongoing implementation of the provincial government's Energy Plan, "Energy for Our Future: A Plan for B.C.," that was introduced in November 2002.**



*L.I. (Larry) Bell*

We have been involved in a range of Energy Plan-related activities. In August 2003, we took part in the creation of British Columbia Transmission Corporation, the province's new independent transmission company. The Heritage Contract was completed in November 2003 when the provincial government approved it in legislation. This locks in the long-term benefit of our low-cost generation assets, for the benefit of our customers in B.C.

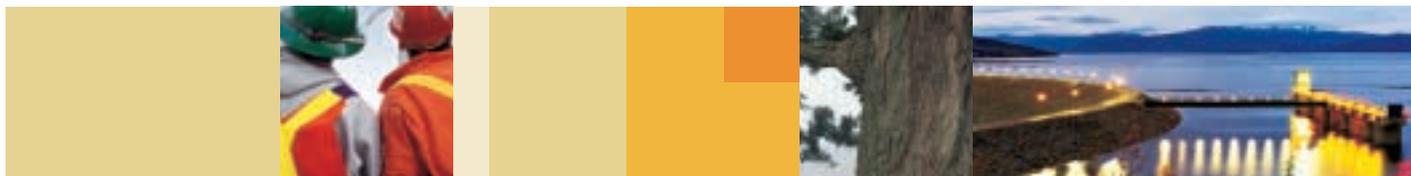
BC Hydro has also been returned to regulation, as we made our first revenue requirements application in 10 years in December 2003. We are currently in a public hearing before the British Columbia Utilities Commission and are seeking a rate increase that will safeguard our ability to deliver reliable power to our customers in the long term, while preserving our rates as among the lowest in North America.

We have also responded to the Energy Plan's challenges related to purchasing new electricity supply from the private sector. BC Hydro concluded two calls for such supply this past year – one for Green Power Generation and one for Customer-Based Generation – resulting in approximately 2,140 GWh of new electricity purchase agreements signed with an in-service date of 2006.

Power Smart was also highlighted in the Energy Plan and we had outstanding success with that program again this past year. Overall, we exceeded our Power Smart targets by saving 834 GWh of electricity. This was done at a very low cost, less than half the price of new supply. One of the highlights of the Power Smart program was the distribution of 1.6 million energy-efficient compact fluorescent light bulbs to over 530,000 customers. These bulbs use about 75 per cent less electricity than normal light bulbs and last approximately eight to 10 times longer, which will provide energy benefits for our customers for years to come.

Finally, we have completed the first year of our outsourcing agreement with Accenture Business Services for Utilities (ABSU). As of April 1, 2003, ABSU assumed responsibility for our Customer Care, Information Technology and a number of back-office functions. The contract commits to savings of \$250 million over 10 years and first-quartile service after the third year.

Having moved so far so quickly to implementing the Energy Plan, I thought it was time to split the role of Chair and CEO. As a result of this move, which is consistent with good corporate governance, I have retained the role of Chair, and Bob Elton was appointed CEO in November 2003.



## Letter from the President and Chief Executive Officer

### **At BC Hydro, our role is to supply reliable electricity to our customers, at low cost, today and for a long time to come.**

To do that, we need to implement superbly in the short term, and plan wisely for the long term. And we must ensure that the actions we take in the short term set us up to achieve long-term success for our customers and for the province.

In terms of short-term measures, our greatest challenge in 2003/2004 – reliability of supply – was also our greatest achievement. Extraordinary and unexpected weather-related events such as the forest fires in the interior of the province and storms in the Fort Nelson area resulted in significant and extended power outages for our customers. Our crews met these challenges superbly, working hard and safely in cooperation with local authorities and communities to restore the power as soon as possible.

But these incidents had an overall negative impact on us and our customers. Because of these incidents, we did not meet our reliability target for the province as a whole. The average British Columbian was without power for 4.47 hours (the target was 2.63 hours). This result is something we must focus on, both now and for the future. But we exceeded our targets, and improved our performance, in the areas of safety and customer satisfaction, and our financial performance was better than planned, but worse than last year's, as a result of water conditions.

In terms of taking care of the future, we had several successes. One of the most significant was with respect to our efforts to acquire supplies of new, "green" electricity. We concluded a second Green Power Generation call that will result in 1,800 GWh per year across 16 contracts. This will not only help ensure continued reliable supply of electricity to our customers in the future, but it also does so in an environmentally positive way and – because of the competitive processes – at the lowest possible cost.

In addressing the long-term challenge of supplying power to Vancouver Island, we had mixed success. After a public hearing, the British Columbia Utilities Commission did not approve our Vancouver Island Generation Project, but did agree with us that there needs to be generation on Vancouver Island in service by 2007. We suggested a competitive process would enable us to get the best solution, and the Commission encouraged us to do that. The process is underway, but we must recognize that the time pressure continues to increase.

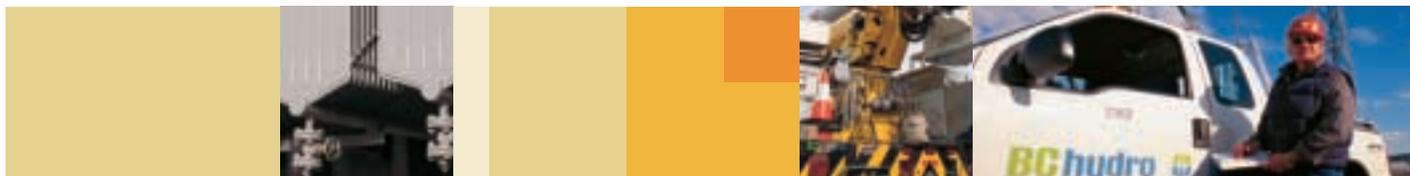
We have in the past year been involved in a number of regulatory processes. Currently, we are applying for an 8.9 per cent and zero per cent increase for fiscal 2005 and fiscal 2006 respectively. This increase is needed to ensure long-term



*R.G. (Bob) Elton*

reliability to our customers. We have also submitted an action plan that details what we believe we need to do to ensure that we continue to acquire enough energy to serve our customers reliably. I am very pleased with the way these regulatory processes have begun – they have embodied a cooperative spirit on the part of everyone involved, that will help us all to achieve a great future for our customers, and for the industry in British Columbia.

Now that we are well down the path of implementing the Energy Plan, we are focusing our attention on setting bold targets for the future, that will see BC Hydro established as a company that achieves reliable electricity at low cost in the long term. In doing that, we are committed to strengthening our "Triple Bottom Line" balance, so that we manage environmental and social issues, together with financial issues, in a way that achieves success in all of these areas. We have a very skilled and experienced workforce, quickly being strengthened by young talent, who are committed to that goal.



# Executive Summary

## Year in Review

**BC Hydro is a commercial Crown corporation owned by the Province of British Columbia and regulated by the British Columbia Utilities Commission (BCUC). It is one of the largest electricity utilities in Canada and one of North America's leading providers of clean, renewable hydropower. Its skilled workforce of approximately 4,400 is responsible for generating and delivering electricity, and for developing products and services for more than 1.6 million customers in B.C. BC Hydro is also extensively involved in energy trade outside the province, through its wholly owned subsidiary, Powerex Corp. (Powerex).**

BC Hydro has adopted sustainability as the driving force for its business with the vision to become the leading sustainable energy company in North America. Sustainability reflects BC Hydro's commitment to balance business across the three bottom lines: environmental, social and economic.

BC Hydro will accomplish its vision by building on its solid base of clean, renewable hydropower assets, by employing a skilled and capable workforce, by delivering excellent financial and operational performance, and by attaining strong public support. The company's four key goals, listed below, and its triple bottom line approach to business, reflect this ambition.

### OVERVIEW OF PERFORMANCE

#### Strong Financial Performance

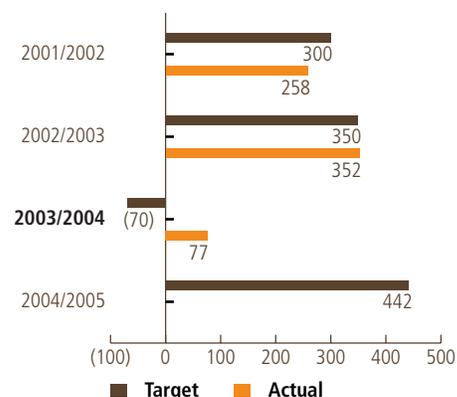
Net Income of \$98 million (\$77 million before transfers from the Rate Stabilization Account) was \$146 million better than the \$48 million loss (\$70 million loss before transfers from the Rate Stabilization Account) originally projected in the Service Plan, primarily as a result of lower finance charges, higher electricity trade margins at Powerex and higher domestic revenues.

The Provincial Government's 2002 Energy Plan returned BC Hydro's rates to regulation under the BCUC. The company's rates have remained unchanged for 10 years and have not kept pace with inflation. A major initiative was the filing of a Revenue Requirements Application in December 2003 with the BCUC, requesting a general rate increase of 7.23 per cent in fiscal 2005 and a two per cent increase for fiscal 2006. Anticipating a lengthy review process by the BCUC, BC Hydro sought and obtained interim rate relief from the BCUC to increase its rates by 7.23 per cent effective April 1, 2004. On March 29, 2004, BC Hydro filed a revision to its Revenue Requirement Application seeking an additional permanent rate increase of 1.67 per cent, bringing the total rate increase requested to 8.9 per cent for fiscal 2005, and eliminating the increase initially requested for fiscal 2006.

On March 26, 2004 the U.S. Federal Energy Regulatory Commission (FERC) approved a settlement agreement between FERC Trial Staff and Powerex that resolved "gaming" and "partnership"

allegations against Powerex relating to the California energy crisis. The settlement agreement acknowledged that there was no evidence that Powerex engaged in any gaming practices or concerted partnership practices with any other market participant. As part of the settlement agreement, Powerex agreed to pay US\$1.3 million to avoid the burden, costs and uncertainty associated with the litigation process and to achieve closure of the FERC proceedings.

**Net Income before RSA transfers**  
Dollars (millions)



# Executive Summary

## QUALITY SERVICE

BC Hydro's objectives to achieve quality service were to focus on customer satisfaction and service reliability. BC Hydro was well above target in Customer Satisfaction, largely due to the high level of satisfaction expressed by residential customers in a semi-annual survey. The Sustaining Capital Ratio came in at the lower end of the target range. BC Hydro increased its sustaining capital spending in fiscal 2004 to help ensure the health of aging assets. The Reliability performance measure was below target due to a number of factors including: adverse weather (including the forest fires during the summer in the interior of the province), equipment failures due to aging infrastructure, and increasing customer density resulting in higher customer hours lost during an outage.

The past year has seen the successful establishment of the British Columbia Transmission Corporation (BCTC). BCTC has been set up as a provincial Crown corporation to provide open and non-discriminatory access to BC Hydro's transmission system. BC Hydro retains ownership of its transmission system while BCTC assumes the responsibility for planning, operating and managing the system.

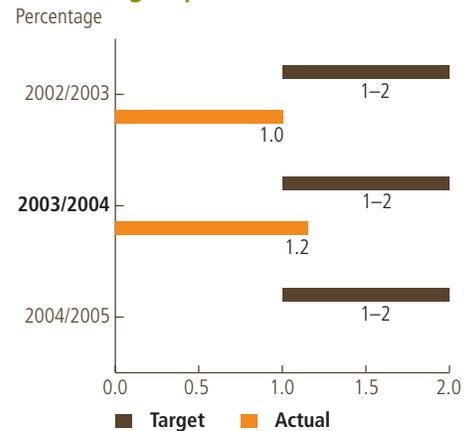
The major fires in the Okanagan and Thompson region of the province during the summer disrupted service to many BC Hydro customers and had a negative impact on system performance. BC Hydro crews and support staff performed in an exemplary manner to restore power to fire-ravaged communities and to rebuild damaged facilities.

Also in August, a severe storm with torrential rains caused significant damage to BC Hydro's distribution system in Fort Nelson. Winds of up to 95 km/hour and heavy rains caused a major flood and both of the feeders that supply electricity to Fort Nelson were downed. Access to the downed lines was difficult due to heavy flooding and dense bush. Crews were successful in getting the town energized 36 hours after the power went out and continued working for two more days to repair damage.

Accenture Business Services for Utilities (ABSU) assumed responsibility for the performance of certain functions for BC Hydro on April 1, 2003. These functions include: Customer Services, Information Technology, Human Resources, Financial Systems, Purchasing, and Building and Office Services. The agreement represents a commitment on BC Hydro's part to outsource services of \$1.27 billion over 10 years in exchange for contractually committed savings of \$250 million over the same period.

BC Hydro undertook to develop a new Integrated Electricity Plan (IEP). The IEP was completed as scheduled on March 31, 2004, and submitted to the BCUC. The IEP provides a framework for BC Hydro's long-term plan for guiding energy acquisition decisions over the next 20 years. A series of information sessions were held throughout the province to solicit input into this long-range energy plan. The input indicated that BC Hydro's priorities to secure reliable, low-cost supply from a balanced portfolio of energy resources are in alignment with the expectations of stakeholders and First Nations.

## Sustaining Capital Ratio



**Definition:** Sustaining Capital is the sustaining capital expenditures as percentage of replacement value of capital assets. It is a predictive measure of service performance. Its purpose is to indicate BC Hydro's future ability to maintain high system reliability by ensuring business-sustaining investment to maintain the health of its assets.

# Executive Summary

Prior to fiscal 2004, BC Hydro anticipated that additional Vancouver Island supply requirements would be satisfied through construction, ownership and operation of the Vancouver Island Generation Project (VIGP), a natural gas-fired electricity generation facility to be built at Duke Point near Nanaimo. BC Hydro also anticipated that VIGP would receive its gas supply utilizing the Georgia Strait Crossing Project (GSX), which would transport natural gas between Washington State and Vancouver Island.

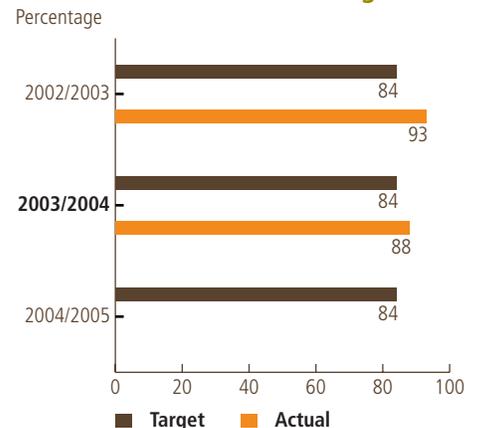
In September 2003, the BCUC issued a decision that denied BC Hydro's application for a Certificate of Public Convenience and Necessity for the VIGP. The BCUC agreed that new capacity was needed by 2007 on Vancouver Island but said there was insufficient evidence to conclude that the VIGP proposal was the most economical option for new supply on Vancouver Island. In response, BC Hydro recommended a competitive process to identify that new supply which was accepted by the BCUC. The result was a Call for Tender (CFT) process initiated by BC Hydro to acquire 150 to 300 megawatts of low-cost, dependable capacity on Vancouver Island. It is anticipated that energy purchase agreements could be awarded in October 2004 to the successful proponents of the CFT.

Under generally accepted accounting principles, BC Hydro has recorded a provision in fiscal 2004 for the VIGP and GSX projects to reflect the uncertainties as to the projects proceeding or the costs being recovered. The amount of the provision for BC Hydro's project costs is \$98 million and this amount is included in amortization. BC Hydro has also recorded a \$22 million provision in respect of other project exposures and this amount is included in operations and administration expense. The provision will have no impact on BC Hydro's current proposal for a rate increase before the BCUC or the ongoing CFT process. BC Hydro management remains fully committed to preserving the flexibility to proceed with these projects. BC Hydro applied to the BCUC for approval of a designated regulatory account with respect to the costs of VIGP and GSX and will seek to recover those costs in future rates when VIGP is brought into service or it is determined that the projects will not

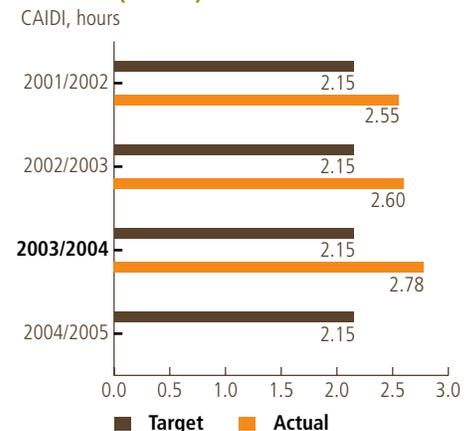
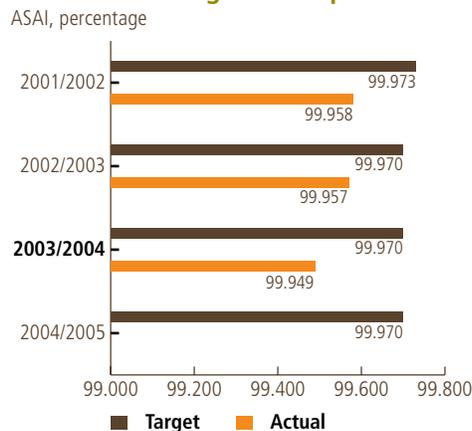
proceed. On June 10, 2004, the BCUC approved the establishment of a designated regulatory account.

BC Hydro concluded two calls for energy supply from the private sector, resulting in approximately 2,140 GWh of new electricity purchase agreements signed with in-services date in 2006. The call for Customer-Based Generation resulted in 340 GWh per year across three contracts and the call for Green Power Generation resulted in 1,800 GWh per year across 16 contracts.

## Customer Satisfaction Rating



## Reliability: Average System Availability Index (ASAI), Customer Average Interruption Duration Index (CAIDI)



# Executive Summary

## GOOD ENVIRONMENTAL AND SOCIAL PERFORMANCE

During fiscal 2004, consultation was completed for 20 of 23 Water Use Plans and draft Plans were written and submitted to the Comptroller of Water Rights. Water Use Plans are being developed for all of BC Hydro's hydro-electric facilities. The plans determine how water is to be managed to best address the range of water use interests. The five-year Water Use Planning process will wrap up in fiscal 2005.

BC Hydro undertook an Environmental Management System (EMS) Best Practice study in early 2004. Although the study determined that there is no one definitive "best practice" EMS, BC Hydro still learned from the results. It will be focusing on opportunities to better align its management systems, improve the coordination of responsibilities,

automate certain EMS processes and review the costs associated with further International Standards Organization (ISO) Certification in future. ISO 14001 is the international standard for environmental management systems.

BC Hydro is pursuing a voluntary goal to acquire 50 per cent of new load growth from B.C. Clean Electricity over the next 10 years (November 25, 2002 – December 31, 2012). The Provincial guideline defines B.C. Clean Electricity as alternative energy technologies that result in a net environmental improvement relative to existing energy production. Examples include hydro, wind, solar, photovoltaic, geothermal, wave and biomass energy as well as efficiency improvements at existing facilities.

BC Hydro launched a campaign in September to educate customers across B.C. about the benefits of energy conser-

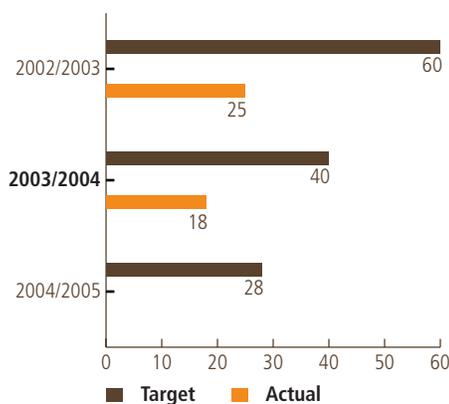
vation and to encourage Power Smart program participation, including the use of energy efficient compact fluorescent light bulbs (CFLs). Only a week after the launch, over 50,000 customers had participated; by year-end, 1.6 million CFLs had been distributed to over 530,000 customers.

It was BC Hydro's most successful Resource Smart year to date. Energy gains of 460 GWh were put into service, exceeding the target of 411 GWh. Resource Smart is a program to improve efficiencies at existing generating facilities and to restore energy capability that is often lost gradually over time.

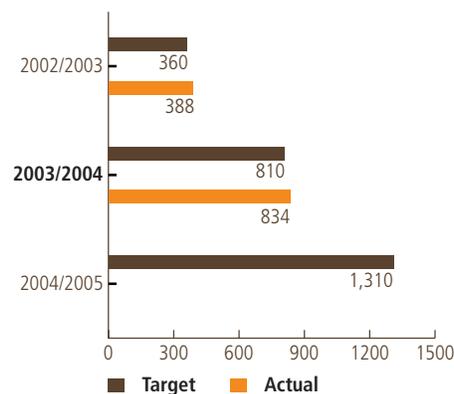
The Fort Nelson Generating Station was registered ISO 14001 certified in the summer of 2003. All three of the company's thermal facilities are now certified to this high standard for environmental management.

### Environmental Regulatory Compliance

Number of Incidents

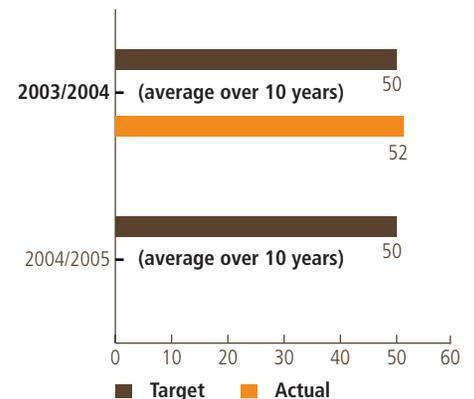


### Conservation Gigawatt Hours



### New Electricity from Clean Energy

Percentage



# Executive Summary

An extensive stakeholder consultation process was undertaken for the decommissioning of the Coursier Dam near Revelstoke. The decommissioning project was the first of its kind in BC Hydro history and was done to mitigate foreseen safety and environmental risks.

Every year BC Hydro makes corporate regional donations to communities, in partnership with charities and community-based organizations to support programs and initiatives throughout the province. The company's corporate donations for fiscal 2004 totalled \$1 million.

In April 2004 Innovest Strategic Value Advisors, Inc. (Innovest) completed a benchmarking study that compared BC Hydro's environmental performance with that of 26 North American electric power companies on over 60 different aspects of environmental risk, business opportunity and management strategy. Innovest rates the performance of companies within a given industrial sector using a scale from AAA (best in class) to CCC (worst in class). BC Hydro received a rating of AAA, ranking number one out of 27 North American electric power companies in the overall EcoValue21™ rating.

## SKILLED WORKFORCE, SAFE WORKPLACE

In January 2003 BC Hydro conducted an employee survey to measure the level of employee commitment. Based on the results, the management team focused

on communicating more with employees and increasing their understanding of the company's values and business direction. The survey was repeated in April 2004. Those results showed an improvement in 88 per cent of the survey questions. Employees' intention to stay with the company remains high, as does their level of motivation. There is still an opportunity to increase employees' understanding of the business direction and goals and how their jobs contribute to the business's success.

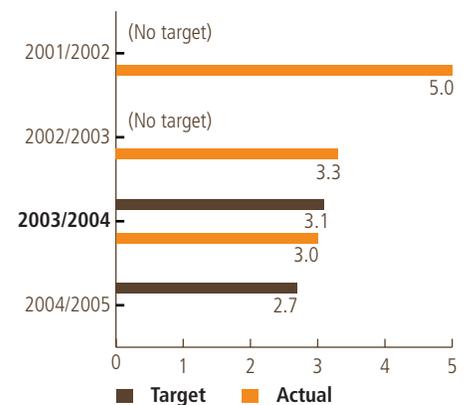
To ensure that BC Hydro will be able to sustain its core operations, a strategic workforce planning initiative (SWFP) has been underway since 2001 to mitigate the impact of retirements and to renew critical workforce capability. A total of \$10.3 million was allocated to sustain the SWFP initiative in fiscal 2004. This allowed 68 hires into key electrical operations positions this year.

In fiscal 2004 BC Hydro continued to make improvements in safety, retaining its position as a top-quartile performer as compared with peer utilities members of the Canadian Electricity Association. BC Hydro's All Injury Frequency of 3.0 was slightly better than the target of 3.1. The number of Workers' Compensation Board inspections at BC Hydro workplaces diminished dramatically over the last year, from levels as high as 150+ per year to 25 in fiscal 2004. This is part of an ongoing trend that coincides with improved corporate safety performance.

An independent Best Practices Review confirmed that BC Hydro is a best practice organization with respect to Occupational Health and Safety. Despite the company's ongoing improvement in safety, a workplace fatality occurred at the G.M. Shrum Generating Station in July 2003. This was a tragic reminder of the absolute necessity of remaining committed to the company's vision of zero injuries.

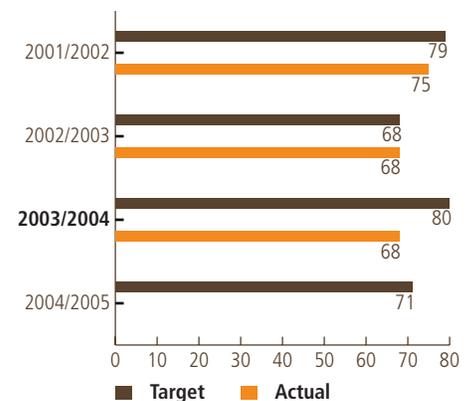
## All Injury Frequency

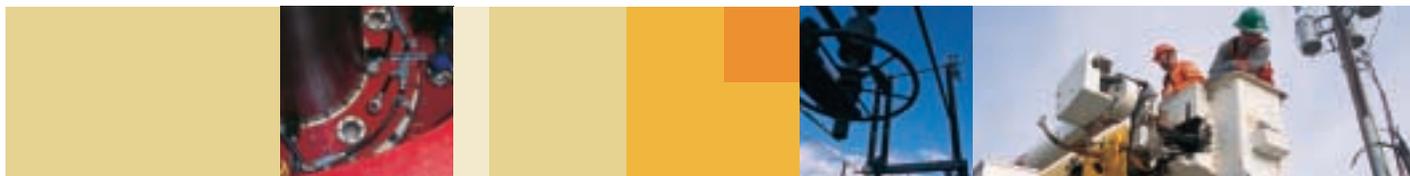
Incidents per 200,000 Hours Worked



## Approved Strategic Planning Workforce Positions Filled

Number





# Business Overview

## Vision

**To be the leading sustainable energy company in North America. BC Hydro will do this by building on a solid base of clean, renewable hydroelectric assets, a skilled and capable workforce, strong financial and operational performance, and strong public support.**

## Values

- **Accountability** – we take responsibility for our actions
- **Integrity** – we are fair and honest, open and straightforward
- **Service** – we seek solutions and build relationships
- **Teamwork** – we work together to achieve results

## Mandate and Mission

As directed by the *Hydro and Power Authority Act*, BC Hydro's mandate is to generate, manufacture, distribute and sell power, upgrade its power sites, and to purchase power from or sell power to a firm or person.

BC Hydro is one of the largest electric utilities in Canada, serving more than 1.6 million customers in an area containing over 94 per cent of British Columbia's population. Its primary business activities are the generation and distribution of electricity. Between 43,000 and 54,000 gigawatt hours of electricity is generated annually from 31 hydroelectric facilities and three thermal power plants. Electricity is delivered to customers through an interconnected system of over 73,000 kilometres of publicly owned transmission and distribution lines. The transmission assets

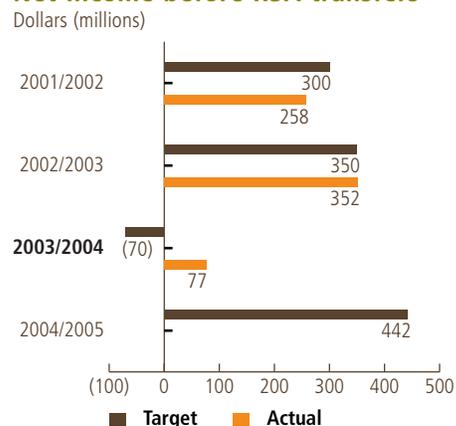
continue to be owned by BC Hydro; however, the management and operation of the transmission system is the responsibility of the new, Crown owned British Columbia Transmission Corporation (BCTC), which is also regulated by the BCUC.

BC Hydro's mission is to provide integrated energy solutions to its customers in an environmentally and socially responsible manner by balancing British Columbians' energy needs with the concerns of the environment and communities in which it operates. It has constructed a world-class integrated hydroelectric and thermal generating system. The vast majority (about 90 per cent) of this generation is based on clean, renewable hydroelectricity. BC Hydro offers customers some of the lowest electricity rates in the world.

## Internal Business Structure

BC Hydro operates under a Lines of Business (LoB) model, consisting of the Generation and Distribution LoBs and the Engineering and Field Services LoBs, which provide services to Generation, Distribution and BCTC. The LoBs have developed a series of service level agreements and accountability frameworks to ensure they work together for the benefit of BC Hydro as a whole.

## Net Income before RSA transfers



**Definition:** Net Income is the total revenue less total expenses before transfers from the Rate Stabilization Account. The targets are based on current cost and revenue drivers and the impact that cost reduction and/or revenue enhancement initiatives will have on these drivers.

**Variance Explanation:** Net Income is better than target primarily as a result of lower finance charges, higher than normal inflows in the BC Hydro reservoirs in the spring of 2003, higher electricity trade margins (the difference between what BC Hydro pays the market for electricity and what it gets for the electricity it sells to the market), and higher domestic revenues due largely to weather impacts and greater than anticipated production in various large industrial sectors.

**Benchmark Comparison:** No benchmark data available.

# Business Overview

Generation has 692 employees and is responsible for the management and operation of BC Hydro's generation assets. This includes 42 dams, 79 units at 31 hydroelectric generation facilities and nine units at three thermal generation facilities, with an installed capacity of 11,209 MW.

Distribution has 841 employees and is responsible for the acquisition and delivery of safe, reliable energy to BC Hydro's customers. Distribution manages 56,400 kilometres of overhead, underground and submarine distribution lines, 876,000 poles and 344,000 transformers, and provides BC Hydro customers with safe, dependable and reliable energy through both demand-side and supply-side options, and extension and connection services.

Engineering has 570 employees and provides project management, maintenance, emergency response, design, environmental support, contracts and construction management services to BC Hydro, the British Columbia Transmission Corporation (BCTC), and to selected external clients.

Field Services has 1,528 employees and provides three key services to BC Hydro and the British Columbia Transmission Corporation (BCTC) in more than 50 communities in the province. The services include emergency response and restoration, maintenance services and smaller construction services (e.g., pole extensions and commissioning of new transformers), which are in support of the investment strategies, work

programs and service level requirements defined by the lines of business and BCTC. In addition, Fleet Services provides vehicle fleet management services.

BC Hydro also has a range of functions combined under the heading "Corporate." Corporate has 249 employees and is responsible for: Regulatory Affairs, Finance, Audit and Treasury, Chief Information Officer, Corporate Human Resources, Corporate Communications and Public Affairs, and Legal.

## Subsidiaries

BC Hydro is extensively involved in energy trade outside the province through its wholly owned power marketing subsidiary, Powerex. Powerex has 131 employees and has grown to be a leading marketer of wholesale energy products and services in western Canada and the western United States.

PowerTech Labs Inc. (PowerTech) has 101 employees and is BC Hydro's research and engineering technology subsidiary, providing a wide range of research and specialized technology support services to electric utilities and international clients.

## British Columbia Transmission Corporation

The British Columbia Transmission Corporation (BCTC) officially began operation on August 1, 2003. BCTC is a separate, Crown corporation responsible for ensuring open and non-discriminatory access to the B.C. transmission system.

For the period August 1, 2003, until BCTC has obtained a BCUC-approved transmission tariff and becomes financially independent, BCTC will operate BC Hydro's Wholesale Transmission Service tariff as an agent of BC Hydro and will be consolidated into BC Hydro's financial statements. BCTC has also prepared its own Annual Service Plan. In mid-2004 BCTC and BC Hydro will make a joint filing to the BCUC to set the rates charged for the use of the transmission system.

## Accenture Business Services for Utilities

In early 2003 BC Hydro signed a 10-year, \$1.27-billion agreement and on April 1, 2003, Accenture Business Services for Utilities (ABSU) assumed responsibility for a number of BC Hydro's back-office and customer care functions for the purposes of maximizing flexibility, focus, and cost-effectiveness. Approximately 1,600 employees permanently transferred to ABSU and now provide support services, customer care, human resource services, building and office services, payroll and accounts payable services, financial systems services and purchasing services to BC Hydro on a contractual basis. ABSU also provides support services and customer care for other customers in the utilities services market in North America.

# Business Overview

## Customers

BC Hydro has a responsibility to provide low-cost, reliable electricity to British Columbians. In an effort to preserve this valuable resource, BC Hydro offers its customers a wide range of Power Smart (demand-side management) programs and services designed to increase energy efficiency and lower operating costs. The company works with contractors and engineers, manufacturers and distributors, and builders and developers to promote the widespread use of energy-efficient technologies. By reducing the energy consumption of its customers, BC Hydro reduces the financial, social and environmental impacts of creating new generating facilities.

## Provincial Public Policy

BC Hydro is a commercial provincial Crown corporation and, as such, plays a role in implementing provincial public policy. During the past year, this was best seen in the continued implementation of the Provincial Government's new Energy Plan. Examples of these activities included the formation of the new British Columbia Transmission Corporation (BCTC), the new Heritage Contract and Stepped Rates proposals taken to the British Columbia Utilities Commission (BCUC), BC Hydro's work with the private sector to acquire new resources from Independent Power Producers and BC Hydro's Vancouver Island Certificate of Public Convenience (CPCN) and revenue requirements applications to the BCUC.

## Enabling Legislation

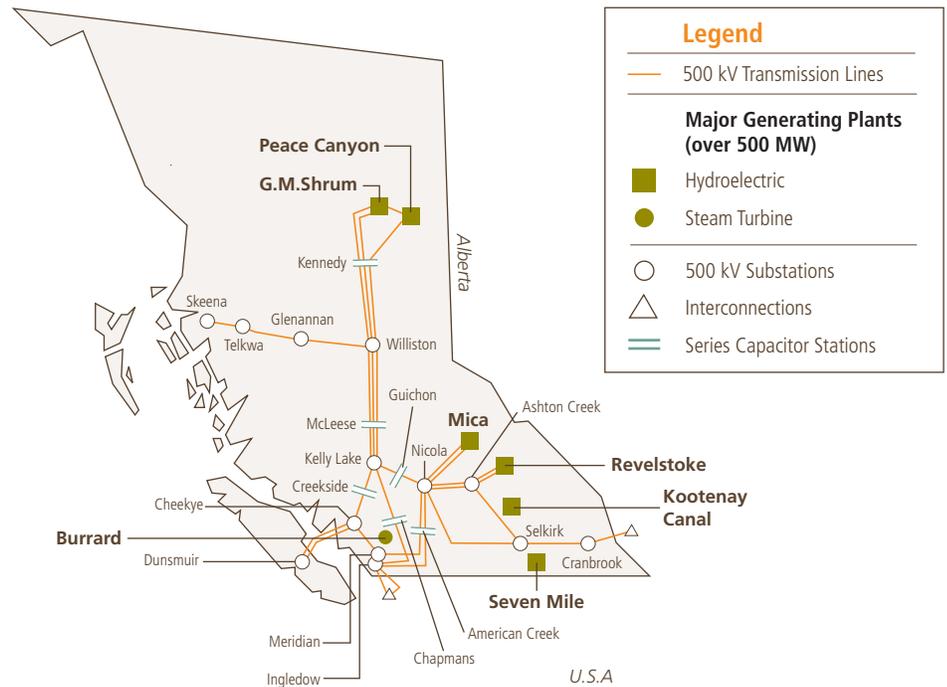
Two key provincial legislative statutes enable BC Hydro's operations. BC Hydro's mandate is provided for under the *Hydro and Power Authority Act*. This Act creates BC Hydro and establishes its general powers and governance.

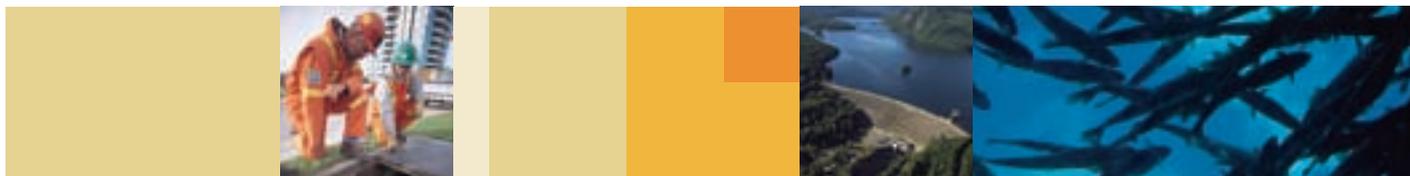
The other piece of legislation is the *Utilities Commission Act*. This Act creates the British Columbia Utilities Commission and establishes the framework for regulation of public utilities. The BCUC is an independent regulatory agency of the Provincial Government operating under

and administering the Utilities Commission Act. The BCUC's primary responsibility is the regulation of the energy utilities under its jurisdiction to ensure that the rates charged for energy are fair, just and reasonable, and that utility operations provide safe, adequate and secure service to its customers.

A number of legislative changes occurred in 2003 and are reflected in BC Hydro's February 2004 Service Plan. The Service Plan is linked from the same web page as this Annual Report.

## 500 kV Transmission System and Major Generating Stations



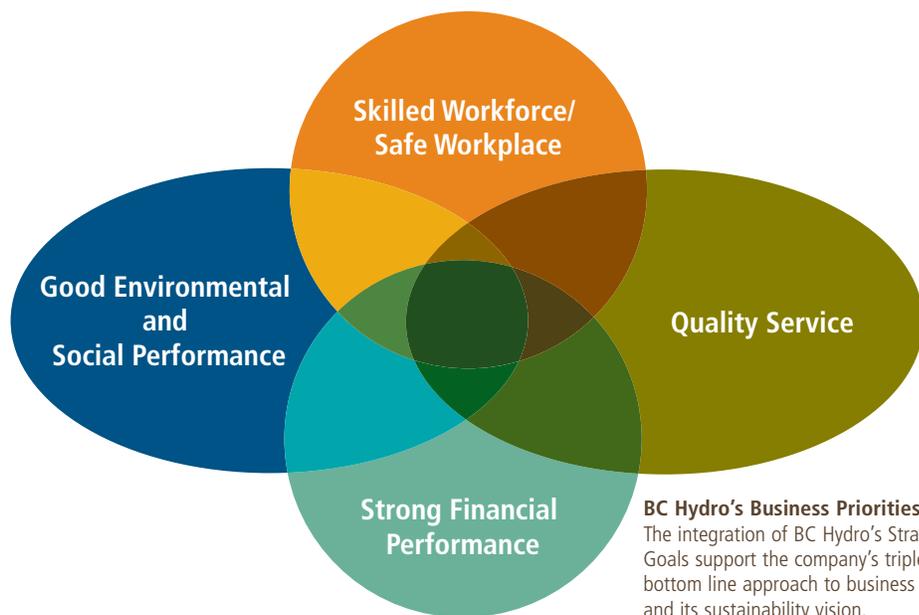


# Report on Performance

**BC Hydro's four strategic goals, referenced in the illustration below, reflect BC Hydro's commitment to managing business across the three bottom lines, and support the company's vision of being North America's leading sustainable energy company. Managing performance, both financial and non-financial, is an integral part of BC Hydro's strategic management process, and integrating the three bottom lines – financial, environmental and social – into business decision-making is an important consideration if the company is to be successful at realizing its vision.**

BC Hydro, along with each of its Lines of Business (LoB) – Generation, Distribution, Engineering and Field Services – and subsidiary – Powerex, has committed to meeting or exceeding the goals and objectives outlined in the Service Plan, and has developed strategies and set performance targets as the baseline to measure results. The LoBs and subsidiaries are responsible for performance within their business areas, and accountable to BC Hydro's overall direction.

This section provides an overview of BC Hydro's 2003/2004 performance in relation to the information provided in BC Hydro's Service Plan, submitted to BC Hydro's shareholder, the Provincial Government, in February 2003.



## Measures Assurance Program

Increasingly, accountability for performance is assessed from a triple bottom line perspective. Assurance on performance information, not just the financial statements, enhances the credibility of the information in annual reports and ensures it is both fair and reliable. BC Hydro's Audit Services group is currently participating in a pilot study to develop assurance standards for

performance measures. Internal audits were conducted for four performance measures – one measure from each Service Plan objective – in 2003/2004. These measures were: Environmental Regulatory Compliance, Reliability, All Injury Frequency and Field Services' Labour Utilization Rate. All internal audits are reviewed by BC Hydro's Audit & Risk Management Committee.

# Report on Performance

## Benchmarking Highlights

BC Hydro undertook 27 benchmarking and best practice initiatives over the last year to focus attention on areas of excellence and improvement; of these initiatives, 22 were completed by year-end, 13 best practice studies and nine benchmarking studies. Each LoB worked to gain knowledge in three to four areas.

### Benchmarking Highlights:

- In April 2004 Innovest Strategic Value Advisors, Inc. (Innovest) completed a benchmarking study that compared BC Hydro's environmental performance with that of 26 North American electric power companies on over 60 different aspects of environmental risk, business opportunity and management strategy. Innovest rates the performance of companies within a given industrial

sector using a scale from AAA (best in class) to CCC (worst in class). BC Hydro received a rating of AAA, ranking number one out of 27 North American electric power companies in the overall EcoValue21™ rating.

- To improve work program delivery, Engineering conducted a work practice review of best practices in engineering with Black & Veatch, a U.S. consulting engineering firm specializing in the power industry. As a result of the qualitative review, Engineering will continue to develop a culture of continuous improvement, will develop strategies for using consultants and appropriate cost/schedule metrics, and will continue to seek opportunities for benchmarking projects versus comparable organizations.

- Between 1999 and 2003, 92 per cent of Generation's installed capacity was benchmarked by Haddon Jackson Associates. These studies showed that BC Hydro's major generating stations benchmark in the first or second quartile of comparable facilities in North America in terms of cost and performance. However, the studies also showed that Generation was under-investing in its facilities. As a result, a new strategy for the maintenance, rehabilitation and replacement of equipment is being put in place and investment in facilities is increasing.

## Public Opinion

### Survey Respondents with Generally Favourable Opinion of BC Hydro

| Percentage | 2003/2004 | 2002/2003 | 2001/2002 | 2000/2001 | 1999/2000 | 1998/1999 | 1997/1998 |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Target     | 60        | 60        | 55        | 60        | 60        | 60        | 58        |
| Actual     | 60        | 61        | 66        | 59        | 63        | 65        | 56        |

The purpose of the Public Opinion measure is to track the public's overall impression of BC Hydro to determine to what extent we have public consent to operate. The measure tracks the results of the survey question "Would you say that your general attitude towards BC Hydro is very favourable, somewhat favourable, somewhat unfavourable, very unfavourable, or are you indifferent towards them?" Poll results sum the "very favourable" and "somewhat favourable" categories. Having recovered from public misperception around increasing natural gas rates and the corporation's relationship with Terasen (formerly BC Gas), the 2002/2003 and 2003/2004 targets have been restored to 60 per cent.

# Report on Performance

## Alignment with Government Strategic Plan

BC Hydro's goals outlined in the following section of this report support the goals in the British Columbia Government's 2003/04 to 2005/06 Strategic Plan.

BC Hydro's Service Plan (linked from the same web page as this Annual Report) provides a detailed look at the alignment.

### PROVINCIAL GOAL: A strong and vibrant provincial economy

#### BC Hydro alignment:

- provides low-cost, reliable electricity
- enhances the competitiveness of industries
- provides responsible, accountable management of public resources
- delivers stable earnings to shareholder

### PROVINCIAL GOAL: A supportive social fabric

#### BC Hydro alignment:

- provides a dividend and other payments every year to the Government to support public services
- provides donations to non-profit organizations throughout the province based on a set of strict qualification criteria

### PROVINCIAL GOAL: Safe, healthy communities and a sustainable environment

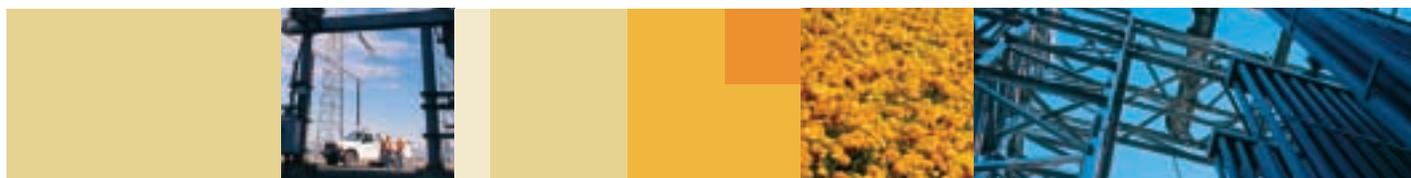
#### BC Hydro alignment:

- supports the voluntary 50 per cent clean energy target for new load growth by entering into "clean" energy contracts with IPPs
- develops the skills and knowledge of BC Hydro's employees and contractors
- provides a safe, healthful and harassment-free workplace
- promotes community safety in and around its facilities

## Total Spending With Significant Indirect Economic Impacts

| Dollars (thousands)                            | 2003/2004      | 2002/2003      | 2001/2002      | 2000/2001 | 1999/2000 |
|--|----------------|----------------|----------------|-----------|-----------|
| Providing public drinking water                | 274.4          | 400.0          | 871.6          | no data   | no data   |
| Maintaining recreational and heritage sites    | no data        | 1,980.4        | 4,239.8        | no data   | no data   |
| Maintaining roads & trail building/maintenance | no data        | 155.7          | 367.1          | no data   | no data   |
| Strategic Research & Development               | 3,287.0        | 3,400.0        | 3,700.0        | 3,800.0   | 4,100.0   |
| <b>Totals</b>                                  | <b>3,561.4</b> | <b>5,936.1</b> | <b>9,178.5</b> |           |           |

Some historic data was unavailable. The 2003/2004 total does not include spending on maintenance on roads, trails and recreational & heritage sites. Spending shown is operation, maintenance and overhead funds and does not include depreciation on capital expenses or external funding leveraged as a result of initial investment by BC Hydro. BC Hydro provides domestic drinking water to generating stations, substations, town sites, recreation sites, visitor centres and to four communities. Overall, these costs declined as systems were divested to local communities, but some increased spending was required to meet the requirements of the B.C. Water Protection Act. The R&D program is expanding from its traditional focus on infrastructure technologies to address all aspects of BCTC's and BC Hydro's business, with a balance of short-, mid-, and long-term objectives and a range of risks. Projects include Intelligent Control of Power Systems, High Voltage Optical Measurement, Life Extension of Transformer Insulation, Oil Leak Detection, the Hydrogen Program, and projects related to improving sustainability at BC Hydro and BCTC. The combined R&D budget for BCTC and BC Hydro in 2004/2005 is expected to be \$10.69 million.



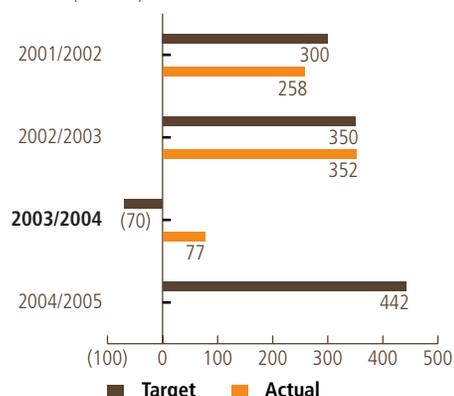
# Report on Performance

## Strong Financial Performance

**Financial performance is a subset of BC Hydro's economic bottom line. In sustainability reporting, economic performance refers to how the company affects the economic interests of and creates value for the stakeholders with whom it has direct and indirect interactions. The purchase of clean and/or green energy from Independent Power Producers through competitive processes is an example of how BC Hydro is stimulating the private sector energy industry economically and providing solid financial value to its customers through competitively priced electricity that helps keep rates as low as possible.**

### Net Income before RSA transfers

Dollars (millions)



**Definition:** Net Income is the total revenue less total expenses before transfers from the Rate Stabilization Account. The targets are based on current cost and revenue drivers and the impact that cost reduction and/or revenue enhancement initiatives will have on these drivers.

**Variance Explanation:** Net Income is better than target primarily as a result of lower finance charges, higher than normal inflows in the BC Hydro reservoirs in the spring of 2003, higher electricity trade margins (the difference between what BC Hydro pays the market for electricity and what it gets for the electricity it sells to the market), and higher domestic revenues due largely to weather impacts and greater than anticipated production in various large industrial sectors.

**Benchmark Comparison:** No benchmark data available.

BC Hydro's objectives to achieve strong financial performance were to target first quartile costs when compared with similar utilities and to strive to deliver stable earnings at the allowed Return on Equity (see Management Discussion and Analysis section of this report for more information on financial performance).

