

BC Hydro's Service Plan

for Fiscal Years 2002/2003 to
2004/2005

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APPENDIX A: ORGANIZATIONAL OVERVIEW – ENABLING LEGISLATION

1 HIGHLIGHTS

Building on past successes, BC Hydro is positioning itself to continue to successfully deliver value to the Rate Payer and Shareholder under a variety of economic, market and restructuring scenarios. The British Columbia Energy Policy due to be released in the Spring of 2002 will undoubtedly affect BC Hydro's role in the domestic market and the broader North American energy sector. The company is, however, confident that current major initiatives will enable continued performance across all three measures of sustainability: economic, social, and environmental – BC Hydro's "Triple Bottom Line".

BC Hydro is pursuing a number of major initiatives targeting the delivery of integrated energy solutions to customers in an environmentally and socially responsible manner as a competitive commercial Crown corporation. These initiatives position BC Hydro as an effective and efficient integrated electric utility for the 21st century, including:

Lines of Business

An internal reorganization to reflect industry best practices is in progress. Generation, Distribution and Transmission entities, supported by Shared Services will propel us to first quartile performance in terms of capital, operating, maintenance and administrative costs; customer satisfaction and service reliability; sustainability; and safety. Segmented financial reporting for these separate businesses will be prepared for fiscal year 2003 and beyond.

Core Services Review and Request for Expressions of Interest (RFEI)

To ensure the most efficient and effective delivery of support services, BC Hydro issued an RFEI in October 2001 to explore the private sector's interest in joint venture partnership arrangements or other options for delivering certain services. The RFEI process has been selected to ensure that activities such as Customer Services, Fleet Services and Westech are delivered in an efficient and appropriate way, while allowing BC Hydro to focus on core competencies and services.

Regional Transmission Organization (RTO)

To ensure continued access to U.S. energy markets, BC Hydro is participating in discussions with other utilities regarding the structure, ownership and management of electricity transmission in the Pacific Northwest. These discussions include both physical and economic issues that affect the operation, stability and reliability of the Pacific Northwest transmission system as a whole, not just BC.

Resource Strategy

To ensure a secure supply of electricity for British Columbia, BC Hydro is working on several initiatives to meet current and future demands. Recent energy purchase agreements with companies developing green energy projects, the development of Water Use Plans, and purchasing greenhouse gas offsets are examples of sustainability initiatives and part of a larger resource strategy for the company. To ensure efficient usage of energy, programs are being developed to promote demand side management (PowerSmart) and enable us to purchase energy from customer based generation and co-generation projects. While these programs will assist BC Hydro in meeting electricity demand, there are also specific large capital projects underway

to meet demand on Vancouver Island with Island based generation and to upgrade and maintain other generating assets.

Forecasting

A comprehensive net income forecasting process is under development in response to unprecedented change and ongoing volatility in the energy sector and the economy in general, both of which impact BC Hydro’s earnings. This external volatility is exacerbated by natural weather and hydrology variations in terms of temperatures and snowpack, which in turn affect both domestic and foreign supply and demand. This forecasting initiative will serve to improve BC Hydro’s ability to deliver on expectations; will build on prior improvements to enhance inputs, models, processes and outputs; and will allow the alignment of outputs to the requirements of the decision-making process. Industry best practices will be incorporated to streamline and improve the reliability and accountability for net income forecasts and to identify risk mitigation and system optimization opportunities.

Triple Bottom Line

BC Hydro is committed to sustainability as a driving force for its business. To achieve a sustainable business BC Hydro balances environmental, financial and social considerations and uses the Triple Bottom Line approach to track progress toward a sustainable future. BC Hydro’s highly recognized Triple Bottom Line Report details its performance across the economic, environmental, and social bottom lines.

While building on a successful track record, BC Hydro is not without challenges, including:

- Required strategic capital investment in the existing generation, transmission and distribution systems to maintain current levels of service and reliability due to aging infrastructure,
- Capital investment in new assets to meet growing demand and to effectively participate in the evolving electricity market,
- Despite almost a decade of rate freezes that were funded by profits from energy trading, operating efficiencies and lower financing charges through restructuring debt, rate increases will be required, and
- An aging work force with significant retirement eligibility, emphasizing BC Hydro’s need to attract and retain individuals with critical skills while enabling knowledge transfer from retiring employees.

2 INTRODUCTION

This is the third annual service plan prepared by BC Hydro for presentation to the BC Legislature under the Budget Transparency and Accountability Act. This plan outlines the results BC Hydro expects to achieve in the three-year period from 2002/2003 through 2004/2005 along with how Hydro expects to attain these results. By outlining strategies and expected results, this plan is intended to provide a basis for judging BC Hydro's performance.

This service plan spells out the key strategies through which BC Hydro will continue to deliver highly reliable, environmentally responsible electricity service to British Columbians. The plan also provides a strategic context that guides BC Hydro's current activities. Looking to the future, BC Hydro continues to refine its strategic objectives and the performance measures by which the Legislature and the public will be able to track its progress over time.

The service plan is divided into five main sections:

- **Organizational Overview** provides a summary description of BC Hydro and its primary business activities
- **Strategic Context** explains BC Hydro's vision, mission, values, and its operating environment
- **Objectives, Strategies, Performance Measures, and Targets** outlines BC Hydro's strategic direction over the next three years along with how this direction will be monitored and translated into action.
- **Summary Financial Outlook** outlines the revenue expectations and expenditure plans for BC Hydro's 2003, 2004, and 2005 fiscal years along with key forecasting assumptions, risks, and sensitivities.
- **Major Capital Projects Plan** outlines BC Hydro's intended commitments in excess of \$50 million towards the capital cost of projects during fiscal years 2003, 2004 and 2005.

The information contained in this report is current up to the end of January 2002. However, as the provincial government is in the middle of its Core Services Review and Energy Policy Review, and these initiatives will likely have a significant impact on BC Hydro, some of the strategies and performance measures may change over the three year period covered by this Plan. Additionally, BC Hydro's income is highly dependent on the snow pack conditions in March. The income numbers contained in this package are predicated on assumed normal values for the March snow pack and are therefore subject to change.

3 ORGANIZATIONAL OVERVIEW

BC Hydro provides high-value, reliable power to fuel economic growth in British Columbia. BC Hydro is one of the largest electric utilities in Canada serving more than 1.5 million customers in an area containing over 94 per cent of British Columbia's population. BC Hydro endeavors to provide energy solutions to its customers in an environmentally and socially responsible way by balancing British Columbians' energy needs with the concerns of the environment. Through the efficient and reliable supply of electricity, BC Hydro supports the development of British Columbia and has constructed a world-class integrated hydroelectric system of close to 11,500 megawatts of generating capacity - over 87% of which is hydroelectric. Due to this efficient, reliable system, British Columbians enjoy some of the lowest electricity rates in the world.