Key strategies employed to accomplish these objectives were to:

- maximize the value of surplus BC Hydro capability
- invest in cost-competitive projects that increase energy and capacity at existing facilities
- manage and optimize asset utilization to create synergies and opportunities, and develop commercially centred asset utilization models
- continue to improve forecasting and risk management capacity to enhance ability to deliver stable earnings
- finalize formation of competitive service organizations/outsourcing to achieve cost efficiencies
- work with regulators and stakeholders to establish rate levels and other regulatory mechanisms to deliver stable earnings

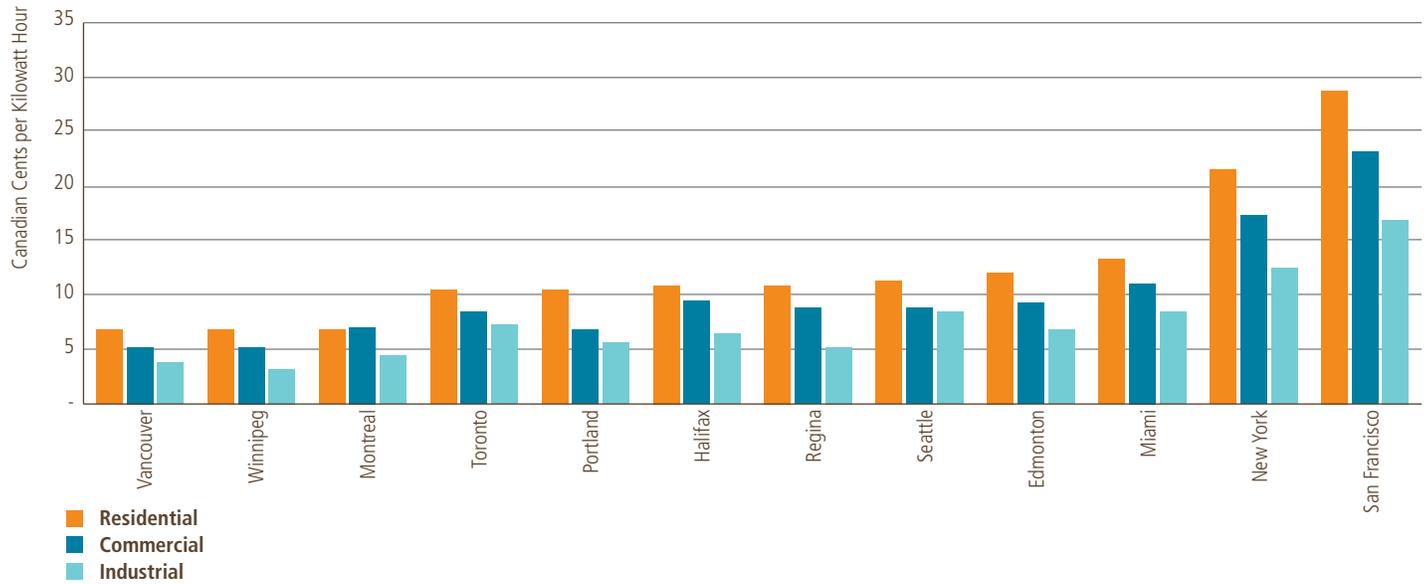
### Operating Environment

BC Hydro's rates have remained unchanged for 10 years and have not kept pace with inflation. The British Columbia Utilities Commission (BCUC) denied the last application for a rate increase in February 1994, and BC Hydro rates were subsequently frozen by a succession of government enactments. During this period, high trade income helped mask the need for any rate increases and BC Hydro's generating capability also exceeded domestic demand. Gross energy requirements to serve domestic load have now grown beyond the capability of BC Hydro's low-cost Heritage resources (see Generation section for information on Heritage Resources). As a result, BC Hydro will meet annual load growth through the acquisition of new resources. BC Hydro has an extensive conservation initiative (Power Smart) in place to help offset expected load growth. Key cost drivers putting pressure on rates and financial well-being are increased costs associated with:

- energy, including new energy supply
- maintaining reliability of the system, given aging assets
- the provision of transmission services via the British Columbia Transmission Corporation
- ensuring safety
- management of environmental and First Nations issues
- pension costs and post-retirement benefits
- finance costs
- demand-side management expenditures

# Report on Performance

## Comparison of Average Rates



\*The source for all data is "Hydro-Quebec – Comparison of Electricity Prices in Major North American Cities," (May 1, 2003).

This chart compares the average residential, commercial and industrial electricity rates, including taxes, of BC Hydro customers with those of customers in other North American cities. Electricity rates are at May 1, 2003 (the most recent year the data was published) and the exchange rate used to convert U.S. dollars into Canadian dollars is CAD \$1 = USD \$0.7048 (the exchange rate in effect on May 1, 2003).

BC Hydro's residential and commercial rates are the lowest in North America, while industrial rates rank second only to those in Winnipeg.

### Energy Plan Implementation

BC Hydro receives external direction from the province through its Energy Plan and by the legislated requirements of the Utilities Commission Act governed by the British Columbia Utilities Commission.

The four cornerstones of the Energy Plan are:

- low electricity rates and public ownership of BC Hydro
- secure, reliable supply
- more private sector opportunities
- environmental responsibility and no nuclear power sources

BC Hydro has and continues to align its energy planning, acquisition and overall management of supply to reflect these objectives. In response to the Provincial Government's Energy Plan, BC Hydro has committed to meet 50 per cent of new load growth (less demand-side savings) with clean energy from the private sector and from Resource Smart projects.

# Report on Performance

## KEY ALLIANCES

### Accenture Business Services for Utilities

Accenture Business Services for Utilities (ABSU) assumed responsibility for the performance of certain functions for BC Hydro on April 1, 2003. These functions include: Customer Services, Information Technology, Human Resources, Financial Systems, Purchasing, and Building and Office Services. The agreement represents a commitment on BC Hydro's part to outsource services of \$1.27 billion over 10 years in exchange for contractually committed savings of \$250 million over the same period. The contract also benefits BC Hydro by ensuring that the current performance and service levels are retained, or increased to first-quartile performance, by the end of the third year of the contract.

BC Hydro continues to receive service on most of the defined metrics at the levels received prior to the outsourcing agreement and, in some cases, it has exceeded past levels. Financially, the actual expenditure for in-scope services at the end of Year 1 of the contract was on target at \$144.5 million, indicating that the \$9.7 million in savings budgeted in Year 1 of the contract were realized.

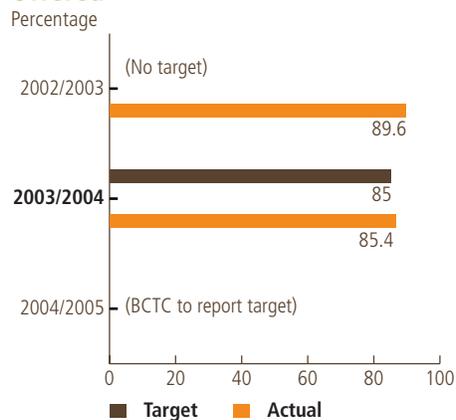
### British Columbia Transmission Corporation

The past year has seen the successful establishment of the British Columbia Transmission Corporation (BCTC). BCTC has been set up as a provincial Crown corporation, in response to the Provincial

Government's Energy Plan, which seeks to provide open and non-discriminatory access to BC Hydro's transmission system. Like BC Hydro, BCTC is regulated by the BCUC. BC Hydro retains ownership of its transmission system while BCTC assumes the responsibility for planning, operating and managing the system. The relationship between BC Hydro and BCTC is governed by a number of Key Agreements, which articulate the roles

and responsibilities with respect to the transmission system. These agreements received designation by the Provincial Government Cabinet on November 20, 2003. BC Hydro and BCTC are continuing to manage the transition of responsibility for the transmission system. In support of this, negotiations are currently being undertaken to establish a number of service contracts between BC Hydro and BCTC.

### Achieving Transmission Capacity Offered

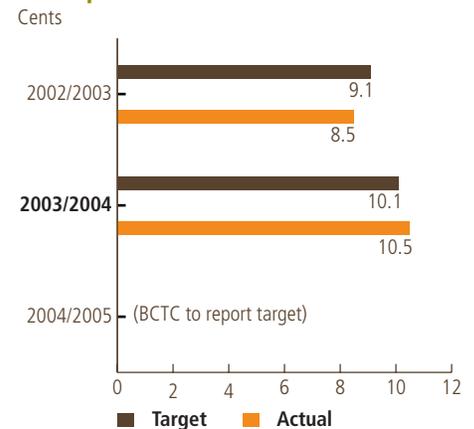


**Definition:** Achieving Transmission Capacity Offered is the BC Hydro transmission operation, maintenance and investment activity constraints on transmission capacity offered in active energy trading hours. On a rolling average basis, the number of intertie months for imports and exports on the Alberta and Bonneville Power Authority (BPA) interties are tracked where BC Hydro functions within constraint targets. The targets have been based on keeping within constrained operation estimates.

**Variance Explanation:** Target achieved.

**Benchmark Comparison:** No benchmark data available.

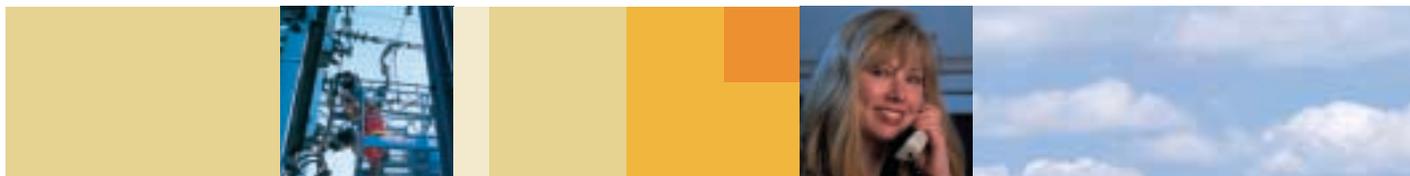
### OMA per GWh-km



**Definition:** OMA/GWh-km is the operating, maintenance and administrative (OMA) expenses divided by the gigawatt hours (GWh) transmitted over kilometres (km) of Transmission circuit. GWh include both domestic and Powerex sales.

**Variance Explanation:** GWh delivered is under plan by 4,047 GWh resulting in higher unit cost.

**Benchmark Comparison:** The OMA per GWh-km measure itself does not have an industry benchmark. Industry data for related measures for 2003/2004 is not yet available.



# Report on Performance

## Quality Service

**To ensure quality service BC Hydro is focusing on customer satisfaction and service reliability. Key strategies employed to accomplish these objectives were to:**

- ensure that existing and new facilities meet the current and future needs of stakeholders through the investment of appropriate levels of maintenance and capital
- understand customers' needs and provide the appropriate products and services

Achieving quality service begins with developing an understanding of customers' needs and expectations, then building and maintaining lasting, strong relationships with them. Accenture Business Services for Utilities (ABSU) and the BCTC now deliver some key elements of customer service on behalf of BC Hydro. BC Hydro is accountable for strategically managing and coordinating all customer interactions in a way that creates service excellence while keeping rates low.

BC Hydro's generation and wires assets have reached an age where maintenance and capital spending need to increase if the company is to sustain operational reliability and triple bottom line performance. A customer-based reliability strategy is being developed in Distribution to better understand customers' needs and expectations. An overall asset maintenance strategy based on

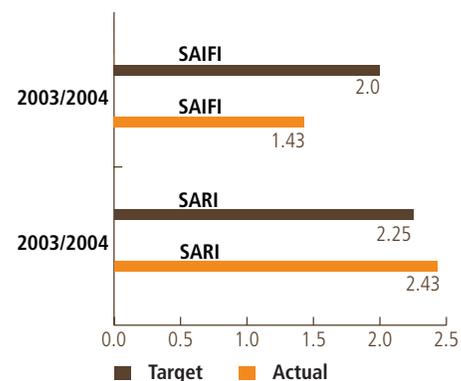
equipment health rating, reliability-centred maintenance and performance testing is under development in Generation to ensure that the cost and performance of the Heritage assets remain first-quartile.

### Customer Care

BC Hydro has enjoyed high satisfaction ratings with its customers, and aims to continue this trend under its new business structure. BC Hydro is revisiting the corporation's vision for serving customers, clarifying customer needs and expectations, and identifying key priorities for refining programs and offerings to customers. Through agreements with ABSU and BCTC, BC Hydro is directing the services and levels of performance required to meet customers' needs and expectations, and is closely monitoring performance to ensure they are met.

BC Hydro also maintains a face-to-face relationship with its large industrial and commercial customers through its Key Account managers, and offers all customers ways to maximize value from their electricity use through Power Smart programs. It is also forging strong business relationships with independent power producers to ensure the long-term, reliable supply of electricity for customers.

### Reliability: Delivery Point, SAIFI/SARI



**Definition:** Delivery Point SAIFI and SARI are measures of Transmission system reliability. SAIFI (System Average Interruption Frequency Index) is defined as the average number of sustained interruptions that a transmission delivery point experiences during the year. SARI (System Average Restoration Index) is defined as the average duration of a transmission delivery point interruption. SARI represents the average restoration time for delivery point interruptions.

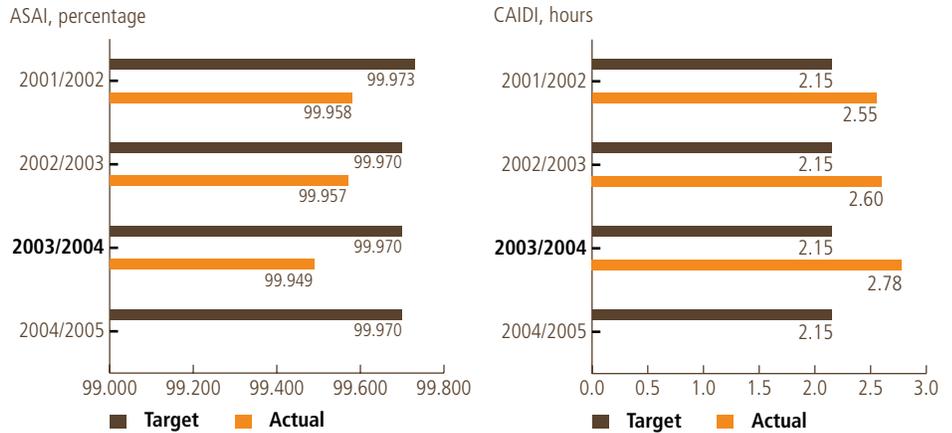
**Variance Explanation:** SAIFI actual was below target due to mitigation of animal-triggered outages, Vancouver Island supply outages, vegetation-caused outages, and maintenance procedures of major equipment. SARI actual was very close to target. 2003/2004 is the last year BC Hydro will report on BCTC's performance results. See BCTC Annual Report for performance information. The average restoration time can be impacted by weather, the type of equipment involved in outage and the severity of the outage.

**Benchmark Comparison:** Inconsistent use of definitions and data gathering methodologies across the industry make comparisons difficult. The Canadian Electricity Association has not yet made its 2003 data available.

# Report on Performance

A new approach is needed for measuring reliability performance, taking into account customers' needs and expectations. To address this issue, a number of initiatives are underway. A Customer-Based Reliability Strategy is being designed to tailor reliability targets for specific customer segments by incorporating customer expectations in asset spending decisions. Reliability-centred techniques have been applied to maintenance programs in an effort to optimize operating and capital spending. The goal is to help determine an optimal balance between the levels of maintenance investment and the capability of the system to deliver reliable power. The PowerOn system, rolled out to all of BC Hydro's service territory this year, will also help to improve trouble call response time.

## Reliability: Average System Availability Index (ASAI), Customer Average Interruption Duration Index (CAIDI)

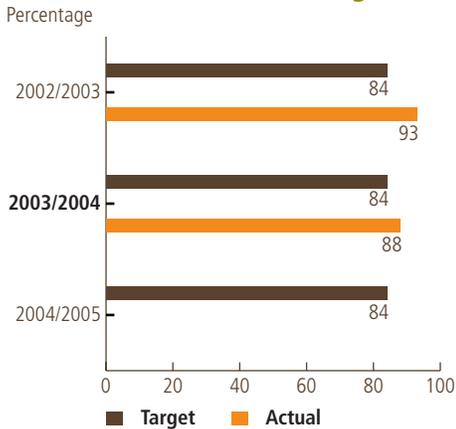


**Definition:** Reliability is a combination of Average System Availability Index (ASAI) and Customer Average Interruption Duration Index (CAIDI). ASAI is the percentage of time the power system is available. CAIDI is the average number of hours per interruption. These indices are electric utility industry standards. CAIDI and ASAI are reported on a rolling 23-month average.

**Variance Explanation:** Reliability was worse than target due to a number of factors including: increased levels of adverse weather (the McLure forest fire was caused by extremely hot and dry weather); increased equipment failures related to aging infrastructure; increased customer density resulting in the system being driven harder; and increased outage restoration time (traffic congestion in urban areas). The ASAI result means that over the 12-month period, the system was unavailable for a total of 4.5 hours.

**Benchmark Comparison:** No benchmark data available.

## Customer Satisfaction Rating



**Definition:** Customer Satisfaction Rating is a composite indicator. Thirty per cent of the measure comes from a survey using all customers as the population from which to draw a random sample. The other 70 per cent comes from transactional surveys with customers who have had a service interaction with BC Hydro.

**Variance Explanation:** Customer Satisfaction came in above target largely due to the high level of satisfaction expressed by residential customers not only in the overall survey but also with the customer call centre. The results declined slightly since the last year's survey due to a drop from the 99 per cent to 94 per cent satisfaction expressed by BC Hydro's customers with hydro purchases greater than \$200,000 per year. The main reason for the drop was the reduction in incremental Power Smart opportunities over and above those already identified for these customers in prior periods. Furthermore, it is recognized that a 99 per cent satisfaction rating is not attainable year to year.

**Benchmark Comparison:** The targets correspond closely to first quartile performance in the Ipsos-Reid National Omnibus Survey that BC Hydro is using as its proxy benchmark.

# Report on Performance

## Ensuring Long-term Supply: 2004 Integrated Electricity Plan

BC Hydro has developed an Integrated Electricity Plan (IEP), which presents a long-term plan for acquiring demand-side and supply-side electricity resources required to meet anticipated customer demand. The IEP was completed in March 2004. The priority objectives of the IEP are the same as the Province's Energy Plan:

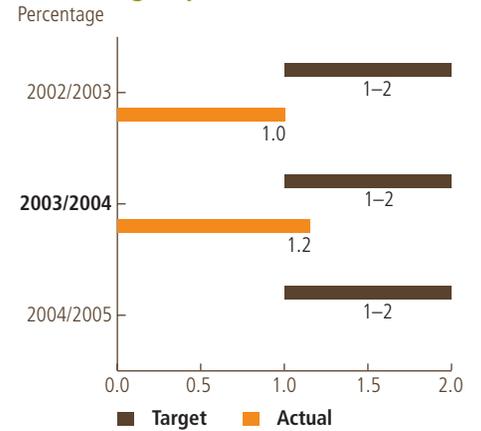
- low electricity rates and public ownership of BC Hydro
- secure, reliable supply
- private sector development of new electricity generation
- environmental responsibility and no nuclear power sources

The Action Plan section of the IEP commits to ongoing updates and identifies initiatives that BC Hydro plans to undertake over the next four years to enable the provision of reliable, least-cost electricity supply in an environmentally responsible manner over the next 20 years.

These actions are:

- The continuation of current programs – for example, BC Hydro will confirm the value of supply-side and demand-side programs
- New projects and initiatives – BC Hydro will continue to study Resource Smart options at Revelstoke and Mica generating stations and initiate an IPP call in fall 2004
- Future resource additions requiring near-term evaluation – BC Hydro will undertake actions to address items that need further research and consideration, such as Power Smart capacity-based programs, and the Peace River Site C hydroelectric project
- Electricity Planning and Portfolio Management – BC Hydro will continue to improve its electricity planning and portfolio management processes such as forecasting and revising modelling tools

## Sustaining Capital Ratio



**Definition:** Sustaining Capital is the sustaining capital expenditures as percentage of replacement value of capital assets. It is a predictive measure of service performance. Its purpose is to indicate BC Hydro's future ability to maintain high system reliability by ensuring business-sustaining investment to maintain the health of its assets.

**Variance Explanation:** The Sustaining Capital Ratio came in at the lower end of the target range. BC Hydro increased its sustaining capital spending in 2003/2004 to help ensure the health of its aging assets is maintained.

**Benchmark Comparison:** No benchmark data.

# Report on Performance

Through the development of this IEP, BC Hydro has sought to review and confirm its approach to planning from the perspective of current industry reliability standards, customer needs, First Nations and stakeholder expectations, and a comprehensive evaluation of risks and uncertainties. This approach will enable BC Hydro to be more responsive to the changing energy environment and build the foundation to continuously improve each IEP as future iterations are undertaken.

The IEP Action Plan is a key component of BC Hydro's Resource Expenditure and Acquisition Plan (REAP). The other components of the REAP are BC Hydro's plan for capital expenditures together with the capital and OMA plan for demand-side management (Power Smart) activities and contracted energy purchase expenditures. On March 31, 2004, BC Hydro filed the REAP with the British Columbia Utilities Commission. BC Hydro is seeking approval of the REAP by the BCUC. This will enable BC Hydro pursue its IEP Action Plan which involves maintaining a number of viable options for meeting customer requirements over the long term.

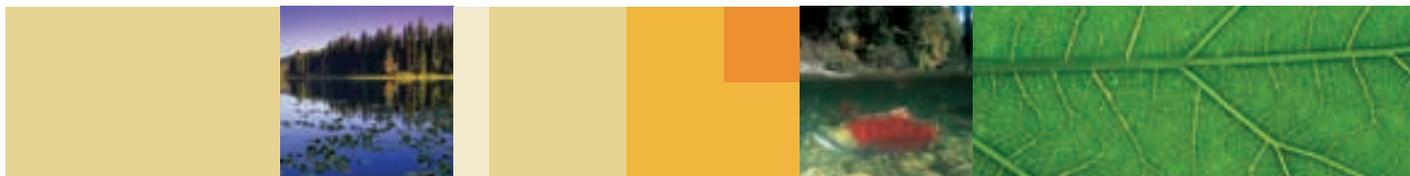
## Customer Choice

A focus in the Provincial Government's Energy Plan was to build customer choice, specifically in the area of stepped rates for industrial customers. Stepped rates use different price levels so that higher consumption can be priced at higher rates. In late 2003 the BCUC concluded a hearing on this subject and recommended that stepped rates be implemented. The government accepted these recommendations and BC Hydro is currently working with customers to implement a stepped rate program in the spring of 2005.

## Billed Sales by Region

| Percentage of Total Sales | 2003/2004    | 2002/2003 | 2001/2002 | 2000/2001 | 1999/2000 | 1998/1999 | 1997/1998 |
|---------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Lower Mainland</b>     | <b>47.5</b>  | 47.5      | 47.6      | 46.6      | 47.0      | 46.7      | 48.5      |
| <b>Northern Region</b>    | <b>18.7</b>  | 18.5      | 18.7      | 19.4      | 20.0      | 20.1      | 20.2      |
| <b>Southern Interior</b>  | <b>12.5</b>  | 12.5      | 12.6      | 12.3      | 10.9      | 11.6      | 11.8      |
| <b>Vancouver Island</b>   | <b>21.3</b>  | 21.5      | 21.2      | 21.7      | 22.0      | 21.6      | 19.5      |
| <b>Total</b>              | <b>100.0</b> | 100.0     | 100.0     | 100.0     | 100.0     | 100.0     | 100.0     |

Billed sales are not weather adjusted and include sales to other utilities. BC Hydro's total billed sales have increased by about 16 per cent between 1997/1998 and 2003/2004. The Lower Mainland has the largest share of total billed sales, as most of BC Hydro's customers reside in this area. Changes in billed sales in the Northern and Southern regions are influenced by changes in B.C.'s economy linked mainly to commodity export prices. The Northern Region's share of total billed sales have declined by 1.5 per cent over the past seven fiscal years, reflecting slower growth in the mining and forestry sectors. Vancouver Island sales can fluctuate due to changes in the pulp market conditions and residential growth. Vancouver Island's share of total billed sales have increased by 1.8 per cent due mainly to residential growth.



# Report on Performance

## Good Environmental and Social Performance

**In fiscal 2004 BC Hydro achieved good performance results in its management of environmental and social issues. This was the case not just for specific results like environmental management systems and Resource Smart, but for longer-term programs such as community and stakeholder relationships. Through the new Integrated Electricity Plan, BC Hydro has also started a trend towards multi-stakeholder consultation processes.**

### ENVIRONMENTAL RESPONSIBILITY

#### Environmental Management Systems

BC Hydro's Environmental Management System (EMS) is a comprehensive framework to help systematically manage daily operations in an environmentally responsible manner, based on ISO 14001, the internationally recognized standard for environmental management systems. The EMS consists of five distinct but integrated management systems: one each for Generation, Distribution, Engineering, Field Services and Business Services (Facilities Management, Purchasing and Property Services). Each of the EMSs feeds into the overall BC Hydro Corporate EMS. The Corporate EMS is the master document that integrates all modules into a comprehensive system for BC Hydro. The British Columbia Transmission Corporation (BCTC) EMS is in place and functioning independently of BC Hydro.

Key highlights for this past year:

- BC Hydro undertook an EMS Best Practice study in early 2004. Although the study determined that there is no

one definitive "best practice" EMS, BC Hydro still learned from the results. It will be focusing on opportunities to better align its management systems, improve the coordination of responsibilities, automate certain EMS processes and review the costs associated with further ISO certification in future.

- The Fort Nelson Generating Station was registered ISO 14001 (International Standards Organization) certified in the summer of 2003; the Burrard and Prince Rupert Generation Stations were certified previously. Generation is working on combining all three registrations into one overall thermal registration.
- The most notable improvement in the Distribution, Field Services and Engineering Services EMS has been the application of a Managers' Quarterly Environmental Reporting system (QER). The system is an online database that enables managers to schedule their EMS responsibilities and report quarterly on progress. The QER includes environmental work practices, environmental training and scheduling, and field checks and inspections. The QER system was implemented in April 2003 and has been utilized during fiscal 2004.

### ENVIRONMENTAL RESPONSIBILITY POLICY

BC Hydro's Environmental Responsibility Policy has been revised to recognize the interests of First Nations in resource use decisions as being distinct from stakeholders, and to state the commitment that BC Hydro will publicly report on environmental performance.

*Policy:* Consistent with our vision of becoming a leading sustainable energy company in North America, BC Hydro is committed to producing, acquiring and delivering electricity in an environmentally, socially and financially responsible manner.

BC Hydro's environmental priority is to avoid causing impacts. However, we know that operating our energy system has impacts on the environment and on other users of publicly shared resources. Therefore, where impacts are created, we will work to reduce them, enhance affected habitat, and sustain resources over the long term.

#### Specifically, BC Hydro will:

- meet or exceed environmental requirements defined by legislation, regulation, government directives and guidelines, and our commitments and agreements
- better understand the effects of our business as a means to continuously improve our environmental performance
- work cooperatively with stakeholders and First Nations on resource use, management and conservation to increase public benefits from affected resources and
- publicly report on our environmental performance

# Report on Performance

## Environmental Commitment & Responsibility Program

As a member of the Canadian Electricity Association (CEA), BC Hydro is an active participant in the Environmental Commitment & Responsibility program (ECR), launched by CEA members in 1997. Participants in the ECR program must make a commitment to continuous environmental improvement. For BC Hydro, participation in the ECR Program means continuing with existing environmental initiatives, improving performance monitoring and reporting, and maintaining its Environmental Management System to a level consistent with the ISO 14001 standard.

## Environmental Incident Reporting

BC Hydro's environmental incidents are internally reported, communicated and closed through the intranet-based Environmental Incident Reporting (EIR) system. Incidents filed in the EIR system are summarized quarterly and provided to senior management and the Audit and Risk Management Committee of the Board. The direct responses to incidents, root cause analyses and corrective actions (where applicable) are addressed through the Lines of Business EMSs. In fiscal 2004 the total number of incidents recorded in the EIR was 131, a significant decrease from the 157 incidents recorded in fiscal 2003.

## EXAMPLES OF SIGNIFICANT ENVIRONMENTAL INCIDENTS:

### Buntzen Powerhouse Spill – October 2003

Unusually heavy rains (a one in 200-year event) caused the flooding of the old Buntzen Powerhouse and approximately 2,000 litres of lube oil was released from equipment in the powerhouse. Clean-up efforts were initiated immediately and no environmental damage resulted from the spill.

### Keenleyside Dam Fisheries Investigation – Settlement in December 2003

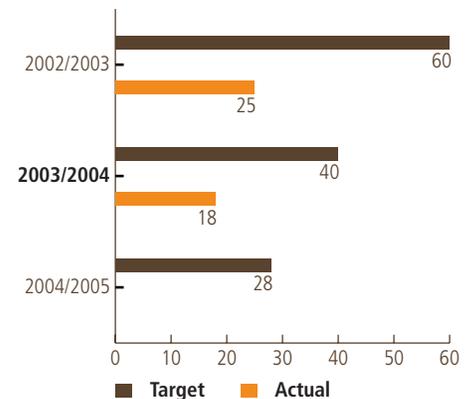
In December 2003, following negotiations between BC Hydro and the Department of Fisheries and Oceans (DFO), the investigation of the July 2001 fish stranding and mortality incident at Keenleyside Dam was settled. Per terms of the agreement, no charges were laid. BC Hydro received a warning letter from DFO and is required to provide \$375,000 in funding over three years for habitat-related work in the Columbia region.

### New Westminster Distribution Transformer Spill – March 2004

Approximately 730 litres of PCB-free insulating oil was released from a failed distribution transformer. BC Hydro crews recovered all of the spilled oil on the site and appropriate provincial agencies were notified.

## Environmental Regulatory Compliance

Number of Incidents



**Definition:** Environmental Regulatory Compliance is the number of externally reportable, preventable environmental incidents. An environmental incident is an incident that has caused, or has the potential to cause: environmental damage; adverse effect on fish, wildlife, air quality or other environmental resources; adverse publicity with respect to the environment; and/or legal or regulatory action (including ticketing) with respect to violation of statutes or environmental damage. This is a subset of the total number of incidents reported on BC Hydro's Environmental Incident Reporting (EIR) system. The targets for incidents were derived from historical rates as well as increased pressure by regulatory agencies. BC Hydro expects that the reduction should result from continually improving management practices.

**Variance Explanation:** Results are lower than the target but close to the normal historical variability. Of the 18 incidents that qualified as preventable (13 human error, five equipment failure), none were characterized as "severe." For this type of measure there is an inherent risk of unreported incidents. BC Hydro is currently reviewing its controls to attempt to ensure that all applicable incidents are reported.

**Benchmark Comparison:** No benchmark data available.

# Report on Performance

## Compliance Audits

Compliance audits, referred to as Operational Environmental Reviews (OERs), are the responsibility of each LoB. Distribution conducted 13 OERs, Generation conducted five OERs and Transmission conducted 21. Common findings pertain to issues such as spill preparedness and improper labelling and storage of wastes.

## Rock Bay Remediation Project

BC Hydro is partnering with Transport Canada to remediate the Rock Bay property, located on Victoria's Upper Harbour. The property is the only significantly contaminated site that BC Hydro owns. The 3.2 hectare site and Rock Bay sediments are contaminated with coal tar from the historic operation of a coal gasification plant. As co-owners, BC Hydro and Transport Canada propose to fully remediate the site through the removal of contaminated soil and sediment at a cost of \$35 million. The City of Victoria and the community will benefit from the return to full use of a prime waterfront site. The consultation on the project has been positive to date.

## Compensation and Restoration Programs

Three programs, managed by Generation, are in place to mitigate historic impacts on fish and wildlife habitat resulting from the construction of hydroelectric facilities. Established by BC Hydro and the now-named Ministry of Water, Land and Air Protection (MWLAP), the programs involve multi-stakeholder consultation, priority research projects and other compensation efforts.

### • Columbia Basin Fish and Wildlife Compensation Program

The Columbia Basin Fish and Wildlife Compensation Program (CBFWCP) operates in the Canadian portion of the Columbia Basin. In fiscal 2004 BC Hydro committed \$3.7 million to the program; a total of 28 fish and 19 wildlife projects were funded with over 150 partners.

### • Peace-Williston Fish and Wildlife Compensation Program

The Peace-Williston Fish and Wildlife Compensation Program (PFWWCP) operates within the watersheds of the Williston and Dinosaur reservoirs in north central B.C. In fiscal 2004 BC Hydro committed \$1.1 million to the program for the funding of 19 fish projects and 13 wildlife projects.

### • BC Hydro Bridge Coastal Restoration Program

Initiated in 1999, the BC Hydro Bridge Coastal Fish and Wildlife Restoration Program (BCRP) funds projects to restore fish and wildlife populations and habitat in the Coastal Generation Area. This area includes 15 watersheds in the Fraser Valley, Vancouver Island, Coastal, Bridge River and Shuswap. In fiscal 2004 BC Hydro committed \$1.6 million to the program for the funding of 20 fish and wildlife projects.

## Warning Letters Received from Regulators

| Number                  | 2003/2004 | 2002/2003 |
|-------------------------|-----------|-----------|
| <b>Letters received</b> | <b>2</b>  | <b>0</b>  |

BC Hydro is required by law to report to the regulatory agencies (e.g., Ministry of Water, Land and Air Protection, Environment Canada) the environmental incidents that fall into the agencies' reporting requirements. During 2002/2003, no incidents resulted in the issuance of warning letters or charges by regulatory agencies. Letters received in 2003/2004 were from Department of Fisheries & Oceans, one respecting a reduced water flow incident at Keenleyside that occurred in 2001 and the other, which was disputed, respecting transmission-related work in 2002 near the Knight Street Bridge. No charges were laid. The first year to report this indicator was 2002/2003.

## CASE STUDY: UPPER COLUMBIA WHITE STURGEON RECOVERY INITIATIVE

BC Hydro has committed over \$2.1 million to the Upper Columbia River White Sturgeon Recovery Initiative since 2000 to help restore the white sturgeon population on B.C.'s portion of the Columbia River. The white sturgeon is a unique, native fish species that is being threatened with extinction. The causes of the white sturgeon's decline are not fully understood. However, in the last 125 years, human development, construction of hydro-electric dams, changes in flow patterns, loss of habitat and harvesting in the Columbia River have led to its decline and "critically imperiled" population status.

In 2002 an Upper Columbia White Sturgeon Recovery Plan was produced and adopted by consensus. The recovery plan identifies short-, medium- and long-term objectives to prevent the disappearance of sturgeon in the Columbia Basin and establishes a stable age structure in the population over the next 50 years. Over 25 stakeholders, including government, aboriginal, industrial and environmental organizations, and concerned citizens, are working together on this white sturgeon recovery initiative for the Upper Columbia River.

## AIR MANAGEMENT

### Air Emissions and Greenhouse Gas (GHG) Management

BC Hydro has developed a multi-faceted strategy for GHG emissions focused on demand-side management, operational efficiencies and clean energy. These measures provide multiple benefits: lower greenhouse gas emissions, a more robust generation system, lower costs and reduced liability under future GHG regulations.

BC Hydro's air and GHG emissions are tracked and reported on a calendar year basis in line with regulatory expectations. For the 2003 calendar year, emissions remained very low with total electricity-related emissions of approximately 1.2 Mt (million tonnes) of which 300 kt

(thousand tonnes) was from BC Hydro facilities, with the remainder from IPPs and imports:

- low usage of Burrard Generating Station has kept BC Hydro emissions low
- net imports accounted for 735 kt of GHG emissions
- Power Smart clean energy purchases and Resource Smart initiatives have helped avoid at least 2,700 kt of emissions over the year

The federal government recently reconfirmed support for the Kyoto Protocol and intends to advance domestic GHG regulations. Legislation is expected to be tabled in late 2004 and is intended to meet a 2008 implementation schedule.

Several of BC Hydro's thermal generating stations meet the federal government definition of a large final emitter of greenhouse gases (see Glossary) and will be covered by federal emission reduction standards. Large final emitters will have access to a domestic emissions trading system and offsets derived from emission reduction projects not covered by regulation. For BC Hydro, this increased clarity means that risk around this issue has been reduced.

For more information on air emissions, see GRI Comparative Index link on the Annual Report home page.

# Report on Performance

## LAND MANAGEMENT

BC Hydro has thousands of kilometres of power lines traversing B.C.'s landscape, hundreds of facilities located throughout the province, and many tonnes of materials that must be transported each day. The company adheres to standardized procedures for vegetation management in and around its facilities and along power rights-of-way to maintain safe, reliable delivery of power.

## Recycling and Waste Management

In 2003 BC Hydro recycled 2,788 tonnes of non-hazardous materials, down slightly from 2,863 tonnes the previous year. Materials included 1,207 tonnes of scrap metal, 560 tonnes of wood from poles, 522 tonnes of ceramic insulators, 311 tonnes of paper, 65 tonnes of cardboard, 66 tonnes of electronic devices, and smaller quantities of fluorescent tubes, batteries and other materials.

## PCBs

Distribution continued its long-standing programs to discover and manage pollution caused by past practices such as fuel spills at diesel generating stations, as well as to identify PCB contamination remaining in older transformers. In 2003:

- Distribution investigated the presence or extent of sub-surface contamination at diesel generating stations and three pole yards.
- Additional contamination was discovered at the site of the former diesel generating station at the Tofino Airport. In partnership with Transport Canada, remediation of the site will continue into the current year to bring it up to provincial standards.
- A representative portion of the distribution transformer population was tested to help determine remaining levels of PCB contamination in insulating oil throughout the province. This testing provides a sound basis to manage the ongoing replacement of older units.

## Birds and Wildlife

BC Hydro made a loan of \$1 million to the Columbia Basin Fish and Wildlife Compensation program to purchase a property in the East Kootenays, a 4,037 hectare site containing eight different habitat types. With over 124 hectares of wetlands, this habitat type supports more than 100 species of birds and other wildlife. To date, four blue-listed and three red-listed species at risk have been inventoried.

In November 2003 BC Hydro officially joined the Canadian Intermountain Joint Venture (CIJV), a multi-faceted partnership of B.C.-based resource industries, conservation organizations, academia and government agencies. The CIJV was formed to address the challenges of sustaining healthy populations of birds and other wildlife while ensuring the viability of other uses of the landscape.

## Total Land Area Owned or Managed by BC Hydro

| Square Kilometres                                   | 2003/2004    | 2002/2003 | 2001/2002 | 2000/2001 | 1999/2000 |
|---|--------------|-----------|-----------|-----------|-----------|
| Transmission Rights of Way                          | 776.5        | 776.5     | 765.3     | 765.3     | 756.6     |
| Distribution Rights of Way                          | 338.6        | 324.6     | 326.7     | 321.4     | 318.9     |
| Reservoir and Recreational Facilities and Buildings | 2,708.9      | 2,710.9   | 2,710.9   | 2,710.9   | 2,710.9   |
|   | 567.5        | 567.4     | 567.4     | 567.4     | 567.4     |
| <b>Total Land Area</b>                              | <b>4,391</b> | 4,379     | 4,370     | 4,365     | 4,354     |

Totals shown are estimated, as of March 31 of the noted year. Different average rights-of-way widths are assumed depending on whether the line is transmission (higher than 69 kV) or distribution (under 69 kV). Some of the Reservoir and Recreational areas may include land that is permanently or temporarily flooded. Area decreased compared to last year because of the decommissioning of the Coursier Dam and increased due to an increase in distribution service area, with the net effect of a marginal increase in area this year over last.

# Report on Performance

## Species at Risk

The federal *Species at Risk Act (SARA)* was proclaimed on June 5, 2003, and will be entirely in force on June 1, 2004. The Act focuses on preventing species from becoming at risk and the recovery of species at risk and their habitat.

BC Hydro's strategy for dealing with SARA issues has been to develop internal policies, work with provincial and federal regulators and engage in recovery planning, stewardship and partnership agreements. Actions to address SARA include:

- the adoption of Statement of Strategic Intent for Species at Risk
- the development and use of a database and GIS system to correlate the locations of species at risk with the location of BC Hydro facilities
- the development of internal protocols and training to enable consistent and cost-effective approaches to preventing and avoiding impacts on SARA
- sponsorship of a Species at Risk conference in March 2004 in Victoria, B.C.

## WATER MANAGEMENT

BC Hydro's Generation line of business manages and operates 42 dams, 79 units at 31 hydroelectric generation facilities and nine units at three thermal generation facilities, with an installed capacity of 11,209 MW. About 90 per cent of BC Hydro's generation is produced by hydropower.

### Water Use Planning

The development of a Water Use Plan for each of Generation's hydroelectric facilities strikes a modern balance of economic, environmental and social water use interests. Initiated in 1998, the Water Use Planning program has approached water management decision-making through inclusive consultation and the explicit assessment of operating alternatives that consider a diverse range of water use interests.

By the end of fiscal 2004, consultation was complete on 20 of 23 Water Use Plans and 18 draft Water Use Plans were written and submitted to the Comptroller of Water Rights. Also, preparation had been made for the implementation of new water licence orders, which will be issued by the Comptroller of Water Rights to implement the Water Use Plans.

The six-year, \$27 million capital project for drafting Water Use Plans will conclude in fiscal 2005. There will be a smooth transition to the new licence requirements which will include operational changes, construction of physical works and monitoring programs for better understanding of environmental and social interests.

Some Water Use Plans will increase power value from the generating facilities. Others will result in a loss in value which will be offset by a reduction in water rental fees payable to the province.

# Report on Performance

## Status of Water Use Planning

| Watershed         | Date Filed with Water Comptroller |          | Level of Consensus Achieved |          |  |
|-------------------|-----------------------------------|----------|-----------------------------|----------|--|
|                   | Actual                            | Forecast | Substantial                 | Complete |  |
| Aberfeldie        | Dec.03                            | filed    | Yes                         | Yes      |  |
| Alouette          | Sep.96                            | filed    | Yes                         | Yes      |  |
| Ash               | Oct.03                            | filed    | Yes                         | Yes      |  |
| Bridge/Seton      | Dec.03                            | filed    | Yes                         | Yes      |  |
| Campbell River    | not yet filed                     | Apr.04   | Yes                         | Yes      |  |
| Cheakamus         | Oct.03                            | filed    | Yes                         | No       |  |
| Clayton Falls     | Nov.03                            | filed    | Yes                         | Yes      |  |
| Clowhom           | Dec.03                            | filed    | Yes                         | Yes      |  |
| Columbia          | not yet filed                     | Oct.04   |                             |          |  |
| Coquitlam/Buntzen | Sep.03                            | filed    | Yes                         | Yes      |  |
| Duncan            | not yet filed                     | Oct.04   |                             |          |  |
| Elko              | Nov.03                            | filed    | Yes                         | Yes      |  |
| Falls River       | Dec.03                            | filed    | Yes                         | Yes      |  |
| Jordan River      | Apr.02                            | filed    | Yes                         | Yes      |  |
| Kootenay Canal    | not yet filed                     | Deferred |                             |          |  |
| Peace River       | not yet filed                     | Apr.04   | Yes                         | No       |  |
| Puntledge         | Dec.03                            | filed    | Yes                         | Yes      |  |
| Seven Mile        | Mar.03                            | filed    | Yes                         | Yes      |  |
| Shuswap Falls     | Dec.03                            | filed    | Yes                         | No       |  |
| Spillimacheen     | Oct.03                            | filed    | Yes                         | Yes      |  |
| Stave/Ruskin      | Nov.99                            | filed    | Yes                         | Yes      |  |
| Wahleach          | Dec.03                            | filed    | Yes                         | No       |  |
| Walter Hardman    | not yet filed                     | May.04   | Yes                         | Yes      |  |
| Whatshan          | Oct.03                            | filed    | Yes                         | Yes      |  |

BC Hydro initiated its Water Use Planning (WUP) program in November 1998. A Letter of Direction from the Minister instructed BC Hydro to prepare Water Use Plans for each hydroelectric facility by the end of 2003. A WUP details water management at each facility, defines operating boundaries and balances environmental, social and economic values. Operating boundaries are written into licences and become the compliance boundaries. Twenty-three WUPs are or have been developed, with one facility being deferred until stakeholder participation is confirmed. Consultation has resulted in a high degree of agreement between the broad spectrum of regulatory and public participants. Substantial consensus was achieved in all but one project in which all participants were not in agreement.

## CASE STUDY: WATER USE PLANNING COMPLETED ON VANCOUVER ISLAND

The consultation process for two Water Use Plans (WUPs) successfully concluded during fiscal 2004. The Campbell River WUP and the Puntledge River WUP both received consensus operating recommendations and sign-off from the respective Consultative Committees. The Puntledge River WUP Consultative Committee met nine times over a two-year period. The Campbell River WUP Consultative Committee met 18 times over a four-year period. Both Committees had representation from First Nations, government agencies, industry, BC Hydro, local governments and various interest groups. The communities were updated on the WUP process through a series of news releases, brochures and presentations. The Puntledge River WUP was submitted to government in December 2003 and the Campbell River WUP in May 2004. All four WUPs on Vancouver Island are now complete. Each Water Use Plan process has allowed BC Hydro to build rapport with all participants and earn public consent to operate. Equally important, the participants in the consultative process develop a better understanding of the challenges BC Hydro faces in managing its hydroelectric facilities and in attempting to reconcile the diverse water use interests of all parties.



# Report on Performance

## **Protocol Agreement with Government**

*A Protocol Agreement for Maintenance Work In and Around Water* was signed by Fisheries and Oceans Canada (DFO), B.C. Ministry of Water, Land and Air Protection (MWLAP), BC Hydro, and BCTC. The agreement commits the parties to develop and use agreed work practices for the maintenance of streamside vegetation growing near distribution and transmission lines that cross or run close to streams, lakes or wetlands. Agreeing to the standards up front will reduce bureaucracy and streamline the approval process, while respecting federal and provincial acts and regulations. The agreement will establish a governance committee to oversee the ongoing work and encourage greater cooperation between the agencies in areas such as data sharing, training and communications.

## **Fisheries Programs**

The construction of dams and the creation of reservoirs can have long-term impacts on food chains and fish species by stripping nutrients from the water. In 2003 sonar surveys conducted in the Arrow Lakes Reservoir, Kootenay Lake, Lake Revelstoke Reservoir and Kinbasket Reservoir estimated that the total number of in-lake kokanee salmon has increased to nearly 60 million fish. This is twice the number of kokanee present in the early 1990s. Kokanee salmon are a key indicator species to the well-being of large aquatic ecosystems. The increase in kokanee stocks can be attributed to fertilization projects and spawning tributary enhancements conducted by the Columbia Basin Fish & Wildlife Compensation Program (CBFWCP).

At the Duncan dam on the lower Duncan River, environmental staff have implemented a number of projects focused on increasing understanding of the fisheries resources of the system. Projects have included stranding assessments during flow reductions and a life-history study on mountain whitefish to identify critical spawning area and habitats.

## **New Standards for Effluent Monitoring**

A Sump and Oil/Water Separator Maintenance Standard was implemented at all generating facilities in fiscal 2004. The standard requires regular monitoring of effluent discharges from sumps and oil/water separators and routine inspections and maintenance in compliance with the Waste Management Act. The program will continue to develop over time as Generation facilities continue to develop and improve maintenance procedures.

# Report on Performance

## ENERGY MANAGEMENT

BC Hydro relies on a variety of tools and approaches to guide its energy management activities of forecasting, energy planning, acquisition, and portfolio management as well as delivery of products and services to meet customer needs. These approaches recognize the need to consider the economic, social and environmental bottom lines of the business and take a long-term view to ensure that sustainable decisions made today consider future implications.

BC Hydro is responsible for ensuring that there is an adequate supply of electricity for domestic customers, both in terms of annual energy usage and winter peak capacity. BC Hydro believes that it is important to have a balanced portfolio of resources. This includes acquisition of various types of resources, including Independent Power Producers (IPPs). It also means committing to portfolio standards for clean and green energy.

To meet load growth in the province, BC Hydro's resource acquisition plan involves four initiatives:

- Power Smart (demand-side management/energy conservation)
- green and alternative energy
- customer-based generation
- Resource Smart (modifying, updating and retrofitting existing generation facilities to provide increased electricity production with generally low or no incremental impact)

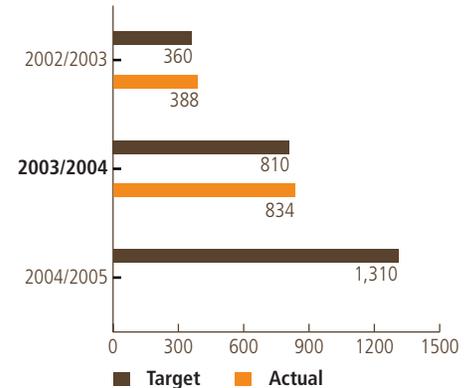
### Power Smart

BC Hydro continues to encourage customers to use energy wisely through Power Smart, its demand-side management initiative. Power Smart continued implementing its comprehensive 10-year plan to reach an annual target of a further 3,500 GWh/year in new energy savings, or enough to supply about 350,000 additional homes in B.C.

### Power Smart Partners

Power Smart Partners are BC Hydro customers who are committed to reducing electricity consumption by five per cent. More than 400 business customers have signed on as Power Smart Partners (including the Schools, Universities, Colleges and Hospitals sector).

## Conservation Gigawatt Hours



**Definition:** Conservation Gigawatt Hours (GWh) is the cumulative GWh saved as a result of economic demand-side management. The targets are based on net savings from current Power Smart programs and programs expected to come on stream. The targets include both residential and business demand-side management.

**Variance Explanation:** The actual number of 834 GWh includes discounts for free riders, free drivers and measurement and verification. Free riders refers to those who participate in a program but would have done so without an incentive. Free drivers are those who do not participate in a program (e.g., use a coupon) but are influenced by it and proceed because of it. Measurement and verification allow for energy savings that may be lower than initial estimates when actually measured. The 2002/2003 actual is based on results prior to measurement verification and program evaluation and includes non-program savings.

**Benchmark Comparison:** If the targets are achieved, BC Hydro will rank in the top quartile for both energy savings as a percentage of domestic energy sales and for investment in demand-side management as a percentage of revenue (American Council for the Energy Efficient Economy.)

# Report on Performance

Canadian Forest Products is an excellent example of a Power Smart Partner:

- On October 31, 2003, BC Hydro announced a 15-year agreement with Canadian Forest Products Ltd. (Canfor) to upgrade its Prince George Pulp and Paper mill to provide all of the electricity needs at that mill and its Intercontinental Pulp mill. BC Hydro will contribute \$49 million to Canfor's \$81 million project to install a 48-megawatt turbo generator at the mill site, saving BC Hydro enough electricity to serve about 39,000 homes. Canfor's project will generate 390 GWh annually, costing about 1.5 cents/kWh, which is significantly lower than the 5.5 cents/kWh for BC Hydro to acquire new generation. Canfor will rely less on BC Hydro for its power needs and BC Hydro will have more energy to serve its other customers.

## Power Smart for Business Customers

The Power Smart Product Incentive program was introduced to help business customers upgrade their existing facilities with energy-efficient technologies that will help them reduce their energy costs and save money. A wide range of energy-efficient lighting products are eligible for incentives under the program, including T8 lighting, compact fluorescent lighting, light-emitting diode (LED) exit signs, pulse-start metal halide lighting and high-pressure sodium lighting. The program will run for three years and is targeted to save 50 GWh per year of electricity.

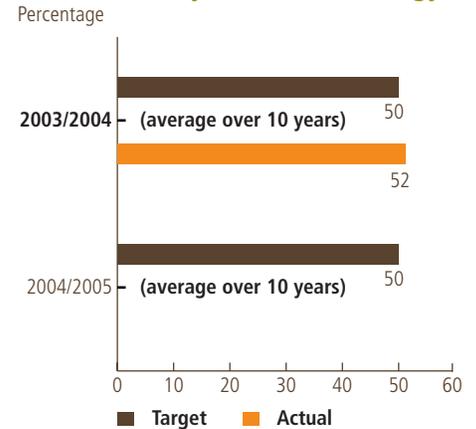
Examples include:

- the North Shore Disability Resource Centre, which installed 32 T8s and six LED retrofit kits for savings of 14,136 kWh per year
- School District 52 (Prince Rupert), which saved 82,905 kWh per year by installing LED exit sign retrofit kits in 10 facilities

## Power Smart for Residential Customers

In September 2003 BC Hydro launched a campaign to educate customers across B.C. about the benefits of energy conservation and encourage Power Smart program participation. A major component was a compact fluorescent light bulb (CFL) give-away offered to Lower Mainland customers. The CFL offer in the Lower Mainland was a continuation of the program first offered to Vancouver Island customers from October 2002 to March 2003. More than 700,000 Lower Mainland customers received a direct mail voucher for two free CFLs. Only a week after the launch over 50,000 customers had participated. At year-end, 1.6 million CFLs had been distributed to over 530,000 customers, representing 50 per cent of eligible households on Vancouver Island, the Lower Mainland, Sunshine Coast and Sea to Sky corridor. BC Hydro is rolling out the bulb give-away across the remainder of the province starting in June 2004 and plans to continue to support the adoption of energy-efficient lighting technologies for the residential market.

## New Electricity from Clean Energy



**Definition:** The Provincial Energy Plan defines new BC Clean Electricity as electricity produced by alternative technologies that result in a net environmental improvement relative to existing energy production. The April 2004 Guidelines outline examples that may include hydro, wind, solar, photovoltaic, geothermal, tidal, wave and biomass energy, as well as cogeneration from heat and power, energy from landfill gas and municipal solid waste, fuel cells, and efficiency improvements at existing facilities.

BC Hydro is committed to pursuing a voluntary goal to acquire 50 per cent of new load growth (less demand-side savings) from BC Clean Energy. For BC Hydro this means any new green or clean energy project that meets the guidelines as listed above and represents a new supply commitment made after November 2002, or energy efficiency improvements at existing facilities that came into service after November 2002.

**Variance Explanation:** BC Hydro is on track to meet the BC Clean Electricity target. Based on committed efficiency improvements and contracted energy, 52 per cent of incremental energy requirements will be met with clean energy, thus achieving the 50 per cent target. By fiscal 2004, 614 GWh had come in-service, representing 20 per cent of the 10-year average target with the balance on track to meet the target over the remaining term.

**Benchmark Comparison:** No benchmark data available.

# Report on Performance

With a goal to recycle 25,000 fridges to save 23 GWh of energy annually by August 2004, BC Hydro relaunched its Power Smart Refrigerator Buy-Back program across the province in September 2003. BC Hydro will pay customers \$30 to pick up their second refrigerators and dispose of them, free of charge, in an environmentally friendly way. Refrigerators are one of the largest energy users in the home, representing up to 20 per cent of an energy bill. At the end of fiscal 2004, 20,000 fridges had been recycled.

## Green and Alternative Energy

BC Hydro has been actively pursuing green energy since its first green energy expression of interest in 2000. In 2002 BC Hydro announced the purchase of electricity from five customers under its 2002/03 Customer-Based Generation Call. At this juncture, three projects are online or advancing to produce electricity totalling close to 340 GWh per year. In fiscal 2004 BC Hydro announced the purchase of electricity from 16 new green generating facilities to be built, owned and operated by Independent Power Producers (IPPs). The successful IPPs under the 2000/03 Green Power Generation Call consist of 14 hydro, one landfill gas and one wind energy project. When operational, the combined projects

will provide close to 1,800 GWh per year of new electricity to the BC Hydro grid, equivalent to the amount of electricity used by 180,000 homes. Since 2000, BC Hydro has signed contracts for approximately 3,100 GWh per year from these acquisition calls.

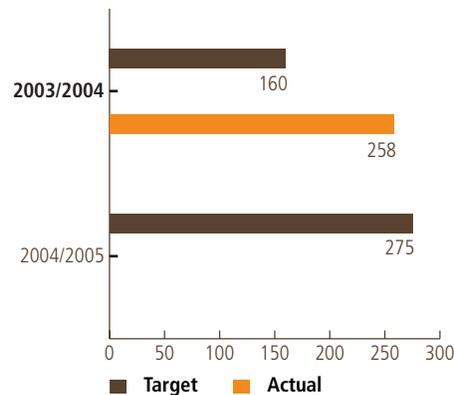
## Green Power Certificates

Green Power Certificates (GPCs) were extended as a program offering under Power Smart after a successful pilot. GPCs are being sold to large commercial

and institutional customers who are interested in reducing the GHG emissions profile in B.C. and creating a market for more green power. The program emphasis is on the domestic market and providing customers with choice and an avenue to meet their own respective sustainability goals. Currently, 45 customers have purchased GPCs and BC Hydro anticipates selling approximately 50,000 GPCs in the domestic market in fiscal 2005.

## Customer-Based Generation

Gigawatt Hours (GWh)



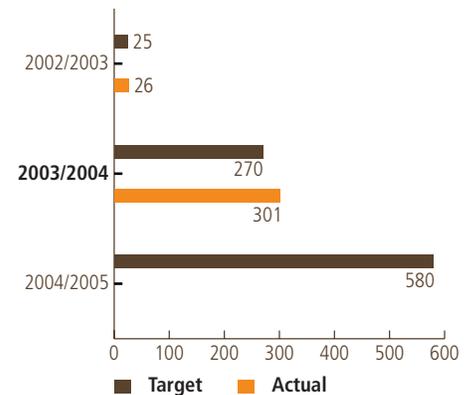
**Definition:** Customer-Based Generation is the gigawatt hours from customer-based sources that meet purchase price limits. Targets have been set to align with the Government objective of 50 per cent of new electricity supply from clean energy sources.

**Variance Explanation:** The capacity for the projects that were completed and delivered power to BC Hydro was greater than projected. This is the first year this measure has been reported.

**Benchmark Comparison:** No benchmark data available.

## Green Gigawatt Hours

Gigawatt Hours (GWh)



**Definition:** Green Gigawatt Hours (GWh) is the cumulative GWh contracted from green sources that meet purchase price limits.

**Variance Explanation:** More projects than the projected number of independent power producers were completed and delivered power to BC Hydro, resulting in an increase in Green GWh over target in 2003/2004.

**Benchmark Comparison:** No benchmark data available.

# Report on Performance

## Resource Smart

The Resource Smart program, introduced in the late 1980s, promotes the identification, study and implementation of projects that provide economic energy gains at existing generating plants. Resource Smart projects have little or no environmental impact. For example, replacing an older turbine with a more efficient one increases the power output while using the same amount of water.

Fiscal 2004 was the company's most successful Resource Smart year to date with energy gains of 460 GWh put into service, exceeding the target of 417 GWh. The project contributing the largest gains was the installation of a fourth generator at Seven Mile Generating Station. Currently, BC Hydro is pursuing 11 Resource Smart projects, two of which are in the implementation phase. Over the next 10 years, when all 11 projects have been completed, they will provide an energy gain of 645 GWh/year.

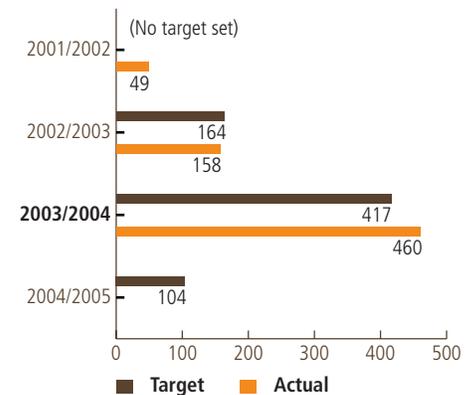
## CASE STUDY: ECOLOGO

In the absence of a clearly established standard for defining green energy, BC Hydro developed and applied its own green standard to support the acquisition of green energy from IPPs. However, the growing need for third-party, independent certification required that BC Hydro review its green criteria and assess the changing marketplace. The findings from the Green Power Certificate pilot program indicated that customers would like third-party certification. In March 2004 BC Hydro signed an agreement with Terra Choice, which manages and operates the Environmental Choice Program (ECP) on behalf of Environment Canada, to certify existing and new green energy supply contracted from IPPs. The process to adopt EcoLogo was done by assessing options to convert existing contracts and by engaging IPPs, as well as benchmarking the third-party standard against emerging requirements in the North American market.

IPP facilities meeting ECP criteria for electricity will be eligible to use the EcoLogo mark, indicating their facilities generate "green power." ECP has criteria to assess water-powered, biogas-fuelled, biomass-fuelled, solar-powered and wind-powered generators. The evaluation occurs when the facility is operational, which means that not only is the facility required to meet existing provincial regulatory requirements, but it must demonstrate that it operates in an environmentally responsible manner as well. The adoption of the third-party ECP low-impact renewable criteria is consistent with the intent of the Energy Plan and favourably positions BC Hydro to secure the highest value from its green energy supply.

## Resource Smart Energy Gains Put Into Service

Gigawatt Hours (GWh)



**Definition:** Resource Smart Energy Gains Put Into Service are the projected, long-term average incremental energy gains for existing generation facilities, which are put into service during the year.

**Variance Explanation:** The original three-project plan was expanded by the addition of two additional projects – Revelstoke and Seven Mile tailwater improvements. The 2004/2005 target has been revised downward from 129 to 104 GWh to reflect changing priorities related to operational circumstances and project work schedules.

**Benchmark Comparison:** No benchmark data available.

# Report on Performance

## SOCIAL RESPONSIBILITY

### Building Relationships

Building and maintaining relationships is a priority for BC Hydro. By listening to and working in collaboration with stakeholders, business partners, First Nations, communities and customers, BC Hydro is forging the relationships that will enable it to achieve its vision.

### In Communities

Community Relations staff throughout the province interact with stakeholders on a daily basis, from customers and special interest groups to mayors, municipal councils, Chambers of Commerce, service clubs and local residents. Community Relations plays a vital role in connecting to stakeholders, working collaboratively to resolve issues, and contributing to building and maintaining public consent for BC Hydro to operate.

### Through Consultation

A number of community consultative processes were carried out last year: the proposed Georgia Strait Crossing Gas Pipeline, the proposed Vancouver Island Generation Project, the Vancouver Island Call for Tender process to acquire 150 to 300 MW of firm power, Water Use Planning, the Integrated Electricity Plan, the decommissioning of Coursier Dam, rate increases, the speed of outage restoration, and water levels in BC Hydro reservoirs.

Through the Integrated Electricity Plan (IEP) consultation process, BC Hydro received input from more than 250 individuals and organizations representing First Nations, IPPs, customers, opinion leaders and environmental groups. Consultation involved:

- eight First Nations and 10 stakeholder information sessions held in communities around the province
- focus groups, one-on-one meetings and discussions
- communications activities including a web page providing information resources, a toll-free phone line and information sheets

The key consultation observations concluded that: there are diverse views about resource options for new electricity supply; people generally agree that BC Hydro's existing resource acquisition program is appropriate; residential customers, in particular, want BC Hydro to consider economic, social and environmental factors in planning future electricity supply; and stakeholders support increased generation from IPPs, and local and community-based sources.

### Corporate/Regional Donations

|                                       | 2003/2004 | 2002/2003 | 2001/2002 | 2000/2001 |
|---------------------------------------|-----------|-----------|-----------|-----------|
| Amount Allocated (\$ '000's)          | 1,000     | 1,000     | 1,150     | 3,000     |
| <b>Percentage Allocation</b>          |           |           |           |           |
| Arts and Culture                      | 7         | 3         | 9         | 22        |
| Education                             | 2         | 0         | 4         | 20        |
| Environment                           | 10        | 8         | 12        | 9         |
| United Way                            | 17        | 21        | 26        | 9         |
| Aboriginal                            | 7         | 12        | 5         | 13        |
| Regional                              | 22        | 27        | 24        | 10        |
| Scholarships                          | 10        | 16        | 12        | 11        |
| To Employees' Community Services Fund | 10        | 11        | 8         | 3         |
| Community Investment                  | 15        | 3         | 0         | 3         |

In 2003/2004, BC Hydro focused funding on initiatives that best complemented its business objectives. The performance spending was dependent on the quantity of applications, the BC Hydro business "fit", and the amounts requested and allocated.

# Report on Performance

Comments informed the 2004 IEP and assisted in focusing on aspects of the IEP that are important to British Columbians. Feedback from all consultative processes are shared throughout the company to help inform company decision-making.

## With Corporate and Regional Donations

The contributions BC Hydro makes to communities, in partnership with charities and community-based organizations, are managed under the umbrella of a Corporate Donations program.

During the summer of 2003, BC Hydro sponsored the HR MacMillan Space Centre's travelling Community Astronomy

Program, which offered 33 programs to more than 3,600 people in Kamloops, communities on Vancouver Island, in the Okanagan and in the North.

BC Hydro contributed funding towards the Kwantlen Capacity Development Camp to enable education and health-related programs for aboriginal youth in grades five through eight (free of charge) during the summer of 2003.

The goal of the camp was to encourage aboriginal youth to consider health-related careers and increase their enrolment in health-related programs at B.C.'s post-secondary schools.

BC Hydro contributed funding to DanceArts Vancouver to support "FIRE ... where there's smoke," a production that tackled the issue of bullying, racism and domestic and media violence among teenagers.

## Through Employees' Commitment

The BC Hydro Employees' Community Service Fund (HYDRECS) provides a conduit for employees and retirees of BC Hydro and Powerex to support the charities of their choice throughout the province. In fiscal 2004 HYDRECS provided \$827,000 to registered charities in the health and social service sectors.

## Employee (HYDRECS) Donations

| Dollars (thousands) | 2003/2004  | 2002/2003    | 2001/2002  | 2000/2001  |
|---------------------|------------|--------------|------------|------------|
| OPEIU, IBEW, M&P    | 550        | 766          | 777        | 688        |
| Fundraisers         | 32         | 7            | 26         | 2          |
| BC Hydro Retirees   | 93         | 88           | 82         | 80         |
| Corporate Donation  | 100        | 100          | 96         | 96         |
| 50/50 Draws         | 52         | 53           | n/a        | n/a        |
| <b>Total</b>        | <b>827</b> | <b>1,014</b> | <b>981</b> | <b>866</b> |

Through the BC Hydro Employee's Community Services (HYRECS) Fund, registered charities in the health and social service sectors in B.C. benefit from the generosity of BC Hydro and Powerex employees and retirees. In past years, totals also included donations from employees who are now employed by BCTC and ABSU.

## Public Accidents Involving BC Hydro Facilities

|                            | 2003/2004    | 2002/2003    | 2001/2002  | 2000/2001  | 1999/2000    | 1998/1999    | 1997/1998    |
|----------------------------|--------------|--------------|------------|------------|--------------|--------------|--------------|
| <b>Number of Incidents</b> | <b>1,009</b> | <b>1,089</b> | <b>965</b> | <b>976</b> | <b>1,046</b> | <b>1,278</b> | <b>1,284</b> |
| Public fatalities, actual  | 1            | 0            | 1          | 1          | 1            | 1            | 5            |
| Public fatalities, target  | 0            | 0            | 0          | 0          | 0            | 0            | 0            |

This performance measure includes any public incidents that involve our system. It captures all injuries, fatalities, or the obvious potential for these outcomes to the general public. While the incidents may involve damage to BC Hydro facilities, they do not include vehicle accidents. BC Hydro's ability to control occurrence of public incidents is limited; however, the company consistently provides public awareness programming with a focus on higher-risk groups, and increases its investment if the number of incidents or fatalities increases. Annually, BC Hydro conducts risk and trend analysis to identify changes (particularly higher-risk issues) and/or affirm the effectiveness of the programming. BC Hydro's target for 2004/2005 remains at zero fatalities.

# Report on Performance

## With Scholarships

BC Hydro offered over 200 scholarships of \$500 or \$1,000 in the categories of Power Smart, Aboriginal, L'Ecole Polytechnique Memorial, and the Electrician Pre-apprentice scholarship. BC Hydro's scholarships are offered to B.C. residents currently enrolled in a B.C. university, technical school or college, or who are in Grade 12 and who demonstrate a commitment to pursuing a post-secondary education.

## Through Public Education on Electrical Safety

Safe use of electricity continues to be a top priority for BC Hydro. In addition to the company's electrical safety messages for the general public, BC Hydro targets three main groups with safety messages: first responders (police, ambulance and firefighters), workers in the construction industry, and students. In fiscal 2004, 1,820 first responders, 1,724 construction workers and 42,859 grades four and five students attended presentations across the province on electrical hazards.

## Safety Education and Training

### Awareness of Electrical Safety Advertising

| Percentage of Males 18–35 | 2003/2004 | 2002/2003 | 2001/2002 | 2000/2001 |
|---------------------------|-----------|-----------|-----------|-----------|
| No, not aware             | 64        | 57        | 55        | 67        |
| Yes, aware                | 36        | 43        | 45        | 33        |

While BC Hydro has safety programs and communications in place that benefit the general public, the company understands the importance of having messaging directed to those most at risk – individuals employed in commercial and industrial occupations working closely with or near electricity. Through workplace and accident statistics, men between the ages of 18 to 35 in such occupations are the most prone to electrical accidents and thus the most in need of a better understanding of the necessary safety precautions. Results are based on a survey of this demographic group. Decreased awareness could be due to the shifting of audience demographics of the radio stations we use, and the need to freshen the campaign with new ads. BC Hydro will be reviewing its advertising campaign to boost awareness levels for next year.

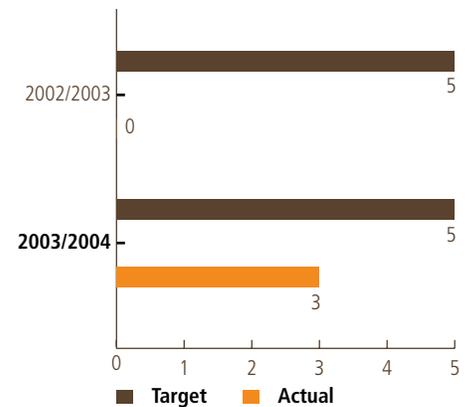
## With Customers

Being a commercially focused Crown corporation includes driving value to customers through focusing on quality service. Achieving quality service begins by developing an understanding of customers' needs and expectations, then building and maintaining strong, lasting relationships. While service providers such as ABSU and BCTC now deliver some key elements of customer service on behalf of BC Hydro, the company is accountable for strategically managing and coordinating all customer interactions in a way that creates excellent service.

BC Hydro has enjoyed high satisfaction ratings with its customers and aims to maintain this rating under a new business structure requiring new ways of focusing on quality service. BC Hydro maintains face-to-face relationships with its large industrial and commercial customers through its Key Account managers, and offers all customers ways to maximize value from their electricity use through

## Customer Satisfaction (BCTC)

Number of Complaints



**Definition:** Customer Satisfaction is the number of complaints received from customers that were identified at, or escalated to, the vice-presidential level in BCTC.

**Variance Explanation:** Target achieved.

2003/2004 is the last year BC Hydro will report on BCTC performance results. See BCTC Annual Report for performance information.

**Benchmark Comparison:** No benchmark data available.

# Report on Performance

Power Smart programs. It is also forging strong business relationships with independent power producers to ensure the long-term, reliable supply of electricity to customers.

In fiscal 2004 BC Hydro moved beyond its more traditional customer satisfaction surveys not only to examine how satisfied customers are with service, but also to identify which elements of service are the greatest drivers of satisfaction and value for customers. This information is being used to identify ways to enhance customer value in fiscal 2004. Notably, customers value a triple bottom line-focused organization – one that offers fair prices, stable rates and reliable power, while also being prepared to meet future power needs and demonstrating social and environmental responsibility.

## Through Power Pioneers

Power Pioneers, BC Hydro's retired employees, support cause-related initiatives. Partnerships are established and maintained through an extensive provincial network of 14 regional branches. The Power Pioneers awarded 13 youth from across the province with the Beginning a Lifetime of Community Service Award of \$500 each, with a goal to encourage their continued commitment to community service.

## With Suppliers and Service Providers

In support of the Provincial Government's Energy Plan, BC Hydro and IPPs in the province have worked to build stronger and more productive commercial relationships during the past year. BC Hydro has issued a number of Calls for Tender (CFT) to acquire additional energy at the least cost, to meet the Energy Plan voluntary target of 50 per cent of new energy (less demand-side savings) coming from clean resources, and to ensure long-term reliability.

BC Hydro concluded two CFT processes for energy supply from the private sector resulting in approximately 2,140 GWh of new electricity purchase agreements signed with an in-service date in 2006. The Customer-Based Generation Call resulted in 340 GWh per year across three contracts, and the Green Power Generation Call resulted in 1,800 GWh per year across 16 contracts.

Meetings and workshops were held with IPPs to improve the effectiveness of the company's energy acquisition activities.

## CUSTOMER RELATIONS CASE STUDY: \$2 MILLION IN SAVINGS FOR VANCOUVER INTERNATIONAL AIRPORT AUTHORITY

**Through a variety of Power Smart initiatives, the Vancouver International Airport Authority reduced overall energy use by over 18 per cent from 1996 to 2001, and saved close to \$2 million in electricity costs.**

**In 2002 the Airport Authority was named B.C.'s first Power Smart Certified customer, a designation reserved for organizations that show exceptional energy efficiency leadership within their industry. To achieve this designation, the Airport Authority has established two key targets: to rank among the 10 per cent most energy-efficient airports in North America, and to improve electrical energy efficiency by 15 per cent by 2007, relative to 2001 levels. To meet these goals, the Airport Authority is adopting a comprehensive energy management plan that includes strategies to improve efficiency throughout its operations and in the construction of new facilities.**

**Proposed initiatives in the Airport Authority's energy management plan will save the airport from \$257,000 to \$380,000 in annual electricity costs.**

# Report on Performance

BC Hydro held four consultation sessions with IPPs during January and February to share information and get feedback on methods to improve the acquisition process and supplier relations. BC Hydro has committed to taking the feedback from IPPs into consideration in its energy acquisition activities and to keep IPPs informed of actions taken. BC Hydro and the Independent Power Producers Association of B.C. have also been working collaboratively on potential terms for a new, small-project CFT and Energy Purchase Agreement and other issues (e.g., interconnection and streamlining Call for Tender processes). Issues still remain and BC Hydro is committed to working with IPPs to address them.

## With First Nations

BC Hydro has many power generation facilities located in First Nations traditional territories. More than 2,000 kilometres of transmission and distribution lines are located on about 500 reserves belonging

to 169 of the 197 First Nations in the province. BC Hydro created the Aboriginal Relations Department in August 1992 “to establish mutually beneficial relationships with Aboriginal people that will be recognized as models for others to follow.”

As legal, business, political and social realities continue to evolve, BC Hydro's goal remains to preserve a foundation of mutual understanding, respect, open and honest communication, and trust with First Nations. Specific objectives are to build better relationships with First Nations, lead others in developing Aboriginal relations strategies, and promote business and workforce development for Aboriginal people.

## Initiatives

- The First Nations Community Development Fund, launched in May 2001, aims to build better relationships by providing grants to First Nations who have transmission and distribution facilities on their reserve lands.

In fiscal 2004 BC Hydro had established funding agreements with 133 of the 169 eligible First Nations for facilities crossing reserve lands. The maximum total value for grants in one fiscal year is \$1.6 million.

- The Aboriginal Business Partnership program is now in its fifth year and offers start-up grants of up to \$15,000 to aboriginal-owned businesses. Program disbursements will be distributed in fiscal 2005.
- On August 1, 2003, BC Hydro's transmission system began to be operated and maintained by BCTC. BC Hydro owns the core transmission assets, and is responsible for the relationship between BC Hydro and First Nations with respect to the transmission system, including communication, consultation, negotiation and policy. BC Hydro will ensure that BCTC complies with its policies, guidelines, agreements, protocols and practices respecting First Nations and Aboriginal people.

## First Nations Grievances

| Number of Grievances | 2003/2004 | 2002/2003 |
|----------------------|-----------|-----------|
|                      | 0         | 0         |

A grievance is defined as a legal writ served. BC Hydro's target remains at zero grievances.

## First Nations Engaged in BC Hydro Impact Avoidance Management Processes

First Nations were involved in several impact avoidance management processes in 2003/2004. An example is First Nations' involvement in the Water Use Planning process which explores options to reduce impacts or create benefits relating to BC Hydro's facility operations. Another example is the consultation process on the Georgia Strait Crossing (GSX) project, which involved six First Nations groups.

# Report on Performance

## Awards and Recognition for Social, Ethical, and Environmental Performance

| Received         | Award/Recognition Citation/Category   | From  | Recipient  | For  |
|------------------|---|---|--|--|
| 2001/2002        | Spirit of Vancouver Award   | Vancouver Board of Trade                                    | BC Hydro Power Smart   | Leadership and support of the HSBC Power Smart Celebration of Lights Festival  |
|                  | Roderick Haig-Brown Conservation Award  | BC Wildlife Federation                                      | East Kootenay Wildlife Association                                 | BC Hydro-sponsored Rocky Mountain Bighorn Sheep Habitat and Population Assessment in the East Kootenay Trench project                            |
|                  | Dr. Louis Lemieux Conservation Award  | BC Wildlife Federation                                      | The Nelson and District Rod and Gun Club                           | BC Hydro-sponsored Sproule Creek Habitat Rehabilitation Project  |
|                  | Certificate of Honour   | BC Historical Federation                                    | BC Hydro   | Publishing the history of "Station Normal: The Power of Stave Falls"   |
|                  | Heritage Society of B.C. Award  | Heritage Society of B.C.                                    | Stave Falls Visitor Centre   | Heritage conservation at the Stave Falls Visitor Centre  |
|                  | Award of Excellence   | B.C. Safety Council   | BC Hydro's Vancouver Trouble Centre                                | Injury-free performance  |
|                  | Eterne Award  | Tree Canada Foundation                                      | BC Hydro   | Outstanding commitment and contribution to the environment.  |
|                  | Award of Honour   | B.C. Safety Council   | BC Hydro's Lower Mainland Central                                  | Injury-free performance  |
|                  | The Global Reporters 2002 Survey of Corporate Sustainability Reporting                    | SustainAbility/United Nations Environmental Program         | BC Hydro   | Ranking as one of the top 50 in Sustainability reporting internationally   |
| 2002/2003        | CBC Television Feature  | CBC Television Program                                      | BC Hydro Lifestyles  | Implementing a wellness program in the workplace   |
|                  | Top Ten Most Admired Company Globally   | Readers of the Shared Services News                         | BC Hydro's Shared Services   | For their approach to customer service   |
|                  | BC residents rank BC Hydro as one of the top BC companies                                 | Ipsos-Reid Reputation Monitor Survey                        | BC Hydro   | Corporate standing, according to Public  |
|                  | Environmental Commitment & Responsibility Reporting                                       | Canadian Electricity Association                            | BC Hydro   | A+ rating for Environmental performance reporting  |
|                  | BC Section Illuminating Engineering Society (IES) Section Award & Regional Award of Merit | IES of North America  | BC Hydro Power Smart   | Lighting of the Power House at Stave Falls Visitor Centre  |
|                  | BC Section IES Section Award & Regional Award of Merit                                    | IES of North America  | BC Hydro Power Smart   | Floodlight design of Vancouver City Hall   |
| <b>2003/2004</b> | Gold "Champion Level" Reporter Status   | Voluntary Challenge & Registry (VCR) Inc.                   | BC Hydro   | Greenhouse Gas Management reporting  |
|                  | Canadian Sustainability Reporting Benchmark Study   | Stratos Inc.  | BC Hydro   | Ranking as one the top 10 Sustainability reporters in Canada   |
|                  | Outstanding Engineer Award of Canada  | Institute of Electrical and Electronics Engineers of Canada | BC Hydro Protection & Control Planning recipient, Charles Henville | Recognizes members of the Canadian region for outstanding achievement  |
|                  | Environmental Commitment & Responsibility Reporting                                       | Canadian Electricity Association                            | BC Hydro   | A+ rating for Environmental performance reporting  |
|                  | Utility of the Year   | Natural Resources Canada                                    | BC Hydro Power Smart   | Leadership in demand-side management and the creation of a conservation ethic in B.C. that has helped to save millions of dollars in energy use. |

# Report on Performance

## Through Associations and Partnerships

BC Hydro participates in dozens of associations that help advance Sustainability objectives, ensuring good social, environmental and financial performance. These include:

- The World Business Council for Sustainable Development, a coalition of international companies united by a shared commitment to sustainable development via the pillars of economic growth, ecological balance and social progress.
- The Fraser Basin Council, comprising community groups, business, and four orders of government, including First Nations. The Council's mandate is to ensure that the decisions we make now will protect and advance the Basin's social, economic and environmental sustainability into the future.
- The Greater Vancouver Regional District Sustainable Region Initiative Energy Action Team, a group of regional representatives dedicated to advancing projects that increase energy efficiency in the Greater Vancouver region.

## With BC Hydro's Regulator

It is critical for a regulated utility to develop strong relationships with its regulator. The British Columbia Utilities Commission (BCUC) will form its views on BC Hydro based on the quality of its applications and responses, the performance of its witnesses at hearings and stakeholders' views of the reasonableness of the positions BC Hydro proposes in BCUC proceedings.

BC Hydro carried out three major regulatory initiatives in fiscal 2004 in the course of implementing several policy actions associated with the Provincial Government's Energy Plan. The first was an application in March 2003 by Vancouver Island Energy Corporation (VIEC), a wholly owned subsidiary of BC Hydro, to the BCUC requesting a Certificate of Public Convenience and Necessity (CPCN) for the Vancouver Island Energy Plant (VIGP) at Duke Point. The BCUC agreed that new capacity was needed by 2007 on Vancouver Island but denied the CPCN request saying there was insufficient evidence that BC Hydro's proposal was the most economic option for new Vancouver Island supply. In response, BC Hydro recommended a competitive process to identify that new supply. The BCUC agreed and the result was the Vancouver Island Call for Tender process, which is underway and will conclude in the fall of 2004.

The second major regulatory initiative that occurred during fiscal 2004 was a BCUC inquiry stemming from the government's policy directives to establish a Heritage Contract to preserve the benefits of BC Hydro's existing generation and to provide better price signals to large electricity consumers for conservation and energy efficiency. The BCUC's recommendations endorsed BC Hydro's proposal to maximize the value of its existing low-cost generation and accrue all of the trade income, up to \$200 million per year, to BC Hydro's ratepayers, thus satisfying the Energy Plan's objectives of low electricity rates and secure, reliable supply. The BCUC accepted most of BC Hydro's stepped rate design proposals for industrial customers, but recommended that the stepped rate reflect the long-term opportunity cost of new supply, not market indexes as BC Hydro had proposed. The government accepted these recommendations on November 28, 2003, and has implemented them through the BC Hydro Public Power Legacy and Heritage Contract Act and Special Directives to BC Hydro and the BCUC.

# Report on Performance

BC Hydro's third significant regulatory initiative for fiscal 2004 was the preparation and filing of its revenue requirements application to the BCUC, in compliance with the government's directive that the BCUC once again regulate BC Hydro's rates. BC Hydro filed this application, its first in 10 years, with the BCUC on December 15, 2003 requesting a general rate increase of 7.23 per cent effective April 1, 2004 and a further increase of 2.0 per cent effective April 1, 2005. Key cost drivers exerting upward pressure on rates include increases in the cost of new energy supply, maintenance and capital expenditures, pension costs, demand-side management program spending, provision of transmission services, and costs of managing environmental and First Nations issues.

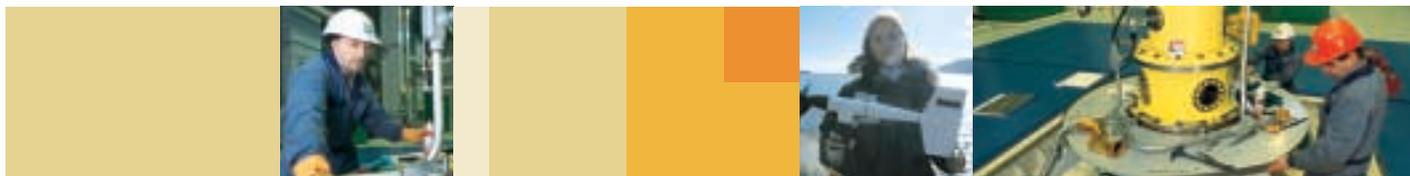
In anticipation of a lengthy review process by the BCUC, BC Hydro sought and obtained from the BCUC interim rate relief, increasing its rates by 7.23 per cent effective April 1, 2004, to permit it an opportunity to earn its allowed return on equity in fiscal 2005. An oral hearing on the application commenced on May 18, 2004.

On March 29, 2004, BC Hydro filed a revision to its revenue requirement application, seeking an additional permanent rate increase of 1.67 per cent over and above the interim rate increase of 7.23 per cent, effective 30 days after the BCUC's decision is issued this fall. The proposed rate increase replaces the previously sought 2.0 per cent rate increase for fiscal 2006. This increase has been caused by lower-than-normal snowpack conditions this past winter that require BC Hydro to purchase more energy from the market than was forecast when the application was filed.

Two regulatory approvals of note were received by BC Hydro in fiscal 2004. On December 15, 2003, the National Energy Board issued a CPCN approving the Georgia Strait Crossing pipeline project, subject to fulfilling several conditions including regulatory approval of VIGP. On March 12, 2004, the BCUC approved a net metering tariff proposed by BC Hydro to allow small generation customers to contribute clean energy to the system in a cost-effective manner.

## **With Our Shareholder**

BC Hydro's relationship with its shareholder, the Provincial Government, is important in every aspect of its business. The government's Governance Framework for Crown Corporations establishes the guiding principles for a positive and co-operative working relationship. As part of the framework, BC Hydro and the government jointly developed a Shareholder's Letter of Expectation, which clearly sets out the roles, responsibilities and expectations of each party. The purpose is to ensure openness, transparency and accountability to customers and to all British Columbians. Generally, government expects BC Hydro to provide the strategies, programs and plans that put customers first and ensure efficiency and responsibility. The B.C. Energy Plan, released in November 2002, also set the direction for BC Hydro operations, which are part of the Letter of Expectation. For more information, see Openness & Accountability/Policies on BC Hydro's website: [www.bchydro.com](http://www.bchydro.com)



# Report on Performance

## Skilled Workforce, Safe Workplace

**BC Hydro is proud to have a skilled workforce and safe work environment and will continue to perform well by developing the skills and knowledge of its employees and contractors, and by providing a safe, healthful and harassment-free workplace. The company will do this by demonstrating safety leadership and holding individuals accountable for safety, identifying and defining the skills and knowledge necessary to succeed as a commercial enterprise, creating strategic skill development plans to ensure employees attain the appropriate, and ensuring that the right people are in the right roles at the right time.**

### SKILLED WORKFORCE

Employees are essential to building the strong and capable organization that BC Hydro requires to thrive as a competitive business. The company supports employees in pursuing learning and development opportunities that enhance their future contribution to the workplace and enable them to realize their career potential. BC Hydro also strives to create a workplace that attracts and retains the knowledge and skills that

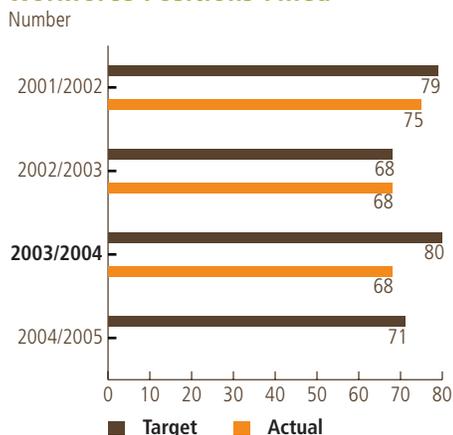
will enable it to become North America's leading sustainable energy company.

To ensure that BC Hydro will be able to sustain its core operations, the Strategic Workforce Planning initiative has been underway since 2001 to mitigate the impact of retirements and renew critical workforce capability. A total of 226 positions were funded in fiscal years 2001 to 2003, bringing the total investment to \$19 million. An additional \$10.3 million was allocated to sustain the SWFP

initiative in fiscal 2004. This allowed 68 hires into key electrical operations positions this year.

BC Hydro models the workforce for each Line of Business each year. With modelling, BC Hydro can anticipate attrition ahead of time and replace people who are leaving key positions well before their actual departure, given the long training time required before new hires are fully productive.

### Approved Strategic Planning Workforce Positions Filled



**Definition:** Approved Strategic Workforce Planning Positions Filled is the number of positions filled under BC Hydro's Strategic Workforce Planning (SWFP) initiative. SWFP is the management process for anticipating, scoping and planning the alignment of needed critical workforce capabilities to meet BC Hydro's strategic business goals. The targets were set based on internally performed needs assessment.

**Variance Explanation:** Strategic Workforce Planning Positions Filled was lower than target mostly due to the formation of the BCTC. The formation put the hiring of four Operator Area Dispatchers on hold for BCTC and Generation. Additionally, other planned hires did not take place due to organizational changes. In Field Services, improved work methods led to a need for three fewer apprentices. A staffing strategy change in Engineering led to hiring two fewer graduate technologists-in-training.

**Benchmark Comparison:** No benchmark data available.

# Report on Performance

## Employee Commitment Survey

In January 2003 BC Hydro conducted an employee survey to measure employee commitment. Based on the results, the management team focused on communicating more with employees and increasing their understanding of our values and business direction.

BC Hydro conducted the survey again in April 2004. Those results showed an improvement in 88 per cent of the survey questions. The questions that received the

most favourable ratings are their intention to remain with the company, their view of BC Hydro as a good community citizen and their belief that high standards are set for personal performance. The questions that received the least favourable ratings are how well BC Hydro considers the impact on employees when making important decisions, how well the company acts on employees' suggestions and how well it manages change. In the response to the survey results, a cross

company team has been set up to identify and implement actions to improve employee commitment.

Given the complexity of issues and change facing the company, management believes it is important to measure employee commitment and make improvements to ensure that employees are engaged and BC Hydro remains an employer of choice.

## Employee Commitment Index

| Score Out of Five    | 2003/2004      | 2002/2003 | 2002 (Calendar Year) |
|----------------------|----------------|-----------|----------------------|
| BC Hydro             | <b>3.73</b>    | 3.62      | no data              |
| WorkCanada Benchmark | <b>no data</b> | no data   | 3.88                 |

The Employee Commitment Index is made up of eight key questions, that, when combined, provide a reliable measure of employees' commitment to their work and the company. The survey, conducted for BC Hydro by the communications firm Watson-Wyatt, is completed annually and benchmarked against a WorkCanada index. WorkCanada is one of the largest, most up-to-date and statistically representative surveys on the attitudes of workers in Canada. BC Hydro's improvement over last year is attributed to specific initiatives undertaken in the LoBs, as well as the exclusion of the British Columbia Transmission Corporation employees and the inclusion of Powerex employees in the survey. This is the first year this measure has been reported.

## Attrition

|  | 2003/2004    | 2002/2003 | 2001/2002 | 2000/2001 |
|--|--------------|-----------|-----------|-----------|
| Overall rate of attrition  | <b>5.5%</b>  | 5.4%      | 4.0%      | 4.6%      |
| Overall attrition (number of employees – based on full-time regular) | <b>195</b>   | 290       | 208       | 231       |
| Percentage retired   | <b>4.0%</b>  | 3.0%      | 2.0%      | 2.3%      |
| Number retired   | <b>143</b>   | 162       | 106       | 113       |
| Percentage resigned voluntarily                                      | <b>0.7%</b>  | 1.2%      | 1.4%      | 1.8%      |
| Number resigned voluntarily  | <b>26</b>    | 63        | 71        | 90        |
| Percentage terminated for other reasons, were dismissed, or died     | <b>0.7%</b>  | 1.2%      | 0.6%      | 0.5%      |
| Number terminated for other reasons, were dismissed, or died         | <b>26</b>    | 65        | 31        | 26        |
| New hires (numbers)  | <b>132</b>   | 120       | 289       | 312       |
| Number of base of employees eligible to retire                       | <b>570</b>   | 679       | 583       | 536       |
| Retirement uptake (number)   | <b>143</b>   | 162       | 106       | 113       |
| Retirement uptake rate (percentage)                                  | <b>25.0%</b> | 23.9%     | 18.2%     | 21.1%     |

Starting in 2003/2004, attrition rate no longer includes retirements from Accenture Business Services and the British Columbia Transmission Corporation. BC Hydro's retirement rate has increased from the extremely low uptake rates experienced in 2000/2001 and 2001/2002 due to growth in the pool of potential retirees as more employees have become eligible. This accounts for the greater number of retirements than in previous years.

# Report on Performance

## Total Payroll and Total Benefits, by Region

| Number of Employees | 2003/2004      | 2002/2003    | 2001/2002    | 2000/2001    | 1999/2000    |
|---------------------|----------------|--------------|--------------|--------------|--------------|
| Lower Mainland      | 3,210          | 4,507        | 4,603        | 4,410        | 4,057        |
| Vancouver Island    | 410            | 559          | 562          | 550          | 539          |
| Northern Region     | 402            | 467          | 472          | 470          | 469          |
| South Interior      | 546            | 656          | 666          | 643          | 645          |
| <b>Total</b>        | <b>4,568</b>   | <b>6,189</b> | <b>6,303</b> | <b>6,073</b> | <b>5,710</b> |
| % increase/decrease | <b>-26.19%</b> | -1.81%       | 3.79%        | 6.36%        |              |

## Labour Costs (excluding benefits)

| Dollars (millions)  | 2003/2004      | 2002/2003  | 2001/2002  | 2000/2001  | 1999/2000  |
|---------------------|----------------|------------|------------|------------|------------|
| Lower Mainland      | 260            | 318        | 311        | 281        | 261        |
| Vancouver Island    | 31             | 36         | 36         | 34         | 35         |
| Northern Region     | 33             | 35         | 33         | 31         | 31         |
| South Interior      | 43             | 46         | 43         | 40         | 41         |
| <b>Total</b>        | <b>367</b>     | <b>435</b> | <b>423</b> | <b>386</b> | <b>368</b> |
| % increase/decrease | <b>-15.63%</b> | 2.84%      | 9.59%      | 4.89%      |            |

## Estimated Benefits Costs

| Based on x% Labour | 2003/2004    | 2002/2003  | 2001/2002  | 2000/2001 | 1999/2000 |
|--------------------|--------------|------------|------------|-----------|-----------|
|                    | <b>32.4%</b> | 28.3%      | 25.5%      | 24.9%     | 24.7%     |
| Dollars (millions) | 2003/2004    | 2002/2003  | 2001/2002  | 2000/2001 | 1999/2000 |
| Lower Mainland     | 84           | 89         | 79         | 69        | 64        |
| Vancouver Island   | 10           | 11         | 9          | 9         | 9         |
| Northern Region    | 11           | 10         | 9          | 8         | 8         |
| South Interior     | 14           | 13         | 11         | 10        | 10        |
| <b>Total</b>       | <b>119</b>   | <b>123</b> | <b>108</b> | <b>96</b> | <b>91</b> |

All figures include BCTC and BC Hydro, but do not include employees of Accenture Business Services. Labour costs shown are as per the Financial Information Act.

# Report on Performance

## Culture

The future for BC Hydro in terms of people and culture (the way the company does things) focuses on three areas:

- ensuring the company has the right employees doing the right things in ways that are consistent with corporate values (teamwork, accountability, integrity and service)
- managing people effectively – providing meaningful work and the right work environment so that employees bring

their continued commitment and ongoing value to BC Hydro

- ensuring the way BC Hydro does things is effective for achieving its business objectives

In order to achieve this, BC Hydro is undertaking a three-to-five-year program that will focus on finding ways to improve its effectiveness as an organization in the context of all the changes that have been made, such as the move to Lines of Business, the outsourcing of certain back

office functions to ABSU and the formation of BCTC. The program will focus specifically on:

- building strong employee relationships
- connecting all employees to BC Hydro's vision
- making sustainability tangible
- ensuring that Human Resources systems are aligned with performance and values

## Active Employees (by Status and Affiliation) in 2003/2004

| Number                            |       | Full-time regular | Part-time regular | Total Regular | Full-time temporary | Part-time temporary | Total Temporary | Total all    |
|-----------------------------------|-------|-------------------|-------------------|---------------|---------------------|---------------------|-----------------|--------------|
| <b>BC Hydro</b>                   | IBEW  | 1,141             | 2                 | <b>1,143</b>  | 27                  | 0                   | <b>27</b>       | <b>1,170</b> |
|                                   | M&P   | 1,086             | 26                | <b>1,112</b>  | 42                  | 1                   | <b>43</b>       | <b>1,155</b> |
|                                   | OPEIU | 1,077             | 48                | <b>1,125</b>  | 191                 | 26                  | <b>217</b>      | <b>1,342</b> |
|                                   |       | 3,304             | 76                | <b>3,380</b>  | 260                 | 27                  | <b>287</b>      | <b>3,667</b> |
| <b>BCTC</b>                       | IBEW  | 92                | 0                 | <b>92</b>     | 0                   | 0                   | <b>0</b>        | <b>92</b>    |
|                                   | M&P   | 159               | 0                 | <b>159</b>    | 1                   | 0                   | <b>1</b>        | <b>160</b>   |
|                                   | OPEIU | 41                | 1                 | <b>42</b>     | 0                   | 0                   | <b>0</b>        | <b>42</b>    |
|                                   |       | 292               | 1                 | <b>293</b>    | 1                   | 0                   | <b>1</b>        | <b>294</b>   |
| <b>Powertech</b>                  | IBEW  | 0                 | 0                 | <b>0</b>      | 0                   | 0                   | <b>0</b>        | <b>0</b>     |
|                                   | M&P   | 38                | 0                 | <b>38</b>     | 3                   | 0                   | <b>3</b>        | <b>41</b>    |
|                                   | OPEIU | 51                | 3                 | <b>54</b>     | 6                   | 0                   | <b>6</b>        | <b>60</b>    |
|                                   |       | 89                | 3                 | <b>92</b>     | 9                   | 0                   | <b>9</b>        | <b>101</b>   |
| <b>Construction Business Unit</b> | IBEW  | 23                | 0                 | <b>23</b>     | 275                 | 0                   | <b>275</b>      | <b>298</b>   |
|                                   | M&P   | 15                | 0                 | <b>15</b>     | 1                   | 0                   | <b>1</b>        | <b>16</b>    |
|                                   | OPEIU | 14                | 0                 | <b>14</b>     | 9                   | 7                   | <b>16</b>       | <b>30</b>    |
|                                   |       | 52                | 0                 | <b>52</b>     | 285                 | 7                   | <b>292</b>      | <b>344</b>   |
| <b>All Units</b>                  | IBEW  | 1,256             | 2                 | <b>1,258</b>  | 302                 | 0                   | <b>302</b>      | <b>1,560</b> |
|                                   | M&P   | 1,298             | 26                | <b>1,324</b>  | 47                  | 1                   | <b>48</b>       | <b>1,372</b> |
|                                   | OPEIU | 1,183             | 52                | <b>1,235</b>  | 206                 | 33                  | <b>239</b>      | <b>1,474</b> |
|                                   |       | 3,737             | 80                | <b>3,817</b>  | 555                 | 34                  | <b>589</b>      | <b>4,406</b> |

BC Hydro maintains collective agreements with unionized employees through IBEW (International Brotherhood of Electrical Workers) and OPEIU (Office and Professional Employees' International Union). M&P (Management & Professional) staff are not covered under collective agreements.

# Report on Performance

## Labour Relations

In July 2003, after several months of negotiations between BC Hydro and the Office and Professional Employees' International Union (OPEIU) Local 378 and between BC Hydro and the International Brotherhood of Electrical Workers (IBEW) Local 258, the parties signed separate Memoranda of Agreement (MOA) regarding an employee transition plan for the transfer of 250 Transmission Line of Business employees to the newly created British Columbia Transmission Corporation (BCTC). Employee Transition Agreements were negotiated successfully with both the IBEW and OPEIU to address the mechanics of the transfer of employees, as well as to give the unions an opportunity to be heard.

Fiscal 2004 was the middle year of a three-year collective agreement between BC Hydro and each of its two Unions, so there were no contract negotiations between the parties.

On March 30, 2004, after five days of hearings in late 2003, the B.C. Supreme Court gave judgment dismissing the OPEIU petition claiming that provincial legislation pertaining to BC Hydro's outsourcing transaction with Accenture Business Services for Utilities (ABSU) was unconstitutional. Specifically, the Court accepted BC Hydro's and the Ministry of Attorney General's arguments that the Energy and Mines Statutes Amendment Act of 2002 was valid legislation. The Court's decision followed an unsuccessful complaint made by the OPEIU to the British Columbia Utilities Commission in connection with the ABSU transaction.

## Employee Conduct Policy

To help Directors and employees understand the standards of conduct that BC Hydro expects of them, the Board of Directors has approved a Code of Conduct. The Code provides general guidance on standards of conduct, including guidelines on conflict of interest, as well as requirements associated with confidential information, entertainment and gifts, environment and safety, and use of BC Hydro property. The Code is posted on BC Hydro's website: [www.bchydro.com](http://www.bchydro.com) (see Openness & Accountability/Policies).

## Grievance Trends Among Unionized Workforce

| Number             | 2003/2004 | 2002/2003 | 2001/2002 | 2000/2001 | 1999/2000 | 1998/1999 | 1997/1998 |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IBEW Grievances    | 18        | 33        | 28        | 33        | 49        | 30        | 32        |
| OPEIU Grievances   | 24        | 59        | 58        | 48        | 30        | 25        | 40        |
| IBEW Arbitrations  | 1         | 1         | 1         | 3         | 2         | 1         | 3         |
| OPEIU Arbitrations | 6         | 2         | 3         | 3         | 3         | 2         | 3         |

IBEW: International Brotherhood of Electrical Workers; OPEIU: Office and Professional Employees' International Union. The reduction in Grievances for the OPEIU was likely due to the transfer of employees to Accenture Business Services of B.C.