BC Hydro's primary business activities are the generation, transmission, and distribution of electricity. Between 43,000 and 54,000 gigawatt-hours of electricity is generated annually from 32 hydroelectric facilities, 2 gas-fired thermal power plants and 2 combustion turbine stations. Electricity is delivered safely and dependably to customers through an interconnected system of over 72,000 kilometers of transmission and distribution lines. Through its wholly owned power marketing subsidiary, Powerex, BC Hydro is extensively involved in energy trade outside the province. Powerex has grown to be a leading marketer of wholesale energy products and services in western Canada and the western United States, and is a growing niche player in other markets in North America.

A description of the legislative statutes that enable BC Hydro's operations is provided in Appendix A.

4 STRATEGIC CONTEXT

4.1 Vision

BC Hydro’s vision is to be a competitive commercial Crown corporation that creates superior value for its customers and shareholder through the exceptional contribution of its people. This vision will be achieved by building on a solid base of clean, renewable hydropower assets, a skilled and capable workforce, excellent financial and operational performance, and strong public support - thereby allowing the company to become the leading sustainable energy company in North America.

4.2 Mission

BC Hydro’s mission is to provide integrated energy solutions to its customers in an environmentally and socially responsible manner. BC Hydro is actively committed to balancing social, economic, and environmental considerations in everything it does.

4.3 Values

In carrying out BC Hydro’s mission and day-to-day activities, the people at BC Hydro are guided by ethics and principles that are rooted in the following core values of the organization:

- Leadership
- Integrity
- Commitment
- Innovation
- Teamwork
- Accountability

In its desire to act, and be seen to act as an ethical corporation, BC Hydro and its Subsidiaries have adopted a Director and Employee Code of Conduct. The Code also includes a section describing the standards of conduct expected of BC Hydro's suppliers, consultants, contractors, and business associates.

4.4 Planning Context and Key Strategic Issues

The following is a summary assessment of the current state of BC Hydro’s external and internal business environment. The purpose of the summary is to identify and assess the implications of significant developments that could impact BC Hydro’s future competitiveness.

EXTERNAL BUSINESS ENVIRONMENT

Deregulation of the electricity industry in the United States and selected Canadian provinces continues to evolve, resulting in more efficient trading markets, enhanced competition and responsive price signals.

The development of a Regional Transmission Organization (RTO) for the Pacific Northwest continues to proceed with BC Hydro now a member of the group that includes nine other US utilities that are under the Federal Energy Regulatory Commission’s (FERC) jurisdiction. FERC also is strongly encouraging a broader RTO, which would include

California and other western states. However, given the slow progress in RTO implementation, the focus in many regions is shifting towards transmission infrastructure issues.

The trend towards increasing public and regulatory expectations with respect to environmental and social issues continues. In particular:

- Climate change is now widely considered to be one of the largest challenges facing business leaders in the 21st century because of the strong relationship between energy production/use and economic prosperity, and greenhouse gas emissions. Movement toward the proposed Kyoto Protocol would have major implications to BC Hydro.
- A number of disparate yet interconnected forces such as deregulation, trade liberalization, rapid advances in communications technology, and the increased power of the consumer have combined to redefine the relationships that corporations hold with government, customers, and the public at large.

External Opportunities

- The effects of market reform efforts elsewhere from associated industry consolidation / convergence activities have affected BC's provincial electricity sector. Consequently, the provincial government has struck an Energy Policy Task Force to review key structural, competitive, and environmental issues pertaining to BC's energy sector and to make recommendations for a comprehensive, long-term energy policy for BC.
- The provincial government is also undertaking an evaluation of government services through its Core Services Review. In response BC Hydro is examining all aspects of its operations to ensure that they are as effective and efficient as possible and consistent with BC Hydro's core services and competencies. BC Hydro is looking at alternative ways of delivering its services and serving customers.
- The implications of the proposed US national energy policy for Canada and BC are significant. The US is looking to its neighbors as key partners in meeting their energy needs.
- BC Hydro is impacted by power technology developments in three particular areas: (1) technologies that increase operational efficiencies that reduce costs; (2) transmission upgrades and advancements that enhance energy trade and reliability; and (3) alternative power technologies that could usurp existing technologies or are required through regulation such as "green" or renewable portfolio standards. These developments, along with the other listed factors, may provide an opportunity for BC Hydro to market new energy-related products and services while contributing to its triple bottom line.
- BC Hydro's membership in the North American Electric Reliability Council and the Western Systems Coordinating Council, which inter-connects generation and transmission assets in Alberta, British Columbia, eleven of the western United States, and a northern portion of Mexico, provides enhanced system security and reliability for British Columbia through coordinated provision of ancillary services. These ancillary services ensure integrity of the transmission network, including voltage support; reactive power; spinning, non-spinning and replacement reserves; and the potential for emissions reduction trading. BC Hydro's resources are well balanced to provide a variety of these

services to the system, while benefiting from reduced reserve requirements due to inter-connection.

External Challenges

- The many dimensions currently at play within the western power markets make general market predictions for the coming year very difficult. Continued price weakness is expected as a weakening US economy further reduces demand for gas and power. As new energy supply continues to come on line over the next year, even as demand weakens, the western power market is expected to have more than adequate supplies of gas and power.
- BC Hydro’s most valued trading market, California, has experienced substantial market problems that have created a number of additional issues/challenges for the company, including:
 - significant outstanding monies owed
 - Federal Energy Regulatory Commission hearings related to request for refunds
 - fewer credit-worthy trading partners
- Evidence to date continues to indicate that finding a market structure that results in a truly competitive, efficient and reliable market, while simultaneously maintaining stable prices, is a difficult objective to reach in the electricity sector. Electricity market restructuring continues around the world but more cautiously and with varying degrees of success.
- Skilled labour shortages are expected to increase, despite the recent downturn in the North American economy. Of note for the electricity sector, a recent study of Canadian universities reported that power engineering has been identified as a “dying profession”.

INTERNAL BUSINESS ENVIRONMENT

While BC Hydro has a solid foundation for strong financial, environmental, and social performance, it faces a number of issues, opportunities and challenges over the near-to-medium term.

Internal Strengths and Core Competencies

- Operating efficiencies and system reliability continue to rank well against industry benchmarks.
- Domestic rates are the 3rd and 2nd lowest in North America for residential and industrial/commercial customers, respectively. In cents per kilowatt-hour, the residential average rate is 6.1, the average commercial rate is 5.3, and the average industrial rate is 3.4.
- Human resource initiatives specifically designed to build a strong and capable organization by addressing organizational climate, attraction and retention, compensation, demographics, and skills and leadership training are generally on track.

- Renewed focus on Power Smart, substantive commitments in green and alternative energy development and pursuing a number of customer-based cogeneration and self-generation opportunities.
- Water Use Planning initiative is on track and substantive commitments in the greenhouse gas emissions mitigation and other strategic environmental initiatives have been made.
- Continue to enjoy broad public and customer support, as well as support from various specific stakeholder groups, across a range of financial, environmental and social performance indicators.

Internal Issues and Challenges

- BC Hydro's financial results have been strong. However, over the longer term, with electricity markets becoming increasingly more efficient, resulting in reduced margins, and with the presence of price caps, BC Hydro cannot rely on electricity trade profits to be sustained. Low inflows into BC Hydro's reservoirs during the previous water year (ending September 2001) had exacerbated the impact on projected profits, although precipitation over the past few months has eased this situation.
- BC Hydro's previous electricity trading successes have effectively shielded domestic ratepayers from market price signals that reflect the true costs of electricity.
- BC Hydro is facing transmission constraints between the BC interior to the Lower Mainland in the winter, when transmission capacity is essentially fully utilized to meet domestic load needs. The transmission tie-line between BC and the US is also increasingly constrained. These physical constraints will impede growth in the electricity trade area.
- A number of indicators on both generation and wires assets show that the current condition of BC Hydro's assets is adequate. However, its assets are now reaching an age where maintenance and capital replacement costs will need to be increased in order to sustain current reliability performance.
- Like most other organizations, BC Hydro has an aging work force. Additionally, shortages of skilled workers are expected in some key areas. Over the near-term, collective agreements for both the International Brotherhood of Electrical Workers and the Office and Professional Employees' International Union expire in March 2002.
- BC Hydro's safety performance traditionally has been based on achieving regulatory compliance through the application of the Workers' Compensation Board's regulations and BC Hydro's detailed Occupational Safety and Health Standards. In the past this approach has created good performance, however, in recent years BC Hydro's peers have surpassed this performance.

5 OBJECTIVES, STRATEGIES, PERFORMANCE MEASURES AND TARGETS

BC Hydro’s vision centers on the concept of sustainability. Sustainability is about focusing on financial, environmental, and social value to address the challenges identified in the planning context.

BC Hydro will continue to focus on its strengths in financial performance, service quality, environmental management, and employees:

- **Financial Performance:** targeting first quartile costs when compared with similar utilities.
- **Quality of Service:** focusing on customer satisfaction and reliability.
- **Environment:** continuing to manage priority environmental and social issues.
- **Employees:** providing them with the means to be successful, ensuring safety, and incentives to achieve corporate and personal development goals.

These objectives, and the strategies adopted to achieve and measure them are provided in the following Table 1.

| OBJECTIVE | STRATEGY | MEASURE | F2003 | F2004 | F2005 |
|---|---|---|---|--|---|
| Financial Performance targeting first quartile costs | <ul style="list-style-type: none"> • Increase efficiencies and productivity • Capitalize on competitive services and alternative delivery opportunities | <ul style="list-style-type: none"> • Cost per Customer Transaction • Net Income • Total OMA Cost | \$45.71 / MWh \$345 M \$520 M | \$43.94 / MWh \$365 M \$513 M | \$45.36 / MWh \$360 M \$509 M |
| Quality of Service focusing on customer satisfaction and reliability | <ul style="list-style-type: none"> • Ensure high reliability • Deliver service excellence • Optimize asset utilization and health | <ul style="list-style-type: none"> • Reliability (ASAI, CAIDI) • Customer Satisfaction • Replacement Capital Ratio | 99.970% 2.15 hrs 70% 1 – 2 % | 99.970% 2.15 hrs 73% 1 – 2 % | 99.970% 2.15 hrs 76% 1 – 2 % |
| Environment continuing to manage priority environmental and social issues | <ul style="list-style-type: none"> • Operate in an environmentally and socially responsible manner • Change future resource mix to focus on effective Power Smart, customer co-generation and self-generation, green energy, and alternative energy | <ul style="list-style-type: none"> • Regulatory Compliance • Conservation Gigawatt Hours • Green Gigawatt Hours | 15 incidents 240 GWh 350 GWh 5 – 10 Contracts | 12 incidents 450 GWh 450- 500GWh 5 – 10 Contracts | 9 Incidents 500 GWh 700- 1000 _{GWh} 3 – 5 Contracts |
| Employees reinforcing the importance of safety and pride in service | <ul style="list-style-type: none"> • Align BC Hydro’s role and structure as guided by the BC Government Energy Policy and Core Services Reviews • Ensure and promote safety • Clear communication of business opportunities and direction | <ul style="list-style-type: none"> • Improvement in All Injury frequency | 10% | 10% | 0% |

Table 1: BC Hydro’s Performance Measures for Fiscal Years 2003 – 2005

BC Hydro’s four long-term strategic objectives have been derived from both BC Hydro’s mandate and the planning context summarized in the Strategic Context section. Each objective is examined in more detail in the following sections.

5.1 Financial Performance

BC Hydro’s profits are greatly influenced by such uncontrollable factors as market prices for electricity and precipitation. Therefore, to help face the challenge of earning its allowed rate of return, BC Hydro must focus on what it can control: costs, with a secondary focus on potential new products or services, and export and trading opportunities. BC Hydro’s financial objective is to be a first quartile performer in terms of costs. This objective will be accomplished by aligning BC Hydro’s role and activities as guided by the Energy Policy Task Force and the Core Services Review and by managing OMA costs as described in the following ‘Total OMA Cost’ item and sub-section 6.3. Hydro will also continue to increase efficiencies and productivity through use of benchmarking and best practices. Additionally, Hydro plans to capitalize on competitive services and alternative delivery opportunities.

BC Hydro uses the following measures of financial performance.

NET INCOME (after Rate Stabilization Account transfers)

Net Income is an *outcome* measure of financial performance. Its purpose is to indicate how well BC Hydro is increasing shareholder value by managing the profit side of the economic bottom line. Net Income (reported in thousands) is defined as total revenue less total expenses.

| F2001 Actual | F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|---------------------|-----------------------|-------------------|-------------------|-------------------|
| \$ 446,000 | \$ 395,000 | \$ 345,000 | \$ 365,000 | \$ 360,000 |

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. In recent years BC Hydro has experienced significant changes in net income due to extreme volatility in the electricity trade market. While such volatility has abated, its return would significantly impact the targets. BC Hydro is currently embarking on a comprehensive review and enhancement of the net income forecasting model in order to address these issues.