# Report on Performance

## Workplace Complaints by Type

| Number             | 2003/2004 | 2002/2003 | 2001/2002 | 2000/2001 | 1999/2000 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Personal           | 14        | 24        | 32        | 41        | 27        |
| Discrimination     | 0         | 1         | 3         | 3         | 5         |
| Sexual             | 0         | 0         | 4         | 5         | 1         |
| Other              | 0         | 0         | 5         | 16        | 15        |
| <b>Total Cases</b> | <b>14</b> | <b>25</b> | <b>44</b> | <b>65</b> | <b>48</b> |

## Resolution of Workplace Complaints

| Number   | 2003/2004 | 2002/2003 | 2001/2002 | 2000/2001 | 1999/2000 |
|----------|-----------|-----------|-----------|-----------|-----------|
| Informal | 13        | 24        | 42        | 63        | 48        |
| Formal   | 1         | 1         | 2         | 2         | 0         |

Workplace complaints are handled in the following sequence and proceed to the next level only if resolution is not achieved:

**Consulting** – An employee consults with a Respectful Workplace Co-ordinator or Advisor and receives support and coaching.

**Informally** – A Respectful Workplace Advisor mediates or facilitates resolution between the parties.

**Formally** – A Review Officer conducts a formal investigation and reports findings to the Chief Human Resources Officer and the V.P. of the respondent's operational unit. Complaints are elevated to a formal process only when the severity of the issue warrants that BC Hydro respond accordingly. The downward trend in cases reflects, at least in part, the success of the Respectful Workplace program where, through skills-based coaching and informal resolution processes, managers and employees learn new ways to address potential concerns in order to reduce the likelihood of future complaints. It also reflects a reduction in the total BC Hydro workforce due to transfers to British Columbia Transmission Corporation and Accenture Business Services.

## SAFE WORKPLACE

BC Hydro continues to make improvements in safety, retaining its position as a top-quartile performer as compared with peer utilities members of the Canadian Electrical Association.

In October 2003 the final phase of implementation of the BC Hydro Safety Management System was completed. This multi-year project included a completely revised safety audit protocol. In fiscal 2004, 13 audits were completed that assessed 50 per cent of the organization and involved Lines of Business at multiple locations throughout the province.

The number of Workers' Compensation Board (WCB) inspections at BC Hydro workplaces has diminished dramatically over the last year. This is part of an ongoing trend that coincides with improved safety performance. Inspections have dropped from levels as high as 150+ per year to 25 in fiscal 2004. During this year's inspections, WCB officers identified 10 incidents of non-compliance with regulations, none of which were repeat observations or orders. BC Hydro acted promptly to address these issues.

An independent Best Practices Review confirmed that BC Hydro is a best practice organization with respect to Occupational Safety and Health. A full 86 per cent of its safety and health practices are consistent with known leaders in safety and health innovation.

Notwithstanding the better-than-target performance, three serious electrical contact incidents occurred this year, including one fatality: Wahleach Generating Station on June 18, Dal Grauer Substation on October 3, and

# Report on Performance

the fatality at G.M. Shrum Generating Station on July 23. Each of these incidents was individually investigated and corrective actions were taken to ensure that the likelihood of those specific incidents happening again was greatly reduced. In addition, a corporate-level review of these events was undertaken to determine if these incidents had a

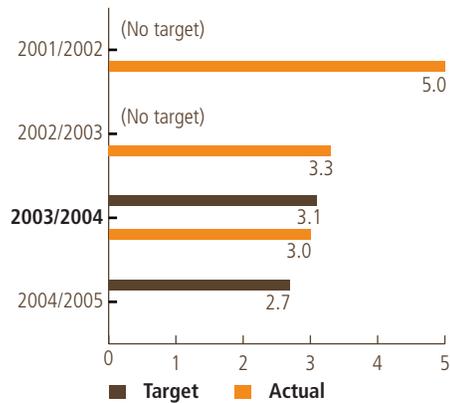
common cause or trend which required more systemic corrective actions. The review concluded that the individual investigations were complete and thorough, the incidents did have common causal factors, and the corrective actions already undertaken adequately addressed the systemic issues. As a result, no additional corrective actions were necessary.

## Employee Health and Wellness

BC Hydro employees are offered a range of health and wellness programs to ensure good psychological, emotional and physical health. These programs, now provided by Accenture Business Services, include:

## All Injury Frequency

Incidents per 200,000 Hours Worked



**Definition:** All Injury Frequency is the total number of employee injury incidents (Medical Aids and Disabling Injuries) occurring in the 12 months prior to the report date relative to the amount of worked hours in the same period. For this measurement, Medical Aid injuries are defined as those where a medical practitioner has rendered services beyond the level defined as "first aid" in relation to the injury incident, and the employee was not absent from work beyond time lost on the day of the injury. Disabling injuries are defined as those that involve the employee being absent from work beyond the day of injury.

**Variance Explanation:** All Injury Frequency was on target after a bit of a recent levelling of the improvement rate. BC Hydro is still benefiting from the focus that has been placed on safety and performance improvement through awareness, planning, training, and safe work practices. Notwithstanding the better than target performance, three electrical contact incidents, each causing significant injury, occurred this year. Wahleach Generating Station on June 18, 2003, G.M. Shrum Generating Station on July 23, 2003, and Dal Grauer Substation on October 3, 2003. A review of these events was undertaken to determine if there was a common cause or trend to these incidents. A number of corrective action plans were undertaken as a result of the review, and this has substantially reduced the risk of reoccurrence.

**Benchmark Comparison:** BC Hydro regularly compares itself to B.C. industry as well as to peer Canadian electrical utilities (through the CEA), but we focus on the CEA being the truest comparison. The BC Hydro fiscal year end AIF of 3.0, shown above, is roughly 10 per cent below the CEA composite (average) of 3.41 for the calendar year ending December 31, 2003.

## Respectful Workplace Training

### Number of Employees Who Completed Training

|                      | 2003/2004 |     |       | 2002/2003 |     |       | 2001/2002 |     |       | 2000/2001 |  |  |
|----------------------|-----------|-----|-------|-----------|-----|-------|-----------|-----|-------|-----------|--|--|
|                      | Total     | M&P | OPEIU | IBEW      | M&P | OPEIU | IBEW      | M&P | OPEIU | IBEW      |  |  |
| Field Services       | 58        | 7   | 13    | 23        | 0   | 0     | 0         | 0   | 0     | 0         |  |  |
| Engineering Services | 28        | 0   | 0     | 0         | 2   | 1     | 0         | 0   | 0     | 0         |  |  |
| Generation           | 103       | 0   | 0     | 0         | 0   | 0     | 0         | 252 | 227   | 243       |  |  |
| Distribution         | 0         | 59  | 268   | 2         | 0   | 0     | 0         | 0   | 0     | 0         |  |  |

Some totals are estimated. As part of BC Hydro's commitment to providing a work environment where all employees are treated with respect and dignity, the Respectful Workplace Program (RWP) will continue to offer, upon request, Respectful Workplace Awareness sessions to employees and managers. The sessions are designed to foster respectful workplace behaviours through discussion of typical workplace scenarios employees may encounter; ensure that employees are aware of the services available to them through the RWP and know how to access them; outline procedures for resolving complaints both informally and formally; ensure that managers understand BC Hydro's legal and ethical commitment to providing a respectful workplace, and ensure that employees understand their responsibilities toward creating a respectful workplace.

In 2003/2004 the total number of employees who complete Respectful Workplace Training is provided by LOB. However, data by employee affiliation was not available.

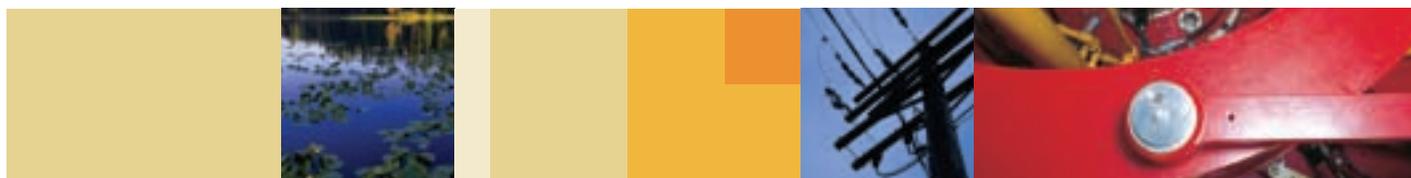
# Report on Performance

- The Respectful Workplace program offers a variety of services to employees and managers that assist in ensuring that employees are treated with dignity and respect in the workplace. The program responded to 12 new employee concerns last year.
- The Return to Work Program assists employees absent due to occupational or non-occupational illness or injury, to return to work in a safe and timely manner. The program is in place to help those who are ill, injured or otherwise struggling to return to work. The program assisted 66 new referrals during the year.
- The Lifestyle Program supports and encourages employees to adopt positive behaviour for a healthy and well-balanced life. Last year there were 162 health workshops and 529 individual health screens.

## Employee Health Services

| Health Services and Programs                   | 2003/2004 | 2002/2003 | 2001/2002 |
|--|-----------|-----------|-----------|
| <b>Return to Work (Number)</b>                 |           |           |           |
| New Referrals                                  | 66        | no data   | no data   |
| Cases Closed                                   | 42        | no data   | no data   |
| Duty to Accommodate Opened                     | 6         | no data   | no data   |
| Management Consults/Training                   | 1         | no data   | no data   |
| Total Caselist as of March 2004                | 50        | no data   | no data   |
| <b>Employee Family Assistance Program</b>      |           |           |           |
| Employees Accessing Program                    | 469       | 550       | 801       |
| Percentage of Total BC Hydro                   | 12%       | 13%       | no data   |
| Family Members Accessing Program               | 350       | 361       | no data   |
| <b>Respectful Workplace (Number)</b>           |           |           |           |
| New Cases                                      | 12        | 19        | 44        |
| Consults with Respectful Workplace Coordinator | 26        | no data   | no data   |
| <b>Physiotherapy (Number)</b>                  |           |           |           |
| New Clients                                    | 130       | 80        | no data   |
| Treatments                                     | 843       | 1,717     | 1,726     |
| <b>Health Promotion Spending</b>               |           |           |           |
| Per Employee/Per Month (Dollars)               | 41.47     | no data   | no data   |
| <b>Health Promotion and Screening</b>          |           |           |           |
| Lifestyle Incentive Program Participants       | 1,443     | 2,287     | 2,300     |
| Lifestyle Workshop Participants                | 2,951     | 3,301     | 3,989     |
| One on One Fitness or Wellness Consultations   | 220       | 522       | 659       |
| Employee Health Consultations                  | 290       | 418       | no data   |
| Employee Health Screenings                     | 529       | 684       | 312       |

Under the Master Service Agreement signed by both BC Hydro and Accenture Business Services for Utilities (ABSU), the Health Services programs, previously administered by BC Hydro, has been transferred to ABSU. In 2003/2004, BC Hydro paid ABSU a monthly base rate of \$41.47 per employee, and ABSU now administers all health services on behalf of BC Hydro. The process in which ABSU reports performance results to BC Hydro has been expanded. These performance metrics now reflect these changes. Also note: 2003/2004 includes BC Hydro and Powerex employees only and does not include employees transferred to ABSU or BCTC. The 2002/2003 data includes all BC Hydro employees, and those transferred to BCTC in August 2003, with the exception of physiotherapy treatments which also includes ABSU employees. The 2001/2002 data includes all employees.



# Performance by Lines of Business

## Generation

**Generation maximizes the value of its assets by managing equipment health; managing the safety of dams and associated structures; optimizing water resources, including inflows and storage and the short-term purchase of energy; and managing the trade-offs between financial, environmental and social performance. Under the Heritage Contract, Generation provides up to 49,000 GWh of energy and first call on all Generation capacity to Distribution at embedded-cost prices. Generation is also accountable for the delivery of BC Hydro programs and initiatives, including Water Use Planning and Resource Smart, that have been discussed elsewhere in this report.**

### EXTERNAL BUSINESS ISSUES

#### B.C. Energy Plan – Heritage Contract

In November 2003 the Provincial Government passed the *BC Hydro Public Power Legacy and Heritage Contract Act*, which defines all of BC Hydro's existing integrated generating facilities as Heritage Resources and ensures that the value of these assets is passed onto customers at embedded costs. In fiscal 2004, the cost of these assets averaged \$25.93/MWh compared with an average market price of \$50.86/MWh.

| SUSTAINABILITY SCORECARD – GENERATION     |   |  |             |        |        |
|---|---|--|-------------|--------|--------|
| STRATEGIC GOAL                            | STRATEGIES  | TBL PERFORMANCE  | TBL RESULTS | TARGET | ACTUAL |
| Strong Financial Performance              | Ensure adequate margin on sales to ensure that allowed Return on Equity can be earned.<br><br>Achieve Net Income comparable to an independent Generation company.<br><br>Increase overall efficiencies while ensuring Return on Equity and achieving appropriate asset conditions.  | Net Income (\$ Millions)   | ↑           | 181    | 304    |
|   |   | Cost per Megawatt Hour Generated (\$)  | ↑           | 22.33  | 19.32  |
| Quality Service                           | Optimize commercial performance.<br>Protect assets for the long term.   | Commercial Performance (%)   | ↑           | 99.00  | 99.68  |
| Good Environmental and Social Performance | Operate in an environmentally and socially responsible manner to protect assets for the long term.<br><br>Demonstrate commitment to environmental performance through reducing the number of preventable, externally reportable environmental incidents.<br><br>Maximize eco-efficiency by achieving economic energy gains at existing BC Hydro facilities. | Resource Smart Energy Gains Put Into Service (GWh)   | ↑           | 417    | 460    |
| Skilled Workforce/Safe Workplace          | Continue focus on Generation's safety strategy.<br><br>Enable proactive hiring for occupations most at risk and critical to operations through Strategic Workforce Planning.  | Generation performance measures relevant to this goal have been cascaded from BC Hydro's overall measures, All Injury Frequency and Approved Strategic Workforce Positions Filled. |             |        |        |

Above Target ↑  
Below Target ↓  
Meets Target ↔

# Performance by Lines of Business

## Reservoir Levels and Inflows

BC Hydro monitors the levels at its hydro-electric reservoirs to ensure the most efficient use of stored water to meet domestic loads and to maximize value creation through electricity trade. Reservoir levels at any time are a function of inflows (caused by snowmelt and/or rainfall runoff) and electricity demand (as water in the reservoirs is discharged through turbines to produce electricity).

Precipitation was very low across the province during the summer of 2003, as evidenced by the large number of forest fires over the summer. In contrast, October 2003 brought heavy rains and flooding to many parts of B.C. Precipitation over the winter of 2003/2004 was average to below average. The snowpack varies from well below average to average across the province.

## Peace River Basin

- Snowpack accumulations were average during the winter of 2002/2003
- The April 1, 2003, forecast predicted average runoff for the period February through September 2003; the water supply for the season was 98 per cent of average
- Williston Reservoir filled to 2,195 feet (10 feet from full)
- Snowpack accumulation was below normal during 2003/2004
- The April 2004 runoff forecast is 94 per cent of average

## Columbia Basin

- The water supply was much below average
- Kinbasket Reservoir filled to 2,443 feet (32 feet from full)
- Snowpack accumulation was average to below average during 2003/2004
- The April 1, 2004, runoff forecast is 94 per cent of average

## Bridge River Basin

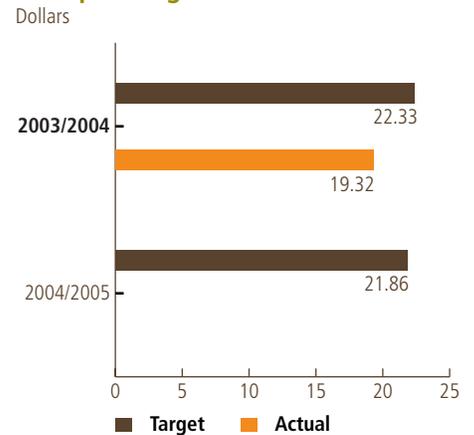
- Snowpack accumulations were very low during 2002/2003
- The April 1, 2004, runoff forecast is well below average

## Coastal Basins

- Snowpack accumulations were near average
- The April 1, 2004, runoff forecast is slightly below normal

System storage energy on March 31, 2004, was about two per cent more than the same date last year, but about 1,570 GWh below the historical average for this time of year. As a result, energy purchases will be needed over the next year to offset the below-normal inflow forecast as well as the low Kinbasket Reservoir level.

## Cost per Megawatt Hour Generated



**Definition:** Cost per Megawatt Hour (MWh) generated is all generation costs divided by the volume of energy generated under average water conditions.

**Variance Explanation:** The 2004/2005 targets have been revised from \$22.33 and \$21.86 to reflect the forecast embedded costs of supplying Heritage electricity. Dividing the embedded costs by the forecast output provides an indication of Generation's efficiency of production. The reduction in Generation's "Cost per Megawatt Hour Generated" reflects a drop in the market price of energy purchases (replacing planned thermal generation) of \$12/MWh, plus a reduction in finance costs. This is the first year this measure has been reported.

**Benchmark Comparison:** Currently, all major hydroelectric generating units place in the first and second quartiles for cost efficiency (Haddon Jackson).

# Performance by Lines of Business

## First Nations

During fiscal 2004, Generation focused on resolving past grievances with the Stl'atl'imx First Nations, the Tsay Key Dene and Kwadacha. Negotiations have been progressing well and it is hoped that a settlement offer will be tabled near the end of fiscal 2005.

## INTERNAL BUSINESS ISSUES

### Asset Management

The asset management process is centred on individual Facility Asset Plans. Asset Plans consider both the technical and economic aspects of the plant's operation. Inputs to the Plans are created through a variety of asset management tools, including Equipment Health Rating, Reliability Centred Maintenance and Risk Assessment.

Assets are reaching an age when significant capital investments are needed. To maintain and improve the condition of assets, an average capital investment of approximately \$130 million per year will be required over the next 10 years. This will ensure that 10 years from now, despite being 10 years older, generation assets will be in as good or better condition than they are today.

## Safety

In July 2003 an electrician was fatally injured as a result of contacting a 138 kV disconnect switch in the G.M. Shrum switchyard. This followed a 13 kV electrical contact incident that took place at Wahleach Generating station in June. In the June incident, the mechanic involved has fully recovered and was able to return to his regular work.

Following investigations of both incidents, corrective actions were initiated to address the root causes of these serious incidents. Managers and employees throughout Generation reviewed the investigation reports and went through an extensive Work Protection Practice reauthorization process that included, in some cases, retraining.

## PROGRAM AND PERFORMANCE HIGHLIGHTS

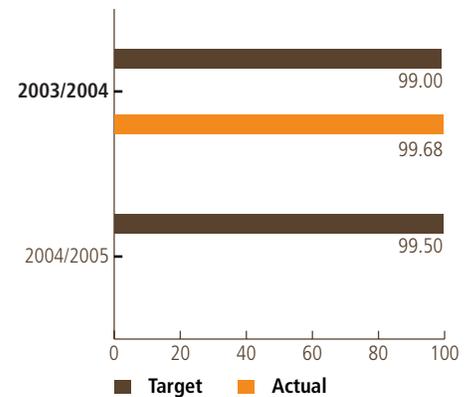
### Commercial Performance and Reliability

Generation's Commercial Performance during the year was 99.7 per cent, well above Plan of 99.5 per cent, due to the focus placed on this key indicator of success. For reference, a 0.1 per cent improvement in Commercial Performance equates to approximately \$2.5 to \$4.0 million additional gross revenue.

The average Forced Outage Factor (excluding Burrard Generating Station) was 1.60, an increase of 1.34 from the previous year's results.

## Commercial Performance

Percentage



**Definition:** Commercial Performance is the revenue from energy produced relative to the revenue from energy that could have been produced had all generation needed to meet domestic load and trade opportunities been available.

**Variance Explanation:** The 2004/2005 target has been modified from 99.00 to 99.50 to reflect historical performance (including analysis of planned outages). Particular attention was applied to manage down the number of forced outages and to minimize the duration of both forced and planned outages, thereby reducing the lost opportunity cost of all outages. This is the first year this measure has been reported.

**Benchmark Comparison:** While the Commercial Performance measure itself does not have an industry benchmark, all major hydroelectricity plants placed in the first and second quartiles in terms of forced outages and availability in the last Haddon Jackson benchmarking study.

## Performance by Lines of Business

The Peace Area key performance measure results were:

|              | MW    | Commercial Performance% |       | Avg. Number of Forced Outages Per Unit |      |
|--------------|-------|-------------------------|-------|--|------|
|              |       | 2004                    | 2003  | 2004                                   | 2003 |
| G.M. Shrum   | 2,730 | <b>99.76</b>            | 99.13 | 2.8                                    | 3.2  |
| Peace Canyon | 700   | <b>99.92</b>            | 99.55 | 2.8                                    | 2.0  |

The key performance measure results for Columbia Region's major facilities were:

|                    | MW    | Commercial Performance |       | Avg. Number of Forced Outages Per Unit |      |
|--------------------|-------|------------------------|-------|--|------|
|                    |       | 2004                   | 2003  | 2004                                   | 2003 |
| Mica               | 1,805 | <b>99.99</b>           | 99.68 | 4.0                                    | 2.0  |
| Revelstoke         | 1,980 | <b>99.72</b>           | 99.86 | 1.3                                    | 1.0  |
| Kootenay Canal     | 570   | <b>99.91</b>           | 99.79 | 2.0                                    | 2.8  |
| Seven Mile         | 804   | <b>99.59</b>           | 99.69 | 3.0                                    | 3.7  |
| SPN, ELK, ABF      | 21    | <b>96.30</b>           | 95.10 | 5.3                                    | 5.1  |
| FLS, WHN, SHU, WGS | 75    | <b>99.40</b>           | 94.20 | 1.6                                    | 1.8  |

The key performance measure results for the Coastal Region's major facilities were:

|                      | MW  | Commercial Performance |          | Avg. Number of Forced Outages Per Unit |      |
|----------------------|-----|------------------------|----------|--|------|
|                      |     | 2004                   | 2003     | 2004                                   | 2003 |
| Bridge River         | 466 | <b>98.75</b>           | 99.36    | 3.1                                    | 1.5  |
| Cheakamus            | 157 | <b>99.57</b>           | 99.73    | 10.5                                   | 7.0  |
| John Hart            | 126 | <b>must run</b>        | must run | 1.7                                    | 1.2  |
| Ruskin               | 105 | <b>99.00</b>           | 99.62    | 4.3                                    | 6.0  |
| Stave Falls          | 90  | <b>99.52</b>           | 99.78    | 1.5                                    | 4.5  |
| Other VI Hydro       | 332 | <b>99.30</b>           | 99.09    | 2.9                                    | 3.4  |
| Other Coastal Hydro  | 160 | <b>97.23</b>           | 98.07    | 6.5                                    | 8.3  |
| Other Interior Hydro | 73  | <b>99.95</b>           | 99.35    | 1.0                                    | 0.0  |
| Burrard              | 913 | <b>N/A</b>             | N/A      | 1.7                                    | 3.0  |
| Prince Rupert        | 46  | <b>N/A</b>             | N/A      | 1.0                                    | 1.0  |

### Equipment Health

#### Peace Region

- In November 2003 the G.M. Shrum Unit 7 stator winding failed suddenly, without warning. A replacement winding has been installed and the unit is expected to be returned to service in June 2004.

#### Columbia Region

- BC Hydro's Board of Directors approved replacement of the stators in the four generators at Mica Generating Station. This design was based on recommendations from an internal engineering review and an independent Technical Advisory Board. The original design of the generators has resulted in premature aging of the stators and an increased risk of forced outages. One stator will be replaced each year over four years beginning in 2006.
- Coursier Dam, the water storage dam for Walter Hardman Generating Station located 30 km south of Revelstoke, was successfully decommissioned in fiscal 2004. The dam was decommissioned because of deficiencies.

# Performance by Lines of Business

## Coastal Region

- Funding to replace the Coquitlam Dam so it will meet current earthquake standards was approved by BC Hydro's Board of Directors in fiscal 2004. The design of the replacement dam and site investigations are underway and will cost \$41 million. BC Hydro is working closely with the Greater Vancouver Water District to relocate their valve house and pipeline prior to the dam construction. The reservoir level continues to be restricted to protect public safety.
- Site investigations and design work commenced in fiscal 2004 for the earthquake upgrade for Blind Slough Dam at Stave Lake. The upgrade will include steel anchors placed through the existing concrete structure at an estimated cost of \$7.8 million. The project is expected to be complete by fiscal 2006.

## Capital Investment

| Region   | Active Investment (Millions) | Planned Investment (Millions) | Variance Rationale   | Facility Highlights  |
|----------|------------------------------|-------------------------------|--|--|
| Peace    | 33.8                         | 40.0                          | <ul style="list-style-type: none"> <li>• Delays in GMS transformer replacement (unit not available)</li> <li>• Deferral of the GMS protection replacement program</li> </ul>                           | <ul style="list-style-type: none"> <li>• \$10 million Resource Smart turbine replacement at G.M. Shrum Unit 6 increased output by 81 GWh</li> </ul>                |
| Columbia | 32.6                         | 59.6                          | <ul style="list-style-type: none"> <li>• Seven Mile dam safety project was \$14 million under plan</li> <li>• \$6 million credit from BCTC</li> <li>• deferral of Revelstoke Unit 5 studies</li> </ul> | <ul style="list-style-type: none"> <li>• Seven Mile Dam safety program improved reliability and brought facility up to present day earthquake standards</li> </ul> |
| Coastal  | 61.4                         | 70.0                          | <ul style="list-style-type: none"> <li>• Delays in dam safety projects</li> <li>• Slower progress on First Nations negotiations</li> </ul>   | <ul style="list-style-type: none"> <li>• Elsie Dam safety improvements will improve performance in major earthquakes</li> </ul>                                    |

## FUTURE DIRECTION

Generation's long-term goal is to continue to deliver electricity from B.C.'s Heritage Resources at less than \$25/MWh and to maximize the value from these assets against the market. To achieve this long-term objective, Generation will focus on the following three key areas during the upcoming fiscal year.

### Asset Management Innovation

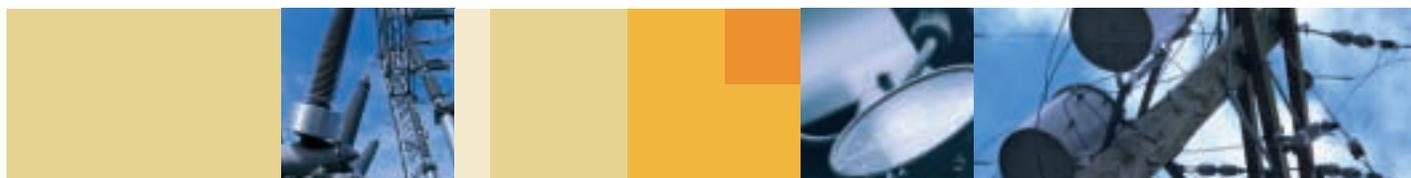
- Continue implementation of the asset management strategy, including reliability-centred maintenance, equipment health ratings and risk assessment framework. Asset Plans will continue to be operationalized as core business documents.

### Operations Innovation

- Enhance energy purchasing activities, including the implementation of a hedging strategy, and development of a commercial relationship with BCTC.

### Business Practices Innovation

- Continue to align the business model and processes to implement the Heritage Contract to drive economically efficient decisions for supply and trade to maximize the value of BC Hydro Generation assets. Overhead costs will be reduced by eliminating inefficiencies, being more innovative and implementing best in class business processes and information technology.



# Performance by Lines of Business

## Distribution

**Distribution is accountable for defining the overall BC Hydro customer experience, setting BC Hydro’s customer service performance measures and working with internal and external service providers to ensure these measures are achieved and customers are satisfied. Distribution is also accountable for the delivery of a number of significant BC Hydro programs and initiatives that have been discussed in previous sections of this report. These programs and initiatives have been aligned to BC Hydro’s overall sustainability-focused goals and objectives. Some of these programs and initiatives include: Clean Energy Acquisition, Green Power Certificates, Power Smart and Customer Care.**

### EXTERNAL BUSINESS ISSUES

#### Major Fires and Adverse Weather

Fiscal 2004 was a challenging year for Distribution operations. Major fires and adverse weather disrupted service to many BC Hydro customers and negatively impacted system performance and costs.

| SUSTAINABILITY SCORECARD – DISTRIBUTION                                    |   |  |             |            |            |
|--|---|--|-------------|------------|------------|
| STRATEGIC GOAL   | STRATEGIES  | TBL PERFORMANCE  | TBL RESULTS | TARGET     | ACTUAL     |
| Strong Financial Performance   | Become a full line of business to maximize shareholder and customer value.<br>Implement strategic management process.<br>Establish prudent business services.   | Net Loss Before RSA Transfer (\$ Millions)   | ↑           | (439)      | (364)      |
|  |   | COMA/Customer (\$)   | ↓           | 262.2      | 269.5      |
| Quality Service  | Develop a commercial focus and make commercially sound, customer-focused business decisions.<br>Continue to better understand customers’ needs and expectations.<br>Continue building customer relationships.<br>Provide seamless, transparent customer service with all outsourcing partners.<br>Manage asset risks.<br>Optimize asset utilization.<br>Sustain a safe, reliable infrastructure.<br>Maintain goodwill and consent to operate. | Reliability and Customer Satisfaction performance measures relevant to this goal have been cascaded from BC Hydro’s overall measures.<br><br>Asset Health Risk Index (%) | <br><br>↔   | <br><br>20 | <br><br>20 |
| Energy Management (aligned with Good Environmental and Social Performance) | Establish and structure Energy Management functionality and strategy.<br>Invest in demand-side management as a part of resource portfolio.<br>Develop supply metering and billing processes.<br>Establish energy and services contracts.<br>Develop risk management policy and apply risk management tools.<br>Implement Power Smart residential and business initiatives.  | Conservation GWh performance measures relevant to this goal have been cascaded from BC Hydro’s overall measures.   |             |            |            |
|  |   | Customer-Based Generation (GWh)<br>Green GWh   | ↑<br>↑      | 160<br>270 | 258<br>301 |
| Skilled Workforce/<br>Safe Workplace                                       | Ensure understanding of competency requirements for Distribution.<br>Provide training in areas lacking competency.<br>Develop “best place to work” culture.<br>Uphold safety value and culture.<br>Become employer and partner of choice.<br>Balance technical requirements with commercial focus.<br>Develop relationships to create an interdependent organization.   | Performance measures relevant to this goal have been cascaded from BC Hydro’s overall measures, All Injury Frequency and Approved Strategic Workforce Positions Filled.  |             |            |            |

Above Target ↑  
Below Target ↓  
Meets Target ↔

# Performance by Lines of Business

## INTERNAL BUSINESS ISSUES

### Asset Health

Asset health, as a direct driver of operations, maintenance and capital expenditures, is related to a number of factors including design standards, asset utilization and maintenance practices.

The distribution network asset health is generally good. In the near term, it is able to continue to provide the service that it was designed for. However, with an increasing proportion of assets reaching or approaching end of life, the impact of aging assets on reliability and cost performance needs to be addressed. It is estimated that approximately 20 per cent of the distribution assets are in fair or poor condition. Although increasing asset age alone is not a cause of decreasing system reliability, it can be expected that age-related failures will increase as assets reach their design age. Replacing these assets will place significant cost pressures on Distribution and, ultimately, on ratepayers. As well, population increases (27,493 new customers were connected in fiscal 2004) and residential upgrades mean that in the near term, the system will be pushed harder to meet load growth, with the potential impact of shortening the life expectancy of equipment components in an aging system.

Programs are already underway to address many of these concerns, and strategies for managing the remaining concerns are incorporated into the overall Asset Management Operating plan.

Asset age and health is a key internal challenge that Distribution will continue to face. While the overall health of the wires assets is generally good, an increasing proportion of assets (approximately 35 per cent) will reach the end of their useful life within the next 10 years. The pressure for increasing reinvestment in Distribution's assets will continue to grow.

### PROGRAMS AND PERFORMANCE HIGHLIGHTS

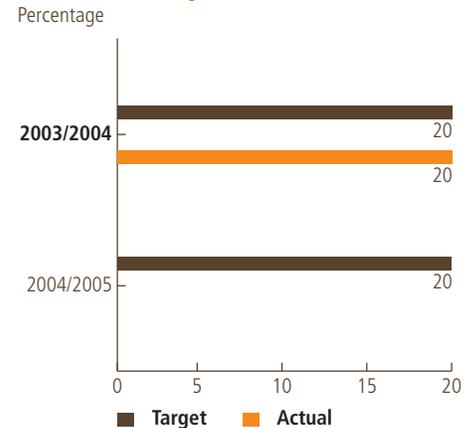
Given the focus on meeting provincial policy objectives and fulfilling regulatory requirements, Distribution also successfully managed other external key challenges and opportunities over this last fiscal year.

#### Maplewood Energy Planning Project

Distribution participated in an energy planning project with a small North Vancouver community called Maplewood, just east of the Second Narrows Bridge in Vancouver.

The project's goal is to reduce the energy and environmental footprint of the entire community. Through education, planning and collaboration with a number of associated groups, shared efficiencies can be obtained, such as reducing and minimizing waste disposal.

### Asset Health Risk Index Distribution System



**Definition:** Asset Health Risk Index is the percentage of Distribution assets rated in fair or poor condition through an annual assessment of asset health.

**Variance Explanation:** Target achieved. This is the first year this target has been reported.

**Benchmark Comparison:** No benchmark data available.

Normally, these types of efforts occur in new developments, but Maplewood is geared toward significant improvement within the current infrastructure. Once in place, the project will provide opportunities to share efficiency improvements and profitability. Whether it is creating high-performance buildings, identifying material exchanges or simply demonstrating environmental responsibility, this project also looks at the efficiencies between the organizations.

# Performance by Lines of Business

## Load Forecasting

Following the outcome of the Vancouver Island Generation Project's (VIGP) Certificate of Public Convenience and Necessity (CPCN) regulatory hearing, Distribution initiated a process to review and update forecasting methodologies. In this process, Distribution is examining some components of its energy and peak forecasts as well as its approach to providing a number of shorter-term and risk-based forecasts to better support users needs. As the forecast is a cornerstone to drive and inform many internal business and financial decisions on planning for customer load, it is also critical that it is transparent, accessible and validated.

## Net Metering

BC Hydro's net metering program was accepted by the BCUC in March 2004. The program was developed with feedback from potential customers and associations interested in advancing small self-generation. The final program design is geared towards self-generators with up to 50 kW capacity limit. This program will enable residential customers to tap local resources to serve their load, as well as sell excess generation to BC Hydro.

## Employees

Distribution is a fairly young organization within BC Hydro that will require a continued focus on integrating the entire team and building an interdependent, commercial culture focused on customers and the triple bottom line. Because Distribution's ability to deliver on core compe-

tencies and accountabilities is impacted so much by the capacity and capability of its employees, Distribution must continue to encourage and support employee development and growth.

A multi-year initiative to move Distribution to a commercial, triple bottom line, customer-focused culture, was successfully launched in fiscal 2004. A key component of Phase I of this Business Culture program was a one-day strategy seminar, "Succeeding In Our Business," delivered to 732 employees. The seminar outlined Distribution's strategy, business model, priority initiatives and business partner relationship guiding principles.

## FUTURE DIRECTION

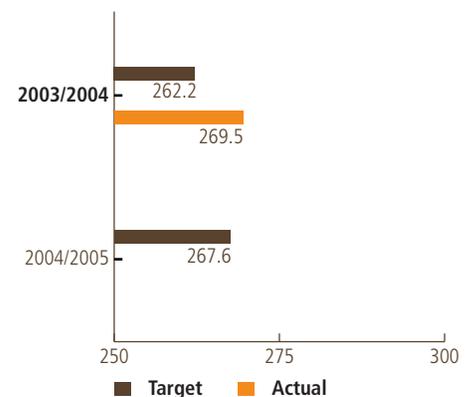
Distribution will face key external and internal challenges due to its aging infrastructure and regionalized customer growth. The current state of Distribution's assets will continue to drive additional requirements for maintenance spending and sustaining capital investment. In addition, customer growth, particularly in the Lower Mainland, will continue to increase the costs associated with new connections, increase customer service costs, and increase the demand for incremental energy sources.

To meet future energy demand resulting from customer growth, Distribution will continue to source the lowest cost energy supply alternatives in alignment with the Integrated Energy Plan. New relationships with IPPs will present credit, siting and regulatory approval risks, as well as

technical implementation challenges (for example, interconnections and the need to find alternative sources of capacity). To mitigate these risks and address stakeholder concerns about energy supply options, a low-cost, reliable energy portfolio will be maintained, including the appropriate use of demand-side management options.

## COMA per Customer

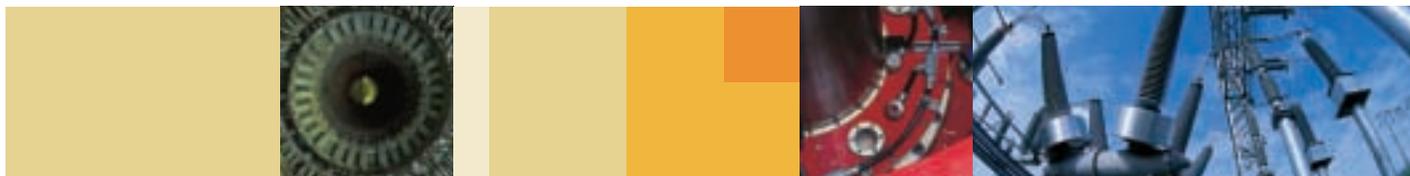
Dollars



**Definition:** COMA per Customer is the gross recurring capital expenditures (net of Telus recoveries) and operating, maintenance and administrative COMA expenses divided by the total number of customers.

**Variance Explanation:** With Recurring Capital on Plan, additional OMA expenses were required for reliability and growth due to increased trouble costs, system switching and design costs. This is the first year this measure has been reported.

**Benchmark Comparison:** No benchmark data available



# Performance by Lines of Business

## Engineering Services

**Fiscal 2004 activities have focused on the delivery of engineering services within scope, schedule and budget with appropriate quality. Through the broad scope of its services, Engineering fully contributes to triple bottom line objectives of financial, environmental and social performance.**

### EXTERNAL BUSINESS ISSUES

External engineering consultants act as a key resource to Engineering to supplement internal staff and to complete independent work packages. Many of the specialized services and skills provided by Engineering are not generally available from local consultants, but are available elsewhere in North America. Engineering will be working to build relationships

with external engineering consultants to identify potential resources. Engineering also must streamline processes for identifying, defining and tendering consultant work packages, while maintaining appropriate scope, schedule, cost and quality of the work.

Significant infrastructure projects in British Columbia, particularly the Lower Mainland, are planned for the next 10

years, including infrastructure associated with the 2010 Olympics. Demand for engineering services is expected to grow and may result in shortages of external engineering resources to assist Engineering. This further emphasizes the need for Engineering to build relationships with consultants both locally and elsewhere in North America to ensure resources are available when required.

| SUSTAINABILITY SCORECARD – ENGINEERING                                     |   |   |             |        |        |
|--|---|---|-------------|--------|--------|
| STRATEGIC GOAL   | STRATEGIES  | TBL PERFORMANCE   | TBL RESULTS | TARGET | ACTUAL |
| Maximize Financial Performance (aligned with Strong Financial Performance) | Maintain BC Hydro revenue stream.                                   | Utilization Rate (%)  | ↑           | 82     | 84     |
|  | Through partners, prepare to generate new external revenue.         | Hourly Charge-out Rate (\$)   | ↔           | 97     | 97     |
| Improve Client Focus (aligned with Quality Service)                        | Manage business and technical risks.                                |   |             |        |        |
|  | Organize to focus on clients.                                       |   |             |        |        |
|  | Continue to develop commercial focus.                               |   |             |        |        |
|  | Track service delivery.   |   |             |        |        |
|  | Optimize use of resources.  |   |             |        |        |
| Skilled Workforce/ Safe Workplace  | Focus on specialization (rather than services seen as commodities). | Client Feedback/ Satisfaction   | ↑           | 5-6    | 6.5    |
|  | Develop a marketing culture.  | Approved Engineer-in-training (EIT) and Graduate Technologists-In-Training (GTT) Positions Filled (%) | ↔           | 100    | 100    |
|  | Measure performance.  |   |             |        |        |
|  | Maximize employee potential.  |   |             |        |        |
|  | Build on strengths.   |   |             |        |        |
|  | Transfer institutional memory.                                      |   |             |        |        |

Above Target ↑  
Below Target ↓  
Meets Target ↔

# Performance by Lines of Business

## INTERNAL BUSINESS ISSUES

In fiscal 2004 Engineering recruited 15 trainees, established a leadership succession talent pool, continued external recruitment, and established formal and informal mentoring and knowledge transfer activities within Engineering to ensure that institutional knowledge is passed along from senior employees to new ones.

BC Hydro reviewed the role of Engineering and the options for the future business structure. The evaluation concluded that Engineering should remain as a service organization within BC Hydro and move towards commercial practices. A key component of this strategy is for Engineering to focus on internal (BC Hydro and BCTC) customers in the near term. As a result, Engineering will engage in work for external clients only when the work provides significant benefits to the client and Engineering, and where risks are appropriately managed.

## PROGRAMS AND PERFORMANCE HIGHLIGHTS

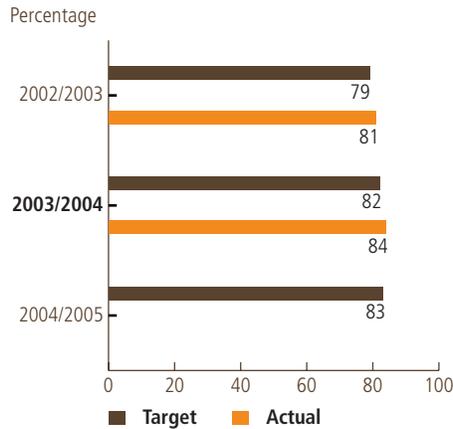
Engineering Services provides engineering excellence for a wide range of projects and initiatives. The following highlights describe a few fiscal 2004 achievements.

### 2L33 Transmission Cable Installation

Engineering designed and oversaw the installation of approximately nine kilometres of high-voltage cable between Horne Payne Substation in Burnaby and

Cathedral Square Substation in downtown Vancouver from September 2003 through April 2004. The project included cable pulling and splicing and was featured on the Discovery Channel on January 26, 2004. Extensive consultation with stakeholders was undertaken to minimize impacts on local residents and businesses. The lessons learned from upgrading major infrastructure in congested urban areas will benefit the upcoming work intended to support the building of Olympic 2010 infrastructure in B.C.

### Utilization Rate

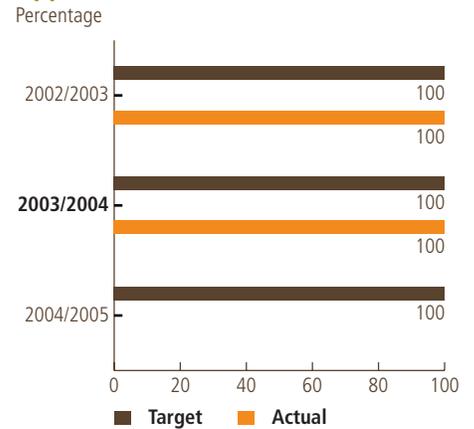


**Definition:** Utilization Rate is the billable hours divided by total hours worked.

**Variance Explanation:** The 2004/2005 target has been revised from 80-83 to move towards first quartile when compared with other engineering firms. The Utilization rate is higher than plan due to an increase in billable hours.

**Benchmark Comparison:** No benchmark data available.

### Approved EIT & GTT Positions Filled



**Definition:** Approved Engineer-in-Training (EIT) and Graduate Technologist-in-Training (GTT) Positions Filled is defined as the percentage of EIT and GTT targeted positions that are filled. The targets have been set based on an internal needs assessment against expected organizational capacity.

**Variance Explanation:** Target achieved.

**Benchmark Comparison:** No benchmark data available.

# Performance by Lines of Business

## Direct Current Submarine Cable to Gulf Islands

Replacement of approximately 8.8 kilometres of high-voltage DC submarine cable in the Gulf Islands was completed in December 2003 by a project team from Engineering, Field Services and contractor personnel. The work was carried out in a challenging marine environment during winter conditions while meeting stringent schedule, safety and environmental targets. The project included recovery of 8.8 kilometres of existing cable, supply of five kilometres of new cable, installation of 8.8 kilometres of new and spare cable and completion of shore-end work for the cables.

## Client Services

Engineering conducted a review of the products and services, internally and externally, to better identify areas of greatest value to focus on. Through the year, Engineering sought to demonstrate increased value for reduced costs. To increase cost focus, for example, fixed-price work for internal clients was done on a trial basis.

Engineering achieved significant improvements in client feedback from both BC Hydro and BCTC clients in fiscal 2004. These improvements were accomplished primarily through increased focus and accountability within Engineering on clients' project cost and schedule milestones. Ongoing emphasis on relationship building with clients will ensure that Engineering continues to understand and meet clients' business needs.

Following the input collected from an internal audit, Engineering developed a stronger link between the environmental engineering team and the construction management team. This link also increased the integration of environmental performance measures into the procurement process evaluation criteria.

## Client Feedback/Satisfaction



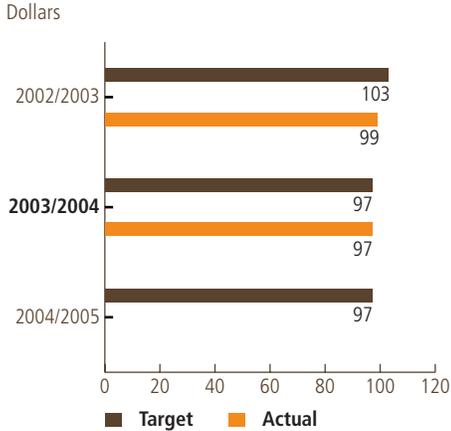
**Definition:** Client Feedback/Satisfaction is the client ratings of Engineering's performance on six criteria; including: Understanding of clients business; delivering on time; delivering on budget; communication; quality of products & services, and overall satisfaction. A face-to-face meeting is conducted once a week with different clients within BC Hydro and scored on a scale of 1–7 (1: Extremely Poor to 7: Excellent).

**Variance Explanation:** The 2004/2005 target has been modified based on keeping Engineering near the upper end of the range. Rating improvement was a result of an increase in focus and accountability within Engineering on clients' project cost and schedule milestones, and the increased emphasis on relationship building and communications.

**Benchmark Comparison:** No benchmark data available.

# Performance by Lines of Business

## Hourly Charge Out Rate



**Definition:** Hourly Charge Out Rate is the weighted average hourly rate charged by Engineering. It is calculated as net revenue, less the contract hire margin divided by total billable hours.

**Variance Explanation:** The 2003/2004 and 2004/2005 targets have been revised from \$93 to \$97 to offset inflation and wage increases with efficiency improvements. Costs reduced due to initiatives (e.g., IT cost containment initiative)

**Benchmark Comparison:** No benchmark data available.

## Workplace Culture

Engineering has taken steps to foster an innovation culture during fiscal 2004 and recognized employees' success by hosting the inaugural Entrepreneurial Leadership and Innovation & Technical Excellence awards in April 2004. The qualities of imagination, commitment and persuasion, along with challenging the status quo, were celebrated through this event.

## FUTURE DIRECTION

Engineering will achieve alignment with the overall BC Hydro direction of sustainability through focusing on project delivery, technical excellence, client relationships and employee development. The key challenges ahead include negotiating the right balance of internal and external work allocation, strengthening relationships with clients and consistently innovating to provide more high-value support and leadership for clients. It will be particularly important to articulate the governance relationships surrounding work done for BCTC, and for Engineering to continue developing its culture to attract and retain talented technical professionals during the next 10 years. Engineering clients have confirmed the vital role that Engineering will play in the delivery of their capital plans that maintain the healthy performance of BC Hydro's assets.



## Performance by Lines of Business

### **CASE STUDY: COURSIER DAM DECOMMISSIONING**

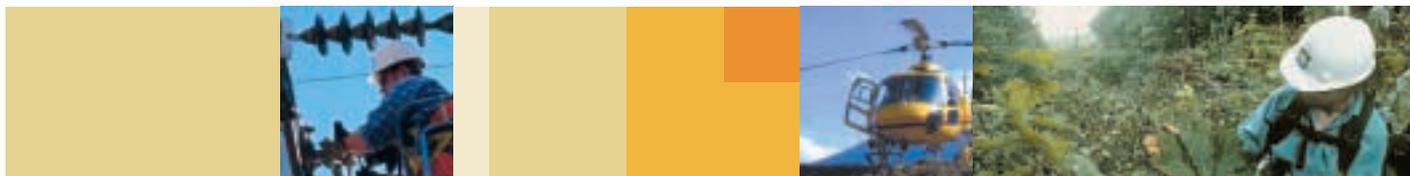
Coursier Dam is connected to the Walter Hardman Generating Station, near Revelstoke. Built in 1963 by the City of Revelstoke, the dam was purchased by BC Hydro in 1972. Due to an ongoing history of dam safety deficiencies and various remedial works over the years, BC Hydro conducted a thorough review of options related to the future operation of Coursier Dam and concluded that the dam should be decommissioned to mitigate safety and environmental risks. This decommissioning is the first of its kind in BC Hydro history.

Engineering carried out project management, design, permitting, tendering and construction management for the decommissioning work. The work consisted of dam removal/excavation, channel restoration, site cleanup, revegetation and monitoring. The construction work was completed in September 2003, despite delays and restrictions caused by the Interior forest fires. Revegetation work is planned for 2004.

Dam removal included excavation of a notch through the centre of the existing earthfill dam. This notch created a new stream channel at the approximate location of the original creek bed and allowed Coursier Lake to return to its original historic, pre-1963 lake elevation. The slopes on the sides of the notch were terraced and will be vegetated to create erosion resistant banks. “Riffle” features were incorporated into the design of the new stream channel to prevent erosion of the channel. The existing concrete spillway was broken up and buried and the low-level outlet intake, pipe and valve house were removed. Revegetation, including streambank planting and reforestation, is planned to return previously inundated areas and remaining dam structure to its natural vegetated condition.

The Coursier Dam site is located within an area identified as traditional territory by the Okanagan Nation and the Shuswap Nation. BC Hydro engaged the Okanagan and Shuswap Nations in the decommissioning in a number of ways. Capacity funding agreements were entered into providing the First Nations with financial resources to participate. To promote local and First Nations involvement in the construction phase, the work was managed through smaller, more accessible contracts and First Nations were provided with notice of BC Hydro tendering opportunities. First Nations members also participated in archaeological investigations and had representatives engage in the fieldwork and review the archaeologist’s report.

BC Hydro’s stakeholder engagement through the decommissioning process has been recognized and commended by the Environmental Assessment Office and the Shuswap First Nation.