TOTAL OMA COST

Total OMA Cost is also an *outcome* measure of financial performance. Its purpose is to indicate how well BC Hydro is increasing shareholder value by managing the cost side of the economic bottom line. Total OMA cost (reported in thousands) is defined as the total of operations, maintenance and administration expenditures.

| F2001 Actual | F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|---------------------|-----------------------|-------------------|-------------------|-------------------|
| \$755,000 | \$539,000 | \$520,000 | \$513,000 | \$509,000 |

The relatively high actual OMA Cost of F2001 reflects a provision to cover the exposure to uncollectible receivables from some trading partners in California. The targets are based on targeted cost reductions intended to help BC Hydro achieve its objective of top quartile cost performance. In the short run, OMA is the cost most easily controlled by BC Hydro

management. The cost of maintenance of existing assets and infrastructure accounts for approximately 30% of the annual OMA forecasts, and must remain intact in order to ensure system reliability and continued participation in the energy trade and export markets.

COST PER CUSTOMER TRANSACTION

Cost per Customer Transaction is an *outcome* measure of financial performance. Its purpose is to indicate how proficiently BC Hydro is increasing operating efficiencies and productivity relative to the level of service it provides. Cost per Customer Transaction is defined as total cost divided by total sales volume (megawatt hours sold).

| F2001 Actual | F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|---------------|----------------|---------------|---------------|---------------|
| \$97.60 / MWh | \$86.59 / MWh | \$45.71 / MWh | \$43.94 / MWh | \$45.36 / MWh |

The relatively high costs per customer transaction in F2001 reflect the high import prices for electricity during the California energy crisis of Summer 2000. These high import prices were more than offset by the export sales revenues during the same period and the resulting high margins. The planned targets are based on benchmarked unit costs for comparable utilities and the impact of initiatives that are intended to place BC Hydro in the top productivity quartile. BC Hydro annually participates in a number of benchmarking studies. Some of these studies provide benchmarks for the BC Hydro overall and some of the studies provide benchmarks at a more operational level (Generation, Transmission, and Distribution). BC Hydro is placing emphasis on initiatives that improve efficiency and productivity. However, as this measure involves total costs, it is sensitive to changes in reservoir levels. If lower than average precipitation causes lower than average water inflows, BC Hydro has to use more of its gas-fired generation to produce energy or import more energy. Both these options are relatively more expensive and sensitive to market prices of electricity and natural gas, and therefore would negatively impact the target even if productivity stayed the same.

5.2 Quality of Service

BC Hydro’s service objective is to be a top quartile performer in terms of customer satisfaction and service reliability. This objective will be accomplished by optimizing the utilization and health of Hydro’s physical assets including dams, generating stations, transmission and distribution systems, and information technology. BC Hydro will also to continue to ensure it has public support by maintaining the high reliability of its power system and providing service excellence.

BC Hydro uses the following measures of service quality.

RELIABILITY

Reliability is an *outcome* measure of service quality. Its purpose is to indicate how well BC Hydro is focusing on system dependability. This measure’s result demonstrates how dependable BC Hydro’s service has been. Reliability is defined as a combination of Average System Availability Index (ASAI) and Customer Average Interruption Duration Index (CAIDI). ASAI is the percentage of time power is available. CAIDI is the average

number of hours per interruption. These indices are electric utility industry standards and are used by the Canadian Electricity Association (CEA) in their annual comparison of electric utilities.

| F2001 Actual | F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|--------------|----------------|------------|------------|------------|
| 99.972% | 99.973% | 99.970% | 99.970% | 99.970% |
| 2.12 Hrs | 2.15 Hrs | 2.15 Hrs | 2.15 Hrs | 2.15 Hrs |

The targets are based on BC Hydro’s previous three-year experience, excluding the major storm that hit the Lower Mainland and Vancouver Island in December. BC Hydro is in the first quartile for reliability using the CEA composite of Canadian utilities. However, when compared to a broader group of North American utilities, BC Hydro is in the 2nd quartile mainly due to geographic challenges. Such benchmarking has shown BC Hydro’s level of reliability is appropriate relative to cost. Additionally, the high marks given to BC Hydro for reliability on its customer satisfaction survey indicates that Hydro’s level of reliability is appropriate.

CUSTOMER SATISFACTION

Customer Satisfaction is an *outcome* measure of service quality. Its purpose is to indicate how well BC Hydro is focusing on customer expectations in delivering service excellence. Customer Satisfaction is defined as the percentage of customers that indicate they are either satisfied or very satisfied with BC Hydro. Customer Satisfaction is determined by customer segment. Separate surveys of residential, commercial, industrial and institutional customers are performed.

| F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|----------------|------------|------------|------------|
| 68% | 70% | 73% | 76% |

The targets are based on BC Hydro’s historical performance adjusted for events that are expected to have favourable and unfavourable impacts on the survey results. The second and third year targets place BC Hydro in the top quartile for comparable BC companies as reflected in the Ipsos Reid Corporate Watch survey.

REPLACEMENT CAPITAL RATIO

Replacement Capital Ratio 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. Replacement Capital Ratio is defined as sustaining capital expenditures as a percent of the replacement value of capital assets.

| F2003 Plan | F2004 Plan | F2005 Plan |
|------------|------------|------------|
| 1 – 2% | 1 – 2% | 1 – 2% |

5.3 Environment

BC Hydro’s environmental objective is to be a top quartile performer in terms of sustainability by continuing to manage priority environmental and social issues. This objective will be accomplished by operating in an environmentally and socially responsible manner. Additionally, BC Hydro is changing its future resource mix to focus on effective Power Smart, customer co-generation and self-generation, green energy, and alternative energy. Power Smart is a demand side management program aimed at energy conservation.

BC Hydro uses the following environmental measures.

REGULATORY COMPLIANCE

Regulatory Compliance is an *outcome* measure of environmental performance. Its purpose is to indicate how well BC Hydro is managing priority environmental issues and operating in an environmentally responsible manner. Regulatory Compliance is the number of externally reportable, preventable environmental incidents. This measure is the most visible indicator of environmental compliance to external stakeholders, including the public and regulators.

| F2001 Actual | F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|--------------|----------------|--------------|--------------|-------------|
| 13 incidents | 16 incidents | 15 incidents | 12 incidents | 9 incidents |

The targets were derived from historical rates to allow for continued increased reporting resulting from greater awareness and utilization of BC Hydro’s Environmental Incident Reporting system as well as increased pressure by regulatory agencies. After the education and awareness is complete, as well as improved relations and understanding with regulators, BC Hydro anticipates the numbers to start dropping. The reductions should result from continually improving management practices.

GREEN GIGAWATT HOURS

Green Gigawatt Hours is an *output* measure of environmental performance. Its purpose is to indicate how well BC Hydro is managing priority environmental issues by changing its future resource mix to focus on green energy. Green Gigawatt Hours is defined as gigawatt hours contracted from green sources that meet purchase price limits.

| F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|-------------------------------|--------------------------------------|--|--|
| 350 GWh at the contract stage | 5 – 10 Contracts Totaling 350 GWh | Additional 5 – 10 Contracts Totaling 450 - 500 GWh | Additional 3 – 5 Contracts Totaling 700 – 1000 GWh |

Note: It is anticipated that up to 25 contracts, representing approximately 1500 to 1900 GWh of new green energy will be added to BC Hydro’s system by the end of F2005.

The voluntary target of 10% of incremental load growth to be met by green energy resources, referred to as the Renewable Portfolio Standard (RPS), was first communicated as part of BC Hydro’s Integrated Electricity Plan Update in January 2000. This RPS target corresponds to approximately 1100 GWh of new green energy. The private sector has

subsequently responded enthusiastically to the call for green energy, putting BC Hydro in a position to meet the commitment within the next 3-4 years, rather than over a systematic 10-year acquisition process as previously envisioned. This early accomplishment of the stated goal sends a market signal for the supply of additional green energy, and it provides a window for capital and technology investment in the province. BC Hydro sees the 10% RPS target as its initial step towards setting a direction for green supply going out to 2010. This threshold will be impacted in the future by the direction set by the Energy Policy Task Force and the market response to purchase the green energy. Benchmarked against other utilities, BC Hydro is the only utility in Canada that has set a voluntary RPS target to acquire green energy.

CONSERVATION GIGAWATT HOURS

Conservation Gigawatt Hours is an *output* measure of environmental performance. Its purpose is to indicate how well BC Hydro is managing priority environmental issues by efficiently managing demand for energy through Power Smart programs. Conservation Gigawatt Hours is defined as gigawatt hours saved as a result of economic demand side management.

| F2003 Plan | F2004 Plan | F2005 Plan |
|-------------------|-------------------|-------------------|
| 240 GWh | 450 GWh | 500 GWh |

The targets are based on savings from current Power Smart programs or programs expected to come on stream over the next three years. The targets include both residential and business demand side management. 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 % of revenue (American Council for the Energy Efficient Economy).

5.4 Employees

BC Hydro’s objective regarding employees is to reinforce the importance of safety and pride in service. This objective will be accomplished by aligning BC Hydro’s role and activities as guided by the BC Government Energy Policy and Core Services Review. Additionally, BC Hydro will continue to ensure and promote safety. Finally, Hydro will provide clear communication of business opportunities and direction.

BC Hydro uses the following safety measure.

IMPROVEMENT IN ALL INJURY FREQUENCY

Improvement in All Injury Frequency is an *outcome* employee measure. Its purpose is to indicate how well BC Hydro is reinforcing the importance of safety by guiding corporate mitigation strategies for managing and preventing all employee work-related injury. Improvement in All Injury Frequency is defined as the percentage reduction in the combination of Medical Aid Injuries and Disabling Injuries. Medical Aid Injuries are injuries where a medical practitioner has submitted a fee to Workers’ Compensation Board for services rendered and the duration the employee was absent from work did not exceed the normal shift of the day of injury. Disabling Injuries are injuries that involve the employee being absent for more than the day of injury. The calculation is based on injuries experienced at BC Hydro over the previous 12 months and it is relative to person-hours that have been worked over that same period.

| F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|-----------------------|-------------------|-------------------|-------------------|
| 5% | 10% | 10% | 0% |

The targets were developed from BC Hydro’s historic trend line with improvement targets set to achieve top quartile benchmark in all injury frequency within two years. If the targets in the first two years are met, subsequent targets will be set to simply maintain top quartile performance. Therefore, fiscal 2005 is targeted for no improvement over the subsequent year. The targeted yearly reduction of 10% will be difficult to achieve and therefore prevention strategies are aimed at key exposure areas to most effectively help achieve this reduction. Such strategies involve setting performance objectives and targets for management’s safety leadership activities using the recent BC Hydro / DuPont Safety Leadership seminars as guidance. Also, BC Hydro’s Occupational Safety and Health Standards will evolve into a continuous improvement safety management system.