# Performance by Lines of Business

## Field Services

**Field Services provides emergency response and restoration services, maintenance services and smaller construction services to BC Hydro and BCTC. Field Services' workforce consists of approximately 1,540 management, line crews and other unionized employees.**

### EXTERNAL BUSINESS ISSUES

Field Services strives to ensure compliance with workplace regulations for safety and the environment. Continuous focus on safety performance and related training and awareness has been reflected in the improved safety record. In fiscal 2004 there were 74 disabling and medical aid incidents. This represents a 15 per cent

reduction from fiscal 2003. Environmental incidents were reduced by more than 70 per cent, from 26 per cent in fiscal 2003 to seven per cent in fiscal 2004.

The increased work volumes experienced in fiscal 2004 were managed by optimizing the mix of labour resources between regular and temporary employees and contractors.

### INTERNAL BUSINESS ISSUES

Field Services experienced significantly larger work volumes driven by increased economic activity, increased customer growth, and unusual events such as the forest fires in the summer of 2003.

Field Services will continue to invest in workforce renewal programs to ensure that a pool of apprentices and trainees is

| SUSTAINABILITY SCORECARD – FIELD SERVICES |   |   |             |        |        |
|---|---|---|-------------|--------|--------|
| STRATEGIC GOAL                            | STRATEGIES  | TBL PERFORMANCE   | TBL RESULTS | TARGET | ACTUAL |
| Strong Financial Performance              | Targeting first quartile costs when compared to similar service organizations.<br>Transition from an owner to a service provider culture.<br>Provide IT support systems to effectively bundle, manage and schedule work.<br>Redesign key business processes.  | Labour Utilization (%)  | ↑           | 69.5   | 73.9   |
|   |   | Hourly Charge-out Rate (\$)   | ↑           | 95.00  | 89.00  |
| Quality Service                           | Understand customer needs and provide the appropriate products and services.<br>Establish Service Level Agreements with lines of business and service organizations.<br>Develop a commercially focused relationship with BCTC.<br>Operate in an environmentally responsible manner.   | Reliability (CAIDI) measures relevant to this goal have been cascaded from BC Hydro's overall measures; however, Field Services is primarily responsible for responding to power interruption calls.<br>Total Planned Work Complete (%) | ↑           | 98     | 100    |
| Skilled Workforce/<br>Safe Workplace      | Continue focus on employee safety awareness training.<br>Increase focus on workplace audits and crew leader training.<br>Uphold manager and employee accountability for safety.<br>Identify and define the skills and knowledge necessary to succeed as a commercial enterprise.<br>Renew the workforce through continued Strategic Workforce Planning. | All Injury Frequency  | ↑           | 6.7    | 5.2    |
|   |   | Total Trainees – Strategic Workforce Planning   | ↓           | 122    | 118    |

Above Target ↑  
Below Target ↓  
Meets Target ↔

# Performance by Lines of Business

available to replace 45 per cent of the workforce who are eligible to retire over the next five years and 60 per cent over the next 10 years. In fiscal 2004 trainees represented 10 per cent of the Field Services regular trade workforce. Field Services hired 28 new trade apprentices and managerial positions in fiscal 2004. The time required to complete an apprenticeship program averages from 36 to 48 months.

## PROGRAM AND PERFORMANCE HIGHLIGHTS

Field Services strives to improve service, while minimizing costs and incorporating best practices. The following highlights reflect this philosophy.

### Benchmarking

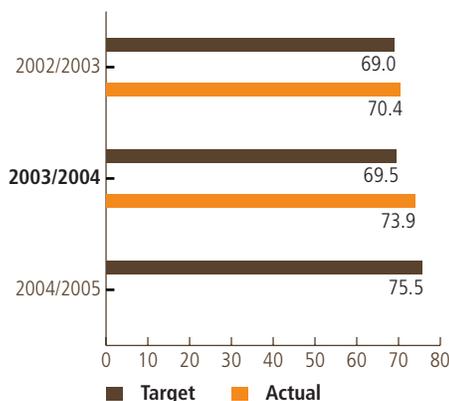
Field Services undertook a study of leading practices in fiscal 2004 to assess its position in the utility industry and was found to be a competitive service provider.

The study suggests that BC Hydro has a solid cost position driven by leading practices in Field Services in areas such as one-person crews and contracting out. An opportunity identified by the study is in the area of work management.

Field Services made a significant contribution to the total BC Hydro first quartile All Injury Frequency performance result of 3.0, as indicated in the PA Consulting Best Practices Survey.

## Labour Utilization

Percentage



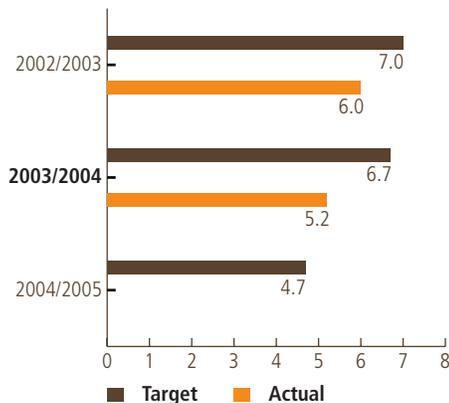
**Definition:** Labour Utilization is the number of chargeable hours divided by the total of all labour hours available. Targets have been set based on improvements to historical performance. Standby is not currently included in this measure, but is being addressed as part of the Field Services pricing and service level agreement process.

**Variance Explanation:** The 2004/2005 target has been revised from 70.5 to 75.5 to reflect improved productivity. Performance results include the Construction Business Unit (CBU) Significantly increased work volumes, due to increased economic activity, customer growth and unusual events such as the Interior forest fires, resulted in a positive performance against the 2003/2004 target for labour utilization.

**Benchmark Comparison:** No benchmark data available.

## All Injury Frequency

Incidents per 200,000 Hours Worked



**Definition:** All Injury Frequency is the total number of employee injury incidents (Medical Aids and Disabling Injuries) occurring in the 12 months prior to the report date relative to the amount of worked hours in the same period. For this measurement, Medical Aid injuries are defined as those where a medical practitioner has rendered services beyond the level defined as "first aid" in relation to the injury incident, and the employee was not absent from work beyond time lost on the day of the injury. Disabling injuries are defined as those that involve the employee being absent from work beyond the day of injury.

**Variance Explanation:** The 2004/2005 target has been re-established from 6.4 to 4.7 to reflect improvements in safety behaviour and fewer incidents. Field Services has reduced the incidence of workplace injury by 15 per cent in 2003/2004 with an overall reduction of 46 per cent in the past two years. The implementation of the annual safety program, safety awareness training and increased senior management leadership and visibility all contributed to improved safety performance.

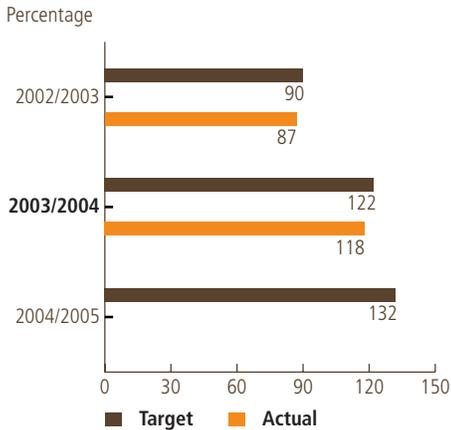
**Benchmark Comparison:** No benchmark data available.

# Performance by Lines of Business

Field Services completed all the work assigned by its internal clients during the past year and was a significant contributor to their financial performance.

Increased efficiencies are planned for Field Services in fiscal 2005 through the Strategic Alignment Project, which will minimize work-related costs and streamline business processes.

## Trainee Positions Filled



**Definition:** Trainee Positions Filled is the number of apprentices/trainees in Field Services who are being trained to fill positions as a result of retirement, attrition or other core workforce requirements.

**Variance Explanation:** The 2004/2005 target has been re-established from 129 to 132 to reflect the four-year program to train staff and the current trainee base. The 2003/2004 variance is due to fewer Strategic Workforce Planning managers required than originally planned. Apprentice hires were on target.

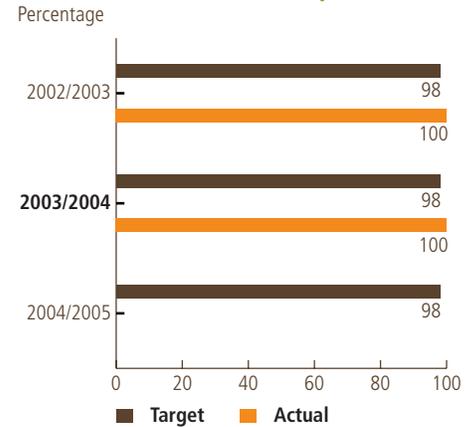
**Benchmark Comparison:** No benchmark data available.

## Safety

Safety performance has significantly improved in the two years since the inception of Field Services as an internal service provider. Field Services reduced the incidence of workplace injury by 15 per cent during the last fiscal year, with an overall reduction of 46 per cent over the past two years. The All Injury Frequency (AIF) was 5.2 for fiscal 2004, down from 6.0 in the previous year. Field Services exceeded the target of 5.8 set for fiscal 2004 and contributed significantly to BC Hydro achieving its 3.0 goal for AIF.

Field Services has some key initiatives in place for improving safety performance. These initiatives include a continued emphasis on the SafeStart program focused on raising safety awareness, increased senior management leadership and visibility, ergonomic improvements associated with Power Line Technicians' work, and the development of work practices that incorporate elements of productivity improvement along with reduced risk to workers.

## Total Planned Work Complete



**Definition:** Total Planned Work Complete is the total planned customer work assigned to Field Services divided by total planned customer work completed. This measure is a proxy measure of customer satisfaction. High levels of completed work have historically correlated to high levels of customer satisfaction. Targets have been set based on customer expectations.

**Variance Explanation:** Field Services exceeded plan by completing 100 per cent of the clients' work programs. This was accomplished by optimizing the deployment of three labour pools (internal regular, internal temporary and external contractors) to complete the work programs.

**Benchmark Comparison:** No benchmark data available.

# Performance by Lines of Business

## FUTURE DIRECTION

Field Services continues to move towards the vision of becoming a commercially focused service provider. To achieve this vision, Field Services is focusing on three key strategies – Safety First, Service Provider Plus and Continuous Improvement – aligned to BC Hydro's key objectives.

Field Services will continue to implement improvement initiatives that will optimize resource utilization, improve productivity and cost efficiencies and reduce the hourly charge-out rate, and will continue to optimize the mix of three trade labour pools to successfully complete all work.

Field Services will also provide products and services as defined by its clients, meet all clients' service and quality expectations as defined by key metrics within the Service Level Agreements with its clients, and develop a commercially focused relationship with BCTC.

Field Services will reduce environmental impacts and the number of environmental incidents and continue to act as a face to the customer in all communities served by BC Hydro.

Finally, Field Services will work to maintain its exemplary safety performance while striving to reach the corporate vision of zero incidents, retain and renew the workforce through the corporate Strategic Workforce Planning Initiative, and focus ongoing training on skills development.

## Hourly Charge-Out Rate



**Definition:** Hourly Charge Out Rate is the average hourly billing rate designed to recover all costs to provide the service. Targets have been set based on expected efficiency gains and external benchmarks.

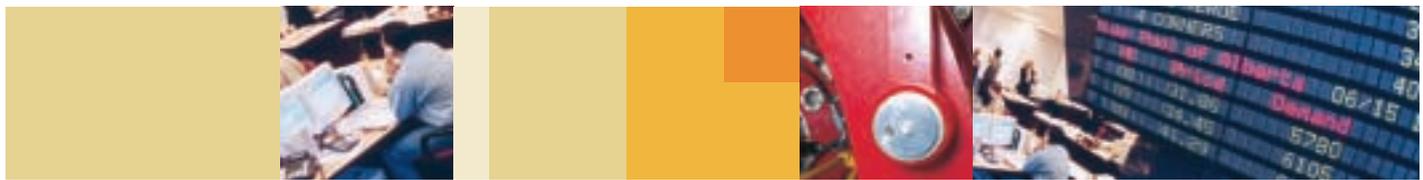
**Variance Explanation:** The 2003/2004 and 2004/2005 targets have been revised from \$84.75 and \$82.75 respectively to reflect fully loaded costs. The charge out rate includes the Construction Business Unit. The 2003/2004 positive rate variance against target is due to the efficiency credits returned to our internal clients in 2003/2004, which directly impact the effective hourly charge-out rate. These credits have largely been driven by increased work leading to either increased internal billable hours relative to plan or higher than planned contractor usage. Completing more work without increasing management and administration costs, and labour productivity improvements, also contributed to this performance.

**Benchmark Comparison:** No benchmark data available.

## CASE STUDY: INTERIOR FOREST FIRES

Late in the evening of July 31, 2003, more than 8,000 BC Hydro customers north of Kamloops lost power when forest fires burned through the 1L210 transmission line in two different locations north of Kamloops. This radial transmission line feeds all the way up the North Thompson Valley to Valemount. Damage also occurred on distribution lines as a result of the fires, and three industrial customer substations were impacted. The British Columbia Transmission Corporation (BCTC) and BC Hydro responded with recovery procedures.

Mobile diesel generation facilities were brought into the substations and installed. Residential customers and critical loads were fed first to meet basic needs, followed by commercial and small industrial customers where capacity was available. BC Hydro crews, augmented by a significant number of contract workers, worked extremely long days over a period of three weeks in unsavoury conditions (heat, ash and steep terrain) to restore service. Work on pole replacement and transmission line reconstruction was completed by August 21, about eight days ahead of schedule. Despite gruelling hours and hazardous conditions, there were no injuries.



# Performance by Lines of Business

## Powerex

**Powerex is the wholly owned energy marketing subsidiary of BC Hydro. It uses surplus capacity and storage for trade after domestic requirements have been met, including purchasing energy for trade and resale using the hydroelectric system. It is also responsible for trading power and natural gas in the Western Electricity Coordination Council (WECC) and other select regions in North America, within prescribed risk parameters, and optimizing the purchase and sale of electricity and natural gas in relation to BC Hydro’s capabilities and domestic requirements.**

### EXTERNAL BUSINESS ISSUES

On March 26, 2004, the U.S. Federal Energy Regulatory Commission (FERC) approved a settlement agreement between FERC Trial Staff and Powerex that resolves “gaming” and “partnership” allegations against Powerex relating to the California energy crisis. The settlement agreement acknowledged that there was no evidence that Powerex engaged in any gaming practices or concerted partnership practices with any other market participant, and further noted that Powerex was a valuable and

reliable supplier of energy and ancillary services to the California market throughout the period. As part of the settlement agreement, Powerex agreed to pay US\$1.3 million to avoid the burden, costs and uncertainty associated with the litigation process, and to achieve closure of the FERC proceedings.

Powerex completed the triennial market power study required by FERC and received a three-year renewal of its Power Marketing Authorization, which allows Powerex to transact business in the United States.

Over the last two years, utility and energy companies have been operating in a challenging credit environment, evidenced by a prolonged decline in counterparty credit ratings as well as several bankruptcies. Throughout this period, Powerex’s portfolio of credit risk has remained high quality with approximately 80 per cent of exposure with investment-grade companies. Using conservative credit policies and procedures based on industry best practices, Powerex continues to enable business through effective credit risk management by pursuing new trading relationships with creditworthy entities.

| SUSTAINABILITY SCORECARD – POWEREX |   |                         |             |        |        |
|------------------------------------|---|-------------------------|-------------|--------|--------|
| STRATEGIC GOAL                     | STRATEGIES  | TBL PERFORMANCE         | TBL RESULTS | TARGET | ACTUAL |
| Strong Financial Performance       | Energy trading to optimize the value of the surplus BC Hydro capacity.<br>Increase trading within the WECC and in other select areas of North America.<br>Increase cross-commodity transactions between power and natural gas in western markets.<br>Improve operational effectiveness through strong business processes and IT infrastructure.<br>Transact business with a strong code of ethics and a high degree of integrity.<br>Support teamwork to promote corporate over individual achievement. | Net Income (\$Millions) | ↑           | 115    | 181    |
|                                    |   | Sales Volume (GWh)      | ↓           | 33,059 | 28,373 |

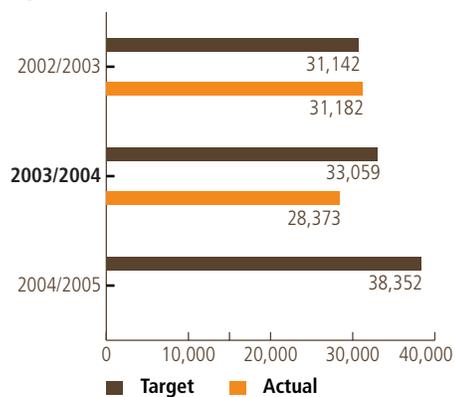
Above Target ↑  
Below Target ↓  
Meets Target ↔

# Performance by Lines of Business

In fiscal 2004, Powerex purchased 1,131 gigawatt hours from Independent Power Producers (IPPs) and self-generators in British Columbia. IPPs are an important part of Powerex's customer base and Powerex continues to build on the existing relationships with B.C.-based IPPs.

## Sales Volume

Gigawatt Hours (GWh)



**Definition:** Sales Volume is the gigawatt hours sold to third parties.

**Variance Explanation:** The decrease in gross electricity volume in 2003/2004 was due to lower reservoir levels and transmission restrictions between B.C. and the United States.

**Benchmark Comparison:** Due to the competitive nature of our business there are no meaningful benchmark comparisons available.

## INTERNAL BUSINESS ISSUES

Powerex and BC Hydro executed a Transfer Pricing Agreement, which clearly delineates the accountability, performance measurement and risk management responsibilities between Powerex and Generation.

## PROGRAMS AND PERFORMANCE HIGHLIGHTS

In fiscal 2004 Powerex generated net sales revenues of \$871 million compared with \$632 million in fiscal 2003, due to a seven per cent increase in the average sales price of electricity and capturing strong margins through forward trading.

Powerex now participates with the Independent System Operators in the North Eastern United States and the Independent Market Operator in Ontario. Powerex has increased staffing levels to have 24-hour/7-day trading desk coverage to capitalize on market opportunities in these power pools. Power pools provide operational and trading flexibility and are core to the success and profitability in the eastern region.

Powerex continues to maintain a solid and consistent trading relationship with California. In the Pacific Northwest as well as in British Columbia and Alberta, peak demands occur in the winter. In California, peak demands occur with the summer heat. The predominantly hydro-based system in the Pacific Northwest and B.C. provides a very good complement to the predominantly thermal-based system in California.

These two conditions have formed the basis for mutually beneficial regional electricity trade for over 35 years and will continue to do so in the future.

Powerex conducts its trading business under a strict Standard of Conduct policy in relation to trading activities that requires its employees to act in accordance with all applicable legislation, regulations and regulatory orders. The Policy compels all employees to engage only in lawful and ethical trading practices. The exoneration from all charges alleging inappropriate market behaviour in California from the U.S. Federal Energy Regulatory Commission reflects the integrity of our employees and the effectiveness of our Standard of Conduct policy.



## Performance by Lines of Business

Powerex has increased operational efficiency and enhanced information integrity and reporting capabilities with the implementation of a Business Continuity Plan, automated data processing and an upgraded Risk Analytics system.

Powerex continues to pursue the sales of Green Power Certificates (GPCs) in Washington State, Oregon and California, where green energy is becoming a mandatory component of an increasing number of energy portfolios. The export sale of GPCs promotes and sustains the development of green generation from IPPs in British Columbia.

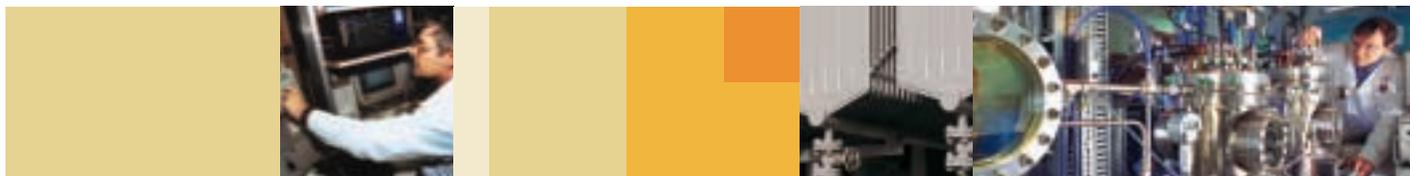
In conjunction with the Heritage Contract, all of Powerex's trade income up to \$200 million accrues to the benefit of BC Hydro ratepayers beginning in fiscal 2005. Amounts outside this range, which are only expected under extraordinary circumstances, accrue to the province as BC Hydro's shareholder.

### **FUTURE DIRECTION**

For fiscal 2005 Powerex plans to increase sales volumes to 39,000 GWh through continued sales to its traditional western markets and expansion of its activities in other North American markets; develop strategies and models to analyze and assess use of capital to enhance its risk-reward and decision-making process; and will also pursue longer-term contract opportunities to further grow its business to ensure financial sustainability in the future, resulting in increased capital, with the expectation of increased income contribution to BC Hydro.

Developing and implementing information technology systems that further enhance business infrastructures and portfolio optimization is another objective of Powerex, along with enhancing its gas trading operations by expanding its customer base, adding more trading expertise and the implementation of a Gas Trading System that will support gas procurement activities for BC Hydro and the growth in gas trading.

Powerex will continue to support Grid West (formerly RTO West) in their efforts to develop regional solutions for transmission issues and opportunities that impact market design and operations in the western region.



## Performance by Lines of Business

### Powertech Labs Inc.

**Powertech is BC Hydro's research and engineering technology subsidiary. It provides a wide range of research and specialized technology support services to electrical utilities and many other clients internationally. Powertech is recognized internationally as a leader in the fields of electric power system stability and high-pressure gas fuel systems for vehicles. Within North America it is also recognized for its expertise in testing electrical power equipment, diagnostics, condition monitoring and life extension of electric power equipment through chemical analysis techniques and other technologies that are valuable to electric power utilities.**

#### EXTERNAL ISSUES

Powertech is funded entirely through the fees it charges its clients. In fiscal 2004 more than 80 per cent of its fees came from clients external to BC Hydro; more than 60 per cent of fees came from international clients. Powertech's key strategy is to provide practical solutions to its clients' problems. The company needs to sustain good communications with its clients to be aware of their issues and to provide solutions where their issues are within Powertech's areas of technology.

#### INTERNAL ISSUES

In 2003 an investigation was conducted to determine whether the present business model is the most appropriate for the company. The key criterion for the investigation was to maximize Powertech's contribution to British Columbia. A number of potential business models and ownership arrangements were studied. All of these alternatives were identified as likely to provide equal or less contribution to British Columbia compared with the present model. No alternative was identified with potential benefits that justified the risks of change from the present model.

#### PROGRAMS AND PERFORMANCE HIGHLIGHTS

At present, the fastest-growing area of business at Powertech is testing and consulting services in the storage and delivery of compressed hydrogen fuel for vehicles. Powertech has over 18 years' experience with high-pressure gas technology that was originally developed for natural gas applications. Recently, world interest has switched to compressed hydrogen gas as a fuel for vehicles. Vehicles that run on hydrogen have the potential to emit zero pollutants into the atmosphere. To achieve an acceptable operating range between refuelling, however, the hydrogen gas must be stored at high pressure. Technology to produce safe and efficient refuelling and on-vehicle storage devices must be refined and tested before hydrogen vehicles can be offered to the public. In recent years Powertech has developed expertise and facilities to provide the specialized services and international standards that are needed to make hydrogen vehicles a reality.

In fiscal 2004 Powertech performed work for most of the world's leading automobile manufacturers to help them develop safe, effective, lightweight hydrogen storage and delivery systems for their hydrogen vehicles. Companies interested in hydrogen refuelling stations also worked with Powertech to build one of the world's first 10,000 psi hydrogen refuelling stations as a demonstration facility for the Hydrogen Highway.

All of Powertech's hydrogen work is performed on a commercial basis, delivering practical solutions to industrial clients. This provides a firm foundation for strong future growth in this important area of technology.

In fiscal 2004 Powertech earned a profit of \$0.9 million on revenues of \$18 million. The change in the U.S. dollar/Canadian dollar exchange rate had a negative impact of approximately \$1 million on the company's profit compared with the previous year.



## Performance by Lines of Business

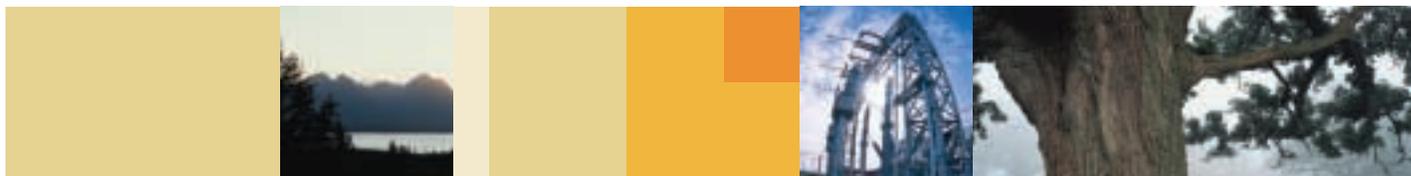
Powertech was recently retained by a major utility in Asia to analyze an event that blacked out its entire electric power system for several days. A study was conducted to identify all the circumstances that would cause similar stability problems. A special high-speed protection system was then designed that will operate in a fraction of a second if such an event occurs, in order to prevent the system from losing stability. In this protection system, selected generators and loads are tripped following a critical event so that the majority of the system can be kept stable. The client is currently implementing the special protection system.

### **FUTURE DIRECTION**

Powertech will continue to seek success as a commercial entity operating in international markets for the benefit of British Columbia. The diversity of Powertech's client base, both by technology of services offered and by geography, contributes to the stability of its revenue during times of change.

The company expects the worldwide interest in hydrogen as a potential fuel for vehicles to play a big part in Powertech's future. Powertech's growing reputation as one of the world's leading experts in electric power system stability analysis will also play a key role in its future growth.

Powertech has expertise in electricity generation from renewable sources such as wind and wave power. This may become an important technology in B.C., with opportunities for Powertech in the development of generation plants and in the special problems presented by the integration of these energy sources into the electricity grid.



# 2004 Statement of Corporate Governance Practices

The Provincial Government has established guiding principles on corporate governance for its Crown agencies that describe roles, responsibilities and accountabilities. A *Shareholder's Letter of Expectations* sets out the relationship between Government as Shareholder and BC Hydro on issues of mandate, performance expectations, public policy and strategic priorities. This Letter is reviewed annually, updated as required and signed by the Chair on behalf of the Board of Directors of BC Hydro and by the Minister of Energy and Mines as Government's representative.

BC Hydro's governance framework was originally adopted in 1998 and since that time has undergone regular reviews to ensure its various components meet the Corporation's ongoing business needs from a governance perspective while being consistent with Government's guiding principles on Crown corporate governance.

## Chief Executive Officer

The Board of Directors believes that one of its most important responsibilities is to oversee the recruitment, selection and appointment of the Chief Executive Officer.

When the combined role of Chair and Chief Executive Officer was separated last year, the Board struck a *Chief Executive Officer Search Committee* of five Directors, comprising the members of the Human Resources Committee and the Chairs of the other Board standing Committees. The Committee's responsibilities were set out in terms of reference approved by the Board and, throughout the five-month search process that followed, the Committee reported to the Board of Directors following each of its 11 meetings.

With the assistance of an Executive Search Firm, prospective candidates were reviewed, shortlisted and interviewed by the Committee. In consultation with the full Board, second interviews took place, the Shareholder was consulted and a final recommendation came forward to the Board of Directors for approval in October 2003.

BC Hydro's new Chief Executive Officer, Bob Elton, was appointed with effect from November 10, 2003. The retiring Chief Executive Officer, Larry Bell, continues to Chair the Board in a non-executive capacity. Mr. Bell also continues to Chair the Board of Directors of Powerex Corp.

## Energy Plan Implementation – Formation of the British Columbia Transmission Corporation (BCTC)

As part of the implementation of Government's Energy Plan, BCTC, a new Crown owned entity responsible for planning, operating and managing BC Hydro's transmission system was formed last year, with the transmission assets remaining under BC Hydro ownership.

In reviewing the business model and associated risks related to the new entity's formation, the Board of Directors notes its present and future duties, obligations and responsibilities for the transmission system, although the success of the transaction and its objectives will depend largely upon BCTC's performance both under the transaction agreements and generally.

# Corporate Governance

In terms of governance processes, BC Hydro's Board of Directors receives quarterly reports from BCTC describing financial results, key milestones, service levels and major projects. BC Hydro's Board also had the opportunity to meet with the Transmission Board last fall to discuss issues of mutual interest.

## **2002 Sarbanes-Oxley Act – Guidelines for Accounting and Auditing Complaints**

Since its appointment in 2001, the Board of Directors has taken note of changing trends in corporate governance. For example, the *2002 Sarbanes-Oxley Act* (United States) represents a significant change in accounting requirements and securities laws, providing for increased corporate responsibility, increased penalties for accounting or auditing improprieties and the protection of shareholders.

As a result, *Sarbanes-Oxley* is increasingly considered a best practice for companies operating outside the U.S. Securities and Exchange reporting environment and the Board of Directors expressed the view that where practicable and useful certain *Sarbanes-Oxley* recommendations should be adopted by BC Hydro.

In particular and to address the recommendation that Audit Committees establish guidelines for accounting and auditing complaints, ensuring the protection of "Whistleblowers", new *Procedures for Confidential Reporting of Financial Concerns* have been developed and incorporated into BC Hydro's *Director and Employee Code of Conduct*. Quarterly reports will come forward to the Board's Audit and Risk Management Committee.

## **Strategic Retreats and Field Operations**

As with past practice, last year two Strategic Retreats were held in the regions, enabling Directors to visit BC Hydro's field operations.

Last April the Board travelled to the Peace River region. The business meeting, held in Fort St. John, provided Directors with the opportunity to visit regional facilities, meet with local community leaders, customers, other stakeholders and employees. Directors covered a lot of ground over the weekend set aside for the session, gaining operational perspectives not normally possible in a boardroom setting.

Of particular note was a visit to the W.A.C. Bennett Dam where a Resource Smart project to replace a turbine runner was underway. After a safety briefing on lockout procedures, Directors were able to see first-hand maintenance activities that would not be accessible during normal operating conditions.

During their visit to the Peace River region, Directors were also able to visit local industry in Mackenzie and fly over the Tsay Key Dene and Kwadacha communities. This supplemented the detailed briefings the Directors have received and, together, helped them gain some understanding of operating challenges in the North.

During its last Retreat in September held in the South Interior, Directors met with Vernon Field Services staff, receiving demonstrations on 60 kV live line work methods (including tailboard and safety procedures), bucket truck operation, simulated distribution outage trouble call response and an overview of substation maintenance procedures.

Directors were briefed on the impacts [of last summer's forest fires to the electrical system. The Board is very proud of the contribution made by employees and contractors during this very difficult time and the extraordinary effort made, often in extremely challenging circumstances, to restore service to the impacted communities.

# Corporate Governance

As a utility with province-wide operations, whenever possible additional opportunities are provided for Directors to visit BC Hydro's field operations and during the summer the Board also had the opportunity to visit generation and transmission operations in the Bridge River Coastal area.

## Board Operations – Continuous Improvement

Through its Committees,\* the Board has been kept regularly informed of business issues during the past year, including continued focus on operational risk issues. Board and Committee meetings

are scheduled together on a quarterly basis to make the most efficient use of both Board and Management time. During these sessions, time is also set aside for continuing Director orientation and educational activities. However, special meetings are called when required to deal with time-sensitive issues that cannot wait until the next scheduled quarterly meeting\*\*.

With the benefit of ongoing examination, awareness of best practices and benchmarking of other organizations, the Board of Directors is assured that BC Hydro's governance framework is appropriate.

The Board is of the view that while process and structure drive good governance, success is only assured with the appropriate behaviours, attitudes and leadership. Directors subscribe to a principle of continuous improvement and annually evaluate performance so that the Board of Directors performs its due diligence and policy oversight role in the most effective manner.

For more information on the *Shareholder's Letter of Expectations*, the *Director and Employee Code of Conduct*, BC Hydro's Board of Directors, its Committees and Subsidiary appointments, visit our website at [www.bchydro.com](http://www.bchydro.com)

### \*Committees of the Board of Directors

Committees of the Board of Directors of BC Hydro are composed entirely of independent Directors.

The Peace River/Williston Reservoir Advisory Committee is composed of local community members and chaired by an independent member of the BC Hydro Board.

The Board of Directors of BC Hydro's wholly owned subsidiary, Powerex Corp., has also appointed an Audit and Risk Management Committee composed of independent Directors.

### \*\*Board and Committee Meetings held during 2003

#### BC Hydro

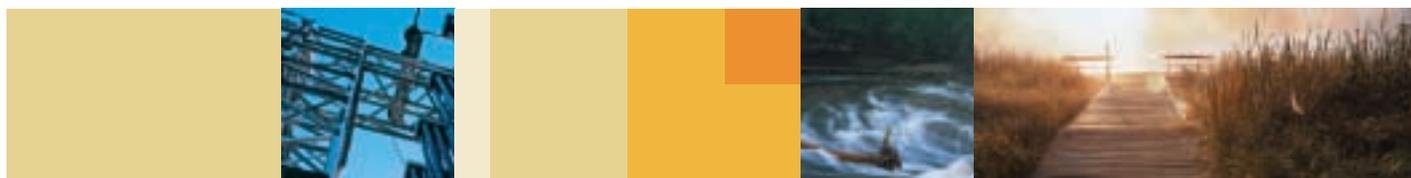
|  |    |
|--|----|
| Quarterly and Special Board Meetings.....                | 6  |
| Strategic Retreats.....                                  | 2  |
| Executive Committee* .....                               | 0  |
| (*meets by exception. No meetings required in 2003)      |    |
| Audit and Risk Management Committee.....                 | 5  |
| Human Resources Committee .....                          | 4  |
| Corporate Governance Committee.....                      | 4  |
| Chief Executive Officer Search Committee .....           | 11 |
| Peace River/Williston Reservoir Advisory Committee ..... | 4  |

#### Powerex Corp.

|   |   |
|---|---|
| Quarterly and Special Board Meetings..... | 5 |
| Strategic Retreats.....                   | 1 |
| Audit and Risk Management Committee.....  | 4 |

#### Powertech Labs Inc.

|                              |   |
|------------------------------|---|
| Regular Board Meetings ..... | 3 |
|------------------------------|---|



# 2004 Statement of Corporate Governance Practices

## Directors, Officers and Senior Management of BC Hydro

### BOARD OF DIRECTORS

|                              |                         |                          |                        |
|------------------------------|-------------------------|--------------------------|------------------------|
| <b>Lawrence I. Bell</b>      | <b>Elmer P. Derrick</b> | <b>Nancy D. Olewiler</b> | <b>Walter Saponja</b>  |
| <b>Stephen T. Bellringer</b> | <b>Kenneth J. Finch</b> | <b>Peter J. Powell</b>   | <b>Jack Weisgerber</b> |
| <b>Wanda C. Costuros</b>     | <b>Alice D. Laberge</b> |                          |                        |

### OFFICERS AND SENIOR MANAGEMENT

|   |   |   |   |
|---|---|---|---|
| <b>Lawrence I. Bell</b><br>Chair<br>(Chair and CEO until November 10, 2003;<br>Executive Chair from that point forward) | <b>Dawn Farrell</b><br>Executive Vice-President, Generation                                     | <b>Jay K. Grewal</b><br>Chief Financial Officer<br>(Acting)                                     | <b>Dana Hardy</b><br>Controller   |
| <b>Robert G. Elton</b><br>President and Chief Executive Officer<br>(Effective November 10, 2003)                        | <b>Raymond A. Aldeguer</b><br>Senior Vice-President, Corporate<br>Resources and General Counsel | <b>Nicola Webb</b><br>Chief Human Resources Officer<br>(Effective December 17, 2003)            | <b>Valerie C. Lambert</b><br>Treasurer  |
|   | <b>Bev Van Ruyven</b><br>Senior Vice-President, Distribution                                    | <b>Chris O' Riley</b><br>Chief Risk Officer<br>(Effective April 2, 2004)                        | <b>Warren McKay</b><br>Chief Information Officer<br>(Effective April 1, 2004) |
|   | <b>Dennis Maniago</b><br>Vice-President, Field Services   | <b>Tana Speerbrecker</b><br>Director, Organizational Development<br>(Effective January 5, 2004) | <b>Myra E.M. Watson</b><br>Corporate Secretary                                |
|   | <b>W. Bruce Sampson</b><br>Vice-President, Sustainability                                       |   | <b>Debbie C. Lamming</b><br>Assistant Corporate Secretary                     |
|   | <b>Bruce Ripley</b><br>Vice-President, Engineering<br>(Effective February 1, 2004)              |   |   |



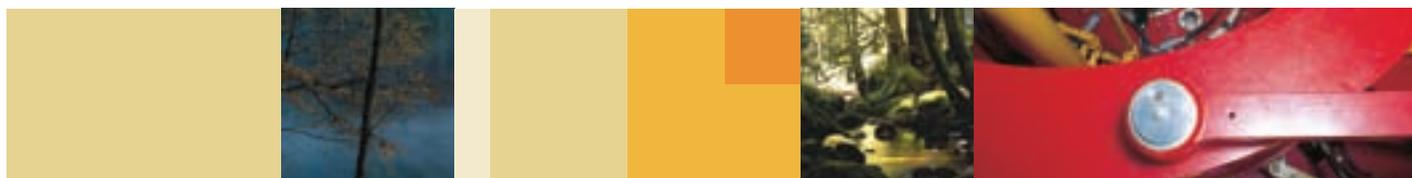
# 2004 Statement of Corporate Governance Practices

## Committees of the Board of Directors

| EXECUTIVE   | AUDIT & RISK MANAGEMENT   | CORPORATE GOVERNANCE   | HUMAN RESOURCES   |
|---|---|--|---|
| <b>Lawrence I. Bell</b><br>Chair<br><br><b>Alice D. Laberge</b><br><br><b>Jack Weisgerber</b> | <b>Alice D. Laberge</b><br>Chair<br><br><b>Wanda C. Costuros</b><br><br><b>Nancy D. Olewiler</b><br><br><b>Peter J. Powell</b><br><br><b>Walter Saponja</b> | <b>Nancy D. Olewiler</b><br>Chair<br><br><b>Stephen T. Bellringer</b><br><br><b>Elmer P. Derrick</b><br><br><b>Jack Weisgerber</b> | <b>Stephen Bellringer</b><br>Chair<br><br><b>Elmer P. Derrick</b><br><br><b>Kenneth J. Finch</b><br><br><b>Alice D. Laberge</b> |

### ADVISORY COMMITTEE - PEACE RIVER/WILLISTON RESERVOIR

|  |  |  |                                      |
|--|--|--|--------------------------------------|
| <b>Jack Weisgerber</b><br>Chair              | <b>Rick Hopkins</b><br>(Fort St. John)   | <b>Kevin Neary</b><br>(Mackenzie)      | <b>Ron Terlesky</b><br>(Mackenzie)   |
| <b>Lori Lynn Ackerman</b><br>(Fort St. John) | <b>Gwen Johansson</b><br>(Hudson's Hope) | <b>George Stedeford</b><br>(Mackenzie) | <b>Donny Van Somer</b><br>(Kwadacha) |
| <b>Don Bourassa</b><br>(Dawson Creek)        | <b>Bob McNabb</b><br>(Chetwynd)          | <b>Leigh Summer</b><br>(Hudson's Hope) |                                      |



# 2004 Statement of Corporate Governance Practices Subsidiaries

## POWEREX CORP.

|  |  |  |  |
|--|--|--|--|
| <p><b>BOARD OF DIRECTORS</b></p> <p>Lawrence I. Bell</p> <p>Wanda C. Costuros</p> <p>Elmer P. Derrick</p> <p>Robert G. Elton</p> <p>Robert A. Fairweather</p> <p>Nancy D. Olewiler</p> <p>Kenneth G. Peterson</p> <p>Peter J. Powell</p> <p>Walter Saponja</p> | <p><b>OFFICERS</b></p> <p><b>Lawrence I. Bell</b><br/>Chair</p> <p><b>Kenneth G. Peterson</b><br/>President &amp; CEO</p> <p><b>Teresa Conway</b><br/>Vice-President, Finance and Acting Chief Financial Officer<br/>(Confirmed as CFO effective April 30, 2004)</p> <p><b>Douglas J. Little</b><br/>Vice-President, Trade Policy &amp; Development</p> <p><b>Myra E.M. Watson</b><br/>Secretary</p> <p><b>Debbie C. Lamming</b><br/>Assistant Secretary</p> | <p><b>AUDIT &amp; RISK COMMITTEE</b></p> <p><b>Wanda C. Costuros</b><br/>Chair</p> <p><b>Elmer P. Derrick</b></p> <p><b>Robert A. Fairweather</b></p> <p><b>Nancy D. Olewiler</b></p> <p><b>Peter J. Powell</b></p> <p><b>Walter Saponja</b></p> |  |
|--|--|--|--|

## POWERTECH LABS INC.

|  |  |  |  |
|--|--|--|--|
| <p><b>BOARD OF DIRECTORS</b></p> <p>William A. Best</p> <p>Kenneth J. Finch</p> <p>Prabha Kundur</p> <p>W. Bruce Sampson</p> <p>Bev Van Ruyven</p> | <p><b>OFFICERS</b></p> <p><b>Kenneth J. Finch</b><br/>Chair</p> <p><b>Prabha Kundur</b><br/>President</p> <p><b>Nigel Austin</b><br/>Vice-President, Finance &amp; Business Support</p> <p><b>Myra E.M. Watson</b><br/>Secretary</p> <p><b>Debbie C. Lamming</b><br/>Assistant Secretary</p> |  |  |
|--|--|--|--|

# 2004 Statement of Corporate Governance Practices

## Corporate Audit Program

BC Hydro's audit framework incorporates Risk Based and Cyclical Audits, and Fundamental Control Assessments to provide a comprehensive program to support stakeholder's assurance needs. These programs are updated on a regular basis with information received from benchmarking, risk assessments and other reporting and monitoring activities. Together this provides support for an effective control environment at BC Hydro across the three bottom lines.

The following table depicts the audits conducted in fiscal 2004.

| Risk (R)/Cyclical (C) | Audits Completed in Fiscal 2004  | BCH Core |                      |          |                      |             |          |                      |
|-----------------------|--|----------|----------------------|----------|----------------------|-------------|----------|----------------------|
|                       |  | LOB      | Service Organization | Powerex  | Performance Measures | Environment | IT       | 3rd Party ABS & BCTC |
| C                     | ABS Cash Receipts and Bank Reconciliations   |          |                      |          |                      |             |          | ✓                    |
| C                     | ABS Customer Care Payment Services   |          |                      |          |                      |             |          | ✓                    |
| C                     | ABS Payroll Services   |          |                      |          |                      |             |          | ✓                    |
| C                     | ABS Service Level Metrics  |          |                      |          |                      |             |          | ✓                    |
| R                     | BCH & BCTC Intercompany Transactions   |          |                      |          |                      |             |          | ✓                    |
| R                     | Contaminated Sites Management Decision-Making Process                                |          |                      |          |                      | ✓           |          |                      |
| R                     | Dam Safety Management System   | ✓        |                      |          |                      |             |          |                      |
| R                     | Demand-Side Management   | ✓        |                      |          |                      |             |          |                      |
| C                     | Environmental Management System – Distribution Line of Business                      |          |                      |          |                      | ✓           |          |                      |
| C                     | Environmental Management System – Transmission Line Maintenance                      |          |                      |          |                      | ✓           |          |                      |
| C                     | Executive and Employee Expense Claims  | ✓        |                      |          |                      |             |          |                      |
| R                     | Field Services Audit   |          | ✓                    |          |                      |             |          |                      |
| R                     | Generation – Fish & Wildlife Compensation Programs                                   |          |                      |          |                      | ✓           |          |                      |
| R                     | Indus PassPort Implementation & Sustainment  |          |                      |          |                      |             | ✓        |                      |
| R                     | Joint Pole Use Administration  | ✓        |                      |          |                      |             |          |                      |
| C                     | Performance Measure All Injury Frequency   |          |                      |          | ✓                    |             |          |                      |
| C                     | Performance Measure Environmental Compliance   |          |                      |          | ✓                    |             |          |                      |
| C                     | Performance Measure Field Services Labour Utilization                                |          |                      |          | ✓                    |             |          |                      |
| C                     | Performance Measure Service Reliability  |          |                      |          | ✓                    |             |          |                      |
| R                     | Powerex Controls over Custom Contract  |          |                      | ✓        |                      |             |          |                      |
| R                     | Powerex Contracts Management   |          |                      | ✓        |                      |             |          |                      |
| C                     | Powerex Disbursements Controls   |          |                      | ✓        |                      |             |          |                      |
| R                     | Powerex IT Implementation Straight Through Processing                                |          |                      | ✓        |                      |             |          |                      |
| C                     | Powerex Trade Processing Controls  |          |                      | ✓        |                      |             |          |                      |
| R                     | Property Services Right of Way Management  | ✓        |                      |          |                      |             |          |                      |
| R                     | Seven Mile Unit 4 Capital Project  |          | ✓                    |          |                      |             |          |                      |
| R                     | Vaseux Lake Terminal Station Engineering Procurement and Construction (EPC) Contract |          | ✓                    |          |                      |             |          |                      |
|                       | <b>TOTAL</b>   | <b>5</b> | <b>3</b>             | <b>5</b> | <b>4</b>             | <b>4</b>    | <b>1</b> | <b>5</b>             |



# 2004 Statement of Corporate Governance Practices

## ACCOUNTABILITY STATEMENT

The 2003/2004 BC Hydro Annual Report was prepared under our direction in accordance with the Budget Transparency and Accountability Act and in alignment with the Global Reporting Initiative guidelines. We are accountable for the contents of the report, including the selection of performance measures and the reported results. All significant decisions, events and identified risks, as of June 2004, have been considered in preparing this report.



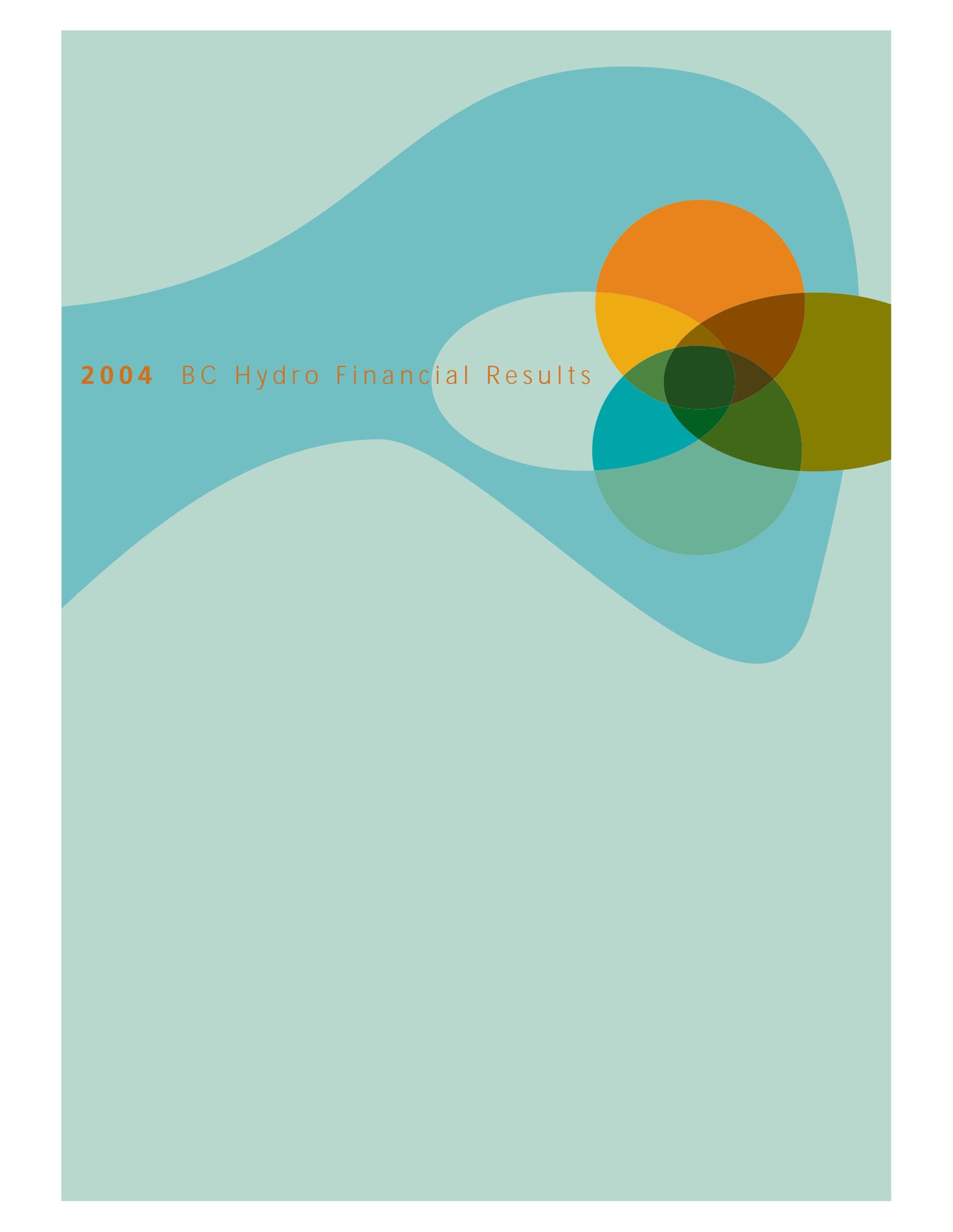
*L.I. (Larry) Bell*

*Chair*



*R.G. (Bob) Elton*

*President and Chief Executive Officer*



**2004** BC Hydro Financial Results

# Management Discussion and Analysis

The Management Discussion and Analysis reports on BC Hydro's consolidated results and financial position. This discussion should be read in conjunction with the consolidated financial statements of the company and related notes. This report contains forward-looking statements, including statements regarding the business and anticipated financial performance of BC Hydro. These statements are subject to a number of risks and uncertainties that may cause actual results to differ materially from those contemplated in the forward-looking statements.

## Consolidated Results of Operations

Net income of \$98 million for the year ended March 31, 2004 compares with net income of \$418 million in the previous year. Before the transfer from the Rate Stabilization Account, net income of \$77 million was \$275 million lower than net income of \$352 million in the prior year. The primary reasons for the decline in net income are a decrease in margins of \$137 million; a \$317 million increase in revenue was offset by higher energy costs, which increased \$454 million. Another factor contributing to the decline in net income is a provision of \$120 million for the Vancouver Island Generation ("VIGP") and Georgia Strait Crossing ("GSX") projects due to uncertainties related to these projects. The reasons for the variances in net income are described further below.

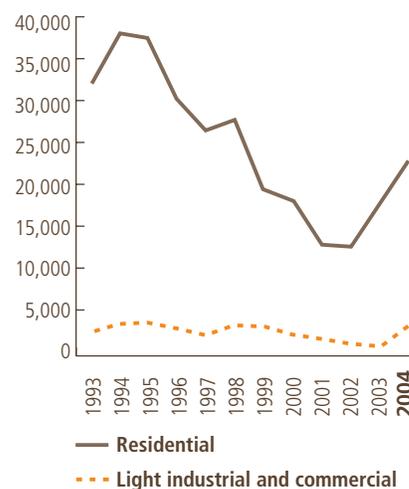
## Domestic Revenues

Domestic revenues of \$2,553 million for the year ended March 31, 2004 were \$78 million higher than the previous year. Key factors in this increase are:

- Residential revenues increased by \$37 million over the previous year due to the addition of approximately 23,000 new customers and an increase in consumption as a result of higher than normal temperatures in July and August and cooler than normal temperatures in November and January.
- Revenues from light industrial and commercial customers increased \$19 million mainly due to customer growth and an increase in cooling demand over the summer.
- Revenues from large industrial customers increased \$9 million due to higher production in the pulp and paper sector.

Customer growth in the residential and commercial sectors was slightly higher than the average customer growth over the last five years.

Customer Additions



# Management Discussion and Analysis

## Electricity Trade Activity

BC Hydro's electricity system is interconnected with systems in Alberta and the western United States. This interconnection facilitates sales and purchases of electricity outside British Columbia. Electricity trade activities are carried out by Powerex, a wholly-owned subsidiary of BC Hydro. While it engages in electricity trade, BC Hydro ensures its ability to meet domestic supply requirements is not put under undue risk as a result of these transactions. Electricity trade activities help BC Hydro balance its system by being able to import energy to meet domestic demand when there is a supply shortage in the system due to such factors as low water inflows. Exports are made only after ensuring that domestic demand can be met. Electricity trade revenues also include natural gas sales, which are related to thermal generation requirements.

Net electricity trade revenues for the year ended March 31, 2004 were \$871 million, an increase of \$239 million from the prior year. The increase was primarily due to an increase in the average sales price of electricity, which rose seven per cent from \$57/MWh last year to \$61/MWh in fiscal 2004 (\$/MWh include electricity sales only). The increased sales prices were caused by several factors including reduced energy volumes available from low-cost hydro generation in the region and tighter natural gas supplies. The effect of higher average sales prices was partly offset by a nine per cent reduction in electricity sales volumes from 31,182 GWh in the prior year to 28,373 GWh in the current year. The decrease in sales volumes was due primarily to lower reservoir levels and transmission restrictions between B.C. and the western United States.

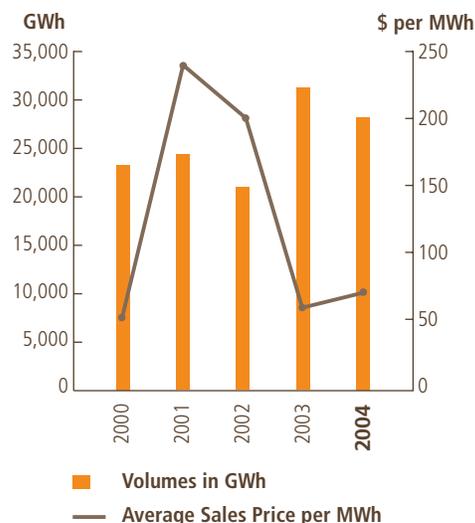
In fiscal 2004, Powerex adopted CICA Accounting Guideline 13, "Hedging Activities". The company now records all of its derivative contracts at a fair value basis. This change has been applied prospectively. In prior years, only those contracts that were unrelated to the import or export of power from British Columbia were accounted for on a mark-to-market basis.

In fiscal 2004, Powerex also adopted net profit presentation of certain energy contracts. This change is consistent with U.S. accounting guidance EITF 02-03, "Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities". Net profit presentation is appropriate for energy trading forward contracts and derivatives, whether settled financially or physically. Powerex concluded that spot physical contracts meet the definition of derivative contracts held for delivery and, therefore, realized gains and losses are reported on a gross basis.

The following table details the amounts reclassified for net profit reporting:

| <i>(in millions)</i>   | <b>2004</b>     | 2003     |
|--|-----------------|----------|
| Electricity trade revenue – gross                                | <b>\$ 1,924</b> | \$ 1,932 |
| Reclassify energy costs to net against electricity trade revenue | <b>(1,053)</b>  | (1,300)  |
| Electricity trade revenue – net                                  | <b>871</b>      | 632      |
| Energy costs – gross   | <b>\$ 2,633</b> | \$ 2,426 |
| Reclassify energy costs to net against electricity trade revenue | <b>(1,053)</b>  | (1,300)  |
| Energy costs – net   | <b>1,580</b>    | 1,126    |

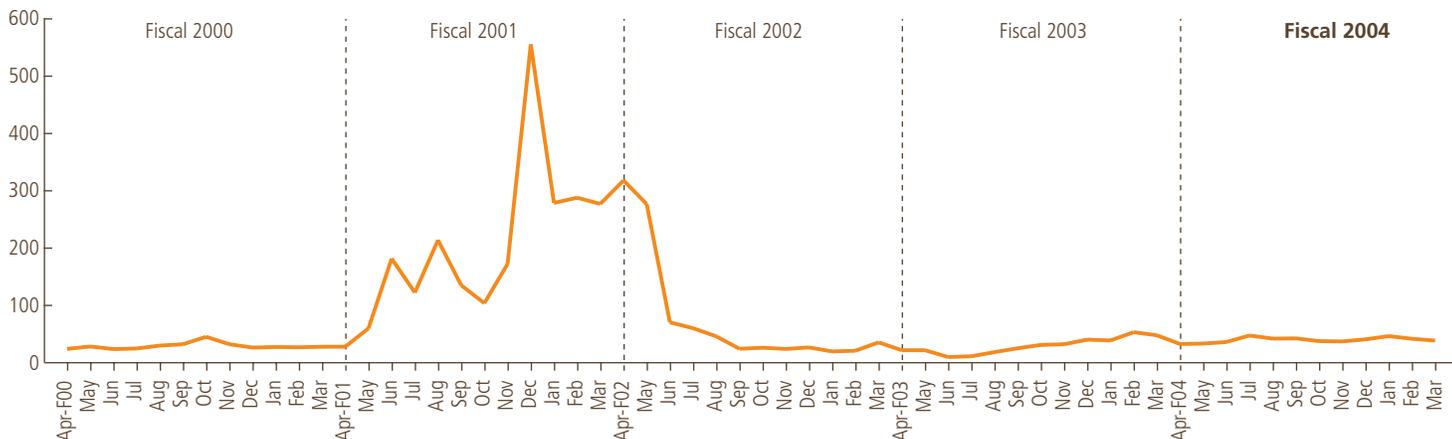
**Electricity Trade Volumes and Average Sale Prices**



Electricity trade sale prices increased seven per cent in fiscal 2004 due to lower energy available from low-cost hydro generation in the region and tighter natural gas supplies.

# Management Discussion and Analysis

## Mid-Columbia Flat Index US\$/MWh



Market prices at the mid-Columbia multi-lateral trading hub in central Washington state are shown as they are indicative of prices in the Pacific Northwest. Market prices have declined to more traditional levels since June 2001.

## Energy Costs

Energy costs are composed of the following sources of supply:

|   | (in millions)   |                 | (GWh)         |               | (\$ per MWh)   |                |
|---|-----------------|-----------------|---------------|---------------|----------------|----------------|
|   | 2004            | 2003            | 2004          | 2003          | 2004           | 2003           |
| Hydro <sup>1</sup>  | \$ 246          | \$ 258          | 43 322        | 46 060        | \$ 5.7         | \$ 5.6         |
| Purchases from Independent Power Producers and other long-term purchase contracts | 367             | 293             | 6 133         | 5 046         | 59.8           | 58.1           |
| Other electricity purchases   | 1,670           | 1,563           | 33 491        | 32 936        | 49.9           | 47.5           |
| Netting of derivatives <sup>2</sup>   | (1,053)         | (1,300)         |               |               |                |                |
| Net other electricity purchases   | 617             | 263             |               |               |                |                |
| Natural gas <sup>3</sup>  | 213             | 195             | 448           | 410           | 113.8          | 95.6           |
| Non-integrated  | 14              | 14              | 99            | 96            | 141.4          | 145.8          |
| Transmission charges and other expenses   | 123             | 103             |               |               |                |                |
| <b>Total net energy costs<sup>2</sup></b>   | <b>\$ 1,580</b> | <b>\$ 1,126</b> | <b>83 493</b> | <b>84 548</b> | <b>\$ 31.5</b> | <b>\$ 28.7</b> |

<sup>1</sup> Net of storage exchange.

<sup>2</sup> Netting of energy costs against revenues is discussed in "Electricity Trade Activity". GWh and \$ per MWh are reported at gross.

<sup>3</sup> Includes costs of remarketed gas of approximately \$162 million for the year ended March 31, 2004 compared with \$156 million for the prior year. The volumes shown for natural gas relate only to gas used for thermal generation.

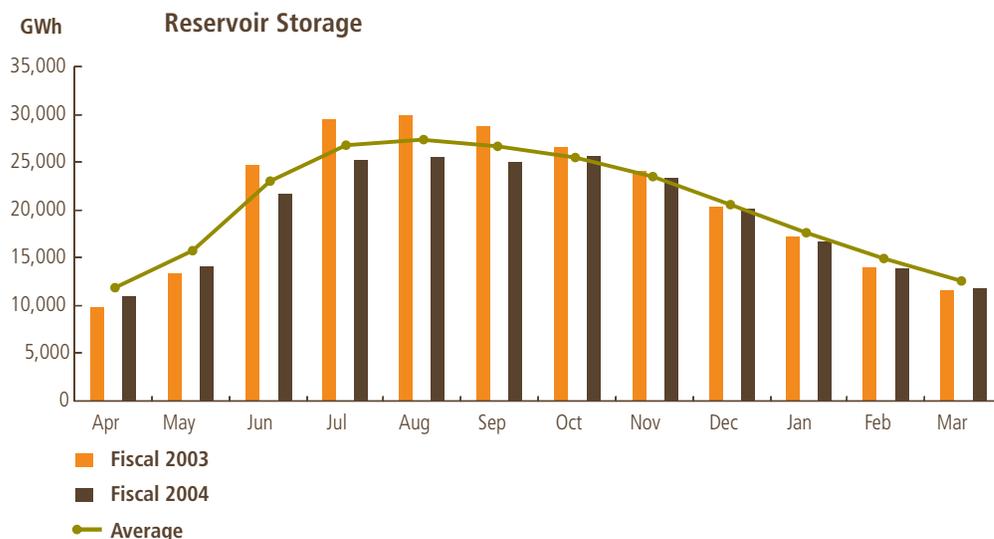
The mix of sources of supply is impacted by variables such as the market price of energy, water inflows, reservoir levels, energy demand and environmental and social impacts.

# Management Discussion and Analysis

For the year ended March 31, 2004, net energy costs of \$1,580 million were \$454 million higher than the previous year. Higher average energy costs were caused by several factors including lower hydro availability and tighter natural gas supplies. Purchases from Independent Power Producers (“IPPs”) and other long-term contracts increased by 1,087 GWh compared to the previous year. Ten new IPPs began selling power to BC Hydro in fiscal 2004 and this was the first full year of purchases from the Arrow Lake Power Corporation.

Water inflows into BC Hydro’s reservoirs for the year were nine per cent lower compared to the prior year. Electricity imports to meet domestic load requirements for fiscal 2004 were 5,349 GWh compared with 1,754 GWh in the prior year. BC Hydro chose to import energy for domestic use and conserve reservoir levels, as it was more economic than generating additional energy from its hydro and thermal facilities. The decision to import energy instead of utilizing hydro generation is based on many factors, such as the forecast market price of energy in future periods relative to the current period, current reservoir levels and future demand forecasts. Operating constraints related to legal and regulatory obligations such as minimum reservoir levels and stream flow requirements also affect the decision to import energy during certain time periods.

The combined storage in BC Hydro reservoirs at March 31, 2004, was 92 per cent of average compared with 90 per cent of average at March 31, 2003 (average storage levels relate to the average from 1985 to 2003), with the Williston Reservoir on the Peace River system at 97 per cent of average (2003 – 104 per cent) and the Kinbasket Reservoir on the Columbia River system at 56 per cent of average (2003 – 33 per cent).



## Operations, Maintenance and Administration

Total operations, maintenance and administration expenses of \$621 million for the year ended March 31, 2004 increased by \$48 million from last year.

Operations and administration expenses of \$358 million for the year ended March 31, 2004 were \$34 million higher than the prior year. The increase is primarily due to one-time expenditures related to implementation of IT projects (\$7 million), increased employee future benefit costs (primarily pension costs) of \$8 million, costs related to regulatory activities including preparation and submission of the revenue requirement application (\$8 million) and a provision for the GSX project (\$22 million). The increase in costs was partly offset by reduced legal and associated costs incurred by Powerex arising from claims related to the electricity wholesale market in California (\$20 million).

Maintenance expenditures of \$263 million for the year ended March 31, 2004 were \$14 million higher than in the prior year. The increase in maintenance expenditures is primarily due to maintenance performed as a result of forest fire damage and system restoration due to storms.

# Management Discussion and Analysis

## Taxes

Taxes increased by \$2 million from last year.

|              | 2004   | 2003   |
|--------------|--------|--------|
| Grants       | \$ 42  | \$ 42  |
| School taxes | 100    | 100    |
| Other        | 5      | 3      |
| Total taxes  | \$ 147 | \$ 145 |

## Amortization

Amortization expense was \$539 million, compared with \$417 million for the previous year. The increase was primarily due to the provision for the VIGP and GSX projects and new assets in service.

## Vancouver Island Generation and Georgia Strait Crossing Projects

BC Hydro is currently evaluating alternatives for providing additional supply to customers located on Vancouver Island. Prior to 2004, BC Hydro anticipated that additional Vancouver Island supply requirements would be satisfied through construction, ownership and operation of the Vancouver Island Generation Project, a natural gas-fired electricity generation facility to be built at Duke Point near Nanaimo, British Columbia. BC Hydro also anticipated that VIGP would receive its gas supply utilizing the Georgia Strait Crossing Project, which would transport natural gas between Washington state and Vancouver Island. GSX is jointly owned by BC Hydro and Williams Gas Pipeline Company, LLC ("Williams"). As at March 31, 2004, the amount spent by BC Hydro on VIGP and GSX totalled approximately \$98 million. BC Hydro has also financed spending by Williams through a loan facility with approximately \$22 million (US\$15 million) owing at March 31, 2004.

During fiscal 2004, BC Hydro initiated a Vancouver Island Call for Tenders process ("Call for Tenders"). The Call for Tenders is intended to allow BC Hydro to assess alternative proposals for new generation to supply Vancouver Island and to determine whether VIGP represents a cost-effective solution. BC Hydro expects to complete the Call for Tenders process during the third quarter of fiscal 2005. BC Hydro expects that the outcome of the Call for Tenders will influence its final recommendations regarding these projects, and that related approvals from the British Columbia Utilities Commission (the "Commission"), will occur during fiscal 2005.

Under generally accepted accounting principles, BC Hydro has recorded a provision for the VIGP and GSX projects to reflect the uncertainties as to the projects proceeding or the costs being recovered. The amount of the provision for BC Hydro's share of the project costs is \$98 million and this amount is included in amortization. BC Hydro has also recorded a \$22 million provision in respect of other project exposures related to Williams and this amount is included in operations and administration expense.

BC Hydro management remains fully committed to preserving the flexibility to proceed with these projects. BC Hydro made an application to the Commission for approval of a designated regulatory account with respect to the costs of VIGP and GSX and will seek to recover those costs in future rates when VIGP is brought into service or it is determined that the projects will not proceed. On June 10, 2004, the Commission approved the establishment of a designated regulatory account.

# Management Discussion and Analysis

## Finance Charges

| <i>(in millions)</i> | <b>2004</b>   | 2003   | Change      |
|----------------------|---------------|--------|-------------|
|                      | <b>\$ 452</b> | \$ 457 | \$ 5        |
| <b>Changes:</b>      |               |        |             |
| Interest rates       |               |        | \$ 13       |
| Foreign exchange     |               |        | 7           |
| Sinking fund         |               |        | (2)         |
| Volume               |               |        | (6)         |
| Other                |               |        | (7)         |
|                      |               |        | <b>\$ 5</b> |

Finance charges of \$452 million for the year ended March 31, 2004, were \$5 million or one per cent lower than last year. The decrease in finance charges is due to lower interest rates on refinancing of long-term debt issues, lower U.S. short-term interest rates and a stronger Canadian dollar vis-à-vis the U.S. dollar. The Canadian dollar was US\$0.7631 at March 31, 2004 compared to US\$0.6806 at March 31, 2003. The decrease in finance charges is partially offset by a higher average volume of debt.

## Restructuring costs

Restructuring costs in fiscal 2004 relate to one-time costs associated with the establishment of British Columbia Transmission Corporation. The \$8 million charge consists of costs related to the establishment of the new transmission entity, the separation of transmission operating activities from BC Hydro and employee transition costs.

Restructuring costs in fiscal 2003 relate primarily to the one-time costs resulting from the outsourcing of some of BC Hydro's support and administrative functions, such as Customer Services, Network Computing Services, Building and Office Services, Human Resources, Payroll, Purchasing Disbursements and Financial Services.

## Transfer from Rate Stabilization Account

The Rate Stabilization Account ("RSA"), established in fiscal 2000, was to be used to mitigate the impact on customers of fluctuating earnings. In years where BC Hydro's actual return on equity was in excess of that allowed by the Commission, a transfer was to be made from income into the RSA. In years where BC Hydro's return on equity was below that allowed, a transfer was to be made from the RSA if there was a balance. The transfer from the RSA was \$21 million in fiscal 2004, which was the remaining balance in the account, compared to a transfer from the RSA of \$66 million in the prior year. Earnings in 2004 still produce a rate of return below the allowed return on equity. The Special Directive to BC Hydro that created the RSA was revoked in conjunction with other regulatory guidelines discussed in the Management Discussion and Analysis under "2005 Future Outlook – Regulation".

## Rate Stabilization Account (RSA)

| <i>(in millions)</i> | <b>Fiscal Year</b> | Transfer to (from) | Balance  |
|----------------------|--------------------|--------------------|----------|
|                      | 2000               | \$ 129             | \$ 129   |
|                      | 2001               | 103                | 232      |
|                      | 2002               | (145)              | 87       |
|                      | 2003               | (66)               | 21       |
|                      | <b>2004</b>        | <b>(21)</b>        | <b>–</b> |

# Management Discussion and Analysis

## Payment to the Province

| <i>(dollar amounts in millions)</i>   | 2004           | 2003    |
|---------------------------------------|----------------|---------|
| Actual return on equity               | <b>3.60 %</b>  | 15.47 % |
| Allowed return on equity <sup>1</sup> | <b>14.33 %</b> | 15.47 % |
| Payment to the Province               | <b>\$ 73</b>   | \$ 338  |

<sup>1</sup> BC Hydro's allowed 1995 rate of return was approved by the Commission in its last rate decision of November 24, 1994. In subsequent years, rates of return have been calculated by BC Hydro using the same method as in 1995. The allowed return on equity has been calculated to equal, on a pre-income tax basis, that of the most comparable investor-owned utility.

BC Hydro is required to make an annual Payment to the Province equal to 85 per cent of its distributable surplus. Distributable surplus is calculated as consolidated net income adjusted for interest capitalized during construction and related amortization.

In addition to the Payment to the Province of \$73 million, BC Hydro paid \$393 million in water rentals, school taxes, grants and other taxes to provincial and municipal governments in fiscal 2004.

## Liquidity and Capital Resources

Cash flow provided by operating activities for the year ended March 31, 2004 was \$613 million, compared with \$794 million for the prior year. The decrease in cash flow from operating activities is the result of reduced net income.

## Capital Expenditures

Capital expenditures, including demand-side management programs, for the year ended March 31, 2004, were \$669 million compared to \$725 million in the previous year. Details of the capital expenditures are contained in the following table:

| <i>(in millions)</i>   | 2004          | 2003   | Increase (Decrease) |
|--|---------------|--------|---------------------|
| Generation replacements and expansion  | <b>\$ 124</b> | \$ 227 | \$ (103)            |
| Transmission lines and substation replacements and expansion                 | <b>177</b>    | 156    | 21                  |
| Distribution improvements and expansion                                      | <b>201</b>    | 170    | 31                  |
| General – computers, vehicles, etc.  | <b>72</b>     | 143    | (71)                |
| Change in working capital related to capital asset expenditures <sup>1</sup> | <b>32</b>     | (16)   | 48                  |
| Capital asset expenditures per Consolidated Statement of Cash Flows          | <b>606</b>    | 680    | (74)                |
| Power Smart (Demand-side management)   | <b>63</b>     | 45     | 18                  |
| <b>Total capital expenditures per Consolidated Statement of Cash Flows</b>   | <b>\$ 669</b> | \$ 725 | \$ (56)             |

<sup>1</sup> Adjustment from accrual to cash expenditures on the Consolidated Statement of Cash Flows.

# Management Discussion and Analysis

Generation expenditures decreased primarily due to reduced expenditures for the Vancouver Island Generation Project. Expenditures for VIGP were lower than the prior year due to the decision from the Commission to deny the Certificate of Public Convenience and Necessity for the project. The status of VIGP is discussed under "Vancouver Island Generation and Georgia Strait Crossing Projects".

The increase in Distribution improvements and expansion is mainly due to the addition of approximately 27,000 new customers in fiscal 2004, an increase of 43 per cent over the previous year.

The increase in Transmission lines, substation improvements and expansion is due to increased investment to replace aging and less reliable equipment to ensure continued reliability of the grid and the replacement of two sections of the submarine cable to Vancouver Island to address reliability and mitigate environmental concerns.

The decrease in general expenditures is primarily due to the completion of implementation of a major integrated information system in the previous year.

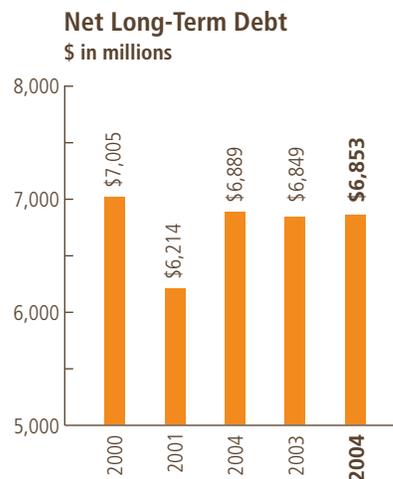
Power Smart is BC Hydro's demand-side management ("DSM") program that has the 10-year objective of acquiring more than 3,600 GWh per year of reduced energy consumption from its business and residential customers. In fiscal 2004, \$63 million in capital expenditures was invested in the residential and business sectors. For fiscal 2004 these Power Smart programs produced 834 GWh of energy savings, surpassing the target of 810 GWh.

## Long-Term Debt

Long-term debt, net of sinking funds and cash and cash equivalents, was \$6,853 million as at March 31, 2004, compared with \$6,849 million as at the end of the prior year, an increase of \$4 million.

During the year, BC Hydro redeemed bonds totalling CDN\$450 million. These redemptions were largely financed through the issuance of five Canadian bonds and one U.S. bond totalling CDN\$790 million. This increase in long-term debt was partly offset by reduced revolving borrowings and the impact of the stronger Canadian dollar, which reduced the Canadian equivalent of U.S. dollar denominated debt by approximately \$270 million. BC Hydro maintains a portion of its core debt portfolio in U.S. dollars to match U.S. interest payments to U.S. dollar revenue received from export sales and to take advantage of the generally lower U.S. interest rates.

BC Hydro continues to actively manage its debt portfolio in order to meet its objective of reducing its overall cost of debt within acceptable levels of risk. In order to meet this objective, BC Hydro maintains direct exposure to both Canadian and U.S. dollars at fixed and floating interest rates and employs various strategies. These strategies include the use of cross-currency and interest rate swaps to rebalance the debt portfolio to its optimal position.



Consists of long-term debt, including the current portion, net of sinking funds and cash and cash equivalents. Long-term debt has decreased by \$152 million in the last five years.

# Management Discussion and Analysis

## **Transaction with British Columbia Transmission Corporation**

Pursuant to *“Energy For Our Future: A Plan for B.C.”*, the Province approved a plan to transfer the transmission operations of BC Hydro to British Columbia Transmission Corporation (“BCTC”), a company wholly-owned by the Province. The ultimate objective of the transaction is to transfer the management, maintenance and operation of the high-voltage electric system in British Columbia to BCTC and provide transparent open-access transmission services. BCTC’s role of managing, maintaining and operating BC Hydro’s transmission system is governed by the Transmission Corporation Act, enacted on May 29, 2003, and key agreements approved by the Province on November 20, 2003.

Upon direction from the Province, BC Hydro declared and paid a special dividend in the amount of \$20 million to the Province in November 2003. The funds were then contributed by the Province to BCTC as an equity contribution. BC Hydro will continue to retain legal and beneficial ownership of the transmission assets and will be responsible for funding all future additions and sustaining investments in these assets based on directions from BCTC in its capacity of asset manager. The Province may direct BC Hydro to declare and pay a further special dividend to cover additional equity requirements in BCTC.

On August 1, 2003, BC Hydro permanently transferred to BCTC 260 employees responsible for managing and operating the transmission grid and planning the capital expenditures for the related assets.

BC Hydro will consolidate BCTC until BCTC is operationally and financially independent of BC Hydro. It is expected that BCTC will remain operationally dependent on BC Hydro until the Commission approves rates for the activities for which BCTC is directly responsible and BCTC is sufficiently capitalized by the Province to finance its operations. In mid-2004, BCTC and BC Hydro will make a joint filing to the Commission to set the rates charged for the use of the transmission system.

## **Powerex Legal Proceedings**

On October 31, 2003, the U.S. Federal Energy Regulatory Commission (“FERC”) Trial Staff cleared Powerex of allegations of inappropriate market behavior and concluded that Powerex played a positive role in helping California keep the lights on during the California energy crisis of 2000 and 2001. In the agreement, the Trial Staff of FERC rejected California’s claims that it was owed more than US\$1 billion by Powerex. The agreement received approval from FERC on March 26, 2004. In return for suspension of these lengthy and complex proceedings, and to gain regulatory certainty and closure, Powerex agreed to pay US\$1.3 million. The payment is not related to any Powerex transactions and does not constitute an admission of any wrongdoing. However, FERC’s approval of the settlement is still subject to rehearing and subsequent appeal to the courts and could also be affected by other legal proceedings relating to the California power markets.

BC Hydro was also directly joined as a defendant in one lawsuit. In response to an application by BC Hydro to be dismissed from the lawsuit in which it has been named, a U.S. federal court judge has ruled that BC Hydro is immune from these claims in the U.S., but that ruling is currently under appeal.

Powerex still faces possible additional costs as several investigations and regulatory proceedings at the state and federal levels are also looking into causes of the high wholesale electricity prices in the western United States during 2000 and 2001. These investigations are to determine if suppliers should be required to refund some of the revenue earned during this period. BC Hydro has recorded provisions for uncollectible amounts and legal costs associated with the ongoing legal and regulatory impacts of the California energy crisis. These provisions, based on management’s best estimates, are sufficient to provide for any remaining exposure.

# Management Discussion and Analysis

## **Power Smart**

Power Smart is BC Hydro's demand side-management program that has the 10-year objective of acquiring more than 3,600 GWh per year of reduced energy consumption from its business and residential customers by investing \$690 million in incentives and market transformation activities. The initial emphasis of these programs is to acquire energy savings through the use of incentives, in order to introduce new, more efficient technologies and to overcome initial price barriers. In fiscal 2004, the second year of the 10-year program, Power Smart programs produced 834 GWh of energy savings, surpassing the target of 810 GWh.

## **Green Power Generation**

In November 2003, BC Hydro signed agreements to purchase energy from 16 new private sector power projects that successfully bid into BC Hydro's 2002/2003 Green Power Generation procurement program. These projects will provide an additional 1,800 gigawatt hours per year to meet the energy needs of British Columbia. The investment from the private sector is estimated at \$800 million. The energy, enough to meet the energy needs of 180,000 homes, will be purchased from Independent Power Producers. The total net present value of these purchase commitments is estimated at close to \$800 million.

## **Business Risks/Uncertainties**

BC Hydro is subject to various financial and other risks that can cause significant volatility in its earnings. While these risks cannot be eliminated, as they are largely non-controllable, some may be mitigated to a certain degree. The key risks and uncertainties BC Hydro faces include:

### ***1. Water inflows into reservoirs and impact on hydro generation***

BC Hydro's net income is significantly influenced by the level of water inflows into its reservoirs. High levels of water inflows into BC Hydro's reservoirs allow for a greater proportion of energy demand to be met using low-cost hydro generation in place of higher-priced energy purchases, thereby reducing the cost of energy and increasing net income. The unit cost of energy purchases is currently on average more than 10 times greater than unit cost of hydro generation. High inflows can also create surplus energy not required to meet domestic demand. This energy can be sold at favourable profit margins on the electricity trade market. As the amount of inflows can fluctuate significantly from year to year, BC Hydro faces challenges in operating its system to try to minimize the impact of low water years on net income. BC Hydro continues to optimize energy management through the appropriate mix of self-generation and energy imports, depending on water inflows and the fluctuating economic and market conditions.

### ***2. Weather***

Weather has a significant impact on residential revenues, particularly in the months of December to February. It is estimated that if temperatures are 10 per cent warmer or colder than normal, residential revenues will decline or increase by five per cent or seven per cent respectively. BC Hydro minimizes the impact of lost domestic sales resulting from warmer than normal weather by increasing reservoir levels, if practical, or by selling the energy in the export market.

Adverse weather, including flooding and extremely dry conditions that increase the likelihood of forest fires, could affect BC Hydro's performance against key reliability objectives and significantly impact maintenance expenditures. These impacts are mitigated by ongoing maintenance, risk reduction efforts and rapid response to outages and emergencies. BC Hydro has an aging system and needs to maintain, reinforce and replace assets to maintain its long-term reliability, service levels and meet increased stakeholder expectations. Investments in ongoing asset maintenance and capital re-investment programs mitigate the risk of system outages.

# Management Discussion and Analysis

### **3. Energy Market Prices and Export Margins**

Export revenues are directly affected by market prices, as are short-term energy purchases related to both domestic and electricity trade. Market prices also affect a number of decisions, including whether it is more economical to generate hydro or thermal electricity, whether to purchase energy during specific time periods, and when to sell energy in the export market. Market prices that are relevant to BC Hydro are strongly influenced by market conditions in the Pacific Northwest and California, where the majority of BC Hydro's electricity trade transactions occur. Factors such as the level of water inflows, natural gas prices, unit outages and weather conditions in the Pacific Northwest and California all influence market prices. Any change in market prices could have a significant impact on BC Hydro's electricity trade revenues, cost of energy and, ultimately, net income. Energy continues to be among the most volatile traded commodities as market prices can vary significantly from period to period. BC Hydro tries to take advantage of this volatility by consistently monitoring its market strategies and using its storage and generation capabilities. BC Hydro also has risk management practices to manage market, credit and administrative risk related to these activities. In the long term, BC Hydro is also subject to the uncertainty in development of competitive markets.

### **4. Interest rates and foreign exchange rates**

As with most utilities, BC Hydro is a highly debt-leveraged, capital-intensive company. Changes in interest and foreign exchange rates can therefore have a significant impact on finance charges. BC Hydro uses several debt management strategies to minimize the impact of interest rate and foreign exchange rate fluctuations; however, these fluctuations can still exert a significant influence on finance charges. Some of the debt management strategies employed by BC Hydro include the use of foreign currency agreements to minimize foreign exchange risk and the management of fixed- and floating-rate debt within acceptable risk levels in order to minimize interest rate risk. Continuing the deferral and amortization of foreign exchange gains and losses on monetary items such as debt also helps in reducing income volatility.

### **5. Employee future benefits**

The return on pension fund assets has a significant impact on pension costs (employee future benefit costs). Lower than expected returns can increase pension costs significantly. Though BC Hydro's pension fund assets are managed through professional investment managers, the return on assets is still subject to normal market volatility. BC Hydro, along with other companies that have defined benefit pension plans, is also required to have an actuarial valuation on its pension plan obligations at a minimum of every three years. Changes in BC Hydro's employee demographics, mortality rates, etc. can significantly influence the pension liability and corresponding pension costs. BC Hydro's last actuarial valuation was completed in September 2002.

# Management Discussion and Analysis

## Sensitivity Analysis

The following table shows the effect on earnings of changes in some key variables. The analysis is based on business conditions and production volumes in fiscal 2004. Each separate item in the sensitivity assumes the others are held constant. While these sensitivities are applicable to the period and magnitude of changes on which they are based, they may not be applicable in other periods, under other economic circumstances or greater magnitude of changes.

| Factor                        | Change   | Approximate change in earnings (in millions) |
|-------------------------------|--|--|
| Hydro generation <sup>1</sup> | 1,000 GWh                                      | \$ 50  |
| Electricity trade margins     | \$1/MWh  | 30   |
| Interest rates                | 100 basis points                               | 30   |
| Weather                       | 5% warmer/colder                               | 5  |
| Pension costs                 | 1% change in expected return on pension assets | 5  |

<sup>1</sup> Assumes change in hydro generation is offset by corresponding change in energy imports (i.e., increase in hydro generation is offset by decrease in energy imports).

## Risk Management

As part of its normal business activities, BC Hydro is exposed to a number of financial risks including commodity market risk, credit risk and interest rate and foreign currency risk related to electricity trade and financing arrangements. While these risks generally cannot be eliminated, BC Hydro manages its risks within a range of risk tolerances established through Board-approved policies, as well as management oversight, risk reporting and internal controls.

BC Hydro's Risk Management Policy specifies a risk philosophy, a statement of risk accountability and the processes by which the corporation establishes tolerable risk levels and manages to them. Subordinate policies incorporate limits for energy trading, address the provision of energy to domestic customers and also cover asset and liability risks and safety and environmental responsibility.

BC Hydro's Risk Management Committee ("RMC") is comprised of financial and operational executives of the company. The RMC is primarily responsible for establishing and assessing the appropriateness of changes to risk management policies prior to approval by the Board of Directors. The RMC also provides oversight to risk control processes to ensure that financial risks are appropriately assessed, controlled and reported, and that risk management policies and limits are adhered to.

## Commodity Market Risk

BC Hydro's commodity risk exposure is a result of volatility in electricity and natural gas prices. These risks arise due to volatility in hydro inflows and the requirement to purchase electricity and natural gas to support domestic electricity requirements, as well as through Powerex electricity trade activity in the western United States and Canada.

BC Hydro's risk management policies and practices are intended to ensure the availability of energy for domestic requirements, and to optimize the value associated with BC Hydro's investment in generation assets. Energy trading risks are managed through limits on the size and duration of transactions and open positions. Generally, forward commitments must be backed by physical supply.

BC Hydro utilizes financial instruments such as natural gas and electricity fixed-price swaps to hedge its exposure to market price volatility.

# Management Discussion and Analysis

## **Credit Risk**

Credit risk arises when BC Hydro relies on other parties to honour or perform contractual obligations that have economic value to BC Hydro. This includes non-payment of balances owed to BC Hydro, as well as non-performance on contractual obligations that are favourable to BC Hydro. Credit risk arises through most of BC Hydro's activities; however, the greatest exposure arises through its electricity trade activities and its long-term power purchase contracts.

BC Hydro manages credit risk through Board-approved policies, as well as individual credit limits, which reflect the creditworthiness of its counterparties. BC Hydro maintains a significant infrastructure to proactively manage credit exposures. Credit exposures are mitigated through various techniques including collateral, netting arrangements, and insurance.

## **Interest Rate Risk**

Interest rate risk arises from potential changes in interest rates, and the associated impact on BC Hydro's cost of borrowing. At March 31, 2004, \$2,026 million or 29.3 per cent of net debt was subject to floating interest rates during the next fiscal year. Interest rate risk is managed through Board-approved policies, which require the debt portfolio to be managed using an appropriate blend of fixed and floating rate debt, as well as by managing the term to maturity of its debt portfolio to manage exposure to interest rate movements in the future. BC Hydro utilizes financial instruments, including interest rate swaps and options, to adjust the balance of fixed and floating rate debt, and to reduce its overall cost of borrowing.

## **Foreign Currency Risk**

Foreign currency risk relates to potential changes in foreign currency rates, and the impact that this may have on BC Hydro's assets and obligations. The majority of BC Hydro's foreign currency exposure derives from United States currency cash flows coming from Powerex electricity sales. BC Hydro is also exposed to foreign currency movements through its debt portfolio, which includes a component of foreign currency denominated debt, and through currency exchange fluctuations on imported equipment. Foreign currency risk is managed through policies and limits that are approved by the Board of Directors.

Some of BC Hydro's exposure to foreign currency movements is reduced through its normal business activities, as BC Hydro is required to settle many of its transactions through payment or receipt of amounts in foreign currency. For example, as a component of BC Hydro's debt portfolio is denominated in U.S. dollars, this allows matching of U.S. dollar interest payments with U.S. dollar receipts from electricity trade activities. BC Hydro manages its remaining foreign exchange risk using a variety of financial instruments including foreign currency swaps, options and futures contracts.

# Management Discussion and Analysis

## 2005 Future Outlook

BC Hydro's February 2004 Service Plan indicated that its net income for fiscal 2005 was expected to be \$442 million. This was based on the January 1, 2004 snowpack levels indicating a forecast inflow level of 94 per cent of normal for fiscal 2005. The forecast for fiscal 2005 includes the proposed rate increase of 7.23 per cent as filed in the revenue requirement application to the Commission in December 2003. BC Hydro's Service Plan is required to be filed in February of each year under the Budget Transparency and Accountability Act.

On April 2, 2004, BC Hydro filed a Revised Evidentiary Update as part of its 2004/05 and 2005/06 Revenue Requirements Application. Forecast net income for fiscal 2005 was revised to \$406 million. The change in net income from the Service Plan is due to removal of the deferral account transfers. BC Hydro revised its revenue requirement application to propose a rate increase of 8.9 per cent in fiscal 2005, consisting of an interim increase of 7.23 per cent effective April 1, 2004 and a further 1.67 per cent to be effective when approved by the Commission. If the Commission does not approve the full amount of the interim increase, the difference will be fully refunded to customers with interest.

The forecast earnings for fiscal 2005 are based on current cost and revenue drivers and the impact that cost reduction and/or revenue enhancement initiatives will have on these drivers. BC Hydro's earnings can fluctuate significantly due to various non-controllable factors such as the level of water inflows, market prices for electricity and natural gas, weather temperatures, interest rates and foreign exchange rates. As a result of these risks and uncertainties, BC Hydro's forecast net income for fiscal 2005 before deferral account transfers could vary by \$565 million, from a net income of \$118 million to a net income of \$683 million under various plausible scenarios. Some of the overall impacts of these variances could be mitigated through the application of a new set of deferral accounts as outlined in the "Regulatory Process" following.

## Rate Hearings

In regulating and setting rates for BC Hydro, the Commission must ensure that the rates are sufficient to allow BC Hydro to provide reliable electricity service, meet its financial obligations, comply with government policy and achieve an annual rate of return on equity based on forecast consolidated net income. The annual rate of return on equity is equal to the pre-income tax annual rate of return allowed by the Commission to the most comparable investor-owned energy utility regulated under the Utilities Commission Act. The allowed annual rate of return on equity calculated for fiscal 2004 was 14.33 per cent (2003 – 15.47 per cent). The actual rate of return in 2004 was 3.60 per cent.

BC Hydro's basic tariffs for all customers were frozen until March 31, 2003. On December 15, 2003, BC Hydro submitted its revenue requirement application to the Commission that proposed rate increases of 7.23 per cent in fiscal 2005 and 2.0 per cent in fiscal 2006. On January 23, 2004, the Commission approved an interim rate increase of 7.23 per cent and the increase became effective April 1, 2004. If the Commission does not approve the full amount of the interim increase, the difference will be refunded to customers with interest. On March 29, 2004, BC Hydro revised its revenue requirement application to propose a rate increase of 8.9 per cent in fiscal 2005 with no increase in fiscal 2006. The incremental rate increase of 1.67 per cent for fiscal 2005 will become effective based on the date of approval by the Commission. A full public hearing related to the revenue requirements application will occur in the first quarter of fiscal 2005 and a final decision is expected during the third quarter of fiscal 2005.

# Management Discussion and Analysis

## **Regulatory Process**

In November 2002 the Province of British Columbia released *"Energy for Our Future: A Plan for B.C."* (the "Energy Plan"). The Energy Plan includes a number of policy actions including the establishment of a Heritage Contract as discussed below. The Energy Plan also suspended the rate freeze that was in effect prior to fiscal 2004, and re-established a process of periodic review of rates for fiscal 2005 and beyond. Finally, the Energy Plan requires the establishment of a separately-owned entity with responsibility for planning, operating and managing BC Hydro's transmission system. On November 27, 2003, the Province issued various Orders in Council that have the impact of revoking some of the previous Orders in Council, and revising BC Hydro's regulatory framework consistent with the policy actions identified in the Energy Plan.

## **Heritage Contract**

The Heritage Contract is a regulatory mechanism that is intended to assign the benefits of BC Hydro's low-cost generation assets (the "Heritage Resources") to domestic ratepayers. This is to be achieved by ensuring that, for the purposes of the revenue requirement, the cost of energy supplied to domestic ratepayers is based on the cost-of-service of the Heritage Resources. The Heritage Contract will cover an initial term of 10 years commencing April 1, 2004, and will be cancellable with five years notice commencing April 1, 2009. Specific terms of the Heritage Contract are subject to approval by the Commission during public hearings that will take place during the first quarter of fiscal 2005, with final approval expected in the third quarter.

## **Deferral Accounts**

During fiscal 2004, the Province issued a Special Directive that directs the Commission to authorize BC Hydro to establish the Heritage Deferral Account and the Trade Income Deferral Account effective April 1, 2004. These accounts are intended to result in assigning domestic ratepayers the benefit of BC Hydro's low-cost generation assets and related activities, as well as an appropriate share of risks associated with the ownership and operation of these assets.

### ***Heritage Deferral Account***

The Heritage Deferral Account is intended to mitigate the impact of certain variances between the forecast and actual costs of service associated with the Heritage Resources. The impact of this account is to defer the impact of these cost variances through transfers to the account by adjustment of net income.

### ***Trade Income Deferral Account***

The Trade Income Deferral Account is intended to mitigate the uncertainty associated with forecasting the net income impact of BC Hydro's electricity trade activities. The impact of this account is to defer the difference between forecast and actual Trade Income. For the purposes of this calculation, Trade Income is defined as the Net Income of Powerex based on generally accepted accounting principles. For the purposes of its annual financial reporting, BC Hydro will exclude variances between forecast and actual Trade Income from its reported earnings. The portions of variances between forecast and actual Trade Income that relate to either Trade Income in excess of \$200 million per year or a loss in Trade Income will not be included in the Trade Income Deferral Account; such elements of the variances are for the direct accounting of the shareholder.

### ***Non-Heritage Asset Deferral Account***

BC Hydro has also proposed the establishment of a Non-Heritage Asset Deferral Account to manage the impact of certain non-controllable cost variances associated with ownership and operation of BC Hydro's distribution assets. The impact of this account is to defer specific types of cost variance through transfers to the account by adjustment of net income.

BC Hydro will apply to the Commission to manage the balances in these accounts in such a way as to allow the deferral accounts to be cleared by periodic adjustment of the revenue requirement and rates from time to time and within a reasonable period of time.

# Management Discussion and Analysis

## Change in Accounting Policy

For fiscal periods to March 31, 2004, BC Hydro recorded a provision for the estimated future costs associated with the retirement and decommissioning of its distribution, transmission and generation facilities in accordance with the requirements of CICA Handbook Section 3061. Effective April 1, 2004, BC Hydro adopted the new section (Section 3110 "Asset Retirement Obligations") which addresses accounting and reporting for obligations associated with the retirement of long-lived assets.

This new section amends Section 3061 and applies only to legal obligations associated with the retirement of long-lived assets. BC Hydro is required to record the fair value (net present value) of a liability at the time it is incurred if an estimate can be determined. When a liability is initially recorded, BC Hydro will capitalize the costs by increasing the carrying value of the long-lived asset. The liability is adjusted for the passage of time through accretion (interest) expense and the asset is amortized over the useful life of the related asset. The change in accounting policy is to be applied retroactively with restatement of prior periods.

The change in accounting policy requires BC Hydro to remove the existing provision for future removal and site restoration costs. Asset retirement obligations and associated capital assets will be set up for assets that it is legally obligated to retire, with the difference between the existing provision and the net liability created by the new accounting policy being an adjustment to retained earnings. The majority of BC Hydro's facilities have an indeterminate life, and thus a future retirement obligation is not determinable.

The net impact of this change in accounting policy on April 1, 2004, is summarized below:

| <i>(in millions)</i>                   | Increase (Decrease) |
|--|---------------------|
| Retained earnings                      | \$ 241              |
| Capital assets, net                    | 8                   |
| Deferred Credits and Other Liabilities | (233)               |

# Management Report

The consolidated financial statements of British Columbia Hydro and Power Authority (BC Hydro) are the responsibility of management and have been prepared in accordance with Canadian generally accepted accounting principles, consistently applied and appropriate in the circumstances. The preparation of financial statements necessarily involves the use of estimates which have been made using careful judgment. In management's opinion, the consolidated financial statements have been properly prepared within the framework of the accounting policies summarized in the consolidated financial statements and incorporate, within reasonable limits of materiality, all information available at May 28, 2004. The consolidated financial statements have also been reviewed by the Audit & Risk Management Committee and approved by the Board of Directors. Financial information presented elsewhere in this Annual Report is consistent with that in the consolidated financial statements.

Management maintains systems of internal controls designed to provide reasonable assurance that assets are safeguarded and that reliable financial information is available on a timely basis. These systems include formal written policies and procedures, careful selection and training of qualified personnel and appropriate delegation of authority and segregation of responsibilities within the organization. An internal audit function independently evaluates the effectiveness of these internal controls on an ongoing basis and reports its findings to management and the Audit & Risk Management Committee.

The financial statements have been examined by independent external auditors. The external auditors' responsibility is to express their opinion on whether the financial statements, in all material respects, fairly present BC Hydro's financial position, results of operations and cash flows in accordance with Canadian generally accepted accounting principles. The Auditors' Report, which follows, outlines the scope of their examination and their opinion.

The Board of Directors, through the Audit & Risk Management Committee, is responsible for ensuring that management fulfills its responsibility for financial reporting and internal controls. The Audit & Risk Management Committee, comprised of directors who are not employees, meets regularly with the external auditors, the internal auditors and management to satisfy itself that each group has properly discharged its responsibility to review the financial statements before recommending approval by the Board of Directors and appointment of external auditors. The internal and external auditors have full and open access to the Audit & Risk Management Committee, with and without the presence of management.



*L.I. (Larry) Bell*

*Chair*



*R.G. (Bob) Elton*

*President and Chief Executive Officer*

*Vancouver, Canada*

*June 14, 2004*

# Auditors' Report

The Lieutenant Governor in Council,  
Province of British Columbia:

We have audited the consolidated balance sheet of British Columbia Hydro and Power Authority as at March 31, 2004 and the consolidated statements of operations, retained earnings and cash flows for the year then ended. These financial statements are the responsibility of British Columbia Hydro and Power Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

The logo for Ernst & Young LLP, featuring the company name in a blue, cursive script.

*Ernst and Young LLP*  
Chartered Accountants

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

*Vancouver, Canada*  
*May 28, 2004, except as to Note 16 which is as of June 10, 2004*

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of British Columbia Hydro and Power Authority as at March 31, 2004 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

# Consolidated Financial Statements

## Consolidated Statement of Operations

for the years ended March 31 (in millions)

|  | 2004         | 2003   |
|--|--------------|--------|
| <b>Revenues</b>  |              |        |
| Domestic   |              |        |
| Residential  | \$ 960       | \$ 923 |
| Light industrial and commercial  | 912          | 893    |
| Large industrial   | 525          | 516    |
| Other energy sales   | 89           | 88     |
| Miscellaneous  | 67           | 55     |
|  | <b>2,553</b> | 2,475  |
| Electricity trade (Note 2)   | 871          | 632    |
|  | <b>3,424</b> | 3,107  |
| <b>Expenses</b>  |              |        |
| Energy costs (Note 4)  | 1,580        | 1,126  |
| Maintenance  | 263          | 249    |
| Operations and administration (Note 16)  | 358          | 324    |
| Amortization (Notes 5 and 16)  | 539          | 417    |
| Taxes (Note 6)   | 147          | 145    |
|  | <b>2,887</b> | 2,261  |
| <b>Income Before Finance Charges, Restructuring Costs and Transfer from Rate Stabilization Account</b> | <b>537</b>   | 846    |
| Finance charges (Note 7)   | 452          | 457    |
| <b>Income Before Restructuring Costs and Transfer from Rate Stabilization Account</b>                  | <b>85</b>    | 389    |
| Restructuring costs (Notes 17 and 18)  | 8            | 37     |
| <b>Income Before Transfer from Rate Stabilization Account</b>  | <b>77</b>    | 352    |
| Transfer from Rate Stabilization Account (Note 3)  | 21           | 66     |
| <b>Net Income</b>  | <b>\$ 98</b> | \$ 418 |

## Consolidated Statement of Retained Earnings

for the years ended March 31 (in millions)

|                                       | 2004            | 2003     |
|---------------------------------------|-----------------|----------|
| Retained earnings, beginning of year  | \$ 1,609        | \$ 1,529 |
| Net income                            | 98              | 418      |
| Payment to the Province (Note 3)      | (73)            | (338)    |
| <b>Retained Earnings, end of year</b> | <b>\$ 1,634</b> | \$ 1,609 |

See accompanying notes to consolidated financial statements.