6 SUMMARY FINANCIAL OUTLOOK

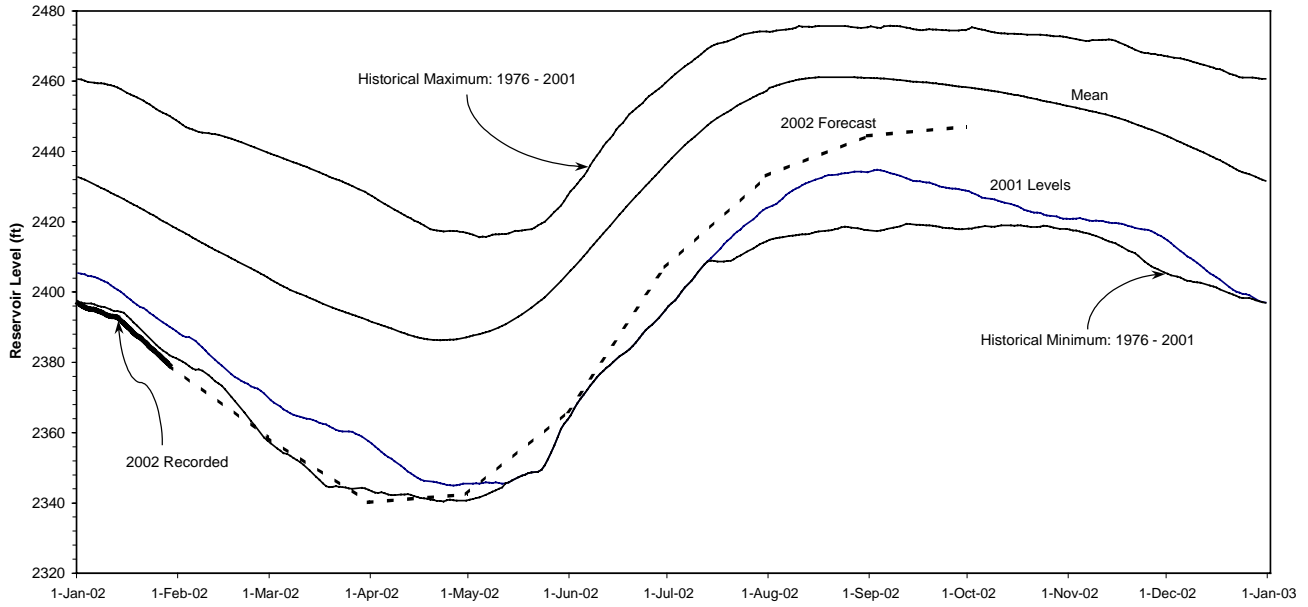
6.1 Net Income Plan and Key Assumptions

BC Hydro is projecting an improvement in its Net Income before Rate Stabilization transfers from \$200 million in F2002 to \$350 million in F2003. This is primarily due to an assumption of a return to normal inflow levels into BC Hydro's two primary reservoirs: Williston and Kinbasket. Inflows into the reservoirs impact the level of available low-cost hydro-generation. In F2002, inflows averaged only 88% of normal. This caused an increased reliance on higher cost electricity purchases to meet domestic demand. Net income is expected to improve further in F2004 due to a projected increase in electricity trade margins and a further increase in hydro-generation as reservoir levels fully recover from the low inflows in F2002. Income is expected to start to decline again in F2005 due to a decline in margins as the electricity trade market matures.

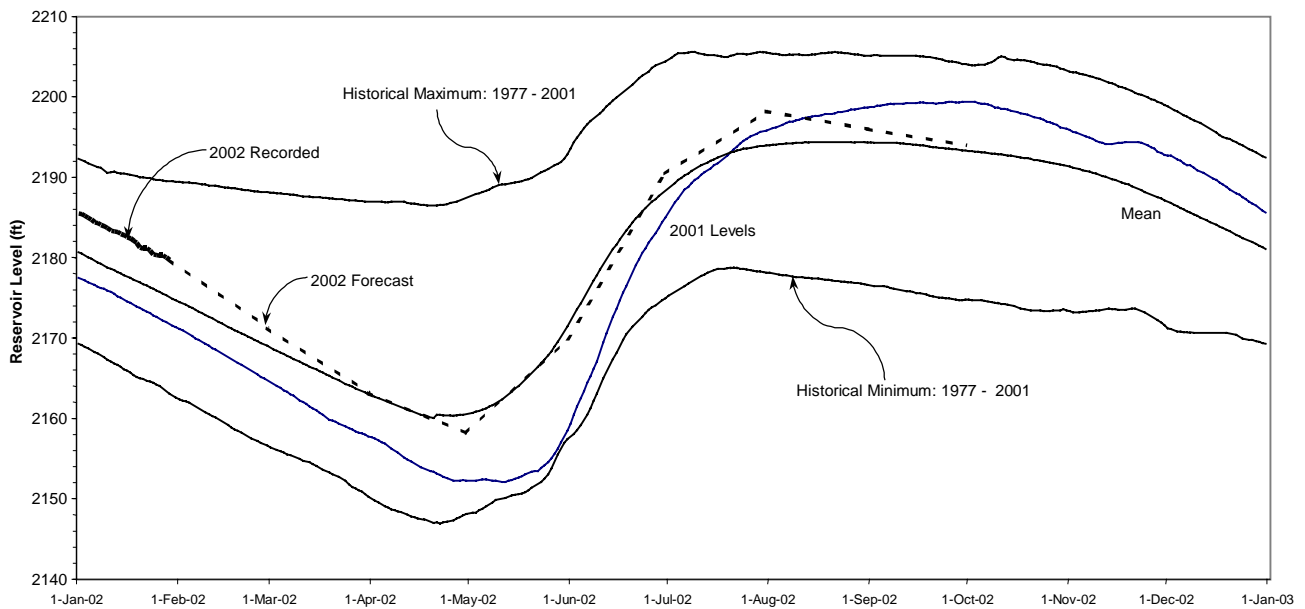
| <i>All Figures in \$ Thousands</i> | F2001 Actual | F2002 Forecast | F2003 Plan | F2004 Plan | F2005 Plan |
|---|-------------------------|---------------------------|-----------------------|-----------------------|-----------------------|
| Total Revenue | 7,889,000 | 6,218,000 | 3,587,000 | 3,588,000 | 3,633,000 |
| Domestic | 2,431,000 | 2,437,000 | 2,439,000 | 2,469,000 | 2,484,000 |
| Electricity Trade | 5,458,000 | 3,781,000 | 1,148,000 | 1,119,000 | 1,149,000 |
| Total Expenses | 6,471,000 | 5,466,000 | 2,744,000 | 2,666,000 | 2,825,000 |
| Energy Costs | 5,162,000 | 4,383,000 | 1,683,000 | 1,597,000 | 1,727,000 |
| Operations, Maintenance & Admin. | 755,000 | 539,000 | 520,000 | 513,000 | 509,000 |
| Taxes | 174,000 | 166,000 | 150,000 | 144,000 | 145,000 |
| Depreciation | 380,000 | 378,000 | 391,000 | 412,000 | 444,000 |
| Operating Income | 1,418,000 | 752,000 | 843,000 | 922,000 | 808,000 |
| Net Income before Transfer to Rate Stabilization Account | 549,000 | 200,000 | 350,000 | 400,000 | 285,000 |
| Net Income (rounded for F2003-F2005) | 446,000 | 395,000 | 345,000 | 365,000 | 360,000 |

| KEY ASSUMPTIONS | F2003 | F2004 | F2005 |
|--|--------------|--------------|--------------|
| Water inflows into reservoirs | Normal | Normal | Normal |
| Electricity trade sales volumes (gigawatt hours) | 23,188 | 24,183 | 25,180 |
| Domestic sales volumes (gigawatt hours) | 47,624 | 48,370 | 48,630 |
| Domestic load growth | -0.1% | 1.6% | 0.5% |
| Residential customer load growth | 0.7% | 0.3% | 0.6% |
| Commercial customer load growth | 1.2% | 0.5% | 1.1% |
| Industrial customer load growth | -1.4% | 5.1% | 0.0% |
| BC Real Gross Domestic Product | 0.6% | 2.8% | 3.1% |
| Exchange rate (\$US per \$Cdn) | 0.6375 | 0.6500 | 0.6675 |
| Canadian short-term interest rates | 2.94% | 4.31% | 4.88% |

Kinbasket Reservoir Levels



Williston Reservoir Levels



6.2 Sensitivity Analysis

The sensitivity analysis provided below assumes that each variable is relatively independent of each other. Though this may be a fairly simplistic method, it provides useful information as to the volatility in earnings caused by changes in the variables under review. The following tables illustrate the impact of each set of variables on net income (in \$ Thousands) for BC Hydro’s fiscal 2003.

WATER INFLOWS VS. GAS PRICES

| | | Water Inflow | | |
|------------|--------|--------------|----------|----------|
| | | Low | Average | High |
| Gas Prices | Low | (125,000) | (75,000) | (30,000) |
| | Medium | (80,000) | — | 75,000 |
| | High | 5,000 | 140,000 | 250,000 |

High and low gas prices represent one standard deviation from the mean. High and low water inflows represent an 80% probability of being within the range of inflows at the Williston Reservoir. Income is sensitive to water supply especially in years with lower starting reservoir levels. In order to optimize the Hydro system, the reservoir levels and net import/export balance may be different under each case above.

WEATHER SENSITIVITY VS. ELECTRICITY PRICES

| | | Weather | | |
|--------------------|--------|---------|---------|--------|
| | | Warmer | Average | Colder |
| Electricity Prices | Low | (5,000) | - | 5,000 |
| | Medium | (3,000) | - | 3,000 |
| | High | (1,000) | - | 1,000 |

Based on the annual average degree-days, over the last 10 years, BC Hydro expects the weather to be 5 per cent colder or warmer than normal with an 80 per cent confidence level. It is estimated that a 5 per cent change in average temperatures impacts residential revenues by approximately 2.6 per cent for the winter months, primarily from November to February. High and low electricity sale prices reflect the average sales price from November to March for fiscal 2003 plus or minus 20 per cent. It is assumed that any increase/decrease in domestic load due to weather can be absorbed by a corresponding decrease/increase in electricity trade sales.

FOREIGN EXCHANGE RATES SENSITIVITY

| | Low | Probable Forecast Cdn\$/US\$ | High |
|-------|-----------|------------------------------|--------|
| F2003 | (85,000) | \$0.6375 | 40,000 |
| F2004 | (105,000) | \$0.6500 | 40,000 |
| F2005 | (105,000) | \$0.6675 | 35,000 |

The sensitivity of net income forecasts to foreign exchange rates is related to power and natural gas sales into and out of US markets, and servicing of debt denominated in US

dollars. The low range assumes Canadian dollar exchange rates of \$0.6175, \$0.6225, and \$0.6387 for fiscal 2003 to 2005 respectively (based on the Treasury Board’s slow recovery scenario). The high figures are consistent with the Treasury Board’s rebound and recovery scenario forecast of December 2001, specifically \$0.6475, \$0.6599, and \$0.6775 for fiscal 2003 to 2005 respectively. It should be noted that a new accounting pronouncement regarding the change in accounting for foreign exchange gains and losses is mandatory for years after fiscal 2002. This change creates significant volatility to BC Hydro’s income for changes in foreign exchange rates.

INTEREST RATES SENSITIVITY

| | Low | Probable Forecast (x%) | High |
|--------------|--------|------------------------|----------|
| F2003 | 10,000 | 2.94 | (70,000) |
| F2004 | 15,000 | 4.31 | (50,000) |
| F2005 | 20,000 | 4.88 | (35,000) |

The low range assumes Canadian short-term interest rates of 2.56%, 3.88%, and 4.25% for fiscal 2003 to 2005 respectively under the Treasury Board’s slow recovery scenario. The high forecast relates to Canadian short-term interest rates of 5.56%, 6.00%, and 6.00% respectively for fiscal 2003 to 2005 respectively.

PENSION COSTS SENSITIVITY

| | Low | Probable | High |
|--------------|----------|----------|--------|
| F2003 | N/A | - | N/A |
| F2004 | (15,000) | - | 5,000 |
| F2005 | (28,000) | - | 11,000 |

The variable that has the largest impact on BC Hydro’s forecast of pension costs is the actual rate of return on pension plan assets. The assumed rate of 7% return has been used for the financial outlook. In BC Hydro’s fiscal 2003, there is no low or high range as the main driver of BC Hydro’s pension costs are based on the previous year’s actual returns and these returns are already known.

The low range is based on a rate of 0% for all subsequent years. The fiscal 2004 and 2005 high ranges are based on rates of 8% and 9.55% in the previous years respectively.

NET INCOME SENSITIVITY (before Rate Stabilization Account Transfers)

| | Low | Probable | High |
|--------------|----------|----------|---------|
| F2003 | 65,000 | 350,000 | 655,000 |
| F2004 | 100,000 | 400,000 | 715,000 |
| F2005 | (15,000) | 285,000 | 605,000 |

The low range assumes low water inflows and low gas prices, warmer than normal weather, weaker Canadian dollar relative to the U.S. dollar, high interest rates, and high pension costs due to low returns. The high range assumes high water and high gas prices, colder than normal weather, stronger Canadian dollar relative to the U.S. dollar, low interest rates,

and low pension costs due to high returns. While BC Hydro proactively manages volatility in net income by monitoring the market and by having the necessary policies and procedures in place to manage these risks, it's earnings can still fluctuate by a significant amount largely due to non-controllable factors.

6.3 Controllable and Non-Controllable Drivers

In addition to the key assumptions, risks, and sensitivities, it is important to put BC Hydro's financial performance in context of the key income statement elements over which BC Hydro has control. Many key elements of BC Hydro's financial structure are largely non-controllable.

| Element | Non-Controllable | Semi-Controllable | Controllable |
|---|---|--|--|
| Domestic Revenues | Impact of weather (residential), overall economy (commercial and industrial), and strikes | | Reduction in domestic sales through demand-side management programs Miscellaneous revenues through surplus property and asset sales Non-tariff revenue opportunities |
| Electricity Trade | Prices, tie-line capacity, net export/import position as impacted by level of inflows (primarily affected by snow pack) | | Optimization of system to maximize low cost imports and high price exports Level of off-system sales (energy purchases and sales, neither of which enter the BC Hydro system) |
| Energy Costs | Availability of low-cost hydro-generation as impacted by level of inflows (snow pack), electricity, and gas prices | | Use of Burrard Thermal, amount of reservoir draw down, and timing of maintenance |
| Operations, Maintenance, and Administration expenses | | Labour costs in the short-term | Discretionary spending and longer-term staffing levels (efficiency initiatives) |
| Taxes | Covered by legislation | | |
| Depreciation | On existing assets | On assets crucial to maintain the reliability of the overall electric system | On new assets (level of new expenditures) |
| Finance Charges | Interest rates and foreign exchange rates | Volume of debt (level of capital expenditures) | Level of US debt, balance of variable vs. fixed debt |

7 MAJOR CAPITAL PROJECT PLAN

The following projects have capital costs expected to exceed \$50 million.