# Consolidated Financial Statements

## Consolidated Balance Sheet

as at March 31 (in millions)

|   | 2004             | 2003             |
|---|------------------|------------------|
| <b>ASSETS</b>                                   |                  |                  |
| <b>Capital Assets</b> (Note 8)                  |                  |                  |
| Capital assets in service                       | \$ 15,293        | \$ 14,940        |
| Less accumulated amortization                   | 5,964            | 5,816            |
|   | 9,329            | 9,124            |
| Unfinished construction                         | 515              | 669              |
|   | 9,844            | 9,793            |
| <b>Current Assets</b>                           |                  |                  |
| Cash and cash equivalents                       | 47               | 4                |
| Accounts receivable and accrued revenue         | 323              | 362              |
| Materials and supplies                          | 86               | 88               |
| Prepaid expenses                                | 108              | 86               |
| Unrealized gains on mark-to-market transactions | 104              | 10               |
|   | 668              | 550              |
| <b>Other Assets and Deferred Charges</b>        |                  |                  |
| Sinking funds (Note 9)                          | 981              | 1,037            |
| Demand-side management programs                 | 161              | 123              |
| Deferred debt costs (Note 10)                   | 150              | 385              |
| Foreign currency contracts (Notes 11 and 12)    | –                | 13               |
| Loans receivable                                | 2                | 23               |
|   | 1,294            | 1,581            |
|   | <b>\$ 11,806</b> | <b>\$ 11,924</b> |

# Consolidated Financial Statements

|   | 2004             | 2003      |
|---|------------------|-----------|
| <b>LIABILITIES AND EQUITY</b>                           |                  |           |
| Long-term debt net of sinking funds                     | <b>\$ 6,039</b>  | \$ 6,222  |
| Sinking funds presented as assets                       | <b>981</b>       | 1,037     |
| <b>Long-Term Debt</b> (Note 11)                         | <b>7,020</b>     | 7,259     |
| <b>Foreign Currency Contracts</b> (Notes 11 and 12)     | <b>63</b>        | 15        |
| <b>Current Liabilities</b>                              |                  |           |
| Current portion of long-term debt (Note 11)             | <b>861</b>       | 631       |
| Accounts payable and accrued liabilities                | <b>672</b>       | 689       |
| Accrued interest  | <b>115</b>       | 108       |
| Accrued Payment to the Province (Note 3)                | <b>73</b>        | 338       |
| Unrealized losses on mark-to-market transactions        | <b>78</b>        | 10        |
|   | <b>1,799</b>     | 1,776     |
| <b>Deferred Credits and Other Liabilities</b>           |                  |           |
| Provision for future removal and site restoration costs | <b>202</b>       | 174       |
| Deferred revenue  | <b>276</b>       | 258       |
| Rate Stabilization Account (Note 3)                     | <b>–</b>         | 21        |
| Contributions in aid of construction                    | <b>619</b>       | 609       |
| Contributions arising from the Columbia River Treaty    | <b>193</b>       | 203       |
|   | <b>1,290</b>     | 1,265     |
| <b>Retained Earnings</b>                                | <b>1,634</b>     | 1,609     |
|   | <b>\$ 11,806</b> | \$ 11,924 |

## **Commitments and Contingencies** (Notes 9, 11, 12, 14, 16 and 18)

See accompanying notes to consolidated financial statements.

### **Approved on behalf of the Board:**



L.I. (Larry) Bell  
Chair



A.D. (Alice) Laberge  
Chair, Audit & Risk Management Committee

# Consolidated Financial Statements

## Consolidated Statement of Cash Flows

for the years ended March 31 (in millions)

|   | 2004         | 2003    |
|---|--------------|---------|
| <b>Operating Activities</b>                             |              |         |
| Net income  | \$ 98        | \$ 418  |
| Adjustments for:  |              |         |
| Amortization  | 539          | 417     |
| Transfer from Rate Stabilization Account                | (21)         | (66)    |
| Other non-cash items                                    | (4)          | 24      |
|   | 612          | 793     |
| Working capital changes                                 | 1            | 1       |
| <b>Cash provided by operating activities</b>            | <b>613</b>   | 794     |
| <b>Investing Activities</b>                             |              |         |
| Loans receivable  | (1)          | (8)     |
| Capital asset expenditures                              | (606)        | (680)   |
| Contributions in aid of construction                    | 56           | 62      |
| Demand-side management programs                         | (63)         | (45)    |
| Future removal and site restoration costs               | (15)         | (12)    |
| Proceeds from property sales                            | 10           | 1       |
| <b>Cash used for investing activities</b>               | <b>(619)</b> | (682)   |
| <b>Financing Activities</b>                             |              |         |
| Bonds   |              |         |
| – issued  | 790          | 1,007   |
| – retired   | (450)        | (1,019) |
| Revolving borrowings                                    | (47)         | 147     |
| Sinking funds   | 53           | 48      |
| Deferred debt costs                                     | 7            | 3       |
| Settlement of financial instruments                     | 34           | 22      |
| <b>Cash provided by financing activities</b>            | <b>387</b>   | 208     |
| <b>Payment to the Province</b> (Note 3)                 | <b>(338)</b> | (333)   |
| <b>Increase (decrease) in cash and cash equivalents</b> | <b>43</b>    | (13)    |
| <b>Cash and cash equivalents at beginning of year</b>   | <b>4</b>     | 17      |
| Cash and cash equivalents at end of year                | \$ 47        | \$ 4    |
| <b>Supplemental disclosure of cash flow information</b> |              |         |
| Interest paid   | \$ 512       | \$ 540  |

See accompanying notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 1: Significant Accounting Policies

### Purpose

British Columbia Hydro and Power Authority ("BC Hydro"), established in 1962 as a Crown corporation of the Province of British Columbia (the "Province") by enactment of the Hydro and Power Authority Act, has a corporate mission to provide integrated energy solutions to its customers in an environmentally and socially responsible manner. BC Hydro is subject to regulation (see Note 3) by the British Columbia Utilities Commission (the "Commission") which, among other things, approves the rates BC Hydro charges for its services.

BC Hydro owns and operates electric generation, transmission and distribution facilities in the province of British Columbia.

### Consolidation

The consolidated financial statements include the financial statements of BC Hydro and its principal wholly-owned operating subsidiaries, Powerex Corp. ("Powerex"), Powertech Labs Inc., Columbia Hydro Constructors Ltd. and BCH Services Asset Corp.

British Columbia Transmission Corporation ("BCTC"), a company wholly-owned by the Province, will be consolidated until BCTC is operationally and financially independent of BC Hydro.

### Regulatory Accounting

BC Hydro applies various accounting policies that differ from Canadian generally accepted accounting principles for enterprises that do not operate in a rate-regulated environment. Except for the accounting policy with respect to the Rate Stabilization Account, the impact of these regulatory accounting policies is to defer amounts that would otherwise be included in the determination of net income. These accounting policies support BC Hydro's regulation and have been established through ongoing application or by approval of the Commission.

#### (a) Capital Assets

Costs of abandoned or indefinitely deferred projects that will be recovered through continuing operations are amortized over the expected recovery period.

Aboriginal negotiation, litigation and settlement costs are deferred and amortized over a 10-year period.

Cost of feasibility studies and dam safety studies and investigations are deferred and amortized on a straight-line basis over five years.

#### (b) Deferred Debt Costs

Certain costs associated with issuance or refinancing of debt are deferred and amortized over the term to maturity of the related debt.

Gains and losses arising from the translation of foreign currency denominated long-term monetary items are deferred and amortized over the term of the debt portfolio using a straight-line pooled method. Where foreign currency denominated long-term debt is refinanced in the same currency, any unamortized foreign currency translation gains and losses associated with the refinanced debt continue to be deferred and amortized. Where a portion of the foreign currency denominated long-term debt is refinanced in a different currency, a pro rata portion of the related pool of any unamortized foreign currency translation gains or losses is included in finance charges at the refinancing date.

Unrealized gains and losses related to sinking funds held in unitized funds are deferred and amortized on a straight-line basis over the weighted average term to maturity of the related debt.



# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## **(c) Demand-side Management Programs**

Costs of developing and implementing demand-side management programs are deferred and amortized on a straight-line basis over the anticipated period of benefit of the program, generally not in excess of 10 years.

## **(d) Rate Stabilization Account**

When earnings result in a rate of return that is higher than the rate of return on equity allowed by the Commission, the excess earnings are transferred to the Rate Stabilization Account. When earnings are lower than the allowed rate of return on equity, then amounts are transferred from the Rate Stabilization Account to increase earnings. Transfers from the Rate Stabilization Account are subject to the Rate Stabilization Account remaining in a nil or positive balance after the transfer, provided that BC Hydro's debt to equity ratio after the transfers is not greater than 80:20.

## **Revenues**

Domestic revenues comprise sales to customers within the province and sales of firm energy outside the province under long-term contracts that are reflected in BC Hydro's domestic load requirements. Other sales outside the province are classified as electricity trade.

Revenue is recognized on the basis of billing cycles and also includes accruals for electricity deliveries not yet billed.

## **Foreign Currency Translation**

Foreign currency denominated revenues and expenses are translated into Canadian dollars at the rate of exchange in effect at the transaction date. Foreign currency denominated monetary assets and liabilities are translated into Canadian dollars at the rate of exchange prevailing at the balance sheet date.

Gains and losses arising from the translation of foreign currency denominated long-term monetary items are deferred and amortized over the term of the debt portfolio using a straight-line pooled method.

For long-term debt, the straight-line pooled method is based on the weighted average remaining term to maturity of the long-term foreign currency denominated debt portfolio.

For sinking funds, the straight-line pooled method is based on the weighted average term to maturity of the underlying long-term foreign currency denominated debt weighted by its sinking fund balances.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Amortization

Capital assets in service are amortized on an individual or a pooled basis over the expected useful lives of the assets, generally using the straight-line method.

The expected useful lives, in years, of BC Hydro's main classes of capital assets are:

|                              |          |
|------------------------------|----------|
| Generation                   |          |
| Hydraulic                    | 50 – 100 |
| Thermal                      | 10 – 50  |
| Distribution                 | 30 – 50  |
| Transmission lines           | 35 – 100 |
| Substations                  | 20 – 50  |
| Buildings                    | 45 – 50  |
| Equipment                    | 7 – 20   |
| Computer hardware & software | 2 – 10   |
| Service vehicles             | 7 – 20   |
| Sundry                       | 20 – 45  |

## Capital Assets

Capital assets in service are recorded at cost, which includes materials, direct and indirect labour, an appropriate allocation of administration overhead and finance charges capitalized during construction. Costs of construction in progress are transferred to capital assets in service when the asset is substantially complete and capable of operation at a significant level of capacity. Capital assets in service include the cost of plant financed by contributions in aid of construction and contributions arising from the Columbia River Treaty. Upon retirement or disposal, any gain or loss is charged to income for assets amortized on an individual basis, or to accumulated amortization for assets amortized on a pooled basis.

Unfinished construction consists of construction in progress and the unamortized balance of studies and abandoned or indefinitely deferred projects. Costs of studies and abandoned or indefinitely deferred projects are deferred and amortized on a straight-line basis over five years where it is expected that the costs will be recovered through future rates. If the costs of an abandoned or indefinitely deferred project will not be recovered through continuing operations, the costs related to the project, including overhead and interest during construction, are expensed.

## Cash and Cash Equivalents

Cash and cash equivalents include cash and units of a short-term bond fund, with an initial term of less than 90 days, that are valued at the lower of cost or market.

## Materials and Supplies

Materials and supplies are valued at the lower of average cost and net realizable value.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## **Mark-to-Market**

BC Hydro follows mark-to-market accounting for its energy trading activities. Under mark-to-market accounting, open trade positions are recorded at fair value. Changes in the fair value of open positions, resulting primarily from changes in market prices subsequent to the transaction date and the impact of price movements, are recognized as gains or losses in revenue in the period of change. The resulting unrealized gains and losses are recorded as trading assets and liabilities. The market prices used to determine fair value reflect management's best estimates considering various factors including closing exchange and over-the-counter quotations, time value and volatility factors. However, it is possible that future market prices could vary from those used in valuing the assets and liabilities, and such variations could be material.

## **Demand-side Management Programs**

Demand-side management programs comprise programs designed to reduce the energy requirements on BC Hydro's system.

Cost of demand-side management programs including materials, direct labour and applicable portions of administration charges, equipment costs, program costs and incentives, are deferred and amortized on a straight-line basis over the anticipated period of benefit of the program, generally not in excess of 10 years. Costs incurred prior to establishing feasibility of the program are expensed as incurred.

Incentives provided to assist in the construction of third-party electric generation facilities are deferred and amortized on a straight-line basis over the anticipated period of benefit provided by the facilities.

## **Derivative Financial Instruments**

BC Hydro uses derivative financial instruments, principally interest rate and foreign currency swaps, options and forward rate agreements, to manage interest rate and foreign exchange risks related to debt.

Payments and receipts under interest rate and cross-currency swap contracts are recognized as adjustments to finance charges. Gains and losses on terminated derivative interest rate and cross-currency swaps, options and forward rate agreements are deferred and amortized on a straight-line basis over the remaining term of the related contracts prior to termination.

## **Fair Value**

The fair value of loans receivable, bonds and sinking funds reflects changes in the general level of interest rates that have occurred since inception. Fair value is based on quoted market values or, where no such information is available, is determined by discounting the expected future cash flows of the financial instrument using market rates applicable to financial instruments with similar terms and conditions. The fair value of a derivative financial instrument reflects the amount that BC Hydro would receive or pay to terminate these instruments at the balance sheet date. The fair value of over-the-counter derivative contracts is determined using pricing models, which take into account market prices and contractual prices of the underlying instruments, as well as time value, yield curve and volatility factors underlying the positions.

## **Sinking Funds**

Sinking funds are held as individual portfolios or units in a pooled bond fund. Securities included in an individual portfolio are recorded at cost, adjusted by amortization of any discounts or premiums arising on purchase on a yield basis over the estimated term to settlement of the security. Realized gains and losses are included in sinking fund income. Unrealized gains and losses are not recognized.

Units in the pooled bond fund are recorded at cost, adjusted by amortization of any realized and unrealized gains and losses on a straight-line basis over the weighted average term to maturity of the related debt portfolio.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## **Future Removal and Site Restoration Costs**

Provisions for the costs, net of expected recoveries, for future removal and site restoration arising on the retirement of capital assets are made where they can be reasonably estimated. These costs are charged to amortization expense on a straight-line basis over the expected useful lives of the related assets. Provisions required are revised periodically in accordance with changes in BC Hydro's assumptions and estimates underlying the calculations and with experience arising from the removal of capital assets.

## **Deferred Revenue**

Deferred revenue consists principally of amounts received under the Skagit River Agreements. Under these agreements, BC Hydro is required to deliver a predetermined amount of electricity each year for an 80-year period ending in fiscal 2066. In return BC Hydro receives approximately US\$22 million each year for a 35-year period ending in fiscal 2021 and US\$100,000 (adjusted for inflation) each year for an 80-year period ending in fiscal 2066.

The amounts received under the Skagit River Agreements are deferred and included in income on an annuity basis over the electricity delivery period ending in fiscal 2066.

## **Contributions**

Contributions in aid of construction are amounts paid by certain customers toward the cost of capital assets required for the extension of services. These amounts are amortized over the expected useful life of the related assets.

Contributions arising from the Columbia River Treaty relate to three dams built by BC Hydro in the mid-1960s to regulate the flow of the Columbia River. The proceeds received were contributed to BC Hydro to assist in financing the dams' construction. These proceeds were deferred and are amortized to income over the period ending in fiscal 2025, the minimum term of the treaty.

## **Employee Benefit Plans**

The cost of pensions and other post-retirement benefits earned by employees is actuarially determined using the projected benefit method prorated on service and management's best estimate of expected plan investment performance, salary escalation, retirement ages of employees and expected health care costs. For the purpose of calculating the return on plan assets, those assets are valued at fair value.

Past service costs from plan amendments are amortized on a straight-line basis over the average remaining service period of active members at the date of amendment.

The excess of the net cumulative unamortized actuarial gain or loss over 10 per cent of the greater of the benefit obligation and the fair value of plan assets at the beginning of the year is amortized over the average remaining service period of active employees. The average remaining service period of the active employees covered by the employee benefit plans is 11 years (2003 – 12 years). When the restructuring of a benefit plan gives rise to both a curtailment and a settlement of obligations, the curtailment is accounted for prior to the settlement.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## **Environmental Expenditures and Liabilities**

BC Hydro conducts its operations in a manner that enables it to meet existing statutory requirements of environmental legislation or standards. The objective is to minimize the impact on the quality of the natural and social environment, providing enhancements wherever practical.

Environmental expenditures are expensed as part of operating activities, unless they constitute an asset improvement or act to mitigate or prevent possible future contamination, in which case the expenditures are capitalized and amortized to income. Environmental liabilities are accrued when environmental expenditures related to activities of BC Hydro are considered likely and the costs can be reasonably estimated. Estimated liabilities are reviewed periodically and these reviews can result in adjustments to previously recorded items.

## **Use of Estimates**

Management of BC Hydro has made a number of estimates and assumptions relating to the reporting of assets and liabilities and to the disclosure of contingent assets and liabilities to prepare these financial statements in conformity with generally accepted accounting principles. Actual results could differ from these estimates.

## **Note 2: Changes in Accounting Policies**

The following accounting policy changes were implemented during fiscal 2004:

### **Disclosure of guarantees**

During fiscal 2004, BC Hydro adopted the recommendations of Accounting Guideline 14 (AcG-14) of the Canadian Institute of Chartered Accountants Handbook entitled "Disclosure of Guarantees". This guideline requires BC Hydro to disclose significant information on its guarantees, regardless of the probability that payments will have to be made under these guarantees.

### **Mark-to-market**

During the year, BC Hydro changed the application of mark-to-market accounting as it relates to certain electricity trade activities involving the use of energy derivatives by Powerex. This change, which has been applied prospectively, results in energy derivatives being recorded at their fair value. Prior to fiscal 2004, mark-to-market accounting was applied only to electricity trade activities that were not supported by the BC Hydro system. As a result of this change in the application of mark-to-market accounting, net income for fiscal 2004 includes income of \$23 million related to system-backed energy derivatives and \$4 million related to non-system backed energy derivatives.

### **Revenue Recognition**

During fiscal 2004, in response to changes in United States accounting standards, BC Hydro amended its accounting policy related to revenue recognition for electricity trade activities that are supported by derivatives such as swaps, forward sales, and options. The electricity trade revenues and costs associated with these derivatives are presented on a net basis in the Statement of Operations. The revenues and costs associated with these derivatives were previously presented on a gross basis. This change has been applied on a retroactive basis.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 3: Regulation

BC Hydro is regulated by the Commission, and they are both subject to general or special directives and directions issued by order of the Province. Orders in Council from the Province establish the basis for determining BC Hydro's allowed return on equity, calculation of its revenue requirements, rates charged to customers and the annual Payment to the Province. BC Hydro's regulatory accounting practices are consistent with these regulatory requirements.

In November 2002 the Province of British Columbia released "*Energy for Our Future: A Plan for B.C.*" (the "Energy Plan"). The Energy Plan includes a number of policy actions including the establishment of a Heritage Contract that assigns the value of existing low-cost generation assets for an extended period. The Energy Plan also suspended the rate freeze that was in effect prior to fiscal 2004, and re-established a process of periodic rate reviews, the first of which will be effective in fiscal 2005. Finally, the Energy Plan requires the establishment of a separately-owned entity with responsibility for planning, operating and managing BC Hydro's transmission system. On November 27, 2003, the Province issued various Orders in Council that have the impact of revoking some of the previous Orders in Council, and revising BC Hydro's regulatory framework consistent with the policy actions identified in the Energy Plan.

### Rate Stabilization Account

The Rate Stabilization Account was established by Special Directive to BC Hydro, and is intended to mitigate the impact of volatile earnings on ratepayers.

During fiscal 2004, the balance of the Rate Stabilization Account totalling \$21 million (2003 – \$66 million) was transferred to net income and the related Special Directive to BC Hydro was revoked. A new system of regulatory accounts will be implemented during fiscal 2005.

### Payment to the Province

BC Hydro is required to make an annual Payment to the Province (the "Payment") on or before June 30 of each year. The Payment is equal to 85 per cent of BC Hydro's distributable surplus for the most recently completed fiscal year assuming that the debt to equity ratio of BC Hydro, after deducting the Payment, is not greater than 80:20. If the Payment would result in a debt to equity ratio exceeding 80:20, then the Payment will be based on the greatest amount that can be paid without causing the debt to equity ratio to exceed 80:20.

For the purposes of calculating the Payment, the following parameters are applied:

Distributable surplus is consolidated net income adjusted by deducting finance charges capitalized during the year, net of amortization charged on capitalized finance charges.

Debt is the sum of all outstanding borrowings after deducting sinking funds and cash and cash equivalents all at the end of the year.

Equity is the sum of retained earnings, deferred revenue, contributions arising from the Columbia River Treaty and contributions in aid of construction, all at the end of the year.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 4: Energy Costs

| <i>(in millions)</i>              | <b>2004</b>     | 2003     |
|-----------------------------------|-----------------|----------|
| Water rentals                     | <b>\$ 246</b>   | \$ 258   |
| Electricity purchases             | <b>988</b>      | 561      |
| Fuel                              | <b>220</b>      | 200      |
| Third-party transmission charges  | <b>119</b>      | 100      |
| Compensation and mitigation costs | <b>7</b>        | 7        |
|                                   | <b>\$ 1,580</b> | \$ 1,126 |

Water rental fees are remitted to the Province by BC Hydro in accordance with the Water Act. Electricity purchases include \$223 million (2003 – \$97 million) of energy purchased from the Province related to its ownership of downstream benefits under the Columbia River Treaty. These energy transactions are in the normal course of operations and are based on market prices.

## Note 5: Amortization

| <i>(in millions)</i>  | <b>2004</b>   | 2003   |
|---|---------------|--------|
| Amortization of capital assets in service   | <b>\$ 405</b> | \$ 382 |
| Amortization of contributions arising from the Columbia River Treaty and contributions in aid of construction | <b>(45)</b>   | (42)   |
| Amortization of studies and abandoned or indefinitely deferred projects                                       | <b>8</b>      | 11     |
| Amortization of demand-side management programs   | <b>25</b>     | 25     |
| Future removal and site restoration costs   | <b>35</b>     | 27     |
| Valuation provision (Note 16)   | <b>98</b>     | –      |
| Capital asset write-offs  | <b>13</b>     | 14     |
|   | <b>\$ 539</b> | \$ 417 |

## Note 6: Taxes

| <i>(in millions)</i> | <b>2004</b>   | 2003   |
|----------------------|---------------|--------|
| School taxes         | <b>\$ 100</b> | \$ 100 |
| Grants               | <b>42</b>     | 42     |
| Other                | <b>5</b>      | 3      |
|                      | <b>\$ 147</b> | \$ 145 |

All taxes paid by BC Hydro are retained by the Province, with the exception of \$39 million (2003 – \$39 million) of grants paid to municipalities and regional districts. As a Crown corporation, BC Hydro is exempt from Canadian federal and provincial income tax.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 7: Finance Charges

(in millions)

|   | 2004          | 2003   |
|---|---------------|--------|
| Interest on long-term debt – bonds                                | <b>\$ 507</b> | \$ 536 |
| – revolving borrowings  | <b>9</b>      | 5      |
| Amortization of deferred foreign currency translation adjustments | <b>20</b>     | 15     |
| Amortization of deferred debt issue and refinancing costs         | <b>8</b>      | 11     |
|   | <b>544</b>    | 567    |
| Less:   |               |        |
| Sinking fund income   | <b>(58)</b>   | (60)   |
| Other income  | <b>(17)</b>   | (26)   |
| Finance charges capitalized to unfinished construction            | <b>(17)</b>   | (24)   |
|   | <b>(92)</b>   | (110)  |
|   | <b>\$ 452</b> | \$ 457 |

Included in interest on long-term debt is \$492 million (2003 – \$520 million) in interest paid to the Province.

## Note 8: Capital Assets

(dollar amounts in millions)

|                                   | 2004                      |                          |                         |                             | 2003                      |                          |                         |                             |
|-----------------------------------|---------------------------|--------------------------|-------------------------|-----------------------------|---------------------------|--------------------------|-------------------------|-----------------------------|
|                                   | Capital Assets in Service | Accumulated Amortization | Unfinished Construction | Composite Amortization Rate | Capital Assets in Service | Accumulated Amortization | Unfinished Construction | Composite Amortization Rate |
| <b>Generation</b>                 |                           |                          |                         |                             |                           |                          |                         |                             |
| Hydraulic                         | <b>\$ 5,269</b>           | <b>\$ 1,708</b>          | <b>\$ 230</b>           | <b>1.5%</b>                 | \$ 5,193                  | \$ 1,638                 | \$ 207                  | 1.5%                        |
| Thermal                           | <b>453</b>                | <b>202</b>               | <b>98</b>               | <b>3.8</b>                  | 425                       | 207                      | 133                     | 3.6                         |
| Valuation provision–<br>(Note 16) | <b>–</b>                  | <b>–</b>                 | <b>(98)</b>             |                             | –                         | –                        | –                       |                             |
|                                   | <b>5,722</b>              | <b>1,910</b>             | <b>230</b>              |                             | 5,618                     | 1,845                    | 340                     |                             |
| <b>Distribution</b>               | <b>3,534</b>              | <b>1,193</b>             | <b>112</b>              | <b>2.5</b>                  | 3,395                     | 1,135                    | 90                      | 2.5                         |
| <b>Transmission lines</b>         | <b>2,780</b>              | <b>1,262</b>             | <b>47</b>               | <b>2.1</b>                  | 2,789                     | 1,256                    | 27                      | 2.1                         |
| <b>Substations</b>                | <b>1,980</b>              | <b>960</b>               | <b>54</b>               | <b>3.1</b>                  | 1,917                     | 963                      | 73                      | 3.2                         |
| <b>Other</b>                      |                           |                          |                         |                             |                           |                          |                         |                             |
| Land and buildings                | <b>421</b>                | <b>129</b>               | <b>16</b>               | <b>2.9</b>                  | 424                       | 130                      | 4                       | 2.4                         |
| Equipment                         | <b>290</b>                | <b>200</b>               | <b>8</b>                | <b>6.7</b>                  | 311                       | 206                      | 41                      | 6.5                         |
| Computer hardware<br>& software   | <b>422</b>                | <b>226</b>               | <b>20</b>               | <b>12.5</b>                 | 333                       | 193                      | 84                      | 13.4                        |
| Service vehicles                  | <b>111</b>                | <b>72</b>                | <b>3</b>                | <b>8.9</b>                  | 124                       | 76                       | –                       | 8.7                         |
| Sundry                            | <b>33</b>                 | <b>12</b>                | <b>25</b>               | <b>3.1</b>                  | 29                        | 12                       | 10                      | 3.3                         |
|                                   | <b>1,277</b>              | <b>639</b>               | <b>72</b>               |                             | 1,221                     | 617                      | 139                     |                             |
| <b>Total</b>                      | <b>\$ 15,293</b>          | <b>\$ 5,964</b>          | <b>\$ 515</b>           |                             | \$ 14,940                 | \$ 5,816                 | \$ 669                  |                             |

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 9: Sinking Funds

Sinking funds are held by the Trustee (the Minister of Finance for the Province) for the redemption of long-term debt. The sinking fund balances at the balance sheet date include the following investments:

(dollar amounts in millions)

|  | 2004           |  | 2003            |  |
|--|----------------|--|-----------------|--|
|  | Carrying Value | Weighted Average Effective Rate <sup>1</sup> | Carrying Value  | Weighted Average Effective Rate <sup>1</sup> |
| Money market unitized funds <sup>2</sup>           | \$ 10          | 1.5 %  | \$ 4            | 2.6 %  |
| Province of B.C. and B.C. Crown corporation bonds  | 333            | 4.2  | 257             | 3.8  |
| Federal and other provincial government securities | 638            | 3.6  | 776             | 3.9  |
|  | <b>\$ 981</b>  |  | <b>\$ 1,037</b> |  |

<sup>1</sup> Rate calculated on market yield to maturity.

<sup>2</sup> Money market unitized funds consist of federal and provincial government paper and high-grade commercial paper with a maturity of one year or less.

## Sinking Fund Requirements

Substantially all of BC Hydro's debt issues have annual sinking fund cash requirements. The annual sinking fund cash requirements for the next five years are:

| (in millions) | 2005        | 2006        | 2007        | 2008        | 2009        |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Canadian      | \$46        | \$44        | \$39        | \$37        | \$36        |
| US            | (US\$6) \$8 |
|               | <b>\$54</b> | <b>\$52</b> | <b>\$47</b> | <b>\$45</b> | <b>\$44</b> |

## Note 10: Deferred Debt Costs

(in millions)

|   | 2004          | 2003          |
|---|---------------|---------------|
| Deferred foreign currency translation adjustments | \$ 123        | \$ 324        |
| Deferred debt issue and refinancing costs         | 27            | 61            |
|   | <b>\$ 150</b> | <b>\$ 385</b> |

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 11: Long-Term Debt and Debt Management

BC Hydro's long-term debt comprises bonds, substantially all of which have annual sinking fund requirements (see Note 9), and revolving borrowings obtained under an agreement with the Province. BC Hydro's debt is either held or guaranteed by the Province.

Under the Hydro and Power Authority Act, BC Hydro is subject to a borrowing limit of \$8,800 million after deduction of sinking funds. As at March 31, 2004, BC Hydro's total debt under the borrowing limit was \$6,890 million (2003 – \$6,853 million). BC Hydro's consolidated total debt including BCTC was \$6,900 million. The authorized commercial paper borrowing program, which includes revolving borrowings, is limited to \$1,400 million under the Fiscal Agency Agreement. As at March 31, 2004, the outstanding amount under the borrowing limit was \$988 million (2003 – \$1,131 million).

During fiscal 2004, BC Hydro issued bonds totalling \$790 million (2003 – \$1,007 million) with a weighted average effective interest rate of 4.9 per cent (2003 – 4.7 per cent) and a weighted average term to maturity of 10.9 years (2003 – 6.9 years).

Long-term debt, expressed in Canadian dollars, is summarized in the following table by year of maturity:

|                                     | 2004            |                 |                 |   | 2003            |   |
|-------------------------------------|-----------------|-----------------|-----------------|---|-----------------|---|
|                                     | Canadian        | Foreign         | Total           | Weighted Average Interest Rate <sup>1</sup> | Total           | Weighted Average Interest Rate <sup>1</sup> |
| <i>(dollar amounts in millions)</i> |                 |                 |                 |   |                 |   |
| Maturing in fiscal:                 |                 |                 |                 |   |                 |   |
| 2004                                | \$ –            | \$ –            | \$ –            | – %   | \$ 300          | 8.0 %                                       |
| 2005                                | 388             | 189             | 577             | 7.9   | 583             | 7.9   |
| 2006                                | 413             | 203             | 616             | 5.0   | 641             | 5.0   |
| 2007                                | 314             | 236             | 550             | 3.7   | 578             | 3.6   |
| 2008                                | 9               | 655             | 664             | 2.9   | 744             | 3.1   |
| 2009                                | 94              | –               | 94              | 10.1  | –               |   |
| Total                               |                 |                 |                 |   |                 |   |
| 1 – 5 years                         | 1,218           | 1,283           | 2,501           | 5.0   | 2,846           | 5.1   |
| 6 – 10 years                        | 1,674           | 328             | 2,002           | 6.4   | 1,491           | 7.3   |
| 11 – 15 years                       | 350             | –               | 350             | 5.5   | 350             | 8.6   |
| 16 – 20 years                       | 1,296           | –               | 1,296           | 10.1  | 1,196           | 10.3  |
| 21 – 25 years                       | –               | 655             | 655             | 6.6   | 835             | 6.8   |
| 26 – 30 years                       | 400             | –               | 400             | 6.3   | 400             | 6.3   |
| Over 30 years                       | –               | 393             | 393             | 7.4   | 441             | 7.4   |
| Bonds                               | 4,938           | 2,659           | 7,597           | 6.6   | 7,559           | 6.9   |
| Revolving borrowings                | 265             | 19              | 284             | 2.2   | 331             | 2.7   |
|                                     | <u>\$ 5,203</u> | <u>\$ 2,678</u> | <u>7,881</u>    |   | <u>7,890</u>    |   |
| Less: Current portion               |                 |                 | 861             |   | 631             |   |
| Long-term debt                      |                 |                 | <u>\$ 7,020</u> |   | <u>\$ 7,259</u> |   |

<sup>1</sup> The weighted average interest rate represents the effective rate of interest on fixed-rate bonds and the current interest rate in effect at March 31 for floating-rate bonds, all before considering the effect of derivative financial instruments used to manage interest rate risk.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

Under an agreement with the Province, BC Hydro indemnifies the Province for any credit losses incurred by the Province related to interest rate and foreign currency contracts entered into by the Province on BC Hydro's behalf. As at March 31, 2004, the aggregate exposure under this indemnity totalled approximately \$47 million (2003 – \$81 million). BC Hydro has not experienced any losses due to this indemnity.

The following interest rate contracts were in place at March 31, 2004 and 2003, with a carrying value of nil at both dates. Floating rates are based on the effective rates at the balance sheet date and vary over time.

| <i>(dollar amounts in millions)</i>   | <b>2004</b>     | 2003     |
|---|-----------------|----------|
| <b>Receive fixed, pay floating rate swaps</b>   |                 |          |
| Notional amount <sup>1</sup>  | <b>\$ 1,505</b> | \$ 1,641 |
| Weighted average receive rate   | <b>4.58 %</b>   | 4.74 %   |
| Weighted average pay rate   | <b>1.76 %</b>   | 2.74 %   |
| Weighted terms  | <b>6 years</b>  | 6 years  |
| <b>Receive floating, pay fixed rate swaps</b>   |                 |          |
| Notional amount <sup>1</sup>  | <b>\$ 1,694</b> | \$ 783   |
| Weighted average receive rate   | <b>1.87 %</b>   | 1.86 %   |
| Weighted average pay rate   | <b>3.34 %</b>   | 3.70 %   |
| Weighted terms  | <b>2 years</b>  | 1 year   |
| <b>Receive floating, pay fixed rate swap<br/>(future dated swap starting June 21, 2004)</b> |                 |          |
| Notional amount <sup>1</sup>  | <b>\$ 200</b>   | \$ 200   |
| Average receive rate  | <b>3 mo. BA</b> | 3 mo. BA |
| Average pay rate  | <b>5.51 %</b>   | 5.51 %   |
| Remaining term  | <b>9 years</b>  | 9 years  |
| <b>Receive floating, pay floating rate swaps</b>  |                 |          |
| Notional amount <sup>1</sup>  | <b>\$ 197</b>   | \$ 221   |
| Average receive rate  | <b>1.20 %</b>   | 1.45 %   |
| Average pay rate  | <b>1.10 %</b>   | 1.27 %   |
| Remaining term  | <b>3 years</b>  | 4 years  |

<sup>1</sup> Notional amount for a derivative instrument is defined as the contractual amount on which payments are calculated.

The following foreign currency contracts with a net carrying value of \$(63) million (2003 – \$(2) million) were in place at March 31, 2004 and 2003. Such contracts are used to hedge foreign dollar principal and interest payments.

| <i>(currency dollar amounts in millions)</i>          | <b>2004</b>             | 2003     |
|---|-------------------------|----------|
| <b>Cross-Currency Swaps<sup>1</sup></b>               |                         |          |
| BC Hydro receives foreign currency:                   |                         |          |
| United States dollar – notional amount <sup>2</sup>   | <b>US \$543</b>         | US \$243 |
| United States dollar – weighted average exchange rate | <b>1.42</b>             | 1.42     |
| Remaining term  | <b>5 years</b>          | 3 years  |
| Japanese yen – notional amount <sup>2</sup>           | <b>¥ 10,000</b>         | ¥ 10,000 |
| Japanese yen – weighted average exchange rate         | <b>0.0135</b>           | 0.0135   |
| Remaining term  | <b>less than 1 year</b> | 1 year   |

<sup>1</sup> Under these arrangements, BC Hydro receives or pays the foreign currency in exchange for Canadian currency.

<sup>2</sup> Notional amount for a derivative instrument is defined as the contractual amount on which payments are calculated.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

Total long-term debt, sinking funds and foreign currency contracts are stated in the following table showing the Canadian dollar equivalent of the currency in which they are payable.

(in millions)

|  | 2004                    |                                  |                  |          |          |                                    | 2003                            |
|--|-------------------------|----------------------------------|------------------|----------|----------|------------------------------------|---------------------------------|
|  | In<br>Currency<br>Units | In Canadian Dollars              |                  |          |          | Net Principal<br>Before<br>Hedging | Outstanding<br>After<br>Hedging |
| At the closing<br>exchange rates<br>at the balance<br>sheet date (C\$) |                         | Foreign<br>Currency<br>Contracts | Sinking<br>Funds |          |          |                                    |                                 |
| Canadian   | \$ 5,203                | \$ 5,203                         | \$ –             | \$ (447) | \$ 4,756 | \$ 5,456                           | \$ 5,122                        |
| US   | \$ 1,947                | 2,552                            | 54               | (520)    | 2,086    | 1,507                              | 1,733                           |
| Yen  | ¥ 10,000                | 126                              | 9                | (14)     | 121      | –                                  | –                               |
|  |                         | \$ 7,881                         | \$ 63            | \$ (981) | \$ 6,963 | \$ 6,963                           | \$ 6,855                        |

## Redeemable by the Bond Holder

Certain debt held by the Canada Pension Plan Investment Fund and by the Minister of Finance for the Province contains provisions allowing holders to redeem the debt prior to maturity, in whole or in part, subject to certain restrictions.

At March 31, 2004, this debt totalled \$215 million (2003 – \$223 million), net of related sinking funds, with maturity dates ranging from fiscal 2005 to fiscal 2010 (2003 – fiscal 2005 to fiscal 2010).

## Redeemable by BC Hydro

BC Hydro debt of \$79 million, net of related sinking funds, with a coupon rate of 13.5 per cent was redeemed at BC Hydro's option on January 15, 2004. BC Hydro has no redeemable debt outstanding at March 31, 2004.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 12: Financial Instruments

### Fair Value

At March 31, 2004 and 2003, BC Hydro's financial instruments included cash and cash equivalents, accounts receivable, sinking funds, loans receivable, accounts payable, long-term debt and interest rate and foreign exchange derivative financial instruments. Derivative financial instruments are held with the Province, which enters into such agreements with third parties on BC Hydro's behalf.

BC Hydro's financial instruments not shown in the following table have fair values that approximate carrying amounts:

| <i>(in millions)</i>                  | 2004                        |                         | 2003                        |                         |
|---------------------------------------|-----------------------------|-------------------------|-----------------------------|-------------------------|
|                                       | Carrying Value <sup>1</sup> | Fair Value <sup>2</sup> | Carrying Value <sup>1</sup> | Fair Value <sup>2</sup> |
| Bonds                                 | \$ (7,597)                  | \$ (9,007)              | \$ (7,559)                  | \$ (8,826)              |
| Revolving borrowings <sup>3</sup>     | (284)                       | (284)                   | (331)                       | (331)                   |
| Long-term debt before current portion | \$ (7,881)                  | \$ (9,291)              | \$ (7,890)                  | \$ (9,157)              |
| Sinking funds                         | \$ 981                      | \$ 1,013                | \$ 1,037                    | \$ 1,063                |
| Derivative financial instruments      |                             |                         |                             |                         |
| Net foreign currency contracts        | \$ (63)                     | \$ (44)                 | \$ (2)                      | \$ 38                   |
| Interest rate swaps                   | –                           | 43                      | –                           | 11                      |

<sup>1</sup> Carrying value represents the amount which is recorded in BC Hydro's financial statements. Bracketed amounts represent liabilities.

<sup>2</sup> Market rates and prices used in determining fair value are as of the balance sheet date.

<sup>3</sup> As the interest rates on revolving borrowings are reset on a regular basis, fair value approximates carrying value.

### Credit Risk Management

BC Hydro is directly exposed to counterparty credit risk as a result of the sale of electricity and related services to its domestic customers and purchase of electricity from independent power producers. BC Hydro is also exposed to credit risk as a result of the trade activities of Powerex. Powerex's principal counterparties are power exchanges, power pools, and utilities and their affiliates in the western United States and western Canada. Powerex has concentrations of credit exposure to these parties throughout these regions. With respect to Powerex's sales and purchases, credit risk is managed by authorizing transactions with only credit-worthy counterparties as determined by BC Hydro Board-approved policies, and by monitoring the credit risk and credit standing of counterparties on a regular basis.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Note 13: Employee Benefit Plans

BC Hydro provides a defined benefit pension plan to virtually all employees. Pension benefits are based on years of membership service and highest five-year average pensionable earnings. Annual cost-of-living increases are provided to pensioners to the extent that funds are available in the indexing fund. Employees make basic and indexing contributions to the plan funds based on a percentage of current pensionable earnings. BC Hydro contributes amounts as prescribed by an independent actuary.

BC Hydro also provides post-retirement benefits other than pensions, including medical, extended health and life insurance coverage for retirees who have at least 10 years of service and qualify to receive pension benefits. Certain benefits, including the short-term continuation of health care and life insurance, are provided to terminated employees or to survivors on the death of an employee. Post-employment benefits also include the pay-out of benefits that vest or accumulate, such as banked vacation.

Information about the benefit plans, post-retirement benefits and post-employment benefits other than pensions is as follows:

(a) The net expense for BC Hydro's benefit plans is as follows:

| <i>(in millions)</i> | Pension Benefit Plans |       | Other Benefit Plans |       |
|----------------------|-----------------------|-------|---------------------|-------|
|                      | 2004                  | 2003  | 2004                | 2003  |
| Benefit plans        | \$ 52                 | \$ 44 | \$ 28               | \$ 57 |

The transfer of approximately 260 employees to the British Columbia Transmission Corporation (see Note 17) resulted in the curtailment of an insignificant portion of the BC Hydro defined benefit pension plan and other post-retirement benefit plans. The related settlement of a portion of the plans will be accounted for when it occurs, which is expected to be in fiscal 2005.

In fiscal 2003 the transfer of approximately 1,600 employees to Accenture Business Services of British Columbia Limited (see Note 18) resulted in the curtailment of a significant portion of the BC Hydro defined benefit pension plan and other post-retirement benefit plans. A curtailment loss of approximately \$5 million for the defined pension benefit plan and \$25 million for the other post-retirement benefit plans was included in restructuring costs in fiscal 2003. The related settlement of a portion of the BC Hydro pension plan was accounted for as a funding transaction in fiscal 2004. The related settlement of a portion of the post-retirement benefit plans resulted in a settlement loss of \$4 million, which was included in operations and administration in fiscal 2004.

(b) Information about BC Hydro's benefit plans as at March 31, in aggregate, is as follows:

| <i>(in millions)</i>              | Pension Benefit Plans |          | Other Benefit Plans |          |
|-----------------------------------|-----------------------|----------|---------------------|----------|
|                                   | 2004                  | 2003     | 2004                | 2003     |
| Accrued benefit obligation        | \$ 2,103              | \$ 2,013 | \$ 227              | \$ 184   |
| Fair value of plan assets         | 1,922                 | 1,785    | –                   | –        |
| Plan surplus (deficit)            | \$ (181)              | \$ (228) | \$ (227)            | \$ (184) |
| Accrued benefit asset (liability) | \$ 48                 | \$ 71    | \$ (77)             | \$ (82)  |

No valuation allowance was required in 2004 and 2003. None of the above plans were fully funded.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

(c) The significant assumptions adopted in measuring BC Hydro's accrued benefit obligations are as follows:

|  | Pension Benefit Plans       |                             | Other Benefit Plans |      |
|--|-----------------------------|-----------------------------|---------------------|------|
|  | 2004                        | 2003                        | 2004                | 2003 |
| Discount rate                                    | 7 %                         | 7 %                         | 7 %                 | 7 %  |
| Expected long-term rate of return on plan assets | 7 %                         | 7 %                         | n/a                 | n/a  |
| Rate of compensation increase                    | projected inflation + 2.0 % | projected inflation + 2.0 % | n/a                 | n/a  |

For measurement purposes, a 4.6% health care cost trend rate was assumed for 2004 (2003 – 5.2%).

(d) Other information about BC Hydro's benefit plans is as follows:

| <i>(in millions)</i>   | Pension Benefit Plans |       | Other Benefit Plans |      |
|------------------------|-----------------------|-------|---------------------|------|
|                        | 2004                  | 2003  | 2004                | 2003 |
| Employer contributions | \$ 31                 | \$ 35 | \$ –                | \$ – |
| Employee contributions | 16                    | 18    | –                   | –    |
| Benefits paid          | 95                    | 91    | 9                   | 7    |
| Settlement payments    | 52                    | –     | 24                  | –    |

## Note 14: Commitments and Contingencies

### Energy Purchase Commitments

BC Hydro has long-term energy purchase contracts to meet a portion of its expected future electricity requirements. The minimum obligations to purchase energy under these contracts have a total value of approximately \$15,363 million, of which approximately \$3,073 million relates to the purchase of natural gas, at market prices over 30 years, and natural gas transportation contracts. The remaining commitments are at predetermined prices.

Payments for the next five years are approximately (in millions): 2005 – \$1,126; 2006 – \$799; 2007 – \$782; 2008 – \$783; 2009 – \$790.

### Lease and Service Agreements

BC Hydro has entered into various agreements to lease facilities or assets, or to purchase business support services. The agreements cover periods of up to 11 years, and the aggregate minimum payments are approximately \$1,152 million. Payments for the next five years are approximately (in millions): 2005 – \$137; 2006 – \$122; 2007 – \$110; 2008 – \$102; 2009 – \$95.

### Demand-side Management Programs

BC Hydro has entered into Power Smart incentive and energy study agreements with customers. BC Hydro has committed to payments under these agreements totaling approximately \$76 million over the next two years as follows (in millions): 2005 – \$60; 2006 – \$16.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Legal Contingencies

### **(a) California Power Markets:**

At March 31, 2004, Powerex was owed US\$269 million (CDN\$353 million) by the California Power Exchange ("Cal Px") and the California Independent System Operator ("Cal ISO") related to Powerex's electricity trade activities in California during fiscal 2001. As a result of payment defaults by a number of California utilities, the Cal Px and Cal ISO were unable to pay these amounts to Powerex. In addition, certain California parties requested the Federal Energy Regulatory Commission ("FERC") to consider whether refunds should be made to the Cal Px, the Cal ISO and the California Department of Water Resources by various suppliers, including Powerex.

Powerex has been named, along with other energy providers, as a defendant in a number of lawsuits and regulatory proceedings that allege that, during part of 2000 and 2001, the California wholesale electricity markets were unlawfully manipulated and that the energy prices were not just and reasonable.

On March 26, 2004, the FERC approved a settlement agreement between the FERC Trial Staff and Powerex that resolves "gaming" and "partnership" allegations against Powerex relating to the California energy crisis. The settlement agreement acknowledged that there was no evidence that Powerex engaged in any gaming practices or concerted partnership practices with any other market participant, and further noted that Powerex was a valuable and reliable supplier of energy and ancillary services to the California market throughout the period. The FERC concluded there was no basis for requiring Powerex to disgorge any revenues or profits, or for imposing any monetary or non-monetary penalties or remedies on Powerex. As part of the settlement agreement Powerex agreed to pay US\$1.3 million to avoid the burden, costs and uncertainty associated with the litigation process, and to achieve closure of the FERC proceedings. However, the FERC's approval of the settlement is still subject to rehearing and subsequent appeal to the courts and could also be affected by other legal proceedings relating to the California power markets.

BC Hydro was also directly joined as a defendant in one lawsuit. In response to an application by BC Hydro to be dismissed from the lawsuit in which it has been named, a U.S. federal court judge has ruled that BC Hydro is immune from these claims in the United States, but that ruling is currently under appeal.

Due to the uncertain status of the regulatory and legal proceedings related to the California power markets, management cannot predict at this time the outcome of the claims against Powerex and BC Hydro. Management similarly cannot predict whether the amounts owed by the Cal Px and the Cal ISO are recoverable, or whether amounts may need to be refunded as a result of the FERC proceedings.

BC Hydro has recorded provisions for uncollectible amounts and legal costs associated with the ongoing legal and regulatory impacts of the California energy crisis during fiscal 2001. These provisions are based on management's best estimates, and are intended to adequately provide for any exposure. However, the amounts that may ultimately be collected may differ materially from management's current estimates. Management has not disclosed the provision amounts or ranges of expected outcomes due to the potentially adverse effect on the collection process.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## **(b) Alcan Aluminium Limited:**

During fiscal 2002, Enron Corp. ("Enron") and certain of its subsidiaries, including Enron Power Marketing, Inc. ("EPMI"), filed for bankruptcy protection. As a result, Powerex's Power Purchase and Sale Agreement with EPMI terminated, giving rise to a termination payment becoming due from EPMI. Under a 1997 agreement among Alcan Aluminium Limited ("Alcan"), EPMI, Powerex and BC Hydro, Alcan agreed to remain liable to Powerex for the payment obligations of EPMI.

Alcan did not pay the termination payment when demand was made by Powerex, and the matter was referred to arbitration in the United States. Early in 2003 an arbitration award was issued which required Alcan to pay Powerex US\$100 million within 30 days, with interest accruing thereafter. This amount was not paid and Powerex commenced enforcement proceedings in the British Columbia Supreme Court (the "B.C. Enforcement Proceedings").

The B.C. Enforcement Proceedings were adjourned pending the outcome of an application by Alcan in the U.S. District Court to have the arbitration award set aside. Alcan's application was subsequently denied and Alcan appealed that decision to the Ninth Circuit Court of Appeals. Despite the appeal, Powerex resumed the B.C. Enforcement Proceedings and its application was heard in April 2004 with a decision expected within two or three months. Any recovery in respect of the arbitration award will be recorded in the financial statements when collection is assured.

**(c)** Due to the size, complexity and nature of BC Hydro's operations, various other legal matters are pending. It is not possible at this time to predict with any certainty the outcome of such litigation. Management believes that any settlements related to these matters will not have a material effect on BC Hydro's consolidated financial position or results of operations.