7.1 Stave Falls Replacement

The Stave Falls replacement project involved the redevelopment of the existing hydroelectric generation system to increase output. The project was undertaken in order to ensure domestic load requirements are met. The asset is in service and the project will wrap up in the coming fiscal year. The total project is forecast to cost \$142 million versus the budget of \$181 million. Based on this project's history (milestones completed on time and significantly under budget) and as the project is substantially complete, minimal risks are associated with the project.

7.2 Burrard Generating Station Upgrade

In May 1993 a \$176M upgrade of BC Hydro's natural gas-fired Burrard Generating Plant in Port Moody was started. The primary benefits of the upgrade project are to minimize the environmental impacts associated with plant operations while at the same time modernizing the plant so that it can continue to help meet provincial energy needs into the future. The emissions control technology employed reduces nitrogen oxide emissions from the plant by about 90% from previously permitted levels. Also, the upgrade project includes minimizing the impact of the plant's cooling water effluent to Burrard inlet, as well as addressing local issues such as noise and the appearance of the plant. Approval of the final phase (Phase C) of this project has been deferred pending the Energy Policy Task Force final report, due in March 2002.

7.3 Vancouver Island Generation Project

The Vancouver Island Generation Project (VIGP) involves the construction of a gas-fired generation plant on Vancouver Island. The project was undertaken in order to ensure Vancouver Island load requirements are met. The plant was originally sited in Port Alberni. However, due to lack of public support, a new site is currently being sought. Negotiations with BC Hydro's joint venture partner are currently underway and the in-service date for the asset is expected to be November 2004. BC Hydro's share of the costs is forecast to be \$182 million. If a project certificate is not obtained in a timely manner, the project could be delayed, thereby putting BC Hydro's ability to meet projected load requirements in jeopardy.

Based on the current outlook for gas and electricity prices, the VIGP is expected to be economic to dispatch which means that it will economically displace less efficient generation. VIGP will be equipped with state-of-the-art emissions controls to minimize emissions that are linked to local airshed concerns and environmental risks. Because of its ability to displace less efficient generation, it is expected to help reduce global greenhouse gas emissions. However, public concerns and potential regulatory risks associated with the plant's greenhouse gas emissions remain outstanding issues. To address these issues, BC Hydro has committed to offsetting 50% of the greenhouse gas emissions.

Green resources such as wind, tidal, wave, and run-of-river small hydro can supply greenhouse gas-free energy to BC Hydro's system but unless they are accompanied by back up generation or an energy storage system, they could not be counted on to meet the winter peak demands on Vancouver Island. VIGP bridges Vancouver Island's supply requirements until 2007 when the balance of the aging high voltage direct current sub-marine transmission system is expected to retire. All options are being explored to meet that need including demand-side management. Pending the outcome of the Energy Policy Task Force, alternative electricity pricing structures also have the potential to impact Vancouver Island, and indeed the balance of supply and demand.

7.4 Georgia Strait Pipeline Crossing

The Georgia Strait Pipeline Crossing project (GSX) is a joint venture with a private sector partner that involves the construction of a natural gas pipeline to transport fuel to service the Island's existing and future natural gas load, including gas-fired plants on Vancouver Island. The project was undertaken in order to ensure Vancouver Island load requirements are met. BC Hydro's share of the costs is forecast to be \$129 million. As Provincial, Federal, National Energy Board, and US approvals are required, this project involves regulatory risks. The in-service date for the asset is expected to be October 2004. The Georgia Strait Pipeline Crossing and Vancouver Island Generation Projects are clearly interdependent given their critical supply and demand of natural gas to Vancouver Island.

The GSX pipeline will allow BC Hydro to meet its gas supply obligations to the Island Cogeneration Project in Campbell River without triggering upgrades to the Centra System that are estimated to cost \$110M. GSX will also supply gas to the planned VIGP. This project will provide firm capacity to reliably meet both Vancouver Island and system requirements. Its location on Vancouver Island not only allows deferral of new sub-marine transmission but is expected to provide some deferral of Mainland generation and Interior-to-Lower Mainland 500kV transmission. Construction of GSX and additional gas-fired generation on the Island is BC Hydro's least-cost solution for meeting system expansion requirements. The consequence of not proceeding with GSX and the VIGP is primarily higher net costs to BC Hydro's customers.

7.5 Seven Mile Unit 4

The Seven Mile Unit 4 project involves the design, supply, and installation of a fourth generating unit at BC Hydro's Seven Mile dam and powerhouse on the Pend d'Oreille River near Trail. The objective of implementing this project in advance of domestic electricity needs is to earn a positive financial contribution for BC Hydro and the province by adding non-greenhouse gas emitting generation to the system. The energy produced will displace future thermal generation and thereby reduce greenhouse gas emissions. Additionally, by implementing the unit now, BC Hydro will realize the turbine and generator price advantages and employment benefits as provided under the Strategic Partnering Agreement with GE Canada. The total capital cost of the Seven Mile Unit 4 project is estimated to be \$97 million for a spring 2003 in-service date. The benefits of this project will vary based on the amount of energy generated and the market price of the energy. Revenue risk is associated with high volatility in the market price of energy.

APPENDIX A: ORGANIZATIONAL OVERVIEW – ENABLING LEGISLATION

Two key provincial legislative statutes enable BC Hydro’s operations. BC Hydro’s mandate is provided for under the BC Hydro and Power Authority Act. This Act creates BC Hydro and establishes its general powers and governance. Among other prerogatives, the Act provides BC Hydro with the authority to generate, manufacture, distribute and supply power, to develop power sites, power projects and power plants, and to purchase power from or sell power to a firm or person.

The other piece of legislation is the Utilities Commission Act. This Act creates the British Columbia Utilities Commission (BCUC) 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. 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 their customers.

The BCUC also participates in the review of utility and energy projects under the Environmental Assessment Act. The BCUC’s review and evaluation process often involves public hearings followed by a decision or a report and recommendations to the Lieutenant Governor in Council. The BCUC’s function is quasi-judicial and its Decisions and Orders may be appealed to the Court of Appeal on questions of law or jurisdiction. BC Hydro is subject to most, but not all, of the regulatory powers of the Utilities Commission. Both BC Hydro and the Commission are subject to directions issued by order of the Province. Under Special Direction No. 4, BC Hydro is required to make an annual payment to the Province equal to approximately 85 per cent of its net income.