## **Note 15: Segmented Information**

BC Hydro is organized as four operating segments, two Service Organizations and Corporate management and support activities. The following operating segments operate as profit centres, and are subject to requirements established by the Province and to regulation by the Commission:

**Generation:** The Generation line of business ("Generation LoB") is responsible for ownership functions, including operation and maintenance, associated with BC Hydro's generation assets, as well as for efficient commercial dispatch of the generation assets to support BC Hydro's domestic and electricity trade activity. Generation LoB's activities are subject to the Provincial Energy Policy and the Heritage Contract.

**Transmission:** The Transmission line of business ("Transmission LoB") is responsible for ownership of BC Hydro's transmission, and subject to service agreements with British Columbia Transmission Corporation ("BCTC"). BCTC is a wholly-owned subsidiary of the Province, and will be included in BC Hydro's consolidated accounts in the Transmission segment until the separation of BCTC from BC Hydro is complete (see Note 17).

**Distribution:** The Distribution line of business ("Distribution LoB") is responsible for BC Hydro's customer management activities for customers in the province of British Columbia. These activities include forecasting and managing energy requirements, ownership and management of BC Hydro's distribution assets and customer care activities. Distribution LoB manages certain of BC Hydro's customer care activities subject to outsourcing agreements with Accenture Business Services of British Columbia Limited Partnership.

**Electricity Trade:** BC Hydro's electricity trade activities are managed through its wholly-owned subsidiary, Powerex. Powerex's trade activities generally occur within Alberta, Canada and the western United States. Powerex also works with Generation LoB to determine how BC Hydro's generation assets should be dispatched to support electricity trade.



# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

Service Organizations include Engineering Services and Field Services. Engineering Services' activities include project and construction management services to Generation LoB, Distribution LoB and selected external clients. Field Services provides restoration, maintenance, and construction services to Generation LoB, Transmission LoB and Distribution LoB as well as to external clients. Field Services' activities also include materials management and fleet management. Service Organizations are responsible for providing services to BC Hydro's operating segments and to Corporate on a cost recovery basis, subject to internal service agreements. The Service Organizations also provide services to external parties under arm's length business arrangements.

Corporate includes certain centralized business sustaining activities including Corporate executive office, Treasury, Legal, Internal Audit, Controller, Chief Information Officer, Strategic Planning, Human Resources and Sustainability. It also includes ownership of corporate assets such as office buildings, furniture and equipment, and certain information technology assets.

BC Hydro uses various transfer pricing mechanisms that support revenue and cost accountability for management and regulatory purposes. The key transfer pricing mechanisms include:

**Energy:** Generation LoB transfers energy to Distribution LoB on a cost-of-service basis. Generation LoB also purchases energy from, and sells energy to, Powerex at market-related prices.

**Transmission Services:** Transmission services are charged to Generation LoB, Distribution LoB and to Powerex based on the tariffs that would apply to third-party users. These tariffs are approved by the Commission.

**Service Organization Charges and Corporate Costs:** Service Organization charges to the Operating Segments and Corporate for services provided are based on the level and quantity of service consumed by the receiving organization. Corporate costs are allocated to the Operating Segments and Service Organizations.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## Segmented Financial Information:

Year ended March 31, 2004 (in millions)

|  | Generation<br>\$ | Transmission<br>\$ | Distribution<br>\$ | Electricity<br>Trade<br>\$ | Services and<br>Corporate<br>\$ | Consolidation<br>Adjustments/<br>Eliminations<br>\$ | Total<br>\$ |
|--|------------------|--------------------|--------------------|----------------------------|---------------------------------|---|-------------|
| External revenues  | 23               | 13                 | 2,481              | 850                        | 50                              | 7   | 3,424       |
| Inter-segment revenues                                       | 1,502            | 656                | –                  | 485                        | 352                             | (2,995)   | –           |
| Amortization   | 216              | 145                | 106                | 3                          | 69                              | –   | 539         |
| Finance charges  | 182              | 114                | 129                | 21                         | 10                              | (4)   | 452         |
| Restructuring costs  | –                | 8                  | –                  | –                          | –                               | –   | 8           |
| <b>Net income (loss)</b>                                     | <b>304</b>       | <b>139</b>         | <b>(343)</b>       | <b>142</b>                 | <b>19</b>                       | <b>(163)</b>  | <b>98</b>   |
| Total assets   | 4,658            | 3,090              | 3,413              | 535                        | 557                             | (447)   | 11,806      |
| Capital expenditures<br>& Demand-side<br>management programs | 132              | 186                | 292                | 3                          | 56                              | –   | 669         |

Year ended March 31, 2003 (in millions)

|  | Generation<br>\$ | Transmission<br>\$ | Distribution<br>\$ | Electricity<br>Trade<br>\$ | Services and<br>Corporate<br>\$ | Consolidation<br>Adjustments/<br>Eliminations<br>\$ | Total<br>\$ |
|--|------------------|--------------------|--------------------|----------------------------|---------------------------------|---|-------------|
| External revenues  | 67               | 8                  | 2,367              | 650                        | 33                              | (18)  | 3,107       |
| Inter-segment revenues                                       | 1,272            | 780                | –                  | 119                        | 533                             | (2,704)   | –           |
| Amortization   | 111              | 127                | 113                | 3                          | 63                              | –   | 417         |
| Finance charges  | 205              | 127                | 125                | 6                          | –                               | (6)   | 457         |
| Restructuring costs  | –                | 2                  | –                  | –                          | 35                              | –   | 37          |
| <b>Net income (loss)</b>                                     | <b>160</b>       | <b>288</b>         | <b>150</b>         | <b>155</b>                 | <b>(245)</b>                    | <b>(90)</b>   | <b>418</b>  |
| Total assets   | 5,018            | 3,084              | 3,301              | 531                        | 559                             | (569)   | 11,924      |
| Capital expenditures<br>& Demand-side<br>management programs | 187              | 167                | 276                | 3                          | 92                              | –   | 725         |

## Geographic Information:

Revenues, based on point of delivery, are as follows:

(in millions)

|                  | 2004            | 2003     |
|------------------|-----------------|----------|
| British Columbia | \$ 2,553        | \$ 2,475 |
| Rest of Canada   | 200             | 179      |
| United States    | 671             | 453      |
|                  | <b>\$ 3,424</b> | \$ 3,107 |

Virtually all of BC Hydro's assets are located in the province of British Columbia.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

## **Note 16: Vancouver Island Generation and Georgia Strait Crossing Projects**

BC Hydro is currently evaluating alternatives for providing additional supply to customers located on Vancouver Island. Prior to 2004, BC Hydro anticipated that additional Vancouver Island supply requirements would be satisfied through construction, ownership and operation of the Vancouver Island Generation Project ("VIGP"), a natural gas-fired electricity generation facility to be built at Duke Point near Nanaimo, British Columbia. BC Hydro also anticipated that VIGP would receive its gas supply utilizing the Georgia Strait Crossing Pipeline ("GSX"), which would transport natural gas between Washington state and Vancouver Island. GSX is jointly owned by BC Hydro and Williams Gas Pipeline Company, LLC ("Williams"). As at March 31, 2004, the total amount spent by BC Hydro on VIGP and GSX totaled approximately \$98 million. BC Hydro has also financed spending by Williams through a loan facility with approximately \$22 million (US\$15 million) owing at March 31, 2004.

During fiscal 2004, BC Hydro initiated a Vancouver Island Call for Tenders process ("Call for Tenders"). The Call for Tenders is intended to allow BC Hydro to assess alternative proposals for new generation to supply Vancouver Island and to determine whether VIGP represents a cost-effective solution. BC Hydro expects that the outcome of the Call for Tenders will influence its final recommendations regarding these projects and that any related approvals from the Commission will occur during fiscal 2005. As a result of these events, BC Hydro has significantly curtailed spending associated with the VIGP and GSX projects until the uncertainty regarding their status is resolved.

Under generally accepted accounting principles, BC Hydro has recorded a provision for the VIGP and GSX projects to reflect the uncertainties as to the projects proceeding or the costs being recovered. The amount of the provision for BC Hydro's share of the project costs is \$98 million and this amount is included in amortization (see Note 5). BC Hydro has also recorded a \$22 million provision in respect of other project exposures related to Williams and this amount is included in operations and administration expense.

BC Hydro management remains fully committed to preserving the flexibility to proceed with these projects. BC Hydro made an application to the Commission for approval of a designated regulatory account with respect to the costs of VIGP and GSX and will seek to recover those costs in future rates when VIGP is brought into service or it is determined that the projects will not proceed. On June 10, 2004, the Commission approved the establishment of a designated regulatory account.

## **Note 17: Transaction with British Columbia Transmission Corporation**

Pursuant to *"Energy For Our Future: A Plan for B.C."*, the Province approved a plan to transfer the transmission operations of BC Hydro to British Columbia Transmission Corporation ("BCTC"), a company wholly-owned by the Province. The ultimate objective of the transaction is to transfer the management, maintenance and operation of the high-voltage electric system in British Columbia to BCTC and provide transparent open-access transmission services. BCTC's role of managing, maintaining and operating BC Hydro's transmission system will be governed by the Transmission Corporation Act, enacted on May 29, 2003, and the final service agreements (the "Key Agreements") approved by the Province on November 20, 2003.

Upon direction from the Province, BC Hydro declared and paid a special dividend in the amount of \$20 million to the Province in November 2003. The funds were then contributed by the Province to BCTC as an equity contribution. BC Hydro will continue to retain legal and beneficial ownership of the transmission assets and will be responsible for funding all future additions and sustaining investments in these assets based on directions from BCTC in its capacity of asset manager.

On July 16, 2003, BC Hydro signed an Interim Transition Agreement with BCTC to begin the transfer of the transmission operations of BC Hydro to BCTC. On August 1, 2003, BC Hydro permanently transferred to BCTC 260 employees responsible for managing and operating the transmission grid and planning the capital expenditures for the related assets.

# Notes to Consolidated Financial Statements

For the Years Ended March 31, 2004 and 2003

From August 1, 2003 to March 31, 2005, BC Hydro will retain the responsibility for management, operation and planning of the system and the transferred employees will perform the operating, maintaining and planning functions for BC Hydro's transmission assets on behalf of BC Hydro. BCTC charges BC Hydro service fees under the Key Agreements for these functions.

In mid-2004, BCTC and BC Hydro will make a joint filing to the Commission to set the rates charged for the use of the transmission system. The filing will set BCTC's rates for the management, maintenance and operation of the transmission assets and grid operations and set a separate rate for BC Hydro for asset ownership costs and a return on equity for the transmission assets. Until these rates are set by the Commission, BCTC will receive payment from BC Hydro for the management, maintenance and operation of the transmission assets.

BC Hydro will consolidate BCTC until BCTC is operationally and financially independent of BC Hydro. The Province may direct BC Hydro to declare and pay a further special dividend to cover additional equity requirements in BCTC.

As a result of this reorganization, BC Hydro incurred \$8 million of restructuring costs in fiscal 2004.

## **Note 18: Accenture Outsourcing**

In fiscal 2003, BC Hydro entered into agreements for the outsourcing of various administration and support functions to Accenture Business Services of British Columbia Limited Partnership ("ABS"). ABS assumed responsibilities related to the following services: customer services, computing services, building and office services, human resources administration, payroll, purchasing, disbursements and financial services (collectively, the "Outsourced Services"). BC Hydro entered into agreements for ABS to provide the Outsourced Services to BC Hydro for a 10-year period commencing April 1, 2003, subject to a five-year renewal option that BC Hydro may exercise prior to the end of the 10-year initial term. In addition to providing the Outsourced Services to BC Hydro, ABS will also provide services to third-party customers.

ABS was formed under a partnership agreement between Accenture Business Services General Partner Inc. ("ABSGP") which acts as a general partner and BC Hydro Services Asset Corp. ("BCHSAC"), a wholly-owned subsidiary of BC Hydro, which holds a limited partnership interest. ABSGP will control and manage the partnership while BCHSAC will provide certain assets required by ABS to provide the Outsourced Services. BC Hydro will account for BCHSAC's limited partnership interest using the cost method. The limited partnership interest will also provide BCHSAC with a nominal share in the partnership profit allocations of ABS. To support the outsourcing transaction, BC Hydro transferred \$111 million of assets to BCHSAC for proceeds equal to their net book value at the date of transfer. All assets of BCHSAC will be used by ABS for provision of services to BC Hydro. In addition to the transfer of assets, BC Hydro permanently transferred approximately 1,600 employees who were previously responsible for the outsourced functions, to ABS.

Costs of transaction structuring, legal, and other advisory services associated with the transaction, totalling approximately \$10 million, have been deferred. The deferred transaction costs will be amortized on a straight-line basis over the initial term of the agreement. In addition, \$35 million of restructuring costs, comprised primarily of severance and pension impacts, were expensed in fiscal 2003.

## **Note 19: Comparative Information**

Certain amounts in the 2003 financial statements have been reclassified to conform to the presentation used in 2004.

# Financial Statistics

## Key Financial and Operating Comparatives

### Financial Comparatives

millions of dollars unless otherwise stated

|   | 2004      | 2003      | 2002      | 2001      | 2000      |
|---|-----------|-----------|-----------|-----------|-----------|
| Revenues <sup>1</sup>                           | \$ 3,424  | \$ 3,107  | \$ 6,311  | \$ 7,889  | \$ 3,480  |
| Net income                                      | \$ 98     | \$ 418    | \$ 403    | \$ 446    | \$ 416    |
| Capital assets                                  | \$ 9,844  | \$ 9,793  | \$ 9,510  | \$ 9,361  | \$ 9,320  |
| Net long-term debt                              | \$ 6,853  | \$ 6,849  | \$ 6,889  | \$ 6,214  | \$ 7,005  |
| Rate Stabilization Account                      | \$ –      | \$ 21     | \$ 87     | \$ 232    | \$ 129    |
| Retained earnings                               | \$ 1,634  | \$ 1,609  | \$ 1,529  | \$ 1,459  | \$ 1,385  |
| Capital and deferred expenditures               | \$ 637    | \$ 741    | \$ 545    | \$ 413    | \$ 406    |
| Debt to equity                                  | 72:28     | 72:28     | 72:28     | 70:30     | 74:26     |
| Return on equity (%)                            | 3.60      | 15.47     | 15.24     | 16.59     | 16.69     |
| Interest coverage                               | 1.14      | 1.75      | 1.43      | 2.48      | 1.89      |
| <b>Operating Comparatives</b>                   |           |           |           |           |           |
| Number of customers                             | 1 656 486 | 1 629 186 | 1 609 871 | 1 595 287 | 1 579 658 |
| Generating capacity (MW):                       |           |           |           |           |           |
| Hydroelectric                                   | 10 207    | 10 009    | 10 009    | 10 009    | 10 000    |
| Thermal   | 1 093     | 1 099     | 1 093     | 1 093     | 1 110     |
| Peak one-hour demand (MW)                       | 9 619     | 8 481     | 8 692     | 8 995     | 8 423     |
| Average annual kWh use per residential customer | 10 761    | 10 476    | 10 695    | 10 344    | 10 507    |
| Average number of customers per employee        | 373       | 266       | 265       | 275       | 284       |
| Domestic sales (GWh)                            | 50 151    | 48 677    | 47 801    | 48 131    | 46 442    |
| Electricity trade sales (GWh)                   | 28 373    | 31 182    | 20 666    | 23 900    | 23 410    |
| Electricity sold per employee (GWh)             | 17.82     | 13.14     | 11.32     | 12.48     | 12.63     |

<sup>1</sup> During fiscal 2004, in response to changes in United States accounting standards, BC Hydro amended its accounting policy related to revenue recognition for electricity trade activities that are supported by derivatives such as swaps, forward sales and options. Revenues associated with these derivatives are presented on a net basis in fiscal 2004 and 2003. Revenues for fiscal years prior to 2003 have not been restated.

# Financial Statistics

## Financial Statistics

for the years ended or as at March 31 (millions of dollars)

|  | 2004             | 2003      | 2002      | 2001      | 2000      |
|--|------------------|-----------|-----------|-----------|-----------|
| <b>Revenues<sup>1</sup></b>  | <b>\$ 3,424</b>  | \$ 3,107  | \$ 6,311  | \$ 7,889  | \$ 3,480  |
| <b>Expenses</b>  |                  |           |           |           |           |
| Energy costs <sup>1</sup>  | <b>1,580</b>     | 1,126     | 4,407     | 5,162     | 1,334     |
| Operations, maintenance and administration   | <b>621</b>       | 573       | 550       | 755       | 475       |
| Amortization   | <b>539</b>       | 417       | 386       | 380       | 375       |
| Taxes  | <b>147</b>       | 145       | 166       | 174       | 172       |
| Finance charges  | <b>452</b>       | 457       | 544       | 559       | 579       |
|  | <b>3,339</b>     | 2,718     | 6,053     | 7,030     | 2,935     |
| <b>Income Before Customer Profit Sharing,<br/>Restructuring Costs and Rate<br/>Stabilization Account Transfers</b> | <b>85</b>        | 389       | 258       | 859       | 545       |
| Customer profit sharing  | –                | –         | –         | 310       | –         |
| Restructuring costs  | <b>8</b>         | 37        | –         | –         | –         |
| Rate Stabilization Account transfers   | <b>(21)</b>      | (66)      | (145)     | 103       | 129       |
| <b>Net Income</b>  | <b>\$ 98</b>     | \$ 418    | \$ 403    | \$ 446    | \$ 416    |
| <b>Capital Assets</b>  |                  |           |           |           |           |
| At cost  | <b>\$ 15,808</b> | \$ 15,609 | \$ 15,067 | \$ 14,617 | \$ 14,302 |
| Less: Accumulated amortization   | <b>5,964</b>     | 5,816     | 5,557     | 5,256     | 4,982     |
| <b>Net Book Value</b>  | <b>\$ 9,844</b>  | \$ 9,793  | \$ 9,510  | \$ 9,361  | \$ 9,320  |
| <b>Capital asset expenditures</b>  |                  |           |           |           |           |
| Sustaining   | <b>\$ 375</b>    | \$ 367    | \$ 333    | \$ 270    | \$ 265    |
| Expansion  | <b>199</b>       | 329       | 198       | 142       | 138       |
| Total capital asset expenditures   | <b>\$ 574</b>    | \$ 696    | \$ 531    | \$ 412    | \$ 403    |
| Demand-side management (DSM) programs  | <b>63</b>        | 45        | 14        | 1         | 3         |
| Total capital asset and DSM<br>program expenditures  | <b>\$ 637</b>    | \$ 741    | \$ 545    | \$ 413    | \$ 406    |
| Less: Contributions in aid of construction   | <b>56</b>        | 62        | 54        | 44        | 41        |
| <b>Net Capital Asset Expenditures</b>  | <b>\$ 581</b>    | \$ 679    | \$ 491    | \$ 369    | \$ 365    |
| <b>Net Long-Term Debt<sup>2</sup></b>  | <b>\$ 6,853</b>  | \$ 6,849  | \$ 6,889  | \$ 6,214  | \$ 7,005  |

<sup>1</sup> During fiscal 2004, in response to changes in United States accounting standards, BC Hydro amended its accounting policy related to revenue recognition for electricity trade activities that are supported by derivatives such as swaps, forward sales and options. Revenues and energy costs associated with these derivatives are presented on a net basis for fiscal 2004 and 2003. Revenues and energy costs for fiscal years prior to 2003 have not been restated.

<sup>2</sup> Consists of long-term debt, including current portion, net of sinking funds and cash and cash equivalents.

# Financial Statistics

## Operating Statistics

for the years ended or as at March 31

|   | 2004             | 2003      | 2002      | 2001      | 2000      |
|---|------------------|-----------|-----------|-----------|-----------|
| <b>Generating Capacity</b> (megawatts)        |                  |           |           |           |           |
| Hydroelectric <sup>1</sup>                    | 10 207           | 10 009    | 10 009    | 10 009    | 10 000    |
| Thermal                                       | 1 093            | 1 099     | 1 093     | 1 093     | 1 110     |
| <b>Total</b>                                  | <b>11 300</b>    | 11 108    | 11 102    | 11 102    | 11 110    |
| <b>Peak One-Hour Demand</b>                   |                  |           |           |           |           |
| <b>Integrated System</b> (megawatts)          | <b>9 619</b>     | 8 481     | 8 692     | 8 995     | 8 423     |
| <b>Customers</b>                              |                  |           |           |           |           |
| Residential                                   | 1 466 035        | 1 442 597 | 1 424 505 | 1 411 333 | 1 397 926 |
| Light industrial and commercial               | 186 944          | 183 188   | 182 025   | 180 607   | 178 454   |
| Large industrial                              | 136              | 133       | 132       | 131       | 126       |
| Other   | 3 198            | 3 092     | 3 064     | 3 042     | 3 032     |
| Electricity trade                             | 173              | 176       | 145       | 174       | 120       |
| <b>Total</b>                                  | <b>1 656 486</b> | 1 629 186 | 1 609 871 | 1 595 287 | 1 579 658 |
| <b>Electricity Sold</b> (gigawatt hours)      |                  |           |           |           |           |
| Residential                                   | 15 646           | 15 024    | 15 170    | 14 537    | 14 599    |
| Light industrial and commercial               | 17 175           | 16 757    | 16 446    | 16 292    | 15 960    |
| Large industrial                              | 15 505           | 15 179    | 14 513    | 15 573    | 14 644    |
| Other   | 1 825            | 1 717     | 1 672     | 1 729     | 1 239     |
| Domestic                                      | 50 151           | 48 677    | 47 801    | 48 131    | 46 442    |
| Electricity trade                             | 28 373           | 31 182    | 20 666    | 23 900    | 23 410    |
| <b>Total</b>                                  | <b>78 524</b>    | 79 859    | 68 467    | 72 031    | 69 852    |
| <b>Domestic Change Over Previous Year (%)</b> | <b>3.0</b>       | 1.8       | (0.7)     | 3.6       | 1.4       |
| <b>Revenues</b> (millions)                    |                  |           |           |           |           |
| Residential                                   | \$ 960           | \$ 923    | \$ 930    | \$ 892    | \$ 894    |
| Light industrial and commercial               | 912              | 893       | 874       | 866       | 849       |
| Large industrial                              | 525              | 516       | 482       | 524       | 482       |
| Other energy sales                            | 89               | 88        | 89        | 90        | 73        |
| Domestic electric                             | 2,486            | 2,420     | 2,375     | 2,372     | 2,298     |
| Miscellaneous                                 | 67               | 55        | 75        | 59        | 53        |
| Domestic                                      | 2,553            | 2,475     | 2,450     | 2,431     | 2,351     |
| Electricity trade <sup>2</sup>                | 871              | 632       | 3,861     | 5,458     | 1,129     |
| <b>Total</b>                                  | <b>\$ 3,424</b>  | \$ 3,107  | \$ 6,311  | \$ 7,889  | \$ 3,480  |

<sup>1</sup> Maximum sustained generating capacity.

<sup>2</sup> During fiscal 2004, in response to changes in United States accounting standards, BC Hydro amended its accounting policy related to revenue recognition for electricity trade activities that are supported by derivatives such as swaps, forward sales and options. The electricity trade revenues associated with these derivatives are presented on a net basis for fiscal 2004 and 2003. Electricity trade revenues for fiscal years prior to 2003 have not been restated.

# Financial Statistics

## Operating Statistics

for the years ended or as at March 31

|  | 2004          | 2003   | 2002   | 2001   | 2000   |
|--|---------------|--------|--------|--------|--------|
| <b>Average Revenue</b> (per kilowatt hour)                       |               |        |        |        |        |
| Residential  | <b>6.1¢</b>   | 6.1¢   | 6.1¢   | 6.1¢   | 6.1¢   |
| Light industrial and commercial                                  | <b>5.3</b>    | 5.3    | 5.3    | 5.3    | 5.3    |
| Large industrial   | <b>3.4</b>    | 3.4    | 3.3    | 3.4    | 3.3    |
| Other  | <b>4.9</b>    | 5.1    | 5.3    | 5.2    | 5.9    |
| Electricity trade  | <b>6.8</b>    | 6.2    | 18.7   | 22.8   | 4.8    |
| <b>Average Annual Kilowatt Hour use per Residential Customer</b> | <b>10 761</b> | 10 476 | 10 695 | 10 344 | 10 507 |
| <b>Lines in Service</b>  |               |        |        |        |        |
| Distribution (kilometres) <sup>3</sup>                           | <b>54 617</b> | 55 734 | 53 748 | 52 865 | 52 455 |
| Transmission (circuit kilometres)                                | <b>18 300</b> | 18 284 | 18 025 | 18 025 | 17 822 |
| <b>Number of Employees<sup>4</sup></b>                           | <b>4 406</b>  | 6 013  | 6 144  | 5 952  | 5 587  |

<sup>3</sup> The method used to track the distance of the 3 phase underground power lines was changed in fiscal 2004.

<sup>4</sup> Includes full-time and part-time employees of BC Hydro, its subsidiaries and British Columbia Transmission Corporation. At April 1, 2003, approximately 1,600 employees were transferred to Accenture Business Services of British Columbia.

# Financial Statistics

## Total Requirements for Electricity and Sources of Supply

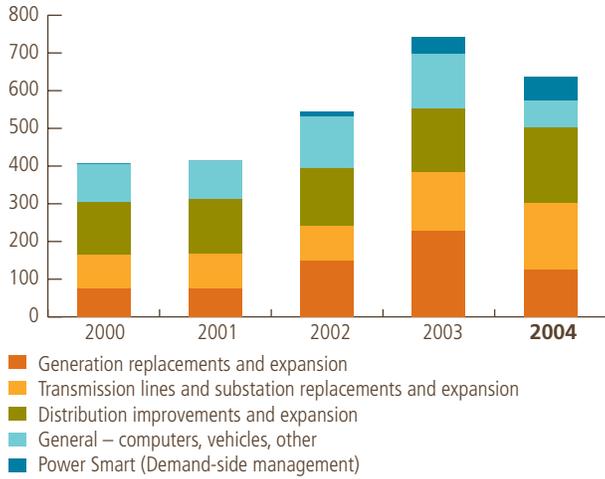
for the years ended March 31

|  | Generating Capacity (Megawatts) | 2004           |              | 2003           |       | 2002           |       |
|--|---------------------------------|----------------|--------------|----------------|-------|----------------|-------|
|  |                                 | Gigawatt Hours | %            | Gigawatt Hours | %     | Gigawatt Hours | %     |
| <b>Requirements</b>                    |                                 |                |              |                |       |                |       |
| Domestic                               | <b>11 300</b>                   | <b>50 151</b>  | <b>60.1</b>  | 48 677         | 57.6  | 47 801         | 65.0  |
| Electricity trade                      |                                 | <b>28 373</b>  | <b>34.0</b>  | 31 182         | 36.9  | 20 666         | 28.1  |
|  |                                 | <b>78 524</b>  | <b>94.1</b>  | 79 859         | 94.5  | 68 467         | 93.1  |
| Line loss and system use               |                                 | <b>4 969</b>   | <b>5.9</b>   | 4 689          | 5.5   | 5 033          | 6.9   |
|  |                                 | <b>83 493</b>  | <b>100.0</b> | 84 548         | 100.0 | 73 500         | 100.0 |
| <b>Sources Of Supply</b>               |                                 |                |              |                |       |                |       |
| Hydroelectric generation               |                                 |                |              |                |       |                |       |
| Gordon M. Shrum                        | <b>2 730</b>                    | <b>14 567</b>  | <b>17.4</b>  | 16 061         | 19.0  | 13 624         | 18.6  |
| Revelstoke                             | <b>1 980</b>                    | <b>7 552</b>   | <b>9.0</b>   | 8 094          | 9.6   | 6 943          | 9.5   |
| Mica                                   | <b>1 805</b>                    | <b>6 389</b>   | <b>7.7</b>   | 6 926          | 8.2   | 5 757          | 7.8   |
| Kootenay Canal                         | <b>580</b>                      | <b>2 507</b>   | <b>3.0</b>   | 2 868          | 3.4   | 2 141          | 2.9   |
| Peace Canyon                           | <b>694</b>                      | <b>3 604</b>   | <b>4.3</b>   | 3 991          | 4.7   | 3 318          | 4.5   |
| Seven Mile                             | <b>790</b>                      | <b>2 867</b>   | <b>3.4</b>   | 2 919          | 3.4   | 2 216          | 3.0   |
| Bridge River                           | <b>466</b>                      | <b>2 555</b>   | <b>3.1</b>   | 2 366          | 2.8   | 2 000          | 2.7   |
| Other                                  | <b>1 162</b>                    | <b>4 499</b>   | <b>5.4</b>   | 4 440          | 5.3   | 4 486          | 6.1   |
|  | <b>10 207</b>                   | <b>44 540</b>  | <b>53.3</b>  | 47 665         | 56.4  | 40 485         | 55.1  |
| Thermal generation                     |                                 |                |              |                |       |                |       |
| Burrard                                | <b>950</b>                      | <b>136</b>     | <b>0.2</b>   | 110            | 0.1   | 2 731          | 3.7   |
| Other                                  | <b>143</b>                      | <b>312</b>     | <b>0.4</b>   | 300            | 0.4   | 447            | 0.6   |
| Purchases under long-term commitments  |                                 | <b>10 681</b>  | <b>12.8</b>  | 7 518          | 8.9   | 7 512          | 10.2  |
| Purchases under short-term commitments |                                 | <b>29 042</b>  | <b>34.8</b>  | 30 560         | 36.1  | 22 608         | 30.8  |
| Exchange-net                           |                                 | <b>(1 218)</b> | <b>(1.5)</b> | (1 605)        | (1.9) | (283)          | (0.4) |
|  | <b>11 300</b>                   | <b>83 493</b>  | <b>100.0</b> | 84 548         | 100.0 | 73 500         | 100.0 |

# Financial Highlights

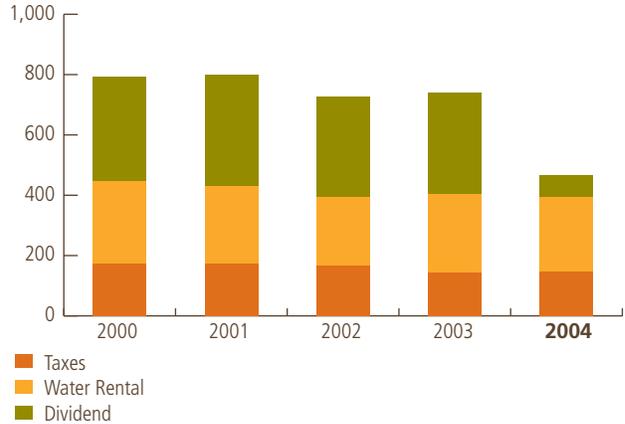
## Capital Expenditures

\$ in millions



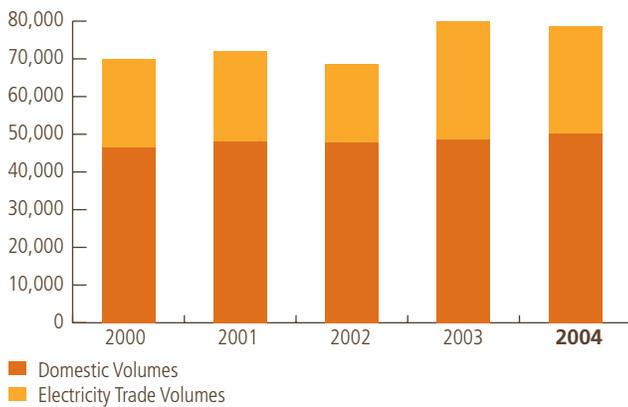
## Payments to the Province

\$ in millions

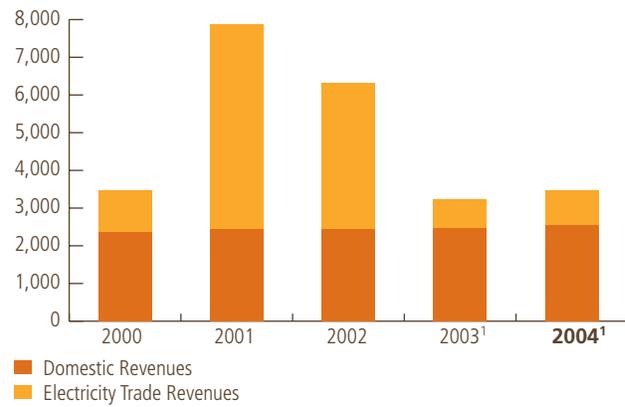


## Domestic and Electricity Trade Sales

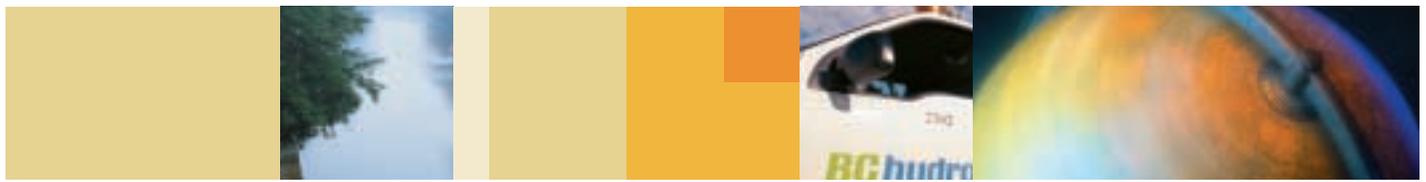
Volumes in GWh



Revenues in \$ millions



<sup>1</sup> During fiscal 2004, in response to changes in United States accounting standards, BC Hydro amended its accounting policy related to revenue recognition for electricity trade activities that are supported by derivatives such as swaps, forward sales and options. Electricity trade revenues associated with these derivatives are presented on a net basis in fiscal 2004 and 2003. Electricity trade revenues for fiscal years prior to 2003 have not been restated.



# Appendices I

## **BC HYDRO GLOBAL REPORTING INITIATIVE COMPARISON INDEX**

In 2002 BC Hydro adopted the use of a set of guidelines published by the Global Reporting Initiative (GRI) that are used worldwide by companies reporting on their triple bottom line performance. The GRI has evolved into the de facto international common framework across all industry and organizational sectors to comparably report on their journey to sustainability. The framework was agreed upon by industry, non-governmental organizations, and governmental contributors, including the World Business Council on Sustainable Development, of which BC Hydro is a member. In 2003/2004 GRI saw a 100 per cent increase in the number of organizations using the Guidelines, with more than 418 organizations from 43 countries using them to prepare sustainability reports.

BC Hydro's adoption of GRI principles and performance measure alignment have substantially contributed to BC Hydro being recognized as a leading sustainability reporter (e.g., Stratos and the UNEP/Sustainability's Global Reporters). The following index shows the degree of alignment between our performance measures and those in the GRI 2002 Guidelines. The BC Hydro/GRI Comparative Index is available on BC Hydro's web site at [www.bchydro.com](http://www.bchydro.com) and provides links to data tables containing the information listed.

### **Economic Indicators**

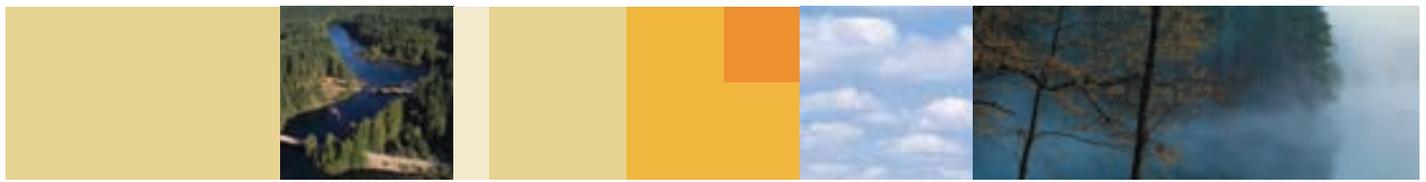
BC Hydro's economic indicators provide the financial picture of the company. They measure direct economic impacts to customers, suppliers, employees and provider of capital (the Province of B.C.). Performance against targets established in BC Hydro's Service Plan is measured each year, and performance is benchmarked against relevant industry standards and historical performance, where they exist. Consistent with a triple bottom line approach to business, BC Hydro also attempts to measure the indirect economic impact of its activities.

### **Environmental Indicators**

BC Hydro's environmental performance measures give information on the resources used, the wastes produced, compliance to prevailing environmental regulations and permits, and the impact certain activities have on species and habitats. These measures also contain information on how initiatives prevent pollution, use resources more effectively, and protect and restore biodiversity.

### **Social Indicators**

Social performance measures encompass customers, employees, First Nations and the general public. They detail BC Hydro's labour practices, policies to protect human rights, product responsibility and impacts on society at large. Like many other companies striving to become truly sustainable, many of BC Hydro's performance measures in this area are qualitative and still evolving.



## Appendices II

### Glossary

#### **Accenture Business Services for Utilities (ABSU)**

Accenture Business Services for Utilities (ABSU) assumed responsibility for the performance of certain functions for BC Hydro on April 1, 2003. These functions include: Customer Services, Information Technology, Human Resources, Financial Systems, Purchasing, and Building and Office Services.

#### **B.C. Energy Plan**

A statement of B.C. government policy related to provincial energy matters issued by the Ministry of Energy and Mines in November 2002.

#### **Biomass**

Non-fossilized organic matter often used as fuel (e.g., wood waste).

#### **British Columbia Transmission Corporation (BCTC)**

The Crown corporation created by the government of B.C. in 2003 to plan, operate and maintain BC Hydro's high-voltage transmission system.

#### **British Columbia Utilities Commission (BCUC)**

An independent regulatory agency of the provincial government operating under and administering the Utilities Commission Act. Its responsibility is the regulation of public utilities under its jurisdiction and to ensure customers receive safe, reliable service and non-discriminatory, reasonable rates.

#### **Carbon dioxide equivalent (CO<sub>2</sub>e)**

The standard measure for greenhouse gas emissions, expressing the global warming potential of various gases over 100 years in terms of carbon dioxide equivalents.

#### **CFT**

Call for Tender.

#### **Certificate of Public Convenience and Necessity (CPCN)**

A certificate issued to a public utility by a regulatory body such as the British Columbia Utilities Commission, for the construction or operation of a generating plant.

#### **CFC-11**

Chlorofluorocarbon (CFC), an ozone-depleting gas. CFC-11 is used in refrigerators, air conditioners, spray cans, solvents, foams and other applications.

#### **cfs**

Abbreviation for cubic feet per second.

#### **CH<sub>4</sub>**

Methane (natural gas).

#### **CO**

Carbon monoxide.

#### **CO<sub>2</sub>**

Carbon dioxide.

#### **Clean Electricity**

B.C. Clean Electricity is defined as "alternative energy technologies that result in a net environmental improvement relative to existing energy production." Examples may include hydro, wind, solar, photovoltaic, geothermal, wave and biomass energy, as well as cogeneration of heat and power, energy from landfill gas and municipal solid waste, fuel cells and efficiency improvements at existing facilities.

#### **Cogeneration**

The simultaneous production of electrical or mechanical energy and useful heat energy from a single fuel source. For example, forest sector mills can burn wood waste in a boiler to generate electricity and use low-temperature steam from the generator in pulping processes.

#### **Customer-Based Generation**

A BC Hydro initiative to buy electricity from large customers through a competitive bidding process.

#### **Decile**

Measured performance within the top 10 per cent or above the 90th percentile.

#### **Decommission**

To take a piece of equipment such as a generation or transmission facility permanently out of service.

## Appendices II

### **Demand-Side Management (DSM)**

Actions that modify customer demand for electricity, helping defer the need for new energy and capacity supply additions.

### **Engineer-in-Training (EIT)**

A BC Hydro program that provides on-the-job training for qualified engineering graduates.

### **Energy Purchase Agreement (EPA)**

The contract that defines the terms and conditions by which BC Hydro purchases electric energy from Independent Power Producers (IPPs).

### **Equipment Health Rating (EHR)**

An objective, standardized condition assessment process for evaluating and reporting on equipment condition. EHR has been developed to evaluate six major equipment types (generators, exciters, turbines, governors, transformers and circuit breakers) and protective coatings.

### **Federal Energy Regulatory Commission (FERC)**

A U.S. agency that regulates the interstate transmission of natural gas, oil and electricity.

### **First Nation**

Either an Aboriginal governing body, organized and established by an Aboriginal community, or the Aboriginal community itself.

### **First Quartile**

Measured performance within the top 25 per cent of a study, group or class or, above the 75th percentile.

### **Gigawatt hour (GWh)**

One billion watt hours; one million kilowatt hours (an amount of electric energy that will serve about 100 residential customers for one year).

### **Gigajoule (GJ)**

One billion joules of energy. A joule (J) is a metric unit of measurement for heat energy.

### **Greenhouse Gas (GHG)**

Gases that trap heat in the atmosphere and are thought to contribute to global climate change, or the "greenhouse effect," including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and sulphur hexafluoride (SF<sub>6</sub>).

### **GHG offset**

A project that compensates for GHG emissions from one source by lowering, avoiding or capturing and storing emissions at another source.

### **Global Reporting Initiative (GRI)**

A series of guidelines for sustainability reporting recommended by the GRI, a joint initiative of the U.S. non-government organization, Coalition for Environmentally Responsible Economies, and the United Nations Environmental Programme. Its goal is to enhance the quality, rigour and utility of sustainability reporting.

### **Graduate Technologist-in-Training (GTT)**

A BC Hydro program that provides the skills, knowledge and experience required to become a fully qualified technologist in one of four areas: Customer Projects & Operations, Protection & Control, Engineering and Transmission Maintenance.

### **Green Power Certificates (GPCs)**

Green Power Certificates are a Power Smart product offering green electricity which is 100% generated in B.C. to domestic customers on a pilot basis. GPCs represent the environmental and social attributes of green electricity, separated from the electrons themselves. Each Green Power Certificate has a face value of one megawatt hour of electricity generated at qualified green generation facilities. Powerex, BC Hydro's power marketing subsidiary, is also piloting the sale of GPCs in the electricity marketplace.

### **ha**

Hectares.

### **Heritage Contract**

A 10-year, up to 49,000 gigawatt hour per year contract between BC Hydro's Generation and Distribution Lines of Business to ensure BC Hydro customers benefit from BC Hydro's existing low-cost hydroelectric and thermal resources.

## Appendices II

### **Hydroelectricity**

Electricity produced by harnessing the power of falling water or streamflow.

### **Integrated Electricity Plan (IEP)**

The process of long-term planning of electricity generation, transmission facilities and demand-side resources to reliably meet forecast requirements.

### **Independent Power Producer (IPP)**

Operator of a privately owned electricity generating facility that produces electricity for sale to utilities or other customers.

### **Integrated System**

An interconnected network of transmission lines, distribution lines and substations linking generation stations to one another and to customers throughout a utility's service area, but excluding isolated customers who are connected to free-standing generating plants.

### **ISO**

Independent System Operator.

### **ISO 14001**

The international standard for environmental management, introduced by the International Standards Organization (ISO) in 1996.

### **Kilotonne (kt)**

One thousand metric tonnes.

### **Kilovolt (kV)**

One thousand volts.

### **Kilowatt (kW)**

One thousand watts; the commercial unit of measurement of electric power. A kilowatt is the flow of electricity required to light 10 100-watt light bulbs.

### **Kilowatt Hour (kWh)**

One thousand watts used for a period of one hour; the basic unit of measurement of electric energy. On average, residential customers in B.C. use about 10,000 kWh per year.

### **Kyoto Protocol**

The United Nations Framework Convention on Climate Change entered into force in 1994. The Kyoto Protocol, which sets out more specific, binding commitments, followed in 1997. The Protocol, which still requires ratification by other countries, seeks to reduce overall emissions of greenhouse gases such as CO<sub>2</sub> (carbon dioxide), CH<sub>4</sub> (methane), and N<sub>2</sub>O (nitrous oxide) by at least five per cent below 1990 levels in the commitment period of 2008 to 2012.

### **Large Final Emitter (LFE)**

As defined by the federal government, LFE includes firms in both upstream and downstream oil and gas sectors, electricity generation and mining and manufacturing, such as cement plants and steel mills. The LFE Group has an aggregate greenhouse gas reduction target of 55 million tonnes per year.

### **Load Forecasting**

Determining an estimate of load requirements for some future time.

### **Megatonne (Mt)**

One million metric tonnes.

### **Megawatt (MW)**

One million watts; one thousand kilowatts. A unit commonly used to measure both the capacity of generating stations and the rate at which energy can be delivered.

### **MLA**

A Member of the Legislative Assembly. An elected member of the provincial legislature.

### **MWh**

Megawatt hour (1,000 kilowatt hours/kWh).

### **N<sub>2</sub>**

Nitrogen.

### **N<sub>2</sub>O**

Nitrous oxide.

### **National Energy Board (NEB)**

A Canadian federal regulatory agency.

## Appendices II

### **Net Metering**

A program that allows customers with their own generation facility to “bank” their surplus electricity with the electric utility. This banked surplus is then applied against the amount of electricity supplied by the utility.

### **NH<sub>3</sub>**

Ammonia (anhydrous).

### **Non-Integrated Areas**

Utility service areas that are not connected to the integrated system. These areas are supplied by local diesel generation or hydroelectric generation.

### **NO<sub>x</sub>**

Oxides of nitrogen, including NO and NO<sub>2</sub>, expressed as NO<sub>2</sub> equivalent.

### **OMA**

Accounting costs associated with Operating, Maintenance and Administration expenses.

### **Outage**

A planned or unplanned interruption of one or more elements of an integrated system.

### **PCB**

Polychlorinated biphenyl, any of several toxic compounds containing two benzene molecules in which hydrogen atoms have been replaced by chlorine atoms, formed as waste in industrial processes.

### **Peak Capacity**

The maximum amount of electrical power that generating stations can produce in any instant.

### **Peak Demand**

The maximum instantaneous demand on a power system. Normally the maximum hourly demand.

### **PLT**

Power Line Technician.

### **PowerOn**

The power outage reporting system for BC Hydro customers that provides information on the location and expected duration of outages.

### **Power Smart**

BC Hydro's demand-side management (DSM) initiative to encourage energy efficiency by its customers. Launched in 1989, Power Smart includes a full range of DSM programs aimed at BC Hydro's residential, commercial and industrial customers.

### **psi**

Pounds per square inch.

### **Regional Transmission Organization (RTO)**

A voluntary organization of transmission owners, operators and users currently developing in the western U.S. and Canada to facilitate wholesale transmission access.

### **Resource Smart**

BC Hydro's program of improvements to existing power generation facilities to increase supply-side efficiency through physical and/or operational modifications.

### **Revenue Requirements Hearing**

Hearings before the British Columbia Utilities Commission scheduled to take place in 2004 to determine the revenues that BC Hydro will need for its operations, to ensure a safe and reliable supply of electricity to its customers.

### **Right-of-Way (ROW)**

Rights to make use of land owned by another to allow the construction and operation of electrical transmission or distribution facilities.

### **SAIFI**

System Average Interruption Frequency Index (a reliability metric: average number of sustained interruptions that a transmission delivery point experiences per year).

### **SARI**

System Average Restoration Index (a reliability metric: average restoration time for delivery point interruptions, in hours).

## Appendices II

### **Self-Generation**

Generation of electricity by an industry or commercial enterprise whose principal product is not electricity. Self-generation can reduce the amount of electricity purchased from the utility, or surplus electricity may be sold to the utility as a supply-side resource.

### **Spot Market**

Real-time and day-ahead purchases and sales of electricity or other commodities; any market purchases or sales outside of long-term contracts.

### **Stepped Rate**

A rate structure for transmission class customers, prescribed by the B.C. Energy Plan that will use different price levels so incremental consumption will be priced at incremental cost.

### **Stakeholder**

Individuals, groups or representatives of groups who have an interest in BC Hydro's activities. First Nations, municipal governments, environmental organizations and employees are a few examples of BC Hydro's stakeholder groups.

### **Sulphur Hexafluoride (SF<sub>6</sub>)**

A greenhouse gas used as an insulating and protective gas in transmission equipment.

### **Supply-Side management**

Actions that modify energy supply (e.g., load curtailment, time of use rates) to lower customer demand for energy particularly during periods of peak demand.

### **Tailwater**

The water of a tailrace (a watercourse leading away from the turbine of a power station).

### **Thermal Generation**

Generation of electricity by converting heat energy into electric energy through the controlled combustion of fossil fuels or biomass.

### **Triennial**

Every third year.

### **Vancouver Island Energy Corporation (VIEC)**

A wholly owned subsidiary of BC Hydro that was the proponent of the Vancouver Island Generation Project.

### **Vancouver Island Generation Project (VIGP)**

A proposed electricity generation station on Vancouver Island that will use a combined cycle gas turbine.

### **Voluntary Challenge and Registry (VCR) Inc.**

A non-government organization that encourages Canadian companies to voluntarily reduce GHG emissions and report on their progress.

### **Water Licence**

The authority granted by the Comptroller of Water Rights of the Province of British Columbia to use, store and divert water.

### **Water Use Plan (WUP)**

A plan, authorized under the B.C. Water Act, describing operating rules and boundaries for facilities on public waterways. BC Hydro's Water Use Plans are developed from a multi-stakeholder review process designed to address the varied interests for water use (e.g., fish, recreation and habitat management) associated with existing and new electricity generation and storage facilities.

## Additional Information Resources

BC Hydro's 2004 Annual Report demonstrates how it holds itself accountable and plans to meet its vision to become the leading sustainable energy company in North America. Additional information on BC Hydro's strategic planning and performance can also be found on the company's website as follows:

BC Hydro Service Plan <http://www.bchydro.com/serviceplan>

(Performance results in the 2004 Annual Report align with the Fiscal 2003/2004 to 2005/2006 planning period)

Quarterly Reports <http://www.bchydro.com/quarterlyreports>

BC Hydro 2003 Greenhouse Gas Report

BC Hydro/Global Reporting Initiative (GRI) Comparative Index  
<http://www.bchydro.com/gri>

## Library and Archives of Canada Cataloguing in Publication Data

BC Hydro

Annual report. – 1st (1962/63) – Annual.

Title from cover.

Merger of: British Columbia Power Commission.

Annual report of the British Columbia Power Commission and British Columbia Electric Company. Annual report.

Continued in part by: BC Hydro. Corporate review.

Absorbed: Triple bottom line report. ISSN 1481-3130.

Report year ends Mar. 31.

ISSN 0521-0577 = Annual report – British Columbia Hydro and Power Authority

1. BC Hydro - Periodicals.
2. Electric utilities – British Columbia – Periodicals.
3. Public utilities – British Columbia – Periodicals. I. Title.

HD2768.C35874 354.711'008'72 C76-081258-6

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